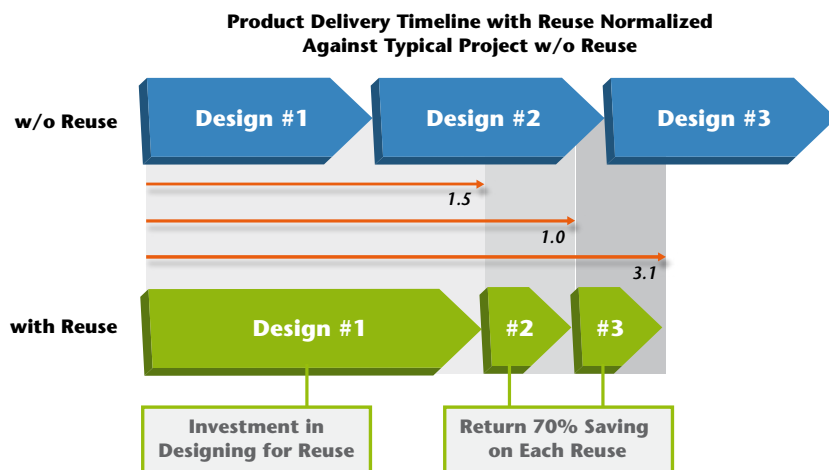


Semiconductor Accelerator™ For IP Management

Chip makers are facing an ever increasing set of business challenges. The complexity and rate at which new products need to be developed has already out-paced the ability of many companies to produce them. Furthermore, new product introductions are expected to continue to grow faster than productivity gains. Competitive pressures are driving the need to squeeze as much functionality as possible out of a given product while delivering it faster than previous designs. At the same time, technological advances make it possible to put greater amounts of functionality into a die, while simultaneously raising the cost of a mistake that causes a re-spin.

Studies have shown that typical savings in the range of 70% of delivery time can be achieved through effective management of design reuse. A key enabler of this savings is the infrastructure required to catalog, find and manage reusable design Intellectual Property (IP). An inefficient reuse system will diminish any potential savings. Moreover, a system that is not focused on the Semiconductor industry or that cannot be tailored to your company's specific business model will not be effective and the investment made in your company's IP will be lost.



The MatrixOne Semiconductor Accelerator for IP Management™ provides capabilities to address a number of key business challenges specific to the Semiconductor industry needed to implement an efficient and effective design IP reuse system. Companies who deploy this solution gain:

- Competitive advantage through accelerated development and shortened time-to-market through reuse of design components
- Better reliability, higher quality and lowered cost from reuse of design IP that has already been validated
- Improved collaboration by enabling team members across the enterprise to find and add their own data to overall product knowledge

Industry Accelerator



Is the MatrixOne Semiconductor Accelerator for IP Management (IPM) what you need?

- Do your projects suffer from lack of reuse from previous products, resulting in larger development and schedule costs than is necessary?
- Are potentially reusable designs scattered across your company in a variety of systems, making it difficult to find components to reuse?
- Do your design teams complain that it is difficult to search for reusable components, leading them to design from scratch when it was not necessary?
- Are attributes not consistently applied across your current catalog, making it difficult to compare and select the best component for reuse?
- Do you invest in creating reusable components but cannot determine which ones are being used and where?
- When issues are found/fixed, is it difficult to track down which products need to be updated with the fixes?
- Do you ever have problems verifying that you are paying the correct royalties for purchased IP based on what has actually been shipped in products?
- Do products ever get released with problems that have been known to be fixed in other products?

The ENOVIA MatrixOne Answer

The MatrixOne Semiconductor Accelerator for IP Management is an IP and design reuse solution that enables companies to achieve a competitive advantage by accelerating semiconductor development and delivery through reuse. It makes it easy for design reuse catalog owners to classify and organize data in a hierarchy that is tailored to their company's business environment and products. Because of the low effort involved in defining the catalog, it can quickly and easily adapt to an individual company's ever-changing business needs.

The Semiconductor Accelerator for IP Management is based on MatrixOne's PLM Platform, MatrixOne's Business Process Applications, and MatrixOne Synchronicity's DesignSync®:



- The Matrix PLM Platform, a proven, standards-based offering built to support global, enterprise-wide deployments and equipped with the industry's highest level of performance and scalability, making it an ideal platform to support the product development process in any enterprise.

- ENOVIA MatrixOne Business Process Applications, which incorporate the best practices of some of the world's most innovative companies. These applications allow companies to drastically improve the way they collaborate with internal

and external teams, develop products and work with suppliers and partners. ENOVIA MatrixOne's Business Process Applications are being used across all industries to allow companies to keep geographically dispersed teams connected through access to real-time data and business processes.

- MatrixOne's Synchronicity DesignSync, the industry standard for Semiconductor Design Data Management (DDM) that provides the underlying vault for both product designs and reusable IP.

Efficient and Effective Reuse with MatrixOne Semiconductor Accelerator for IP Management

- Create classification systems to fit your company's business needs and products
- Define and manage your semiconductor classification system through a simple and intuitive interface
- Define reusable groups of inheritable attributes
- Apply standard attributes across the taxonomy
- Define multiple role-based classification systems for the same common design components
- Easily classify existing product data in MatrixOne's Synchronicity DesignSync or add new components
- Navigate the classification hierarchy with a tree-based browser
- Track and manage issues raised against IP
- Parametrically search IP libraries to find reuse candidates
- Easily compare and select optimal design components based on standard attributes
- Automatically track and report on reuse across products
- Manage royalty payments on contractual obligations
- Subscribe to notifications of IP library updates and additions

Accelerating Product Delivery through Efficient and Effective Reuse The Semiconductor Accelerator for IP Management enables companies to create and manage catalogs of internally developed and/or acquired semiconductor design IP to leverage your company's investment previously made in its intellectual property.

Features and Capabilities

Enterprise-Wide Reuse Catalog Product development teams can completely and efficiently search a company's entire set of reusable design IP components using a single application available across the entire organization.

Flexible "N-level" Classification Taxonomy IP librarians can customize the semiconductor classification system to each company's business needs and products. The library classification hierarchy can be managed in a live system without having to change the underlying database schema. Therefore, the librarian can manage the library and taxonomy him/herself rather than going through an expensive IT-based modification of the underlying system.

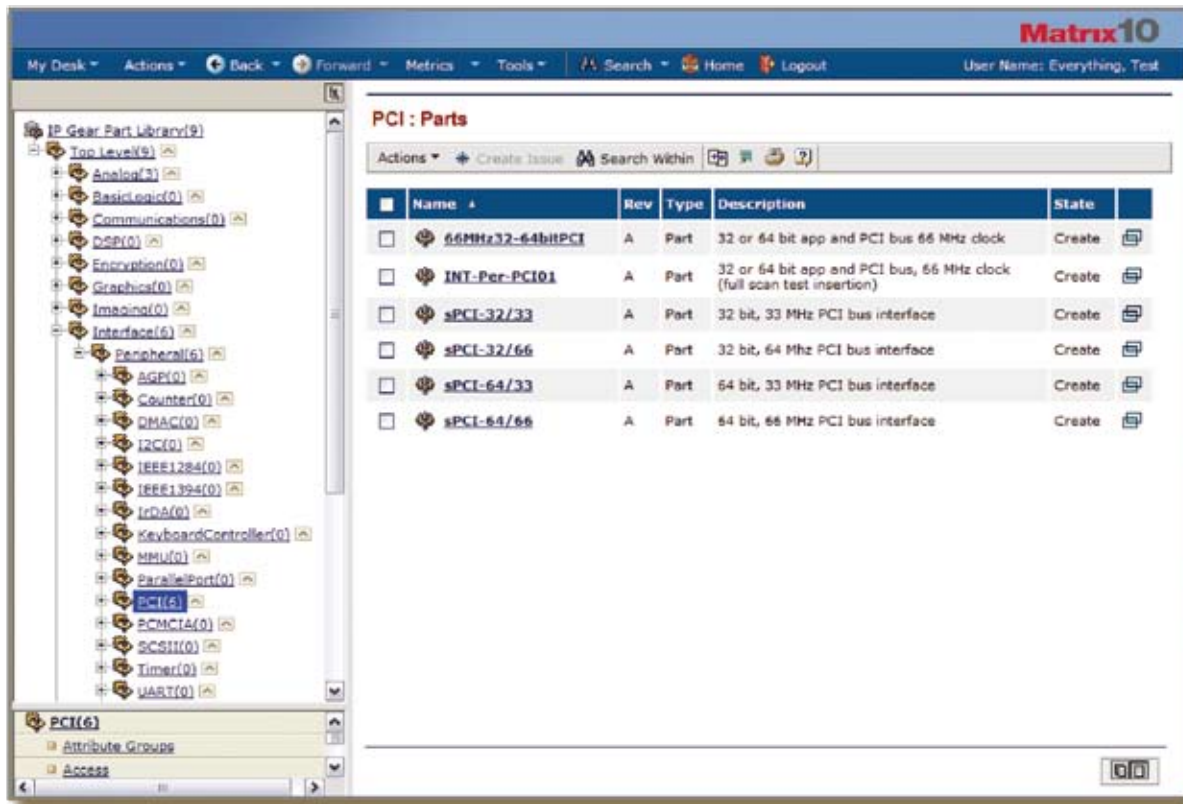
Standard Attribute Definitions Reusable sets of attribute definitions can be easily defined and applied to the Semiconductor classification hierarchy. The attributes have formal meaning to the taxonomy and can be inherited from class to sub-class. Inheritance of the attributes reduces the effort to create and maintain the classification system. It also enables attributes to be applied consistently across classes. Because the maintenance effort is low, the systems are flexible and are easily refined.

Parametric Search and Comparison A powerful, yet simple to use search capability makes it easy to locate design components based on complex sets of reuse criteria. It provides a sophisticated comparison of the results, which easily identifies differences to allow for quick and easy sorting and ranking. The low effort of the search means that the system is completely scanned and the best available component is identified -instead of the first adequate one encountered.

DesignSync File Access IP librarians can easily publish completed designs directly from the MatrixOne Synchronicity DesignSync Design Data Management (DDM) solution. Components can be referenced live to individual DesignSync servers across the enterprise or copied to a master DesignSync vault associated with the catalog. Designs that originate outside of DesignSync also benefit from the ability to track and manage versions of the IP, including differences in individual content files.

Semiconductor Accelerator™

For IP Management



IP Issue Tracking and Management IP consumers can easily report issues against specific components or make requests against the library for desired new functionality. Issue Category/Classification provides users the ability to automatically assign all new issues to a pre-defined Issue Manager. Issues can be sub-typed to allow for a fine-grained definition and ease of management. Subscriptions allow consumers to be notified when new issues are raised against components they are using.

Cross Team Collaboration Teams beyond engineering can easily add their own content to the overall product knowledge. This provides the ability to classify the non-engineering data in the same classification system alongside the engineering data, or in its own libraries using a bookshelf and document organization.

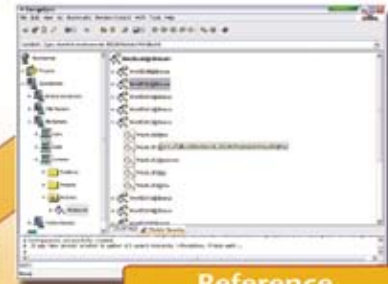
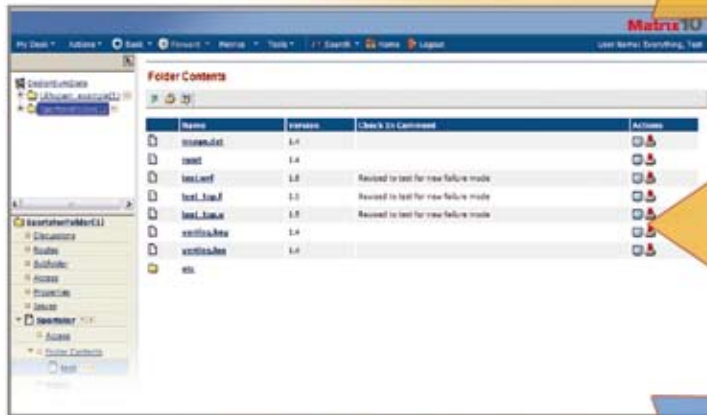
Role-Based Library Classifications Multiple IP taxonomies can be defined to simultaneously organize the same components from the perspective of different roles. Each role can view the product data through its own library with its own classifications. Each library has its own attributes that are inherited based on where the component is in the taxonomy and can be browsed and searched within its role-specific definitions. This makes it very easy for each role to find data from their own context but within the same common IP database.

Usage and Download Tracking/Reporting When enabled, data is captured on where specific pieces of IP are being used and the state of their downloads. Simple to use out-of-the-box reports provide summary information including: who is using the IP, the purpose, when it was downloaded, state of the download and status.

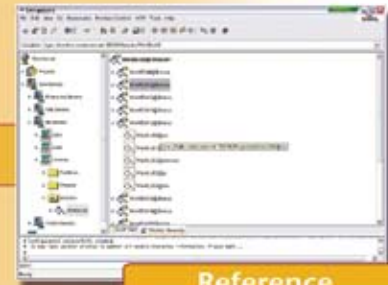
Royalty Management and Contract Obligations Alternative, role-based classification systems such as those specific to legal and business requirements can easily be defined and applied to engineering product data. Routes can be used to automate approvals and compliance processes, reducing overhead and eliminating errors. Contracts and other relevant legal documents can be directly linked to the reuse data within the PLM system, enabling IP usage to be automatically tracked so that payments are correctly made and reports to be automatically generated to ensure compliance is maintained.

Lifecycle Subscriptions Users can subscribe to automatic notifications for key events such as new pieces of IP being added to the library or changes being made to existing items. Subscriptions can be attached to entire libraries or to individual components. Notification comes in the form of an automatically generated email and can include attached descriptions and links to the relevant library or components for easy navigation. This means that all teams making use of data from the library can make decisions based on up-to-the-minute status of issues and updates, rather than static knowledge captured at the time of reuse.

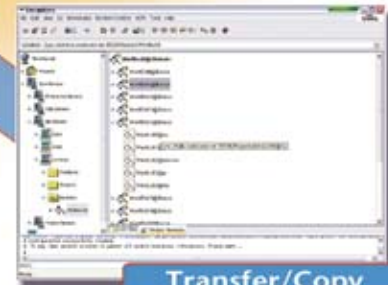
Semiconductor Accelerator™ For IP Management



Reference



Reference



Transfer/Copy

- DesignSync objects exposed within PLM Platform
- Can relate to multiple DesignSync servers
- Data can stay in WIP server (link/by reference)
- Data can be transferred to Dedicated DesignSync server (Publish by transfer/copy)

To learn more about how your company can benefit from ENOVIA MatrixOne PLM solutions, call us today at 978 589 4000, or visit MatrixOne.com

The ENOVIA MatrixOne PLM Environment

Being the industry's most robust and flexible PLM environment, ENOVIA MatrixOne 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.



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) is headquartered in Westford, Massachusetts, with locations throughout North America, Europe and Asia-Pacific.



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