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DATADIRECT TECHNOLOGIES
DEPLOYING XML DATA SERVICES WITH STYLUS STUDIO

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Abstract

Stylus Studio 6 XML Enterprise Edition from DataDirect Technologies is a mature XML Integrated Development Environment (IDE) that offers developers a complete set of capabilities for increasing XML development productivity. In particular, the latest release augments their popular XML editor, XSLT debugger, and other XML tools with extensive legacy data integration capabilities, enabling developers to create XML data services in either Java or .NET environments that access a wide range of legacy data formats and systems. The key to Stylus Studio's success with customers is the completeness of their offering as well as their platform-neutral delivery approach, unlike the platform-specific offerings of its competitors.

XML Tools for Many Purposes

The eXtensible Markup Language (XML) has become a critically important tool for developers, due in large part to its flexibility. Companies use XML as a content format, a message protocol, and the basis for a variety of specialized languages. The combination of XML's extensibility, readability, and broad acceptance make it a powerful tool for a wide range of purposes.

DataDirect Technologies' *Stylus Studio 6 XML Enterprise Edition* (now in Release 3) is an advanced XML Integrated Development Environment (IDE) for creating, manipulating, and processing XML. It offers XML developers a wide range of capabilities that help them maximize their productivity of working with XML within their existing, legacy systems. Stylus Studio automates and accelerates the XML development process by providing XML editors that allow users to work with XML in a variety of different views including text, grid, and tree views. Stylus Studio also allows for intuitive development of complex XML code, including XQuery, XSLT, XML Schema, and SQL/XML queries. The product also offers code generators and conversion utilities.

Stylus Studio is also particularly useful to database architects, database developers, DBAs, and more broadly, any XML developer building or working with data services. First, Stylus Studio natively connects to all the major databases, and its database-to-XML editor allows developers to generate the SQL/XML code to select, insert, and update XML views of relational database data. It's straightforward, therefore, to use relational databases as XML data sources in Stylus Studio's XML Mapper. It's also possible to extract relational data to XML files via ADO in a Microsoft environment.

The product also offers a visual XML schema editor that lets data specialists create advanced data models using industry-standard XML schemas. Stylus Studio also supports the XQuery API for Java (XQJ), enabling developers to programmatically invoke XQuery expressions against any relational database from Java.

Legacy Data Integration with Stylus Studio

As anyone who's ever performed legacy data integration can attest, the hard work likes in dealing with format and data cleanliness issues. Stylus Studio simplifies and accelerates data integration with its *"Convert to XML"* capability. Convert to XML is a legacy data integration tool as shown in the Figure on the next page. Convert to XML allows developers to design custom XML converters that can get any non-XML files into an XML document format. Convert to XML works with Stylus Studio's XML data source framework, so that its possible to treat any legacy data file as a live XML data source.

 Convert to XML works on any legacy data input file, including text files, CSV files, binary data, EDI files, or any other flat file format. Stylus Studio can also read dozens of different file encodings. Convert to XML simplifies the insertion of field delimiters where each data field
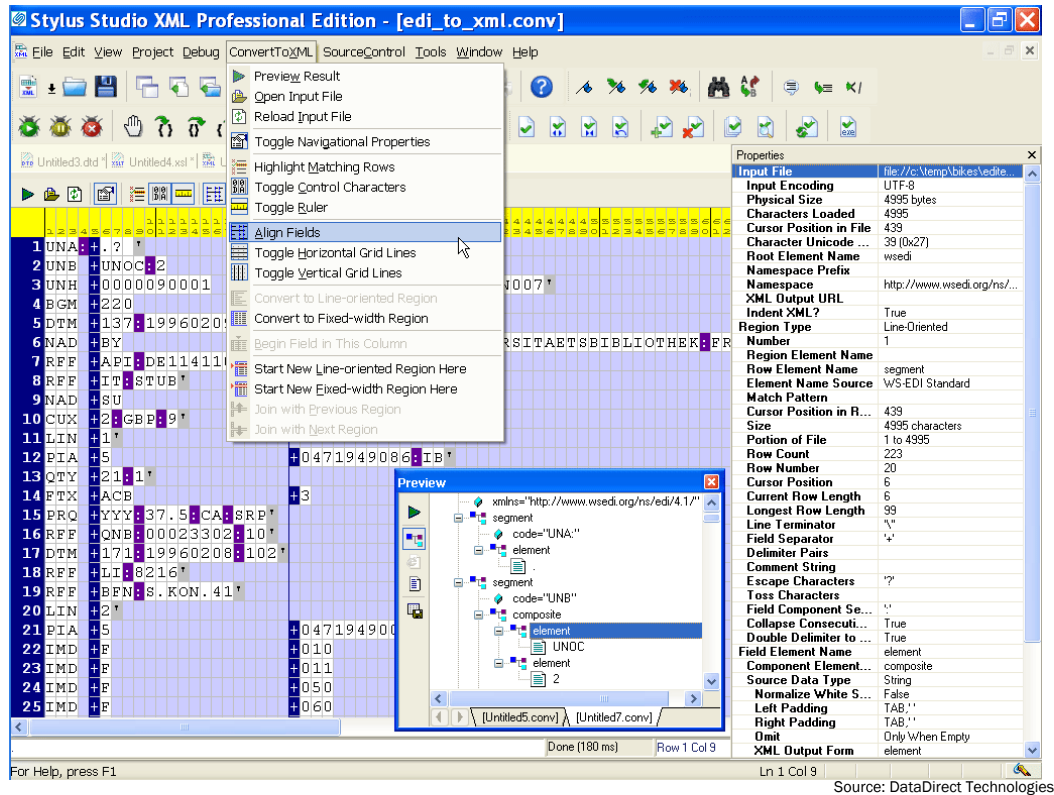
begins and ends, and can also read header records of popular EDI formats such as HL7, UN/EDIFACT, and X12. Stylus Studio also comes with native adapters for bi-directional mapping directly from EDIFACT to XML and back, and support for validating EDIFACT data against the equivalent XML Schemas.

Stylus Studio Convert to XML Interface

Source: DataDirect Technologies

Convert to XML also provides advanced data filtering capabilities, including regular expressions for pattern matching on specific data fields and other field matching options. An integrated XML Conversion Output Preview Window allows developers to preview the output of a Convert to XML operation and also supports backmapping, enabling the ability to click anywhere on the output file to locate the source of a particular XML node, providing feedback to help in troubleshooting legacy data to XML conversion. All of these capabilities assist developers in their data integration efforts, making them more efficient and productive.

Java Code Generation for Calling XSLT or XQuery

The Java Code Generator combines any of the Java-based XSLT or XQuery engines that support custom URI resolvers with adapter logic to make a component that developers can use outside of the Stylus Studio environment. Once the developer has gotten a transformation to work once, they can wrap it up and compile it for use in the production environment.

Stylus Studio also simplifies the writing and debugging of XSLT and XQuery programs. When the application at hand requires the automation of such programs, the Stylus Studio Java Code Generator automatically generates a Java application which runs the XSLT or XQuery. The Stylus Studio Java Code Generator will create a .java file that can run as either s a console application or as part of a larger Java application or applet. The Stylus Studio XML

Java Code Generator works with several popular Java XSLT processors, including Apache Xalan-J and the Saxon XSLT processor.

The ZapThink Take

DataDirect Technologies has taken an application-based, platform independent approach to XML tooling, distinguishing Stylus Studio from the XML tools that the major platform vendors are offering. Instead of requiring developers to work with a particular tool, programming language, and platform, developers can use Stylus Studio in Java or .NET environments, and the legacy data integration capabilities that the product offers leverage a wide range of databases and legacy data sources and formats. This neutral approach has apparently appealed to many developers, as the Stylus Studio Web site has become a popular destination for the XML community. The tools business is a tough one, as the products on the market are both mature and inexpensive. Stylus Studio has been in the market for many years now, and at under $1,000 per seat, relatively inexpensive as well.

Stylus Studio Features

Stylus Studio 6 XML Enterprise Edition

Overview:

Stylus Studio 6 XML Enterprise Edition, Release 3 provides a comprehensive set of XML tools and features for working with XML, XQuery, SQL/XML, Web Services, and many other XML technologies, including the following:

Features:

➢ XML Editors – Several synchronized visual XML editing views, Sense:X (intelligent XML editing), integrated XML validator, and XML differencing.

➢ XSL/XSLT Tools – XSLT debugging, XSLT mapping, XSLT profiling, visual HTML-to-XSLT stylesheet design, and XSL:FO.

➢ XQuery Tools – Visual XQuery editing, XQuery mapping, and XQuery debugging.

➢ XML Schema Editor – Visual XML schema editing, validation, and XSD documentation generation.

➢ DTD Editor – Visual DTD editor, integrated DTD validator, and various DTD generation utilities.

➢ XPath Tools – XPath evaluator, XPath expression generator, and Sense:X for XPath (intelligent XPath editing).

➢ Web Services Tools – Web Service call composer, UDDI registry browser, and other tools for finding, testing, and using Web Services.

➢ XML Mapping Tools – Visual drag-and-drop mappers that include support for mapping to and from XML documents, Web Service data, relational data, and flat files.

➢ Import/Export Utilities – Supports any file, XML and relational data, and includes Convert to XML, a visual

tool for extracting XML data from any file format including CSV, tab separated, binary data files, EDI, or any other flat format, as well as many other data import/export utilities for RDBMS, XML, and ADO.

➢ Java Code Generation – Generates the Java code needed to execute XSLT and XQuery in Java applications.

➢ EDI to XML Mapping – Support for HL7, UN/EDIFACT and ANSI/X12 specs.

➢ Advanced XSLT 2.0 Editor and Debugger – XSLT 2.0 editing, debugging, transformation, validation, and backmapping, and support for XPath 2.0.

Value Proposition:

➢ Comprehensive XML tools that address a wide range of challenges for various XML developers.

➢ Accelerates and streamlines data integration, especially legacy to XML integration.

Profile: DataDirect	August 2005

Funding:
Division of Progress Software
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N/A
Product:
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Related Research

➢ *SOA Tools and Best Practices Foundation Report (ZTR-WS107)*

➢ *Service Orientation Market Trends Report (ZTR-WS110)*

About ZapThink, LLC

ZapThink is an IT advisory and analysis firm that provides trusted advice and critical insight into the architectural and organizational changes brought about by the movement to XML, Web Services, and Service Orientation. We provide our three target audiences of IT vendors, service providers and end-users a clear roadmap for standards-based, loosely coupled distributed computing – a vision of IT meeting the needs of the agile business.

ZapThink helps its customers in three ways: by helping companies understand IT products and services in the context of Service-Oriented Architecture (SOA) and the vision of Service Orientation, by providing guidance into emerging best practices for Web Services and SOA adoption, and by bringing together all our audiences into a network that provides business value and expertise to each member of the network.

ZapThink provides market intelligence to IT vendors and professional services firms that offer XML and Web Services-based products and services in order to help them understand their competitive landscape, plan their product roadmaps, and communicate their value proposition to their customers within the context of Service Orientation.

ZapThink provides guidance and expertise to professional services firms to help them grow and innovate their services as well as promote their capabilities to end-users and vendors looking to grow their businesses.

ZapThink also provides implementation intelligence to IT users who are seeking guidance and clarity into the best practices for planning and implementing SOA, including how to assemble the available products and services into a coherent plan.

ZapThink's senior analysts are widely regarded as the "go to analysts" for XML, Web Services, and SOA by vendors, end-users, and the press. Respected for their candid, insightful opinions, they are in great demand as speakers, and have presented at conferences and industry events around the world. They are among the most quoted industry analysts in the IT industry.

ZapThink was founded in October 2000 and is headquartered in Waltham, Massachusetts. Its customers include Global 1000 firms and government organizations, as well as many emerging businesses. Its analysts have worked at such firms as IDC, marchFIRST, and ChannelWave, and have sat on the working group committees for standards bodies such as RosettaNet, UDDI, and ebXML.

Call, email, or visit the ZapThink Web site to learn more about how ZapThink can help you to better understand how SOA will impact your business or organization.

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