

## **Case Study: Tier 1 Automotive Supplier's**

### **Lift and Shift from Legacy ENOVIA PLM to Windchill**

#### **Background**

A Tier 1 automotive supplier, following the divestiture of one of its business units, faced challenges managing its product lifecycle due to reliance on a shared legacy ENOVIA PLM system. With access to ENOVIA ending in June 2025, the parent company selected PTC Windchill as its new PLM solution and completed a full data migration to ensure continuity and improve collaboration. The transition was necessary due to ENOVIA's outdated architecture, high customization, lack of upgradeability, security vulnerabilities, and complex global server infrastructure. Additionally, licensing constraints under a transitional agreement with the Purchasing Entity further underscored the urgency for a new, independent PLM platform.

#### **Key Project Drivers**

- ENOVIA PLM was over 10 years old, highly customized, and not compliant with security standards.
- Legacy Dassault ENOVIA 2013x PLM is outdated and replaced by Dassault's 3D Experience platform with no active maintenance.
- High technical debt from Purchasing Entity and not upgradeable due to customizations; Purchasing Entity colleagues must provide support.

- PLM infrastructure cannot be updated due to old PLM, OS, and databases, making it non-compliant with TISAX and posing IT security risks.
- Complex platform architecture with 49 PLM servers globally, not part of regular IT infrastructure update cycles, and lacking support from Infrastructure IT.

## **Objectives**

- **Modernize PLM:** Transform the Tier 1 Automotive Supplier's IT tools portfolio into modernized and efficient solutions, focused on harmonized data, streamlined integrations and automation.
- **PLM/ERP Integration:** Align and connect PLM and ERP projects through their common goals, activities, data, and integrations for successful global implementations.
- **Build Awareness:** Support and build awareness, knowledge, and confidence in the new tools and improved processes, throughout the organization, ensuring a smooth transition to the future state of the company.
- **Improve Data Management:** Centralize all product-related documents and data.
- **Enhance Collaboration:** Facilitate real-time communication and teamwork across departments.
- **Optimize Production Processes:** Implement automated workflows to reduce manual intervention and errors.
- **Ensure Compliance:** Maintain high standards of quality and regulatory compliance.

## **Solution**

The client partnered with Datafrond to implement PTC Windchill PLM (Product Lifecycle Management) software. The solution included:

1. **Centralized Document Management:** Windchill offers a unified repository for all product-related documentation, facilitating organized, secure, and readily accessible data management.
2. **Business Process Management:** Automated workflows streamlined business processes, reducing manual intervention and errors, while ensuring tasks were completed consistently and on time. ECR/ECO/MCO and Waiver, Red Part Deviations.
3. **Seamless CAD Integration:** Windchill integrated with Catia MCAD and Altium Enterprise ECAD software, facilitating the management of complex CAD models and assemblies.
4. **Comprehensive BOM Management:** Windchill supports the creation, management, and tracking of Engineering Bills of Materials (BOMs) with Part Substitutions. Transform Engineering Bills of Materials into Manufacturing Bills of Materials for each of the Manufacturing Locations.
5. **Efficient Configuration Management:** Windchill simplified the management of different product configurations, allowing accurate documentation and tracking.
6. **Quality and Compliance Management:** Windchill helps

maintain high standards of quality and compliance with tools for managing regulatory compliance and mitigating risks.

7. **Change Management:** Implement the proven industry standard Change Management process incorporated in the PLM-IN-BOX workflow solution to streamline and automate the client's business processes.
8. **Engineering & Enterprise Data Management:** Part Lifecycle Management with status, attributes that enable searching and indexing for reusability. Integrate with the downstream ERP system by actively exchanging information using the Informatica Platform.
9. **Manufacturing Process Management:** Manage Plant Lines, Workstations, Tooling Equipment and their relevant Operating Procedures, Process Procedures and Training Documentation.
10. **Parts Classification & Component Management:** PLM-IN-A-BOX New Component request workflow that automates part creation between Windchill and Altium ECAD platforms. Exchange of information includes Component specification attributes, Engineering Bills of Materials and Board Fabrication Design Documentation.
11. **Supplier Management:** Supplier Quality Module that establishes traceability between Entity Parts and one or more Supplier Parts using Approval status for use by

Manufacturing. Manage Supplier Information, Supplier Qualification Statuses, and Quotation Requests.

12. **Supplier Quality:** PLM-IN-A-BOX Integrates Supplier Quality Processes and APQP into the Engineering Change Approval process to ensure timely PPAP submissions.
13. **Supplier Collaboration:** Datafrond PLM-IN-A-BOX Supplier Collaboration module facilitated a secure exchange of Request for Quotations, upload PPAP documentation and participate in the Supplier Qualification Process and APQP.

### **Implementation**

Rather than customizing Windchill to fit the current processes, which are costly and inefficient, Datafrond industry best practice PLM-IN-A-BOX turnkey solution was implemented with a few configuration adjustments tailored to meet the unique needs of the client. This enabled rapid deployment, allowed users to experience the system and provide feedback while reducing costs when it comes to the time for system updates or version upgrades to the latest version of Windchill.

The implementation process involved:

- **Assessment:** Evaluating the client's existing processes and identifying areas for improvement.
- **Configuration:** Tailoring Windchill features to meet specific organizational needs.

- **Training:** Providing training and support to ensure users fully leverage Windchill's capabilities.
- **Integration:** Integrating Windchill with other enterprise systems, such as ERP and CAD software.
  - **Catia MCAD Workgroup Manager Integration**
  - **Altium Enterprise ECAD Integration**
  - **ERP Integration: JDE Edwards**
  - **Business Systems Integration using Informatica**
- **Data Migrate from ENOVIA PLM System to Windchill:** Datafrond Migrated approximately 15 million objects (files, objects, relationships) from ENOVIA system into Windchill. Data Migration required configured mapping, translation and loading steps with robust, validation with a repeatable process to ensure data integrity and high quality.
- **Windchill System Support:** Datafrond provided not only implementation and data migration services, but also ongoing support and feature enhancements.

## Results

- **Increased Efficiency:** Automated workflows and streamlined processes led to increased efficiency and productivity, allowing teams to focus on value-added activities.
- **Enhanced Collaboration:** Improved real-time communication and teamwork across departments.

- **Cost Savings:** Significant cost reductions by minimizing errors, reducing rework, and optimizing resource use.
- **Compliance:** Achieved regulatory compliance and maintained exacting standards of quality.

### **Conclusion**

The implementation of Datafrond Windchill Support Services at the Tier 1 Automotive Supplier post Go Live resulted in optimized production processes, enhanced collaboration, and significant cost savings. The company was able to develop their support staff, revise their support procedures and user training programs while maintaining high standards of quality and compliance, ensuring a competitive edge in the automotive industry.