



The XML Platform for Electronic Business

The Tamino XML Platform is a comprehensive set of products for building enterprise-scale XML-based applications. It consists of storage, development and integration components for XML data and applications. The engine of the platform is Tamino XML Database, the only native XML database management system available on the market today. The platform's flexible framework enables rapid implementation of robust, high-performance mission-critical electronic business applications based on XML standards. It is designed specifically for building applications where reliable and fast storage and exchange of XML documents are absolutely essential, for example in supply chain management, document management, electronic publishing, electronic sales systems and many other B2B applications.

PLATFORM PRODUCT OVERVIEW

The Tamino XML Platform consists of three product groups for:

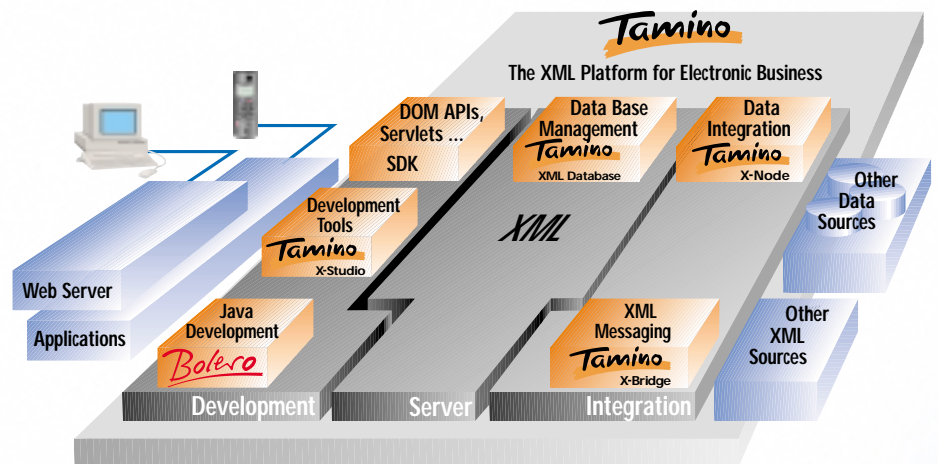
- database management;
- application and data integration;
- application development.

The database management component is Tamino XML Database, dedicated to storing, publishing and exchanging any kind of structured or unstructured data.

For integration, the platform employs Tamino X-Bridge, for the transformation and routing of XML documents between applications, and Tamino X-Node for the integration of traditional data sources (e.g. SQL databases) into the XML World. As one of the platform's development components, Tamino X-Studio provides a complete tool set for conveniently creating and managing XML documents and Java-based electronic business applications.

STORING NATIVE XML

The centerpiece of the platform is Software AG's Tamino XML Database, which was designed specifically to store structured information in native XML format.



Storing XML documents in their original structure in Tamino XML Database results in faster response times. This represents a decisive difference with respect to traditional databases, which are retrofitted with proprietary conversion layers to enable XML document storage. It is not surprising then that this patchwork solution does not scale well, particularly with increasing transaction rates and document complexity. Users pay the ultimate price in speed and reliability. With Tamino XML Database, XPath-based queries can simply be applied as part of a URL, resulting in rapid

and reliable search and retrieval. The ability to cope with high access loads in mission-critical applications and to deliver information in any target format for any output device are also features that set Tamino XML Database apart. In addition, Tamino provides server extensions for accessing remote applications or programming custom server-side functionality such as event-triggered data processing or predefined complex queries in Java or C++. Tamino XML Database scales from Windows NT / Windows 2000 platforms through Unix and soon to Mainframe-based operation.

INTEGRATING DATA

Enterprises extending their business to the Internet typically must integrate existing back-end data stored in hierarchical, relational and object databases. The Platform's X-Node component provides users with a single server view of business data residing in both the XML Database and the above-mentioned external data containers. Reading (or writing) data through Tamino X-Node includes real-time conversion of externally stored data into (or from) XML data streams.

INTEGRATING APPLICATIONS

Exchanging XML documents with customers, suppliers and business partners over the Internet is key in the networked economy. Tamino X-Bridge provides a central communication hub for enterprise-level XML-based B2B information exchange. According to user-defined rules, the content and structure of XML documents are analyzed and routed to the appropriate receiver at low cost and without human intervention. Content-based routing rules use the values of specific XML elements and attributes, whereas source-based routing uses either the sender's TCP/IP network address or digital certificate information. Transformation of the original XML message is sometimes necessary to ensure that the data is delivered in a format that the receiving application understands. Tamino X-Bridge uses standard XML document transformation based on the XSLT standard.

DEVELOPING XML APPLICATIONS

The Tamino XML Platform is supported by a number of application development tools that are specifically geared to the requirements of

programmers creating XML-centered applications. The tools, some provided by Software AG and some by partners, are tailored to the different roles and skills of electronic business application developers. The Software Developer's Kit (SDK) provides all necessary functions to develop application-specific interfaces for access to Tamino in C, C++ or Java (e.g. basic SAX and DOM APIs in Java, JScript, Perl or ActiveX).

Tamino X-Studio is available for Windows NT and Windows 2000 Professional and allows for rapid development of scalable XML-based applications and for building XML-related documents or XSL style-sheets (e.g. for X-Bridge transformations). It includes an easy-to-use application-generation wizard as well as an integrated set of complementary standard XML tools from technology partners. These are XML editors and schema editors (XMetaL, XML Authority, XML Instance, XML Console), a stylesheet editor (Stylus), and an XML-to-language data-binding tool (Breeze XML Studio). The latter allows object-oriented programmers to access XML data stored in the XML database without knowledge of XML structures or rules.

Bolero is a Java-based development environment for building professional, mission-critical J2EE-conformant applications. Bolero gives applications direct access to heterogeneous IT systems, such as relational databases, ERP systems and diverse component models. It perfectly integrates with Tamino XML Database and supports entire development teams that need to access a common database (team repository) holding all available Bolero objects.

STANDARDS-CONFORMANT

Communication to/from Tamino XML Database or Tamino X-Bridge is based on Internet standards such as HTTP and TCP/IP. Administration or user access to the XML database is possible using standard Java-enabled Web browsers.

While Tamino products for various development or integration purposes follow their respective standard recommendations, such as XSLT, XPath or DOM (level 1), ODBC, JDBC or DCOM, all Tamino XML Platform products are compatible with the W3C recommendation, XML 1.0 and conform to the Unicode standard for internationalization. Furthermore, Bolero is J2EE-conformant, supports the Java servlet standard and multiple component models such as EJB, CORBA and DCOM. As standard recommendations change or new ones become available, Tamino XML Platform products will be adapted accordingly.

FREE STARTER KIT

The XML Starter Kit is free of charge and integrates all products necessary to start implementing XML solutions quickly. All components described above (and more) are available as time-limited evaluation versions. Just register at the Software AG corporate website for your personal copy.
<http://www.softwareag.com/xml-starterkit>

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