

# MatrixOne's Synchronicity Developer Suite™

Collaboration and Management Solutions for the Development of Electronic Products

The creation of complex electronic products is not an easy proposition: design sizes are growing rapidly while development cycles are shrinking; feature sizes are reduced, requiring many additional design and verification steps and iterations; and large teams spread across multiple cities, time zones and even companies are required to manage these projects. All of these factors increase the complexity of the development process and a single miscommunication can be costly, resulting in a huge loss in time and money.

MatrixOne's Synchronicity Developer Suite™ meets these challenges with software packages tailored to enhance engineering productivity by boosting collaboration at each stage in the design process. For general-purpose design collaboration and management, MatrixOne's Synchronicity Developer Suite consists of two software tools, MatrixOne's Synchronicity ProjectSync® and MatrixOne's Synchronicity DesignSync®, as well as various optional components:

- **MatrixOne's Synchronicity DesignSync®**
  - Base design management platform
  - Customizable use models from GUI, command-line and API
- **MatrixOne's Synchronicity ProjectSync®**
  - Project communication and collaboration management
  - Works with MatrixOne's Synchronicity DesignSync to provide customizable development best practices
- **MatrixOne's Hierarchical Configuration Manager™ (HCM)**
  - Works on top of MatrixOne's Synchronicity DesignSync to provide distributed and block-based data management
- **MatrixOne's Synchronicity DesignSync DFII™**
  - Recognize and manage Cadence® data (CDBA & OpenAccess)
  - Graphical interface into related Cadence products
- **MatrixOne's Synchronicity DesignSync MW™**
  - Recognize and manage Synopsys® Milkyway data
  - Graphical interface into related Synopsys products
- **MatrixOne's Synchronicity DesignSync CTS™**
  - Custom Types System
  - Recognize and manage customer definable collections (aka Custom Types)

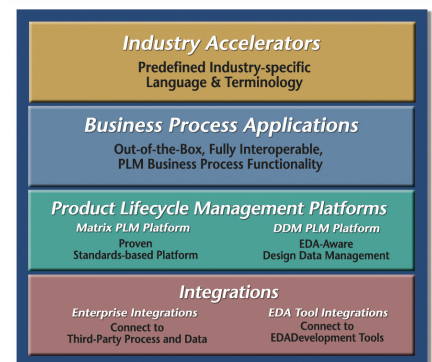


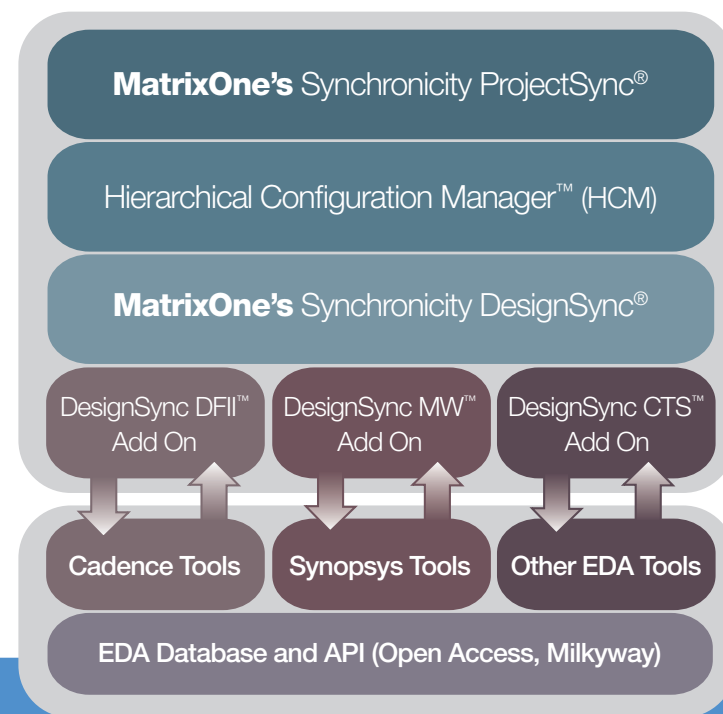
*The Synchronicity Developer Suite provides secure multi-site design collaboration and management for every stage and tool in the developer process.*

## With MatrixOne's Synchronicity Developer Suite you can:

- Significantly boost design productivity for rapid payback and strong ROI
- Enable collaborative development of complex electronic products between geographically distributed teams
- Ease design reuse by managing the IP lifecycle and retaining project knowledge
- Reduce learning curve and rollout time through use of standard Internet protocols and Web browsers
- Avoid costly mistakes with version control, issue tracking, release and configuration management
- Manage complex files from all tool vendors — from spec to layout
- Provide accountability and traceability through read-only audit trail
- Ensure project security with industry standard access control, authentication and SSL encryption
- Reduce infrastructure costs by efficiently using storage and computer resources

## ENOVIA MatrixOne PLM Environment





## Maximize Your Design Collaboration and Management

Well-managed team collaboration and structured data sharing are more critical to project success than ever before. MatrixOne's Synchronicity Developer Suite combines project management from MatrixOne's Synchronicity ProjectSync with information management from MatrixOne's Synchronicity DesignSync, enabling you to optimize your design collaboration and management and giving you powerful product management at your fingertips.

### Synchronicity ProjectSync

ProjectSync is a Web-based design collaboration and project management solution that enhances team productivity by enabling distributed team members to share ideas, bug reports and engineering change information. Managers can instantly see the state of the whole design and fully understand the open issues.

### With ProjectSync you can:

- **Understand the State of Your Design At a Glance**  
Both the rate of change and the state of the design are displayed graphically so you have instant visibility into project status. Built-in queries show the "who, what, when and why" for each change in the design. These features add predictability and accountability into the design process.
- **Boost Team Productivity**  
A flexible event and trigger system facilitates communications and process flow for increased team productivity. When a piece of information is created or modified, an "event" occurs that can trigger predefined "actions." For example, a trigger action could include the email notification of team members when a bug report is created or changes state, and the automatic triggering of a test run when a bug is fixed. Such actions ensure that engineers are working on the correct data and are reacting to the latest development event.

- **Solve Problems and Capture Team Knowledge**  
Threaded discussions capture the dialog that solved tough design issues, so that this knowledge is retained. In addition, design notes can be attached and extended throughout the life of the project. These features allow you to have this knowledge available for search, analysis and incorporation into your best practices.
- **Utilize Your Best Practices**  
ProjectSync can guide every team member to follow best design practices. The Administrator can readily tailor ProjectSync through HTML templates or TCL, C or JavaScript extensions. ProjectSync captures progress data on every block in the design, especially changes in life cycle status. This rich project data is readily viewed and summarized for managers.

### Synchronicity DesignSync

DesignSync is a server-based application with a thin client that supports parallel development, managed workspaces, multi-site version control, secure data transfer and fine-grained access control. With DesignSync, all project design information is available to every team member, wherever they are located, in a safe and managed fashion.

### Synchronicity DesignSync is a powerful tool that provides:

- **Information Management for Global and Local Projects**  
Even in small teams, tracking changes among thousands of design files is difficult. For larger projects, with hundreds of designers working on tens of thousands of files across several sites, the effort required to keep all team members coordinated increases exponentially, as does the likelihood of errors. DesignSync boosts the productivity of both small and large teams by managing this complexity.
- **Parallel Development with Branch and Merge**  
Executing design activities in parallel can accelerate development, but doing so requires a design management system that supports branching and merging. DesignSync supports advanced branch and automated merge capabilities so you can raise design quality while reducing risk by isolating features undergoing change.
- **Workspace Management – Getting the Right Versions of the Right Files**  
With many development activities taking days to complete, it is crucial that engineers use the correct version of every required file. You can build your workspace (a specific set of files brought to an engineer's workstation) according to a variety of selection criteria, such as process-based tags, specific version numbers or the latest available version of all data. Designers can work collaboratively while protecting themselves from each other's unknown interdependencies.
- **Version Control – Managing Change**  
With DesignSync, you can manage all the versions of every file used during a project and safely make them available to every member of the team. Since all the changes made to every file are tracked, you have the ability to roll-back, reproduce and report those changes. Many EDA tools require multiple files to represent a single design entity. DesignSync handles these files as a single object, keeping them safe from corruption.
- **Maximum Performance Across Multiple Sites**  
DesignSync provides sophisticated caching and mirroring technology which significantly boosts performance between remote sites sharing design data. The application automatically selects the appropriate compression and encryption on a file-by-file basis. To further increase transfer speed and conserve disk space, DesignSync can store data in delta format (storing only the differences between files, not all of every file). ENOVIA MatrixOne's Internet-based protocol enables this unique multi-site functionality while adhering to the TCP/IP standard so it can readily be allowed through firewalls.
- **Hierarchical Design Data Management**  
Managing block-based, hierarchical projects requires the ability to treat a block as a coherent entity instead of merely a collection of thousands of files. Developer Suite with Hierarchical Configuration Management (HCM) extends DesignSync's EDA Data Awareness™ to the block level, enabling developers to manage blocks as easily as single files. The HCM Graphical User Interface (GUI) provides an intuitive way to navigate and visualize the design hierarchy and execute data management commands.

- **Security: Access Control and Encryption**

By taking advantage of the same Internet standards that online banks use, DesignSync provides a high level of security without forcing system administrators to allow something unusual through the firewall. Fine-grained access control is based on the Internet standard LDAP (Lightweight Directory Access Protocol) to ensure that only the authorized individuals can see or change the relevant project information. Commercial grade 128-bit SSL encryption is used for data in transit between sites.

- **Support for Standards and Data Formats**

In order to manage the sophisticated data produced by EDA tools, knowledge of the complex multi-file structure and format is necessary. DesignSync's EDA Data Awareness provides a built-in knowledge of the files that need to be managed together as well as how to assemble them into the necessary views. Developer Suite provides multiple optional modules to support your target data including OpenAccess v2.2 ("Filesys"), Milkyway™ and the ability to configure other formats as well as your own proprietary tools.

## **System Requirements:**

**Operating Systems:** Solaris™, SUSE™, Linux™, Red Hat™ Enterprise Linux, Windows®, HP-UX

**Web Browsers:** Netscape®, Microsoft Internet Explorer®

## **The Matrix PLM Environment**

Being the industry's most robust and flexible PLM environment, Matrix PLM provides organizations with a single, secure environment that eliminates the barriers caused by geographically dispersed organizations and value chains, multiple disparate systems and increasing security requirements. The Environment consists of a portfolio of business process applications that work in conjunction with the Matrix PLM Platform and our broad offering of enterprise integrations.

## **About ENOVIA MatrixOne**

MatrixOne, Inc. was acquired by Paris-based Dassault Systèmes in May, 2006 and today is part of its ENOVIA PLM Collaborative Environment family of solutions. The ENOVIA MatrixOne solutions enable companies to accelerate product innovation to achieve top line revenue growth and improve bottom line profitability. ENOVIA MatrixOne is focused on helping companies across the automotive, aerospace & defense, consumer, machinery, medical device, semiconductor and high-tech industries solve their most challenging new product development and introduction problems. More than 850 companies use ENOVIA MatrixOne solutions to drive business value and gain a competitive advantage, including industry leaders such as BAE Systems, Bosch, Comau, General Electric, Honda, Johnson Controls, Linde AG, NCR, New Balance, Nokia, Philips, Porsche, Procter & Gamble, REI, Sony Ericsson, STMicroelectronics and Toshiba. ENOVIA MatrixOne ([www.MatrixOne.com](http://www.MatrixOne.com)) is headquartered in Westford, Massachusetts, with locations throughout North America, Europe and Asia-Pacific.



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