fishbowl SOLUTIONS

CASE STUDY

Defense contractor leverages Fishbowl Solutions to implement and improve PDM and PLM system usability and performance, saving time and maintenance expenses.

business need

General Dynamics Advanced Information Systems operates as one of four companies in General Dynamics' Information Systems and Technology group. General Dynamics, headquartered in Falls Church, Va., employs approximately 70,100 people worldwide and had 2004 revenue of $19.2 billion. General Dynamics Advanced Information Systems employs 8,500 people and is a leading provider of transformational mission solutions in command, control, communications, and computers, intelligence, surveillance and reconnaissance. Customers include those in the defense, intelligence, homeland security and homeland defense communities.

General Dynamics wanted to improve and upgrade the information technology systems supporting its engineering group. General Dynamics used UGS Metaphase/Teamcenter for its enterprise product data management system, and PTC Pro/ENGINEER was the corporate CAD standard for mechanical design and engineering drawing creation. While Pro/ENGINEER and Metaphase/Teamcenter were integrated, the nature of the integration was cumbersome. The complexity and size of the Pro/ENGINEER data sets were simply too difficult for Metaphase/Teamcenter to properly manage all aspects and leverage the power of Pro/ENGINEER. Additionally, delays in the release of the Metaphase/Teamcenter-Pro/ENGINEER integration were a bottleneck, preventing General Dynamics from upgrading to the latest release of Pro/ENGINEER. This architecture created an unnecessarily complex and inflexible system and made system maintenance expensive and time-consuming.

General Dynamics decided to implement PTC Pro/INTRALINK for workgroup product data management (PDM) so their users could leverage more Pro/ENGINEER functionality and be more productive. The Metaphase/Teamcenter -Pro/ENGINEER integration was replaced with a Metaphase/Teamcenter -Pro/INTRALINK interface. This new interface allows General Dynamics personnel to leverage the best-in-class CAD and PDM systems for product development and drawing creation without the bottleneck a third-party PDM integration can create.

The new interface between the Metaphase/Teamcenter PLM system and the Pro/INTRALINK PDM system decoupled the workgroup environment from the enterprise environment, creating a more robust, flexible implementation. The PLM, PDM and CAD systems can now be upgraded independently, allowing General Dynamics to take advantage of newer releases without the constraints of other products' release schedules. Additionally, the migration of the Pro/ENGINEER data into Pro/INTRALINK produced a more efficient engineering data management process, saving engineers time and effort by being able to access and release drawings more quickly.

summary

business need

More robust workgroup PDM application

Clean Pro/ENGINEER files for improved file usage/access

Improved system administration and maintenance

Flexible upgrade strategy for the PLM, PDM and MCAD systems

Self-service access to drawings for different user groups/departments

challenges

Interface PTC Pro/INTRALINK with UGS Teamcenter

Migrate 25,000 parts, assemblies and drawing files from UGS Metaphase to Pro/INTRALINK with metadata and complete revision history

Cleanse old Pro/ENGINEER files in preparation for batch loading

Keep all revision numbers and file histories intact

benefits

Significant time saved from not having to redefine and regenerate assemblies

Improved Pro/ENGINEER file management

Easier, more efficient use of engineering data by different user groups

More flexible system upgrades—upgrade Teamcenter, Pro/INTRALINK, Pro/ENGINEER independently with less cost and effort

approach

Two-person Fishbowl project team, on site for approximately two months

Cleanse data, then batch load data into Pro/INTRALINK

Interface Pro/INTRALINK and Teamcenter, automating common user tasks (e.g., check-in/out, promotion, etc.)

Conduct user training

Provide "Go Live" consulting

tools and technologies

Fishbowl Solutions eTools Suite for Pro/INTRALINK

Fishbowl Solutions Custom Applications and Triggers

PTC Pro/ENGINEER and Pro/INTRALINK

UGS Metaphase and Teamcenter

solution

General Dynamics selected Fishbowl Solutions for this project. The project encompassed: a migration of all data and revision history from Metaphase/Teamcenter into Pro/INTRALINK, the implementation of Fishbowl's eTools Suite to interface with Teamcenter and "Go Live" consulting to ensure a smooth transition to the new Pro/INTRALINK PDM system. Fishbowl Solutions was chosen because of its expertise in PTC products, its out-of-the-box Pro/TOOLKIT and Pro/INTRALINK Toolkit applications and its practitioners' customization capabilities, experience integrating cross-platform systems and ingenuity at delving into unfamiliar systems.

The project team encountered several challenges during the implementation. General Dynamics needed to preserve all existing files, their revisions and relationships—approximately 25,000 current Pro/ENGINEER files plus nine years of history. Before loading the drawing, assemblies and parts into Pro/INTRALINK, the files underwent a significant data cleansing process. While the data cleansing was automated as much as possible, manual intervention was required to complete the process. After the files were cleansed, Fishbowl Solutions used their Pro/INTRALINK Batch Loader Solution to load the files into Pro/INTRALINK, map attributes and recreate the complete revision history.

Fishbowl Solutions then deployed eTools for Pro/INTRALINK as well as other standard and custom triggers to interface the Pro/INTRALINK and Teamcenter systems and synchronize the data within an efficient, closed loop process.

benefits

As a result of the redesigned integration and the implementation of Pro/INTRALINK, General Dynamics engineers have saved numerous hours from not having to redefine and regenerate assemblies. As an example, for one engineer, changing a note on a drawing used to involve a two-week process. Now, the assemblies are regenerated immediately, and her task is completed within half an hour.

The new system directly benefits the 40 engineers who work with the drawings on a daily basis and enables easier, more efficient use of engineering drawings by different user groups or departments. More people are using the data than General Dynamics initially realized, and as additional users discover the improved access and usability of the system, more are requesting it. For example, the purchasing department now has quick and easy self-serve access to Pro/ENGINEER files in various formats to send to vendors and other partners.

Finally, General Dynamics now enjoys a more flexible system upgrade strategy. UGS Teamcenter and PTC Pro/INTRALINK can each be upgraded independently, with less cost and effort.

About Fishbowl Solutions

Fishbowl Solutions, founded in 1999, is a national leader in partnering with its clients to deliver innovative and effective services and solutions that provide competitive advantages in the mechanical engineering market. Fishbowl Solutions is differentiated by its unparalleled industry and technology expertise; its solid reputation for on-time delivery, value-added results and enhanced ROI; and its clear-thinking, accountable and knowledgeable people.

Fishbowl Solutions offers several products to complement the PTC and Stellent product lines, including Advanced Engineering Solution, PTC Workgroup Solution, PLM Integrations Solution, Redlining and Collaboration Solution and CAD Integrations Solution.

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