# How do we seamlessly integrate design management, CAD and web-based collaboration in a single tool?



The Siemens answer: By providing Solid Edge with Insight software on a Microsoft SharePoint platform to enable product teams to manage and leverage product information in an unobtrusive and transparent design process

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# Today's design management issues

Effective design management is essential to achieving the time-to-market, cost and quality objectives of design organizations. Solid Edge® software with the Insight™ data management solution unites design management capabilities with the powerful Solid Edge CAD tools that engineers and designers use every day.

Solid Edge with Insight is an innovative solution that seamlessly integrates design management, CAD and web-based collaboration into a single tool that is easy to implement and easy to manage. Insight removes the perceived barriers to product data management (PDM) implementation, while still providing the fundamental capabilities that companies expect in order to successfully manage the design process.

Built on the popular Microsoft SharePoint platform that has more than more than 130 million seats in businesses of all types and sizes, Insight manages and leverages product information in a manner that is unobtrusive and transparent, enabling design projects to be completed on-time and on-budget.

Unlike conventional product data management systems, Solid Edge Insight is not a separate software package with additional commands and long implementation timelines. Instead, Insight is an integral component of Solid Edge, available at no additional cost. Insight requires only limited user training and can be implemented in days instead of months.



#### **Key capabilities**

- Based on Microsoft SharePoint platform for easy integration with business systems
- Straightforward design management and transparent integration with CAD
- Secure vaulting with check in/check out
- Attribute data management
- Comprehensive access control through configurable user roles
- CAD product structure management and BOM creation
- Rapid searches and "where-used" reporting
- Revision management
- Design release management
- Task and workflow management
- Offline mode with synchronization on reconnection
- Managed collaboration for internal and external users
- Web portal for wider access to design data
- Insight Connect for tightly coupled collaboration
- No barriers for successful implementation

# Microsoft SharePoint platform for business productivity



Solid Edge Insight is based on Microsoft SharePoint, a business productivity solution that brings information management and access, collaboration and people-driven processes into the familiar environment where people do their work every day. People benefit from the familiarity and consistency of a single environment for all their information and collaboration tasks that is easy to learn, use and personalize, while IT has a single platform and well-integrated set of technologies to manage and lower enduser support requirements.

Continuing investment in data management is part of Microsoft's strategy to provide communities for team collaboration, enabling users to work together on documents, tasks and projects. The environment is designed for easy and flexible deployment, administration and application development, and the success of Solid Edge Insight is proof that the strategy is working. Solid Edge Insight is now available on Microsoft SharePoint 2010 enabling our customers to leverage server software that they already have and that best fits their corporate IT strategy. These platforms also deliver improved collaboration and security capabilities for Solid Edge Insight customers.

Underlying SharePoint, Microsoft SQL Server provides a secure and scalable design management vault – with outstanding performance and administrative tools for backup and recovery.

By leveraging the proven tools provided by Microsoft and adding essential product structure capabilities for today's 3D designs including assembly structure, bill of material (BOM), assembly links and part relationships, Solid Edge Insight is not only the most elegant design data management solution available, but is also the safest investment for the future. "While it's invisible to the designers, Insight technology performs all of the critical functions our engineering organization needs to ensure the integrity and efficient access of our Solid Edge data."

Ken Grundey CAD Manager Pella Corporation

# Straightforward design management

Solid Edge Insight provides uncomplicated design management tools, tailored to the needs of the product development team. Unlike traditional document and data management solutions, Solid Edge Insight is transparent in the CAD design work-flow and enhances the productivity of designers without additional training.

"While it's definitely easier to create designs and drawings in Solid Edge, we attribute a lot of the productivity gain to Insight. Insight permits the re-use of design data to a much greater extent because we can find existing information and we can trust it now."

Michael Cox Information Technology Manager Reading Bakery Systems

"Often when we get an order, I think, 'I know I've made that part before, but for what company and where is it?' With Insight, those questions are answered immediately, without leaving the CAD environment."

Ryan Gudorf CAD/CAM Manager Budde Sheet Metal Works, Inc.

### Secure vaulting with check-in/check-out

Solid Edge Insight manages distributed product data – including files and information about them – in organized workspaces that makes it easy to find and re-use data. This information asset is protected with secure vaulting, role-based access, document level security, check-in, check-out, rapid search, where-used and other design management tools.

Embedding document check-in and checkout processes inside standard Solid Edge file commands ensures that only one engineer makes changes to a design at one time, preventing conflicting changes being made to the same part. When opening Solid Edge content, the user can specify revision rules such as "as saved" and "latest released" specifications. The assembly pathfinder in Solid Edge provides continual and instant feedback on the status of files, their availability and who is working on them.

### Comprehensive access control through configurable user roles

Companies can easily assign roles for each user of product data and establish rulebased access to design documents. A user can be a member of more than one group and membership can change for different projects.

### CAD product structure management and BOM creation

Solid Edge Insight makes it simple to manage the complex relationships among design documents, even in multi-level assemblies with thousands of components. Solid Edge assembly structures are automatically captured by Insight and made available to consumers through the web portal in a bill-of-materials format. Insight automatically manages BOMs that define the physical product and drive many other business processes. Accurate BOM data can be extracted at any time and output in XML format for incorporation into ERP and other systems.

### Attribute data management

Insight technology enables manufacturers to capture, organize and share knowledge efficiently. In addition to CAD parts, assemblies and drawings, Solid Edge Insight captures critical information about the design data.

### Rapid searching and "where-used" reporting

Solid Edge Insight evaluates the impact of design decisions by quickly finding all documents that will be affected by a change, including all related 2D drawings. Within the standard Solid Edge file opening operation, designers can use a powerful search tool to quickly locate design data by any defined criteria. In addition, powerful "full text" searches can be run to locate specific text within Solid Edge documents including notes placed on drawings.



#### **Revision management**

As the design develops, Solid Edge uses Insight technology to simplify control of design versions and revisions, which helps teams collaborate more effectively by knowing exactly where the latest documents are and that they are using the correct revisions.

#### Design release management

From pre-released to released and throughout any change notices that occur afterwards, Insight manages the design process so that changes can be enacted, checked and approved as swiftly and accurately as possible. For users such as managers who do not have full access to Solid Edge, the Lifecycle Assistant can be used to release Solid Edge parts, assemblies and drawings in a controlled way.

#### Task and workflow management

Insight users can take advantage of the task and workflow capabilities provided by SharePoint to manage everyday tasks and to implement additional workflows to support company-specific processes.

### Offline mode with synchronization on reconnection

Solid Edge Insight allows the designer to add value to managed designs when disconnected from SharePoint. For example, the designer can take data to a customer site, make changes and synchronize the changes with Insight when they return to the office.



# Managed collaboration for internal and external users

Regardless of the size of an operation, collaboration is crucial for any company that wants to remain competitive in today's economy. Design data dissemination from engineering to internal groups (such as purchasing or the shop floor) and to external suppliers is essential for reducing engineering change orders (ECOs).

Solid Edge Insight provides the tools for effective managed collaboration and communication by uniting the web and design data management software. Insight provides tools that enable effective access to information, while managing the data in a secure manner to maintain integrity and accuracy.

### SharePoint web portal for wider access to design data

Solid Edge Insight leverages Microsoft's . NET technology to facilitate a collaboration solution that is powerful yet simple, providing web portal-based viewing of 2D and 3D designs with managed access to associated data.

### Insight Connect for tightly coupled collaboration

Solid Edge extends the power of Insight to users of design data through Insight Connect, Solid Edge's powerful design management client. Included with every copy of Solid Edge and also available as a standalone client, Insight Connect provides powerful design management functionality such as revision management, document lifecycle management and "where-used" searches.

Insight Connect also provides powerful design review capabilities for consumers of design data, making it possible for extended team members to view multiple 2D and 3D file types – from Solid Edge and other sources – and interrogate the design using dynamic sectioning and measurement tools. Comprehensive markup capabilities can then be used to add comments.



"The strength of the Insight solution is that it is fully embedded within the Solid Edge application and provides transparent and seamless design management functionality for Solid Edge users that enables managed collaboration."

Peter A. Bilello Vice President CIMdata Ann Arbor, Michigan "With Insight technology, we can manage the design process more easily and effectively. Engineers learned to manage the product data while designing, which results in increased productivity and higher design quality. In addition, Solid Edge Insight is very easy to implement and manage, saving great time and money for us compared with other PDM systems."

Ruilin Zhang Vice Manager, Technical Department Suzhou Jiangnan Elevator Factory Col, Ltd.

# No barriers to successful implementation

### Low cost

Included as an integral component of Solid Edge, Insight is extraordinarily inexpensive when compared to conventional data management solutions. Companies only need to leverage, standard Microsoft information sharing tools.

### Easy setup and administration

With Solid Edge Insight, companies don't have to spend time and resources defining a database schema or configuring data management functions. An administrator or engineer can quickly and easily establish sites containing document libraries, folders, management tools and property information for use by the design team.

### Simplified user training

Under conventional data management systems, training requirements can significantly increase implementation time and cost. Because Insight transparently integrates design management functions within the Solid Edge user interface, introducing design management capability entails no changes to familiar design workflows, dramatically reducing training costs.

### Synchronized releases

By integrating design and data management functions, Solid Edge enables customers to immediately take advantage of CAD and information management innovations with each new software release. Separate CAD and PDM systems with different release schedules often require companies to delay implementation of new software versions until the systems can be synchronized and integrated.

### Designed for growth

Siemens PLM Software recognizes that manufacturing organizations have diverse and ever-increasing requirements for leveraging design information in automated processes throughout the enterprise. As your needs grow, Solid Edge Insight is fully compatible and scalable with Siemens PLM Software's marketleading Teamcenter<sup>®</sup> system.

### Proven results from an industry leader

First introduced in 2001, Solid Edge Insight was the first CAD data management solution to be made available on Microsoft SharePoint.

Foresight and continued development have established Solid Edge Insight as a clear leader for design data management with thousands of licenses in use. Many customers have documented the benefits of having implemented Insight including improved quality of design data, increased re-use of proven components and improved productivity during new project development and ECO processes.

### **About Siemens PLM Software**

Siemens PLM Software, a business unit of the Siemens Industry Automation Division, is a leading global provider of product lifecycle management (PLM) software and services with 6.7 million licensed seats and more than 69,500 customers worldwide. Headquartered in Plano, Texas, Siemens PLM Software works collaboratively with companies to deliver open solutions that help them turn more ideas into successful products. For more information on Siemens PLM Software products and services, visit www.siemens.com/plm.

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