Automatic Systems, Inc. (ASI) develops customized material handling systems that automate manufacturing processes for a diverse set of customers, including many in the automotive equipment, farm machinery, fiberglass, and appliance industries. For years, the company’s engineers used an internally developed application to manage 2D AutoCAD® documents and files. In 1999, ASI transitioned to the SolidWorks® 3D CAD software system to boost large-assembly productivity and improve product quality. Company engineers then discovered that the former documentation management system was insufficient for handling references between parts, subassemblies, and assemblies, according to Wayne Tiffany, senior machine designer.

“Our in-house document management system could not manage the increased volume and complexity of 3D design data created with SolidWorks software,” Tiffany recalls. “The old system controlled write access to individual files, but we needed a product data management (PDM) system that could help us manage file relationships and overall data integrity. That way, we could do a better job of sharing information and not stepping on each other’s files.”

Todd Puckett, IT project manager, says another factor contributing to ASI’s search for a PDM system was the desire to manage different types of product design data, such as Microsoft® Word documents, Excel spreadsheets, Outlook emails, and JPEG image files, instead of just CAD files. The company also wanted to make access to design data available to other departments and partners.

“Every job we do is custom. We needed a means for managing multiple types of design data per job, so our engineers could locate, reuse, and modify existing designs. Then, because all of the data is in a common location, other personnel at any of our five locations or in the field could access all of the job data,” Puckett says.

After evaluating available PDM systems, ASI selected what is now called SolidWorks Enterprise PDM. The company decided to acquire 200 licenses of SolidWorks Enterprise PDM because of its easy-to-use Windows® Explorer interface, industry-leading price-performance ratio, and multiple vault data-preview capabilities.

**Results:**
- Reduced delays related to revision control issues
- Established fast data search and viewing capabilities
- Improved management of design data by job
- Expanded access to design data to other departments and partners

Automatic Systems uses SolidWorks Enterprise PDM to manage the voluminous and varied amounts of design data associated with its automotive manufacturing and assembly systems.
Fast implementation, simple upgrades
The ease of implementation with SolidWorks Enterprise PDM, as well as the simple, straightforward process for installing updates and upgrades, differentiates it from other PDM solutions. ASI experienced a smooth, orderly transition in moving more than 100 GB of design data from the company's old document management system to SolidWorks Enterprise PDM. Today, the company uses the software to manage more than 350 GB of design data, while controlling revisions and access to design data across the extended enterprise.

“Other PDM solutions we evaluated required an army of consultants to get the system in place, install upgrades, and implement changes,” Puckett stresses. “Ease of implementation and maintenance is what sets SolidWorks Enterprise PDM apart from the other PDM systems out there.”

Easy to use and administer across multiple locations
Because SolidWorks Enterprise PDM utilizes a familiar Windows Explorer-like user interface and operates over the web, training requirements at all five ASI locations were minimal. The software also enables the company to manage vault access by location, as well as replicate vault data to other locations for improved performance.

“From a product development standpoint, the main advantages of SolidWorks Enterprise PDM are the ability to find previous design files quickly and easily, and working in a system that helps to prevent file overwriting and revision issues,” Tiffany notes. “The preview feature runs through SolidWorks eDrawings®, which enables us to preview all data files before accessing them and significantly improves search capabilities. Vault replication is another feature that enhances performance. We have our main vault in Kansas City, but can replicate the vault to our other offices to make performance local and less dependent on Internet connection speed.”

Expanding access to other departments, partners
SolidWorks Enterprise PDM adds flexibility to ASI’s ability to control access to product design data. The company can administer a variety of permission and data access protocols, exposing as much or as little of the design vault as necessary, to a broader range of personnel, partners, and subcontractors. By expanding access to design data, the company allows other departments to benefit as well. For example, manufacturing can access drawings for reference, purchasing can access bills of materials for quoting purposes, and sales people can access designs in progress for customer discussions.

“At times, we work with outside design contractors and suppliers,” Tiffany explains. “Instead of dealing with FTP file transfers and verifying different versions, we can give a partner access to only the part of the database (vault) that is necessary for completing the task, which is much more secure and efficient.”