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Conversation with

Michael Krahn

IT director describes how Miller-St. Nazianz built on existing Solid Edge and SharePoint systems for fast, successful PLM implementation.

By Jim Brown

Even the best business scenarios can give rise to thorny challenges. Miller-St. Nazianz, a manufacturer of precision farming equipment based in St. Nazianz, Wisconsin, needed to upgrade and integrate its disparate software systems because the company was growing quickly and winning larger customers. Michael Krahn, IT director, spoke with *Advantage for the Product Lifecycle* about how Miller implemented a PLM (product lifecycle management) system built on its existing Solid Edge CAD and Microsoft SharePoint installations — all in just a few months' time.

Tell us about your role at Miller-St. Nazianz.
I came to Miller in 2009. The Miller family and management team believe in technology and wanted to do more to leverage their engineering data systems. I helped coordinate the vision and the path for an integrated CAD, FEA [finite-element analysis], PLM, and ERP [enterprise resource planning] environment.

Describe the situation that existed prior to your project.
In today's world, speed, accuracy, and quality are critical to the bottom line. Miller was doing very well, but we were growing rapidly and beginning to work with larger OEMs like CNH [Case New Holland]. To support that, we needed to go to the next level and step up systems, integration, control, and data cleanliness.

What were the biggest problems you faced?
We had a lot of manual data reentry and islands of information that led to inefficiency, errors, and inconsistent data. For example, we had a half-year gap in getting our parts catalog updated with current engineering data, so our catalog was frequently out of date. Data must be clean, accurate, and quickly available to everyone to make the business run smoothly. It is staggering the amount of data that is required to manufacture complex machines, ship them worldwide, and support them across the globe in different countries and different languages.

When did you realize you needed major change?
Today, you need to get product to market fast and have information at your fingertips. Product information is power, but when all the pieces aren't set up accurately, we have to chase things down after the fact. If data is wrong or missing, it can cause chaos in a complex environment. We needed to get good, clean, and complete data in from the start, from the drawing.

How did you choose a new PLM system?
We wanted to leverage a PLM product from the same company that provides our Solid Edge CAD solution, Siemens PLM Software. When we upgraded to Solid Edge ST2 last year, we found out that the Solid Edge Insight product data management system was now integrated and included with the new version, was part of the upgrade, and met our PLM requirements.

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We had just put in Microsoft SharePoint 2007 to centralize and control our warranty claims and service photos and documentation instead of storing the information on our network public drive. Insight, which is SharePoint-based, allowed us to leverage our existing infrastructure and saved us some expense on additional database investments.

Managing engineering data associated with complex precision farming equipment designs was just one challenge for Miller's new PLM system.

Describe the implementation process.
We started in June 2010, and we went live by the end of the year. With the help of our partner, Geometric Solutions, we put the entire infrastructure in place very quickly. Most of the work was done in three months. We also brought in Expert Global, a partner of Geometric Solutions, to help build our engineering BOM utility. With that solution, we put all of our critical engineering data into the drawing, and it is pulled from there to feed our online part catalog system and our IFS ERP system.

We were also able to clean up thousands of duplicate files, which shows how easy it is for data to get out of control without a tool to manage it.

How did you train your personnel?
We couldn't afford to send everybody offsite for training for several days, so our partner did live web meetings to train the engineers at their workstations in small increments. It only took two weeks for a few hours every other day.

What does your environment look like now?
We started with a vision on PowerPoint for an integrated system, and now it is live. The goal was to get all critical part data up front in the process and not have people downstream scramble for it when needed. The complete cycle — from design, release to manufacturing, service, and customers ordering spare parts from the catalog — is integrated.

What are the new system's greatest benefits?
Complete and accurate data assists manufacturing and the order process and ensures that customers get the right parts. Our parts business has benefited because we have integrated the parts catalog. We are more efficient and can accommodate the requirements of a big OEM partner like CNH.

What advice would you share with others who are considering a PLM implementation?
Don't be intimidated by a major systems upgrade. Before our transition began, we were using Solid Edge v18, five years behind the version that was current at the time. Making the leap to Solid Edge ST2 seemed overwhelming — but in reality, it wasn't. The lesson to share is that even though you might be well behind on your software in the beginning, the effort to upgrade is worth it in the end, and you can stay on top of upgrades much more easily going forward and gain the benefits of new technology sooner. We're already rolling out SharePoint 2010; as soon as we extend it to engineering, we'll also upgrade to Solid Edge ST3 and the latest Insight functionality.

Finally, give serious consideration to SharePoint-based PLM. Engineering has always been an island within manufacturing companies. SharePoint integrates engineering data with the rest of the company on one collaborative infrastructure. Its tools bring engineers closer to the rest of the world.

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