



Be Inspired Awards
2014 Finalist

Project Summary

Organization:

Eastman Chemical Company

Location:

Kingsport, Tennessee, United States

Project Objective:

- Deploy a new system to enable secure, global sharing of engineering information
- Integrate the system with Eastman's existing record drawing change process (RDCCP) software, SharePoint sites, and workflows
- Use the system to increase efficiency, lower costs, boost security, and enhance collaboration internally and externally
- Minimize risk and ensure data integrity for Eastman and its stakeholders

Products used:

ProjectWise
AutoPIPE
Bentley Descartes
Bentley Navigator
MicroStation
ProSteel
STAAD.Pro

Fast Facts

- ProjectWise accepts numerous file types, supports interoperability across software platforms and enables live linkages with Eastman's external applications and processes.
- ProjectWise has already been deployed across 13 sites and is used to manage 4 million project files.
- ProjectWise is being used for a wide range of projects – from small management-of-change projects to multimillion dollar capital projects around the globe.

ROI

- The daily use of the system will result in savings in excess of the cost of implementation due to work efficiency improvements realized by all users, and IT infrastructure upgrades and reduce support demands.
- Eastman can easily – and virtually – bring the best and brightest minds together across the business and beyond to develop new project concepts.



Eastman Deploys ProjectWise® to Drive Collaboration, Greater Efficiency, and Cost Savings

ProjectWise is an Integral Part of a New System for Global Engineering Information Sharing

Eastman Chemical Company, a Fortune 300 company with over USD 9 billion in annual revenues and 14,000 employees, has achieved its success in part by investing in reliable, innovative solutions. For example, in the late 1980s, no drawing management system could meet its needs, so Eastman created its own. The result was the unique, industry-leading record drawing change process (RDCCP) software that served the company well for 25 years. But over time, Eastman needed better information security and reliability and a way to lower software maintenance costs. "Bentley's expertise and long-track record of delivering powerful engineering solutions made it the vendor of choice," stated Jan Shumate, Director, Plant Engineering Worldwide Engineering and Construction at Eastman Chemical Company.

Bentley worked with Eastman to deliver a tailored solution using ProjectWise that met all of the company's needs, facilitating enhanced collaboration across the Eastman enterprise, and returned savings in excess of the cost of implementation due to the efficiency improvements.

Hitting the Limits of a Custom Document Management System

For years, Eastman was able to keep records for engineered systems reliably up to date using its RDCCP drawing management system combined with workflow management and companywide CAD standards. "We were successfully managing nearly 4 million files for 2,500 active users worldwide from areas such as engineering and construction, maintenance and reliability, operations and support, procurement, and real estate," explained Shumate.

But the growing need for better information security, improved reliability, and reduced maintenance costs motivated Eastman leaders to look for a new information management solution. "We needed an engineering information system that could grow with the company, deliver added value, contain lifecycle costs, and meet all of our functional requirements," explained Shumate. In addition, they needed to improve information security by using standard access control functionality, along with customized features, to align with internal security policies.

At the same time, Eastman needed to maintain continuity with its existing engineering and construction processes, including its internal Microsoft SharePoint environments and RDCCP. The RDCCP allows for multiple users to check out a copy of a master as-built record, complete updates and/or revisions, and check in with seamless updates. Subsequent updates to the same drawing are forced to recognize the most recent revision, which ensures that the master as-built file is always kept up to date.

Eastman also wanted to increase the company's ability to adapt and expand to meet new business demands, increase information mobility, and improve system reliability and compatibility with a modern IT infrastructure. "For instance, due to our global growth, interoperability with other vendor applications and file types was also essential," added Shumate. "And given the shift to data-centric design processes and applications, it was critical that our solution be able to handle other types of information besides CAD drawings."

Meeting Unique Customer Requirements

ProjectWise offered a great deal of features and functions that aligned well with Eastman's requirements, but the software did not meet all of Eastman's needs out of the box. "We challenged Bentley to tailor the software to meet our requirements," stated Shumate. The requested customizations to the software, included enablement of Eastman's unique RDCCP, integration with internal SharePoint environments, and utilization of internal information security policies. Bentley also provided user training, and participated in rigorous testing, system migration, and enterprise-wide implementation.

"For example, Bentley developed customized security features to meet Eastman internal nomenclature and security policies – a significant upgrade from our prior software," stated Shumate. These features allowed Eastman to maintain seamless integration with several external business partners who work within the ProjectWise environment. They also maximized the collaboration between Eastman teams and external partners.

Bentley and Eastman partnered to develop database migration programming that allowed for mapping of attributes and loading of files with maximum database integrity throughout

“Bentley delivered a solution that combined innovative technologies with the one-of-a-kind functionality of our previous in-house engineering information management system. The Eastman-Bentley partnership enabled positive change management and has improved our ability to collaborate across our growing global footprint.”

– Jan Shumate, Director, Plant Engineering - Worldwide Engineering and Construction, Eastman Chemical Company

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the migration from Eastman’s legacy system into ProjectWise. The data integrity and smooth transition was of significant value to Eastman due to on-going capital projects, planned shutdowns, and overall reliance on the system to support operations, maintenance, and engineering activity. This represents thousands of views and updates every day.

Delivering Just the Right Solution

Working closely with Eastman’s Worldwide Engineering and Construction organization, Bentley delivered a tailored solution that met all of the company’s needs and expectations. The solution was implemented for 13 of the company’s sites by May 2014. “We migrated all files over a period of 12 months during non-business hours,” explained Shumate. “Data integrity was of utmost importance as well as seamless transitioning and smooth system performance.” In between migrations, Eastman evaluated system performance and worked with Bentley to address issues to ensure optimal performance of the solution.

Realizing the Benefits

Today ProjectWise is an integral piece of Eastman’s new system for global sharing of engineering information. ProjectWise accepts numerous file types, supports interoperability across software platforms, and enables live linkages with external applications and processes, resulting in opportunities for significant business benefits.

Streamlined, Global Project Collaboration

The ProjectWise platform facilitates better collaboration across the Eastman enterprise. And because it runs reliably within the company’s modern IT infrastructure, IT can ensure proper backups, maintenance, and network performance. The collaboration tools built into ProjectWise ensure security-enforced access to all types of information for employees and business partners around the world. So, for example, engineers and designers no longer have to sit in close proximity or even be on the same continent to work together. “This virtual environment allows us to bring the best and brightest minds together across the enterprise to develop new and innovative project concepts,” noted Shumate.

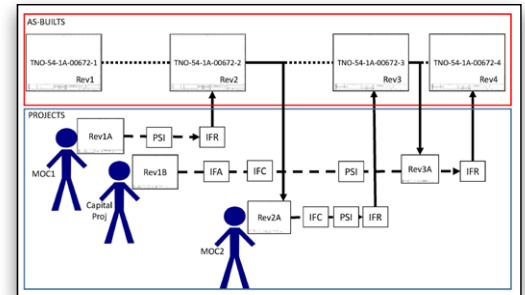
Higher Return on Investment

ProjectWise has also helped Eastman increase productivity – and boost the bottom line. For example, the lifecycle cost of the software is lower because it requires less IT infrastructure and support services annually. In addition, because users of the system can use it to work more efficiently, Eastman expects to see a return in excess of the cost of implementation. “These efficiencies are calculated based on savings from single sign-on functionality, batch printing of large drawing packages, automatic uploads into capital project SharePoint environments, and title block linkages between ProjectWise and MicroStation environments,” commented Shumate. “Additionally, users can easily upload a wide range of file types and instantly make them available for secure access.”

Lower Project Delivery Costs

Eastman also expects to lower overall client project costs thanks to ProjectWise integration with Eastman systems and processes. For instance, integrated security features allow

external business partners to seamlessly create and hand over deliverables into the Eastman engineering information system. ProjectWise eliminates the need to manually reformat, re-number and otherwise convert the information, thereby saving time and reducing project costs.



The master as-built file is always kept up to date.

Faster Project Delivery

Eastman also expects ProjectWise to enable faster project delivery thanks to increased collaboration, secure access to project information, and integration with Eastman systems and processes. For example, ProjectWise integration with Eastman’s SharePoint site allows all Eastman’s internal users to transfer files directly from external contractors’ information in ProjectWise – complete with all of the metadata automatically created in SharePoint.

“In the future, we anticipate using ProjectWise Deliverables Management to complete project workflows within ProjectWise,” noted Shumate. “This will save more time by eliminating the need to upload documentation into SharePoint. Transmittal services will also help us achieve our goal of having a globally integrated central information management system for approval routing, construction packages, and as-built responses that are fully integrated to the ‘live’ record stored in ProjectWise. In addition, we are seeing significant efficiency gains in part because people can view and update the same records without external manipulation and processing.”

Minimize Risk

The implementation of ProjectWise has drastically improved Eastman’s managed risk levels for engineering information. “Database integrity, server maintenance and reliability are no longer issues, as ProjectWise has enabled the migration of our engineering information from dated server and database structures to a modern platform that is more easily managed,” explained Shumate. “In addition, information security improvements made possible by ProjectWise have reduced risks to intellectual property that is of significant value to Eastman and its stakeholders.”

Next Steps

Eastman is currently implementing ProjectWise for its remaining sites. As the company continues to grow, Eastman’s management team believes that its ProjectWise implementation can deliver greater collaboration, standardization, and process efficiencies for users around the world.