

ENOVIA V6R2013x

ENOVIA Factsheet



Contents

- 3 Introduction
- 4 Portfolio Overview
- 6 V6R2013x Overview
- 7 Values by Industry

Introduction

Innovation increasingly means global teams collaborating with global information – and doing so with clarity, confidence and consistency. ENOVIA®, the world's leading collaborative innovation platform, enables innovators to benefit from the true rewards of collaboration, not just sharing ideas but developing them together in harmony. Easy to acquire, quick to learn and effortless to master, ENOVIA is reliable and robust enough to manage even the most sensitive and mission-critical data.

As the pace of change increases, companies are depending more on their intellectual capital to keep ahead of the competition. From creators to collaborators to consumers, everyone plays a critical role in bringing the right products to market at the right time.

“ENOVIA gives life to ideas through successful and rewarding collaboration”

PLM 2.0, product lifecycle management (PLM) online for any user, is a 3D environment for everyone to experience a product virtually while all user interactions generate intellectual property (IP). PLM 2.0 allows the product innovation process to start with consumer preferences and end with a virtual lifelike “test drive” of the product. PLM 2.0 is to PLM what Web 2.0 is to the Web.

Enabling PLM 2.0 collaboration requires a platform capable of federating all product-related knowledge, and managing easy access to it from anywhere. ENOVIA V6 is Dassault Systèmes (DS) next generation platform for enabling PLM 2.0 and harnessing the collective intelligence among online communities. PLM 2.0 brings life to knowledge – from idea to product experience –merging the real and virtual in an Immersive lifelike experience.

DS is a world leader in 3D and PLM solutions. Powered by the 3DEXperience Platform™, ENOVIA enables your innovation to benefit from the true reward of collaboration.

The ENOVIA collaborative platform delivers the flexibility, open standards, scalability, and industry-specific functionality today's global companies need to tie together multi-discipline engineering groups and product development contributors from other business roles.

“ENOVIA is the social and collaborative engine which powers Dassault Systèmes suite of innovation solutions”

ENOVIA V6 opens up the possibility of PLM 2.0 by offering:

Global Collaborative Innovation: The future of PLM is about allowing the breadth and depth of collaboration. Everyone, regardless of location or status, can collaborate across business processes – from the lowest level of details across all engineering disciplines to the full product definition, bringing together Requirements, Functional, Logical and Physical (RFLP) definitions of the product.

Online Creation and Collaboration: Product creation and collaboration is enabled for real time, concurrent work, across multiple remote locations with only a Web connection. This capability is a major breakthrough for any company implementing a global engineering and manufacturing strategy.

A Single Platform for IP Management: On a single platform, V6 supports both IP modeling applications spanning all engineering disciplines, as well as collaborative business processes (CBP) covering the entire product lifecycle:

- CATIA® / DELMIA® / ENOVIA® / SIMULIA® applications are built natively on this single, open Service Oriented Architecture (SOA) platform.
- Data management is supported for most mechanical, electrical, and artwork CAD tools.
- V6 gives a unified, federated view and access to IP, whether the information is in the PLM system, another enterprise system or from an unstructured data source.

Ready to Use PLM Business Processes: ENOVIA

V6 covers PLM processes across multiple industries, and unifies engineering processes and all enterprise business processes including program management, compliance management, and sourcing, as examples. The ENOVIA solution “speaks the customer’s language,” by providing the best practices and capabilities specific to these industries: Aerospace & Defense, Consumer Packaged Goods, Automotive, Retail, Footwear and Apparel, Industrial Equipment, Life Sciences, High-Tech and Semiconductor. ENOVIA V6 Industry Accelerators speed deployment and cut time to Return on Investment (ROI).

A Lifelike Experience: V6 provides all of the above with an intuitive interface critical to a fully immersive product experience. A common interface, across all applications brings IP to life in 3D. Any user can find/search information, understand others using the universal language of 3D, experience the product, and collaborate in an immersive online 3D environment.

Lower Total Cost of Ownership (TCO)

Breakthrough ROI: The flexible SOA architecture allows easy integration with existing systems, and modeling of business process with no programming skills, supporting an adaptable business model. Industry specific solutions capture the value within each industry and provide the best and most tailored path to PLM. This will spur the adoption and evolution towards complete PLM strategies, and lead to breakthrough ROI.

Portfolio Overview

The ENOVIA portfolio is organized around five main user profiles or roles. Those roles do not represent an exhaustive list of all the users within a company. Instead, they represent logical product groupings based on business processes that the roles address. All products across the five roles are built with the same technology and can be deployed together as part of a single ENOVIA system or separately.

Governance Users

ENOVIA V6 for Governance users allows companies to launch enterprise-wide new product introductions on-time and on-budget. The products are aimed at users having overall responsibility for enterprise-wide critical PLM business processes including product managers, program directors, project managers, compliance managers and other participants in governance processes. Sub-categories for this role include:

- **Requirements Management** captures customer needs and drives downstream development by planning new products with the greatest market impact.
- **Portfolio Configuration Management** determines the optimal mix of product capabilities to meet market demands and minimize engineering costs.
- **Program Management** schedules and tracks all aspects of the product development process in real time as the work is completed (from creator to collaborator to consumer), enabling visibility of milestone progress, resource utilization, project deliverables, and potential risks and issues across the enterprise.
- **Decision Support Business Intelligence** harnesses the organization’s collective intelligence in real-time with an immersive 3D environment and dashboards that reveal issues in the product development process.
- **Compliance** ensures that product development activities comply with government and industry regulations, and product quality targets.

Engineers and Designers

ENOVIA V6 for Engineers / Designers helps eliminating costly product development errors by enabling improved cross-functional product design, manufacturing planning and performance simulation. The products are aimed at designers, product engineers, manufacturing professionals and other innovators collaborating on product development. Sub-categories for this role include:

- **IP Work-In-Progress** manages the iterative vaulting of IP from engineering tools so the latest information is available to design teams and cross-functional collaborators throughout the world and supply chain.
- **IP Asset Release** synchronizes specifications and bills of material (BOMs) from concept to planning to production, reducing errors and costs while enhancing quality and time to market.
- **IP Classification & Re-Use** decreases costs and promotes knowledge transfer by classifying IP for reuse.

Supply Chain Users

ENOVIA V6 for Supply Chain users allows companies to leverage supply chain capabilities throughout the product lifecycle and make their suppliers an integral part of product development. The products are aimed at buyers, buyer agents, supplier relationship managers and supplier representatives. Sub-categories for this role include:

- **Supply Chain Network** capabilities allow companies to involve supply chain employees securely in the entire product lifecycle.
- **Collaborative Sourcing** implements a “design for supply” strategy with repeatable and standardized direct material sourcing processes that provide the latest design information to the supply chain and valuable supplier quotation input to engineering.
- **Supplier Performance Monitoring** enhances the supplier partnership by designing, implementing and tracking part qualification plans, supplier development plans, and scorecards.

Reviewers

ENOVIA V6 for Reviewers allows companies to identify data trends and process bottlenecks and make the right decisions with the right people at the right time in a global design and manufacturing environment. The products are aimed at all users and provide capabilities to search and review data, participate in approval processes and collaborate with other users. Sub-categories for this role include:

- **Process Collaboration** enables search and navigate PLM data, cross-functional team collaboration, process management in repeatable workflow business process, metrics reporting to drive continuous business process improvements and much more.
- **3D Collaboration** puts knowledge at your fingertips and contextually connects you to the product ecosystem. It leverages PLM data into useful business intelligence for better, faster decision-making.

IT Administrators

ENOVIA V6 for IT Administrators allows business process consistency and efficient collaboration across multiple departments, systems, and data, providing a collaborative platform for all employees, whatever their location. The products are aimed at professionals responsible for administering ENOVIA servers and refining business rules and data to meet specific company processes. Sub-categories for this role include:

- **Administration Tools** provide the capabilities to manage and deploy the ENOVIA system with flexible tools that lower total cost of ownership while fulfilling unique business needs.
- **Integration Tools** leverage product information from other enterprise systems by federating their IP into the context of product development business processes.

V6R2013x Overview

Accelerate Adoption and Transition to V6

- V6R2013x introduces a new ENOVIA packaging and pricing model aimed at greatly simplifying how a company licenses ENOVIA products while maximizing value. It includes several product packages, targeting specific user profiles such as CAD designers, mechanical engineers, systems architects, product, project and program managers, buyers and sourcing professionals, as well as people needing to participate in business processes or/and just needing to consume data with the new ENOVIA Live Connect product. All in all, 15 different packs are released while the full “à la carte” portfolio is still available.
- V6R2013x continues to increase adoption across a broader range of user communities by simplifying the user experience with the latest user interface and Internet technologies and expanded browser support which now includes Safari and Internet Explorer 9.

Reach New Users, Industries and Extend Scenarios' Scope

- V6R2013x enhances the support of environmental material compliance standards including an updated integration of ENOVIA® Materials Compliance Central™ with the International Material Data System (IMDS) used in automotive, and the support of Japan's JAMP AIS and JAMA/JAPIA exchange formats, critical for exchanging materials compliance data between companies.
- V6R2013x continues to deliver best-in-class ready to use business and design processes that extend the breadth and depth of the portfolio's capabilities. In particular, the industry leading semiconductor data management solution delivers Hierarchical Defect Management that improves quality and development timeliness of Systems on Chips (SoCs) by tracking issues and defects to the hierarchical semiconductor design data.

- With V6R2013x, ENOVIA Collaborative Design for SolidWorks® introduces new capabilities and further simplifies designers' user experience. Designers can effortlessly access, manage, share, and store data directly from Windows Explorer (WE), including setting and getting a reference version from the WE version menu, reviewing revision history, and create a new revision of a file without checking it out. Directly from within Windows Explorer, SolidWorks designers can view, measure, pan, zoom, and rotate their CAD models. V6R2013x also embeds powerful search capabilities and enables checking out from search results in one-click. Finally, SolidWorks designer can move files in and out of the database with drag and drop, and are able to create PDFs automatically on check in.
- Finally, V6R2013x introduces new interoperability capabilities between V6 and other systems. CENIT and CIDEON have made available their new XPDM connectors between CATIA/ENOVIA V6 and SAP, supporting DS global approach for xPDM integration. Pro/ENGINEER users will benefit from a new ENOVIA capability to perform the “where used” scenario from within their CAD interface. xCAD users will enjoy new file converters (Pro/ENGINEER, Inventor, Acis 3D modeling kernel) to V6 for optimized design and reuse. V6 Web Services infrastructure is now compliant with WS-I, WS-Security standard to maximize users data transfer security. These capabilities - along with the existing xPDM framework, ERP integrations and federation capabilities, further the openness of the V6 platform in support of end to end design and collaborative business processes

Values By Industry

Aerospace and Defense

Successful execution of an Aerospace and Defense (A&D) program means managing volumes of information to efficiently meet all contractual obligations. Tracking, reporting, and communicating that information involves teams of people across multiple functions and organizations. A solution is required that integrates all of the critical data and program information into one consistent whole.

To address the complexity of the Aerospace and Defense industry, ENOVIA products deliver the following value:

- Capture and share customers' requirements to plan new products with the greatest compliance and customer satisfaction.
- Schedule and track all aspects of the program process in real time as the deliverables are completed.
- Improve how organizations identify and resolve program issues through intuitive 3D navigation and dashboards.
- Ensure that program execution complies with government regulations.
- Leverage the cross-functional extended enterprise throughout the product development process.
- Securely involve the supply chain in the entire product lifecycle to enable efficient collaboration.
- Implement a "design for supply" strategy to provide the latest design information to the supply chain and valuable supplier quotation input to engineering.
- Consolidate WIP from many engineering tools into multi-view change-controlled bills of material.
- Consolidate data from multiple sources into a single environment to improve collaboration and cycle time and reduce non-value-added effort.
- Protect company IP and support government regulations by ensuring that International Traffic in Arms Regulations (ITAR) compliancy can be defined and enforced.



- Execute program driven change management to enable the authorization and monitoring of complex system-wide changes assigned to multiple engineering groups.

Automotive

The globalization trend forcing asset reallocation, increased competition, high material costs, and increased governmental, regional and industry regulations are all pressures confronting the automotive industry today. These challenges, along with increased responsibility shifting down to the supply chain tiers, add to the complexity of managing automotive vehicle programs to budget and schedule. Consequently, automotive original equipment manufacturers (OEM) and suppliers need to be flexible and execute flawlessly when managing global vehicle product programs.

To address the competitive pressures of the automotive industry, ENOVIA products deliver the following value:

- Determine the optimal mix of product capabilities and platforms to meet market requirements and minimize engineering costs.

- Schedule and track all aspects of the product development process in real time as the work is completed.
- Securely involve the supply chain in the entire product lifecycle to enable efficient collaboration.
- Actively engage in supplier development by designing, implementing and tracking supplier performance plans and scorecards.
- Enable systems engineering through a comprehensive strategy based on Requirements, Functional, Logical and Physical (RFLP) product definitions.
- Single integrated environment for CATIA, DELMIA, and SIMULIA.
- Manage most MCAD and ECAD tools in a single environment to accommodate OEM demands and internal standards.
- Aggregate design work-in-process into bill-of-materials satisfying the needs of product and manufacturing engineering.
- Decrease costs and promote knowledge transfer by classifying IP for reuse, and utilizing extended enterprise information in planning and decision making.

Retail Footwear and Apparel

The Retail Footwear and Apparel industry is facing a new set of business challenges that are forcing companies to focus on product development improvements in order to respond more rapidly to market trends and changing customer needs. These challenges include increased global competition, the need to target new markets and create new revenue streams, customer demands for more innovative products and pressures to reduce new product development costs.

ENOVIA helps Retail Footwear and Apparel companies address these challenges with products that deliver the following values:

- Improve development productivity by including seasonal line plan data into the overall process.

- Securely involve the supply chain in the entire product lifecycle to enable efficient collaboration.
- Connect sourcing and production offices seamlessly to brand and retail headquarters.

Consumer Packaged Goods

Consumer Packaged Goods companies often must adhere to specific compliance rules for manufacturing especially when selling regulated products. If a product is designed and manufactured without authorized and approved product specifications, there is significant cost/risk involved in either shutting down manufacturing lines or in the case of defective product, huge legal liability for damages. Under regulatory guidelines, products cannot be manufactured without proper product specifications.

In order to help CPG companies comply with quality and regulatory guidelines across worldwide brands, ENOVIA products deliver the following value:

- Practice open innovation by capturing the voice of your customers (VOC) early in the design phase to plan new products with the greatest market impact.
- Leverage the cross-functional extended enterprise throughout your product development process.
- Securely collaborate with supply chain partners and foster supplier development by designing, implementing and tracking supplier performance plans and scorecards.
- Enable quality/manufacturing organizations to maintain product compliance for manufacturing operations.
- Leverage product information from other enterprise systems by federating IP into the context of product development business processes.
- Aggregate IP across all business process domains to enable efficient search and reuse of brand assets and ensure brand integrity.

High-Tech / OEM

The development process for High-Tech continues to grow in complexity, requiring shorter development cycles to achieve market goals for new products. Increased interaction of mechanical, electrical and software development has placed rising demands on selecting, qualifying and testing parts for new designs. In addition, the needs for an electronic part and a mechanical part, for example, are completely different, and new part requirements can differ based on division, location or product line. Therefore, the part development processes for High-Tech companies require interaction and approvals by cross-functional users with different skills such as product design, testing, manufacturing, purchasing, and quality. This creates many issues in coordinating the complex workflows, tasks, and deliverables required for efficient part qualification and development.

In order to help High-Tech companies address these challenges, ENOVIA products deliver the following value:

- Practice open innovation by capturing the voice of your customers (VOC) as well as market requirements early in the design phase.
- Document and plan new product capabilities and technologies with the greatest market impact.
- Give end-to-end traceability throughout the product lifecycle from conception to retirement.
- Reduce the cost of compliance, improve supplier selection, and improve data quality and accuracy for regulated materials and substances.
- Enable a consistent, multi-discipline product definition by uniting creators, collaborators, and consumers through a single process based on Requirements, Functional, Logical and Physical (RFLP) product definitions.
- Support global supplier component and part management capabilities to reduce product costs and optimize cost-of-goods-sold.



- Implement a “design for supply” strategy with repeatable and standardized direct material sourcing processes that provide the latest design information to the supply chain and valuable highly scalable supplier quotation input to engineering.
- Leverage 3D and design IP to the extended enterprise of collaborators and end-users.

High-Tech / Semiconductor

Semiconductor development today is based on shorter lifecycles, more competitive markets, and less forgiving technology than ever before. Product complexity and density continue to increase while average sales prices and margins continue to shrink. Problems that increase the length or number of design cycles or mistakes that cause additional re-spins of a die can make the difference between profit and loss for a new product or even result in project cancellation.

In order to help Semiconductor companies address these challenges, ENOVIA products deliver the following value:

- Provide technical and business decision makers with increased project status visibility and accuracy so that they can determine and update investment priorities.
- Capture the voice of the customer with a robust requirements management process that is used to drive intellectual property (IP) buy versus build decisions and flexible design solutions.

- Equip digital and system-on-chip (SoC) design teams with differentiating “modules” technology that increases productivity in hierarchical, SoC product development and integration projects.
- Provide open collaboration to digital and software developers within the Microsoft Visual Studio environment.
- Enhance design efficiency and extend product life spans with an enterprise IP management platform to capture, search, request, deliver and support the vast amount of corporate IP available to all IC design teams.
- Provide a scalable and extensible PLM platform covering the full breadth of product development and aligned with corporate IT specifications and forward-looking architectures.
- Increase accuracy and automation in creating and organizing product configurations.

Industrial Equipment

In today’s challenging and competitive environment, innovation is one of the most important drivers for industrial equipment manufacturers. The need of innovation is not limited to engineering and product development, but has to be extended to production and after market services to bring more value. Companies are aggressively taking measures to drive down costs, shorten time from quote to delivery, close collaboration with suppliers, access foreign markets and find ways to stay close to customers. ENOVIA products enable industrial equipment manufacturers to continue to operate in this global networking model. ENOVIA products support leading edge business processes, enable innovation and boost customer/supplier collaboration.

In order to help Industrial Equipment companies address these challenges, ENOVIA products deliver the following value:

- Capture, share, track, and report customer and internal requirements through project closure ensuring delivered product has met all commitments.

- Schedule and track all product development resources, deliverables and engineering tasks for on-time delivery.
- Allow configure-to-order OEMs to manage complex product configurations and engineer-to-order OEMs to efficiently manage one-off complex products.



- Enable enterprise and engineering users to collaborate and identify business issues through intuitive 3D navigation and federated dashboards.
- Meet design business targets with a single PLM instance – design for sourcing, cost, compliance, and manufacturing.
- Implement “design anywhere / build anywhere” strategy with suppliers across the globe.
- Enable system engineering through a single process based on requirements, functional, logical, and physical product definitions.
- Enable digital product conceptualization, detail design, synthesis, simulation, and manufacturing in a multi-CAD environment.
- Allow engineers to create IP leveraging relational design, concurrent engineering, and contextual design at a granular level.
- Seamlessly integrate ERP applications or federate legacy/xPDM applications within PLM context to leverage investment.
- Ensure product, service and maintenance documentations are in-sync.

Life Sciences

Due to increasing product complexity, Life Sciences companies must incorporate a broader array of contributors and stakeholders located throughout the world into their design processes. At the same time, regulations from government bodies such as the United States Food and Drug Administration (FDA) requires companies to manage vast amounts of data and documents under formal and repeatable change control processes. Most importantly, medical device companies must constantly produce new and innovative products faster than before while containing costs in an ever-shifting marketplace.

In order to help Life Sciences companies address these challenges, ENOVIA products deliver the following value:

- Improve compliance efficiency through automated processes to support part 820, part 11 and part 803 FDA requirements.
- Practice open innovation by capturing the voice of your customers (VOC) early in the design phase to plan new products with the greatest market impact. Leverage the cross-functional extended enterprise throughout your product development process.
- Achieve lean quality and compliance with holistic quality issue mitigation by integrating seamlessly with all other related product lifecycle processes.
- Improve quality and consistency of the corrective action preventative action (CAPA) and complaint mitigation processes to dramatically reduce regulatory risk and avoid audit findings.
- Ensure that project and design execution complies with regulatory requirement FDA 21 CFR.820.30 under design controls.
- Decrease costs and promote knowledge transfer by classifying IP for reuse, and utilizing extended enterprise information in planning and decision-making.
- Deliver company scalability and growth with highly configurable processes and systems to enable unique business needs.
- Provide a scalable and extensible PLM platform to enhance the ability to deliver "right to market" products through enterprise wide PLM system integration of quality systems management.



Delivering Best-in-Class Products



Virtual Product



Information Intelligence



3D Design



Virtual Planet



Realistic Simulation



Dashboard Intelligence



Digital Manufacturing



Social Innovation



Collaborative Innovation



3D Communication

Dassault Systèmes, the **3DEXPERIENCE** Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 150,000 customers of all sizes, in all industries, in more than 80 countries. For more information, visit www.3ds.com.

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