

DELMIA System Stability Improvement

Client

A leading aerospace manufacturing company

Business Area

Manufacturing support and services

Technology Set

- Visual Basic, Python, C++
- Dassault Systemes DELMIA
- Dassault Systemes DELMIA Process Engineer
- OS: Windows XP

User Profile

300+ company employees and external suppliers

Geography

Worldwide, 24x7 availability

Services Provided

Full cycle: Business analysis, Development, QA/Testing, Maintenance with production support

Team Size

- 6 people
- Collaborative distributed environment (Seattle, Moscow)

Summary

Improve the stability and reliability of customized DELMIA Process Engineer (DPE) components by tuning the configurations and establishing benchmarks for on-going support and maintenance.

Business Challenge

The client, a leading aerospace manufacturing company, used Dassault Systemes' DELMIA to support the management of its product manufacturing lifecycle. The DELMIA Process Engineer (DPE) component allows the customization of the DELMIA installation to support a company's unique business processes. It provides views of the plans and simulations needed to fulfill the engineering requirements, as well as the associated maintenance and service documentation used for long-term product supportability. The company had extended the DPE to provide for their unique requirements for manufacturing, support and services, but over time, the system had become unreliable and unstable. The internal support team lacked the expertise needed to re-engineer the customizations and restore system stability.

Luxoft Delivered Solution

Luxoft's extensive experience in the aerospace manufacturing industry and Dassault Systemes solutions provided the background needed to help the company resolve the business problems related to DELMIA customizations support. Luxoft established benchmarks for performance and stability, as well as best practices for on-going maintenance. Performance benchmarks and support process definitions ensure that the system remains stable and reliable even as the business model evolves.

Luxoft's team of experts used a reverse engineering approach to restore the system stability and reliability to an acceptable level of service before implementing performance benchmark controls and governance processes for on-going support and maintenance. The project was organized into three high-level phases:

- The **knowledge transfer phase** gave the team a comprehensive understanding of the company's unique business processes and its objectives for product lifecycle management using DELMIA.
- In the **analysis and design phase**, the team used a reverse engineering approach to perform an in-depth analysis of the existing customizations. Extensive test cases were developed to support the testing phase.
- The **testing phase** provided end-to-end system and regression testing for all customized functionality. Test results became the baseline for performance benchmarks and system support governance.

The Equivalence Class Partitioning (ECP) testing methodology ensured that all business requirements and every exception to a business rule is working correctly. ECP testing uncovered a large number of defects in over 300 customized scripts, with 30% of the defects categorized as major. Luxoft developed and applied an approach to effectively track, manage and resolve the defects.

Client Benefits

Luxoft's team gave the company the foundation for executing best practices related to DELMIA system support. With the development of performance benchmarks, policies for defect tracking and management, and rigorous testing methodologies, system stability and reliability was restored.

Would you like to learn more?

Please let us know if you are interested in any additional details or have questions regarding solution above and our expertise in the field.

Please contact us through aerospace@luxoft.com.