

## 3D ENOVIA 3DLIVE



Within a single environment, ENOVIA® 3DLive™ revolutionizes Building Lifecycle Management (BLM) by putting knowledge at your fingertips and contextually connecting you to the project ecosystem. The software leverages BLM data into useful business intelligence for better, faster decision-making.

### Key Benefits

- Address project execution issues instantly, collaborating with stakeholders by visualizing risks and milestones in 3D.
- React quickly to compliance issues by enabling project managers to visually identify in 3D the parts and responsible owners for taking action.
- Enhance revenue by responding swiftly and accurately to RFQs by sharing BLM component information (costs, delivery date, etc) with stakeholders.
- Reduce costs through improved collaboration between construction project stakeholders.
- Deliver construction projects on time due to eliminating wastes.

# Product Overview

## Accelerate Innovation with Online 3D Collaborative Intelligence!

Construction project teams that can share accurate, secure, and real-time information online are best equipped to innovate and deliver efficient construction projects. Inaccurate information, incompatible software tools, and language barriers block project collaboration, putting innovation at risk.

ENOVIA 3DLive software provides construction project teams with a 3D immersive environment that serves as a shared workspace for all project-related data, regardless of where the data resides. With 3D, users can easily share and understand project details. This common understanding of issues allows users to find and solve problems early in the lifecycle, reducing costs and improving time to market.

Companies gain faster innovation, higher quality, regulatory compliance, and lower costs. Productivity soars because language differences as well as geographic and organizational boundaries disappear as stakeholders share data via a single, secure, interactive 3D environment.

## ENOVIA 3DLive Brings Your IP to Life

Easy to use, ENOVIA 3DLive provides a “virtual workspace” for reviewing project data and guiding contributors across heterogeneous information sources to the exact projects, people, and information necessary for efficient product development.

ENOVIA 3DLive delivers direct access to the rich BLM information in Dassault Systèmes Version 6 (V6) as well as other DS BLM solutions such as ENOVIA® VPM V4 and VPM V5, ENOVIA® SmarTeam, DELMIA®, and SIMULIA®. By integrating with multiple Computer-Aided-Design (CAD) systems and other enterprise systems, an ENOVIA 3DLive user has the ability to search and navigate on multiple data sources in real time. This consolidated view, directly in 3D, enables a paradigm shift in decision-making.

With ENOVIA 3DLive, all construction project stakeholders are active participants in the construction project process, employing the collective intelligence of all project of a company as well as partners and suppliers. Users are immersed in a visually rich, real-time environment where online “virtual” teams and communities are brought together quickly. Stakeholders can search, navigate, chat, perform co-reviews and collaborate on any aspect of the product—and all with just an internet connection.

ENOVIA 3DLive delivers annotated views, 3D measurements, and 3D cross sections for collaborative studies and presentations. Team members now can enhance 3D models, and collaborate more effectively during a variety of reviews.

ENOVIA 3DLive enables users to work in an online environment and with local data. Users can share data through 3DXML, a universal, lightweight XML-based format developed by Dassault Systèmes. 3DXML enables users to capture and share live, accurate 3D data quickly and easily, and is useful for sharing 3D and BLM information with stakeholders that are not connected to a BLM database. Users can facilitate collaboration and further leverage IP by embedding 3DXML easily in 3DVIA® Composer and 3DVIA® Virtools as well as Microsoft Word documents, Microsoft PowerPoint, and Internet Explorer.

## Live Applications

ENOVIA 3DLive can be extended with additional “Live” products for specialized PLM functions and processes. These include:

- CATIA® Live FTA Review
- CATIA® Live Shape
- CATIA® Live Compose
- CATIA® Live Rendering
- CATIA® Live Sheetmetal
- DELMIA® Live Shopfloor Review
- ENOVIA® Live Rights Manager
- ENOVIA® Live Similarity

## **ENOVIA 3DLive Delivers the Promise of Innovation Today**

ENOVIA 3DLive brings innovation to the forefront of your business activities in a 24/7 on demand environment. Access and share all the data in the context of your construction project in real time. By combining the universal language of 3D with advanced indexing and searching tools, information sharing and collaboration barriers disappear. Users can even access data while offline.

From design program updates to supplier meetings to last minute shop floor changes, collaboration is fast and as easy as surfing the Web. Users can problem solve on line collaboratively and innovate because of efficient and intuitive search tools. Quality, compliance, risks, and customer requirements are handled early in the development process, saving time and money. Users make the right decisions, at the right time on the right data and communicate these decisions to all affected stakeholders in real time enabling a new paradigm of innovation for an project.

## **Product Highlights**

By providing a single environment of all the BLM information required to understand, collaborate and make decisions in today's organizations, ENOVIA 3DLive allows companies to:

- Effortlessly connect all knowledge workers to enterprise IP and to each other
- Accelerate product searches while ensuring accurate and up-to-date results
- Quickly navigate, browse and intuitively access the full project definition
- Collaborate easily, efficiently, and accurately
- Create and configure 3D Dashboards to follow project progress and make knowledgeable decisions.

### **Single Environment to Access All BLM Information**

ENOVIA 3DLive provides every enterprise user a single environment of all the BLM information required to understand, collaborate and make decisions in today's spread-out organizations, dealing with more complex 3D models and silos of information. ENOVIA 3DLive leverages BLM data into business intelligence, enabling on-demand 3D collaboration while offering a unique user experience based on an efficient search of BLM information and navigation simplicity. Dassault Systèmes' Services Oriented Architecture (SOA) provides ENOVIA 3DLive users with access to multiple PLM sources (including ENOVIA® V6, , ENOVIA® SmarTeam, ENOVIA® VPM V4, ENOVIA® VPM V5, and 3DXML files) while leveraging advanced collaboration scenarios between all the stakeholders. Users can even access ENOVIA 3DLive while offline to view items by simply extracting a 3DLive license and copying it locally.

### **3D and Semantic Search**

ENOVIA 3DLive has a classic semantic search tool relying on a multiple criteria definition to find objects. The search offers different ways to drill into large data volumes while navigating in 3D. This includes various query methods such as proximity, bounding box, sphere, pick, and zone query. Users can access any part instance in less than two clicks, in real time, whatever the model size (as an alternative to the classical method of navigating step by step through the 3D model structure to access parts). As an additional option, an enhanced view of 3D search results is presented as a collection of "thumbnail" images on a 3D display. With a simple click on a thumbnail image, a user can preview an item in 3D. ENOVIA 3DLive also supports configuration information and security settings to provide accurate information while preserving IP.

### **Data Navigation and Review**

Using ENOVIA V6 federation capabilities, 3DLive can combine metadata from multiple project data sources and include this information in the 3D representation of the associated object. Thus, an assembly that has critical information needed for decision making in multiple data sources can use ENOVIA 3DLive to create a federated bill of material (BOM). By leveraging configurable business rules in the 3DLive compass, a user can dynamically access this data in real time to view unique and powerful views of the assembly. Thus, a purchasing manager or procurement specialist can instantly navigate the 3D model and see the total cost of the assembly and exactly which parts are meeting assigned cost targets. This allows managers to respond immediately to potential problems.

### **User Collaboration**

Collaboration within ENOVIA 3DLive is enhanced through support of Microsoft Office Communications Server 2007 and IBM's Lotus Sametime 7.5.1. Users may communicate with and initiate collaboration with people not actively logged into ENOVIA 3DLive. A "buddy list" provides role-based access to current information. Chat and co-reviews via audio/video integration, persistent notes, and meeting minutes collected instantaneously are also available.

### **3D Dashboards**

Users can minimize errors and enhance quality by creating virtual sessions that communicate the contextual information necessary for productivity and innovation. Configurable 3D dashboards highlighting Key Performance Indicators (KPIs) help stakeholders visualize and present information quickly in an intelligible way on specific attributes — regulatory compliance, failure rate, program risk level, Request for Quote (RFQ) status, cost, product owner, product lifecycle stage/maturity, or last modified time frame etc.

### **Publish, Share and Reuse 3DModels on 3DSw4m**

ENOVIA 3DLive users can search, explore, and access 3D media from the communities on [www.3dswym.com](http://www.3dswym.com) in order to leverage the full power of "the Cloud". A seamless integration of 3D media between ENOVIA 3DLive and 3DSw4m online professional communities is provided. As a result, a "virtual company" can be formed for sharing innovations and connecting ideas across different locations and organizations.

### **Visualize CATIA V6 Drawings**

ENOVIA 3DLive users can participate in the CATIA drawing review processes. Drawing content can be previewed throughout the 3DLive user experience. A multi-sheet view is supported when examining a drawing document and simple verifications can be done with non-persistent measure capabilities. For more advanced CATIA drawing review ENOVIA® Live Validation can be used, which provides all the review tools for efficient collaboration with architects and engineers.

### **Stereoscopic Viewing**

ENOVIA 3DLive's stereoscopic viewing delivers the most realistic visual representation possible of complex digital models, giving the best possible understanding of three-dimensional information, and yielding levels of technical proficiency not possible using a regular 3D viewer.

Stereoscopic viewing is delivered into two different ways:

- "High End" realistic visual representation requires specific stereoscopic equipment with quad buffer OpenGL compatibility like the popular Nvidia 3D Vision technology, or 3D TVs.
- "Entry-Range" realistic visual representation allows anybody to benefit from the stereoscopic effect with only a pair of paper "blue/red" glasses.

### **Adds 2D and 3D Annotations to Enable Efficient Collaboration Loops**

ENOVIA 3DLive provides collaboration on the same project review from different locations through the 3D heads-up display in ENOVIA 3DLive. It facilitates efficient collaborative reviews by supporting the creation and display of 2D and 3D annotations and provides efficient navigation of studies and presentations. ENOVIA 3DLive supports publishing through report creation in 3DXML format.

### **Section and Measure in 3D to Understand and Reveal Design Intent**

ENOVIA 3DLive allows users to make measurements of different types between two geometrical entities. It delivers dynamic sectioning and cuts with mouse based manipulation.

### **Conduct Design Review Meetings with Real-Time Access to Accurate Information**

To make the best design and development decisions possible, attendees in a collaborative review meeting can access in real-time accurate in-context information. In addition, meeting attendees can “present” information quickly in an easily understood format. ENOVIA 3DLive allows design managers and engineering teams to:

- Build their design review environment digitally in real-time
- Analyze the digital mock-up to gain early insight into key factors that determine quality, performance, and cost.

These capabilities enable better decision-making by stakeholders, leading to faster time to market, quality improvements, and lower costs.

### **The Role of ENOVIA V6**

ENOVIA 3DLive supports building lifecycle management (BLM) online for everyone, and the ENOVIA V6 values, which are:

- Global collaboration innovation
- Single BLM platform for intellectual property (IP) management
- Online creation and collaboration
- Ready to use BLM business processes
- Lower cost of ownership.



## 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

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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](http://www.3ds.com).

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