# Taylor-Deal Aviation, LLC

AVIATION ENGINEERING FIRM SOARS TO NEW HEIGHTS WITH SOLIDWORKS ENTERPRISE PDM



SolidWorks Enterprise PDM enables TDA to accelerate development of its modifications for VIP aircraft through improved management of project design data.

#### CHALLENGE:

Accelerate aviation interior design and streamline interaction and collaboration with key partners.

#### **SOLUTION:**

Implement the SolidWorks Enterprise PDM system to integrate data management, tighten revision control, and automate workflows.

### **RESULTS:**

- Reduced development cycle time
- Improved document management and revision control
- Established automated workflows
- Advanced the production of technical publications

Taylor-Deal Aviation (TDA), LLC, is a leading aviation consultancy that provides engineering services for corporate jet, state-of-the-art VIP aircraft, and military modifications. Founded in 2004, the company has grown rapidly and today offers its clients the talents and skills of approximately 30 engineers with nearly 300 years of combined aircraft engineering experience.

When TDA began its operations, the company had already decided to use a 3D CAD system for developing custom aircraft interiors. According to Edmund "Butch" Lively, senior design engineer, the company chose SolidWorks® 3D CAD software based on the experience of TDA personnel who had used it successfully at other aviation companies.

"We totally appreciate the benefits of 3D. Some of us – myself included – had used SolidWorks before and found the software easy to use and very intuitive," Lively explains. "From the beginning, we knew that using SolidWorks software would enable us to visualize designs better and improve communications with customers and manufacturing partners. Soon after implementing SolidWorks, we began researching product data management (PDM) solutions. Working in the aviation industry, we recognized the need for a document management system beyond the file management, email, and FTP technologies that we initially used to support future growth."

TDA established a set of criteria for a PDM solution. The company wanted a system that not only was easy to install, but also simple to use, administer, and maintain. Flexibility was another key criterion, as TDA needed to customize the system to its unique processes, without entailing the added cost of reseller support, training, and customization services. TDA chose SolidWorks Enterprise PDM software, implementing 35 licenses, because it provided the only PDM solution that met all of the firm's requirements.



"We had SolidWorks Enterprise PDM software installed and connected to our SQL server in a couple of hours."

> Edmund "Butch" Lively Senior Design Engineer





SolidWorks Enterprise PDM has helped TDA establish automated workflows, resulting in shorter development cycles and faster delivery times.

#### Easy to install and administer

When compared to the PDM implementations that TDA personnel had experienced in the past, the initial SolidWorks Enterprise PDM installation was incredibly fast and easy. Furthermore, ongoing system administration and maintenance do not require any of the consulting services or specialized resources of other PDM systems.

"We had SolidWorks Enterprise PDM software installed and connected to our SQL server in a couple of hours," Lively recalls. "Ease of implementation and administration are critically important to the success of a small, growing company. SolidWorks Enterprise PDM software also reduces training demands because of its familiar Windows® Explorer-like interface. This greatly contributes to user acceptance and, ultimately, to the successful use of our PDM system."

## Accelerating development cycles via automated workflows

Since implementing SolidWorks Enterprise PDM software, TDA has accelerated its development cycles. Through better management and control of project design data - as well as automated workflows that streamline processes - the company has completed more projects and maximized its existing resources. "While the numberone benefit of a PDM system is the ability to search for and find data, SolidWorks Enterprise PDM has also helped us to eliminate or shorten many of the manual steps associated with our workflow," notes Lively.

With SolidWorks Enterprise PDM software, for example, TDA has streamlined design approvals by using automatically generated emails and electronic signatures that link approvals directly to the actual population of title blocks in design drawings. "When an approval is needed, an email is generated requesting approval. Once approval is indicated, the approved signature is added to the title block and updated at each revision," Lively points out. "Using SolidWorks Enterprise PDM, we have established one master workflow as well as sub-workflows to meet the needs of specific customers with different approval processes - all of which helps us to reduce development cycles."

## Improving all facets of 3D design management

Since installing SolidWorks Enterprise PDM software, TDA has improved its use of design data throughout every facet of its development cycle - from more secure and reliable revision control and improved data search capabilities to greater access by other departments, customers, and partners. For instance, the firm works frequently with two different cabinetry fabricators to complete the aircraft interiors. Providing both partners with their own SolidWorks Enterprise PDM accounts enables them to access design data - such as 3D models, 2D DWG files, documents, spreadsheets, reports, and other project management data – directly from the TDA vault. This system also has automated the production of user manuals and technical documentation.

"The combination of SolidWorks and SolidWorks Enterprise PDM puts valuable design data at the fingertips of anyone involved in the process, while allowing us to control access easily and securely," adds Lively. "This system has been a real boon to our Technical Publications Group. Now they can access all the data they need to produce user manuals earlier in the process."



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