

Applied Engineering Software Development Team Success to Solving a Challenge – A Customer Testimonial

An upper mid-west manufacturing company, with its combination of AS400/MAPICS and SQL Server database accounting, manufacturing and operational systems challenged Applied Engineering's Software Development team to develop an integration strategy with one of its most important company assets – its Autodesk AutoCAD design drawings and prints.

The technologies were decades apart, but needed to connect - to enable our customer to efficiently operate, process orders and have visibility into the details of its products.

The challenge - build a single set of code which connects thousands of detailed DWG design drawings and prints, with business critical information stored in significantly different databases.

Critical Success Factors:

- The most important critical success factor was to ensure that the overall workflow enhanced the operation of the business.
- In addition, the programming technology needed to be forward compatible to integrate new Autodesk technology including Autodesk Inventor.
- The system required substantial testing in a controlled sand-box environment prior to go-live.

Applied's software architect, project manager and programmers identified the most efficient integration via web services, IIS and native Autodesk API's. The architecture also reduced any risk to business critical information through the use of proven and tested Data Access Libraries and Abstraction Layers which separates the on-going development, quality control and maintenance process from this critical data.

As a result, Applied Engineering delivered a system which links the operations' Bill of Materials and their AutoCAD prints as well as organizes and packages their batching and production processes.

Instead of utilizing over 100,000 spreadsheets, Applied developed a database and synchronization application to organize all the production and packaging data for each product to be delivered to the production team including detailed PDFs. This data is now automated and fully searchable

The detailed BOM in the customer's operations system now has a 2-way synchronization with part-specific prints in AutoCAD which helps engineering ensure that their prints are accurate and complete with item numbers, descriptions and properties.

In the end, Applied Engineering met the challenge to build a single set of code which connects thousands of detailed DWG design drawings and prints with business critical information, and has automated an otherwise time constrained process. Through this solution, the customer is able to increase productivity and accuracy, and implement new Autodesk technology.
