



AUMA client-server web system generates client proposals in the form of multilingual XML-documents, drastically increasing productivity of a sales manager working with extensive line of product options, types and dimensions

Region

- Russian Federation
- Germany

Technology

- Microsoft® .NET® Framework 1.1
- ADO.NET
- ASP.NET
- MS SQL Server
- Microsoft Office 2003

Software development environment

- Microsoft® Visual Studio® 2003
- Enterprise Architect – (Web application)
- ERWin 4.0 Data Modeler – Database Architecture
- SQL Server Enterprise Manager – stored procedures
- Visual Basic for Applications – Help system content

Programming languages

- Microsoft® Visual C# .NET
- Microsoft® Transact-SQL
- Java Script (DHTML)
- XML (WordML)
- XLST
- VBA

Client and server products

- Microsoft® Windows® 2000 Professional
- Microsoft® Windows® XP Professional
- Microsoft® Office 2003
- Microsoft® Internet Information Server 5.0
- Microsoft® SQL Server 2000
- Microsoft® Windows® 2000 Server
- Microsoft® Windows Server 2003

Partner

- Logrus International
www.logrus.ru

Web application built on .NET technology components (ADO.NET and ASP.NET) and SQL Server as well as XML-features of Word 2003, enables AUMA sales managers with convenient tools to semi-automatically compose, store, modify and track documents used in AUMA business process, simultaneously in several languages.

Cutting time spend on creating, finalizing and processing client proposals for complicated product line and option list

Corporation AUMA (Armaturen- Und Maschinen-Antriebe) – is a manufacturer of electric actuators and valve gearboxes, used in various industries – such as oil and gas, as well as nuclear power industry and water supply – everywhere, where flow of water, oil or gas has be controlled. AUMA equipment is used in oil and gas, energy, mechanical engineering and shipbuilding, as well as refinery and waste handling, etc. (See more details on AUMA website – <http://www.auma.com/>.)

Auma equipment product line is wide – it provides variety of solutions for the widest tasks to be solved, and every task has several solutions based on AUMA equipment. For 40 years German quality has won user acclaims worldwide, and it is the quality that leads to the increased sales volume.

«The system allowed us to get rid of paperwork and drastically saves time to generate or update a client proposal. Due to complete integration of equipment and document repository, our managers are now spending only a tiny fraction of the time that they would spend before».

George Ponosol
General Manager, AUMA Moscow



However, extensive line of products manufactured by AUMA (actuators, valves and valve gearboxes) has the widest range of types, options and dimensions, which makes it difficult for a sales manager to quickly prepare detailed proposal for the client. To create a proposal, sales manager has to dig in thick reference books for available equipment options and their pricing, so creating of initial proposal takes a lot of time, not to mention any changes that have to be made when client changes project specification or modifies his request. Further finalization and approval of the Proposal takes even more time, as every change in the component leads to recalculation of the proposal specification and the amount.

Logrus as a solution provider suggested automating the procedure of AUMA proposal generation. The system would enable AUMA sales manager to quickly use equipment product line database to create and price extensive and detailed proposal. Logrus, also a well-known multilingual localization and engineering service provider, has created the system to be multilingual from the very beginning.

Solution based on Microsoft SQL Server and XML technology

Logrus developers decided to combine the power of SQL database with the power of XML document generation capabilities. The system would comprise a SQL knowledge base and XML document generation engine. The system would also have a Web interface to single database repository of entire product line also enabling automatic document generation in several (currently English, Russian and German) languages. The system should be fully Web-based as client-server solution, to enable users to access and use it from everywhere, where the client computer has a Web browser and Microsoft Word 2003.

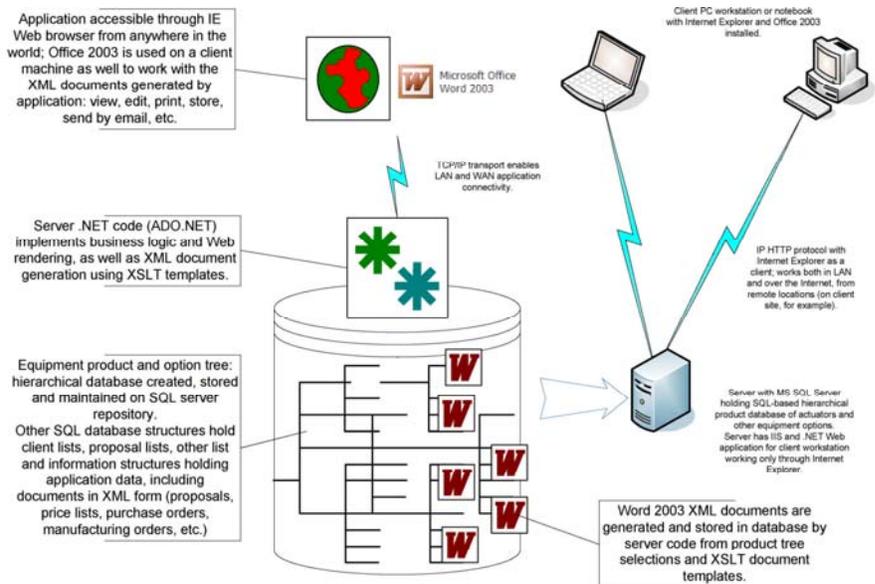
Software development platform was ADO.NET and ASP.NET, which were used to build a Web application, enabling a user with Internet browser client access product line database and actually generate proposals.

The system features:

- SQL database to store hierarchical product catalog and equipment options, which can be independently changed and updated as the system is being used;
- Automated proposal generation – proposals are created as WordML XML documents (supported by Word 2003). Word XML document encapsulates database specification information and layout template in single XML file;
- Proposals are stored in SQL database in a single document repository with version control (versions are created on finalization stage);
- The system features the single central repository of document, equipment catalogue with options, dimensions and pricing, customer directory, multilingual user interface and content;
- As Proposals are finalized, proposal specification becomes Purchase Order specification, and the same database information is used to create automatically Manufacturing Orders for AUMA production plant. Orders are created in German language, as they are placed on AUMA manufacturing facilities in Germany;
- The system features convenient visual layout of AUMA product line database;
- AUMA product database can be updated to reflect the latest changes in AUMA product line.
- The system interface and be changed and translated to additional languages;
- Context-sensitive help is generated automatically;
- Integration with Microsoft Office productivity suite, familiar to all users.
- Multilingual Web interface;

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Serge Gladkoff
President, Logrus International



The system comprises central repository of equipment catalogue with options, dimensions and pricing, used to create proposal data object collections. Proposal object collections are applied to XML templates to create Word 2003 XML documents automatically from XSLT templates. Microsoft .NET technology is used to enable business and application logic between server back-end database and Office 2003 client front-end (see application architecture on Fig.1). XML documents stored in database and are made available to AUMA sales managers online. AUMA solution also includes elements of document workflow, it allows to copy, store, change and reuse earlier created documents, as well as search and archive them.

Deployment benefits

AUMA managers are now enjoying single automated equipment repository with product and document directory. «The system allowed us to get rid of paperwork and drastically, unbelievably saves time when generating or updating a client proposal. Due to complete integration of equipment and document repository, our managers are now spending only a tiny fraction of the time that they would spend before», - says George Ponosov, AUMA Moscow General Manager, - «Now there is no need to look into product catalog for every item; no need to type in the item name and code; the proposal itself is generated automatically and only cosmetic changes are needed; it is now easy for sales manager to find any particular previous version of the Proposal, as well as the client request files. The system enabled our sales managers to come back to the client very quickly with correct and substantiated pricing estimate for even very complex equipment request, this now can be done right during the first client

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www.microsoft.com/resources/casestudies.

For more information about Auma products and services please visit
<http://www.auma.com>.

For more information about Logrus products and services please visit
<http://www.logrus.ru>.

phone call. Sales manager now can «play» with various options to see that the budgetary requirements are met.

«The time it takes to create the proposal itself is down 4-5 times, to several minutes while it would take from one to two hours before.» – says Sergey Vorobiev, AUMA manager, – «the system really helps to get quick project estimate and shows instantly whether this particular option is available for this product.» As solution is built on SQL Server, it can be further developed into entire corporate repository that can be integrated with most corporate systems, such as accounting software, etc. Other subsystems can be further developed.

in several languages and layouts.

AUMA future depends on the sales volume increase, and this increase is boosted by exceptional productivity enhancement made possible by XML technology linking complex SQL product database and the most popular office productivity enhancement suite – Microsoft Office 2003.

«This project demonstrates the power of Microsoft technology that really brings down the entry barrier for enterprise corporate systems, earlier available only on totally different price level. », – says Serge Gladkoff, President of Logrus International.

Conclusion

Microsoft technology allowed AUMA to deploy a business process that automatically translates equipment product line information into multilingual documents created by standard templates. Company document flow as automated in the most critical segment: finalizing proposals creating orders. System is completely data-driven, and therefore very flexible. It also provides the tools for automated document generation, storage and version control, simultaneously

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