# Search Powered PLM Delivers Greater Business Value in Less Time

By Bruce Winegarden, May, 2004

Search Powered PLM™ offers a clear technology difference enabling companies to achieve greater business value in record time by using and managing their product data better. Product Sight Lifecycle Environment (PSLE) - Search Powered PLM differs from other Product Lifecycle Management systems by its instant ROI, its ease of installation, and the ability to be immediately productive without business process re-engineering.

Engineering and manufacturing businesses create new information at an exploding rate along with a constantly changing organizational structure. Thus, they need tools that everyone can quickly adopt that let them access their critical data and better manage their processes.

The Internet has proven the effectiveness of search engines, such as Google®, in finding information. Search engines designed for Engineering have additional needs, such as connecting to and understanding the complex relationships of product data and related project and product activities. Businesses also need to securely protect proprietary information even while sharing it – an issue that is becoming more critical with the rapid increase in outsourcing and off-shore manufacturing.

A search powered PLM approach allows companies to significantly accelerate:
*   Design innovation and risk reduction
*   Critical path project activities
*   Connecting geographically dispersed design centers and manufacturing

**Exactly what is search powered PLM?**
It is PLM tightly integrated with an engineering / manufacturing optimized oriented search engine. PSLE[1] FindView's unique software technology performs directed searches[2] throughout the enterprise to locate ALL data and files related to engineering / manufacturing processes. Once located, this data can either be moved to a protected vault or left as is and simple referenced. Everyone using FindView will now be able to see all related product data, whether vaulted or not. The benefits are enormous, particularly when coupled with the ability to manage project, products, and processes. Some include the ability to now be able to research a broader range of design data and related documentation, drive design innovation, improve risk reduction, and by not wasting time searching for product data, project teams find more time to work on critical path activities.

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[1] PSLE stands for Product Sight Lifecycle Environment, the architectural underpinning for Product Sight's PLM offerings.

[2] A directed search is one that is organized by the user to search only in specific directories or vaults for the relevant data. Thus, the discovered data avoids unrelated or extraneous information. Such a search would typically include data in related departments such as marketing, purchasing, QC, and others.

Search Powered PLM automates the discovery process and eliminates the need to manually locate and pre-load a managed database repository. The product data-specific search engine looks for text, notes, attributes, properties, and assembly structures within files, **without relying on pre-defined meta-data** to obtain meaningful search results. Distributed software agents[3] scan relevant files and data, stored on different network drives across multiple locations to deliver fast and up to date search results.

Extending the search using PSLE enables design centers at disparate sites to be securely connected to the product data they need when they need it. Engineering departments benefit by freeing up valuable people from the time they spend looking for and providing drawings and digital-design data that other departments need to get their work done. People in other departments have immediate access to the information, so they get their work done faster.

**Traditional PLM methods are not comprehensive**
Other product lifecycle management systems require loading and tagging of all files and data before you can find and share it. A large amount of relevant product lifecycle data is always outside this database. This costly, time-consuming database loading process never succeeds in capturing all of the information. Even after files have been loaded, people are often disappointed that they cannot find what they need because the data has a new name, was not properly indexed, or they simply cannot use the new system. These are the reasons such systems often fail. Not with search powered PLM!

**Global Availability of Information**
Search powered discovery yields greater business returns because people in every location in your business can get the whole picture in one look. Engineering and manufacturing businesses utilize many different applications across the product lifecycle including 2D Drawing, 3D CAD, Microsoft Office, PDFs, or ERP software. **A single unified search allows anyone to find all of these forms of product data using their web-browser.**

Search powered PLM maintains a connection (reference) to the discovered data. People can immediately share and coordinate many different types of product data from multiple sources. FindView, part of the Product Sight Lifecycle Environment - Search Powered PLM, connects product data to comprehensive Product Lifecycle Management capabilities by instantly creating a worldwide virtual repository.

**Beyond simply finding the data**
While finding the data provides enormous benefits, Search Powered PLM applications extend these benefits by providing the structure to connect both managed and un-managed data to related engineering, manufacturing, sales and service activities.
- Engineering and manufacturing businesses can organize and track product data connected to projects, products, and processes.
- Cross-functional teams can easily share information during a project.
- Different departments can now reference and find their specialized data associated directly to part numbers and product assembly structures.

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[3] Distributed software agents at each site asynchronously perform directed searches, maintain local indexes, and coordinate the index transmittal among the search sites.

- While it is common practice for procurement, tooling, and NC departments to file their work by part number. Formal business processes usually track activities by products or other means.

Product Sight Lifecycle Environment - Search Powered PLM ties these all together.

**Make Revision Management an Advantage, Not an Obstacle**
Search Powered PLM recognizes the value and importance of revision control and configuration management. It just doesn't insist on managing all files and documents or force the same management practices on all the different organizations that participate across the lifecycle. PLM success should not be delayed or prevented by an unnecessary political battle over control of departmental data that needs to be shared and coordinated across the lifecycle. Sales and marketing, or early product innovation activities may have different needs than the strict revision control needed for quality manufacturing.

**A Worldwide Virtual Repository**
Search Powered PLM allows people to manage discovered data as needed with a worldwide virtual repository that coordinates multiple sources of managed and un-managed data. This complements existing product data management and document control systems. It can discover unmanaged and unstructured data files in different directories across a network file system as well as managed data and CAD files in the engineering department's PDM system. This mixture can be organized into project folders, shared with a cross-functional team on the Internet. If desired, selected un-managed files can become managed in an instant with automatic assignment of revision control identity and population of relevant meta-data tags.

**Meaningful Value Proposition**
Search Powered PLM dramatically changes the value proposition for product lifecycle management. Rapid deployment is affordable and achievable. Meaningful business results provide return on investment in a fraction of the time.

Search powered PLM offers strategic advantages that can't otherwise be achieved. Companies gain a competitive edge with superior responsiveness to changing customer and market demands. More innovative new products help capture market share and improve top line results. The inherent flexibility of a search powered approach means companies can cost-effectively adapt to changing business conditions. Companies more rapidly take advantage of the product information that comes with acquisitions and also gain greater flexibility in leveraging capacity at global manufacturing facilities. Improvements in overall productivity and effectiveness contribute more profitability to the bottom line.

**Product Sight Lifecycle Environment (PSLE)** - PSLE FindView unifies web access to all forms of product lifecycle data. PSLE SyncroSpec product lifecycle application modules manage data and workflows for related engineering, manufacturing, sales and service activities. This innovative synergy of FindView and SyncroSpec software offers unique advantages for improving the accuracy and availability of product data across the business lifecycle.

- One look discovers all relevant product lifecycle data across multiple locations
- Connect data from anywhere with product structure, project, and lifecycle process activities

- Manage as needed with a world-wide virtual repository that coordinates multiple sources of managed and un-managed data
- Workflows for approval and dissemination of documents and designs are easily built, maintained, and changed
- The PSLE data driven architecture means it can be easily installed and configured for each company without custom programming
- Sample data driven customizations allow customers to realize immediate benefits, such as engineering change control, design flow management, resolving multi-site manufacturing bills of materials, and many others

PSLE Search Powered PLM exclusive technology allows companies to deploy in days without reformatting or moving data and without changing the way they do business. Proprietary search engine technology automatically discovers digital design data and related documentation. Selected product data easily connects to flexible product lifecycle applications. Data-driven configuring means that no customer programming to satisfy each company's specific business variables.

## About Product Sight

Product Sight delivers **Practical Solutions for the Real World Product Lifecycle** so that engineering and manufacturing companies can immediately start sharing and coordinating up-to-date product data across departments and between global facilities.

Product Sight, the inventor of Search Powered PLM, uses its exclusive technology difference to achieve PLM ROIs in record time. The Product Sight Lifecycle Environment provides the first and only virtual repository for product data that coordinates multiple sources of managed and un-managed information.

Some of the world's largest engineering and manufacturing enterprises have proven the effectiveness of our practical software innovations that let them rapidly leverage their product data in ways never before possible.

## About the author

Bruce Winegarden is President and CEO of Product Sight Corporation. He spent four years creating and evangelizing the Metaphase Solution Delivery Methodology™, a project framework for successful enterprise PDM deployment. Prior to that, he was responsible for software technology planning and strategy as CTO of CAMAX Technologies Inc. Mr. Winegarden began his entrepreneurial career as Co-Founder and Executive Vice President of Point Control Co., where he developed "SmartCAM", a market-leading Computer Aided Manufacturing (CAM) product that was eventually acquired by SDRC.

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