

Right Hemisphere® Technical Publications and Training Solution

Accelerating Knowledge Transfer Leads to Business Process Efficiency

Complex products and subsystems are not complete without a comprehensive solution for the ongoing transfer of knowledge to post-sales support groups, customers, and operations teams that will manage the deployed solution.

In the past, this transfer was accomplished with manuals and instructor-led in-class training. Content developers had to wait for a stable design and early prototypes or risk costly rework of the documents and training materials. Production could not go forward until the publishing cycle was completed, and the quality of the documentation was often compromised to accelerate time to market.

Today's competitive markets demand much more from content developers. The transfer of knowledge greatly affects the success of the product, and high-impact learning materials can set a solution apart from the competition. While digital media and the Internet have introduced compelling 3D formats and publishing options, product cycle times continue to shrink and documentation budgets continue to challenge developers. Globalization has added multiple translation requirements. And all of these challenges do not end at product introduction—documentation and training materials must be updated on a regular basis throughout the product's support life.

The Right Hemisphere Technical Publications and Training solution accelerates cost-effective knowledge transfer through visual product communication and collaboration for:

- Manufacturing teams
- Customers (the end users of the products)
- Service and support teams

Right Hemisphere Technical Publications and Training Solution

Recognizing the need to securely, accurately, and easily transfer product knowledge, Right Hemisphere offers a Technical Publications and Training solution. High-impact 2D technical illustrations and 3D visuals—derived from current design data stored in CAD and PDM systems—can now be automatically published into secure and common document formats such as PDF and Microsoft® Office. The Right Hemisphere solution reduces the time to prepare assembly process sheets, animated operating procedures, illustrated parts breakdowns, and other documentation and training deliverables, making it possible to:

- Reduce development costs through process automation
- Eliminate costly prototypes by working with 3D engineering data
- Improve knowledge transfer and minimize translation costs by replacing more text with high-quality graphics
- Minimize the risk of delayed product launches by starting content development concurrent with design



Compelling technical documentation combines 2D and 3D graphics and text.

"Right Hemisphere software tools provide us with the opportunity to fortify our visual pipeline. They are quickly becoming one of the key components of a new process we are developing which enables us to better support all downstream consumers with up-to-date Chrysler Group product geometry data."

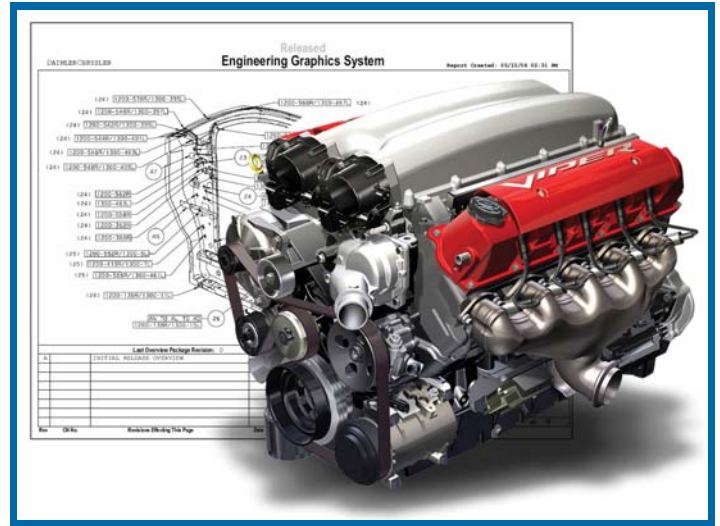
John M. Borrowski,
Manager of Engineering Graphics, Standards, & Information Security, Chrysler

Accelerate Cost-Effective Knowledge Transfer

Transfer of Knowledge to Manufacturing

Providing manufacturing with assembly drawings was traditionally a manually intensive and therefore time-consuming process. Content creators had to locate the engineering source data, and create illustrations and graphics from scratch. The engineering change process introduced additional costs in terms of diagram reworking, and it was necessary to continue these updates throughout the life of the product.

The Right Hemisphere Technical Publications and Training solution leverages existing CAD, PLM systems and IT infrastructure to dramatically shorten the time required to develop assembly drawings. Current engineering design data is automatically transformed into technical illustrations and 3D model views with associated annotations such as Geometric Dimensioning & Tolerancing (GD&T) for assembly instructions and process sheets. Process engineering teams have access to a repository of lightweight 3D graphics, with precise and up-to-date product information, to efficiently create manufacturing documentation and replace labor-intensive manually created assembly drawings. Right Hemisphere customers report that assembly drawings can be created in a few hours instead of several days, and that technical illustrations can be more easily leveraged across multiple documents. Manufacturing documentation is available much earlier in the development cycle, concurrent with engineering design, making it possible to build prototypes, test assembly processes, and achieve process reliability sooner and at a lower cost. Time savings also add up to increased productivity, since content developers can translate saved time into more value-add per drawing.

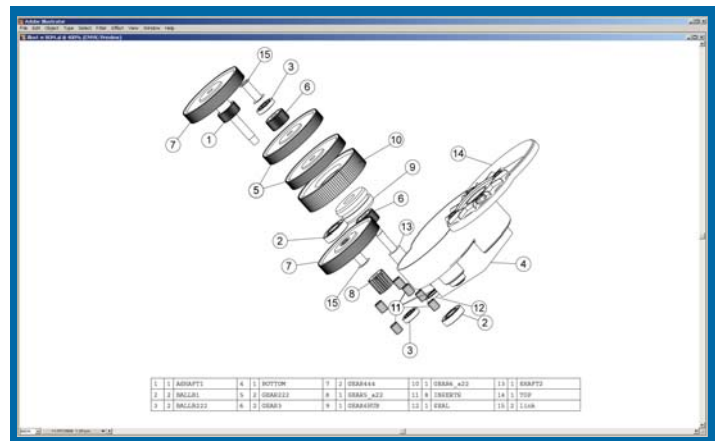


Right Hemisphere customers on average have achieved 70-90% reductions in the time to create product graphics for technical documentation and training.

Transfer of Knowledge to Customers

Increasing product complexity and shrinking budgets are just the beginning of the challenges faced by technical publications groups. Mergers and acquisitions are raising the quantity of documentation required. Retiring workforces are resulting in knowledge loss. And time-to-market pressures are shortening development cycles. Some companies are outsourcing to other countries, but must then maintain quality without having in-house control of the end products.

Today there is a solution that addresses these challenges. The Right Hemisphere Technical Publications and Training solution makes it affordable to include more high-quality visuals in on-line help and technical documentation. By leveraging existing CAD files, content developers gain access to lightweight 3D models that simplify the creation of technical illustrations, photorealistic images, and interactive 3D graphics. Visuals can be shared in a secure and unified repository. The streamlined process for developing on-line and print product documentation shortens time to market and results in a higher-quality product experience for customers. Customers can get more value from the product, strengthening the product branding and market ratings.



Exploded 30-degree isometric line illustration with callouts and Bill of Materials (BOM).

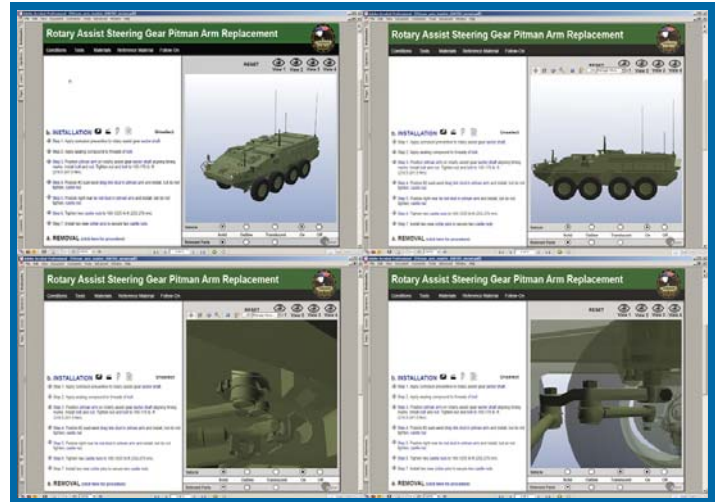
"Besides the time and cost savings for engineering, the benefits to the downstream users are obvious. Instead of creating visuals from scratch, Right Hemisphere software provides repurposed 3D data files and a suite of tools for editing and animating the images. Training modules become much more effective with the inclusion of interactive, moving illustrations of each assembly and component in action."

Paul Robinson,
Manager of Blackhawk Training, Sikorsky Aircraft Corporation

Transfer of Knowledge to Service and Support Teams

Manufacturers increasingly view service and support as revenue-generating opportunities and key competitive differentiators. Whether enabling the delivery of contracted services from the manufacturer or providing customers with the ability to support themselves, technical publications groups must deliver comprehensive knowledge-transfer solutions for service teams. Service and support documentation can also effectively control warranty costs by providing thorough and easily understood operation and maintenance guidelines. For sophisticated systems and solutions, the documentation requirements also extend to integrated diagnostics and prognostics. While meeting all of these requirements, the technical publications teams' service and support solutions must also keep up with and adhere to emerging standards such as S1000D and SCORM.

The Right Hemisphere Technical Publications and Training solution allows content developers to increase the level of visual detail while reducing the cost of development for technical documentation. Service and support materials can include cost-effective interactive, animated 3D visuals, providing clarity that translates into decreased service and repair times, increased product up times, and increased overall customer satisfaction. Standard-based (e.g. S1000D) technical illustrations can be efficiently created and revised by leveraging current CAD data and rule-based automated workflows. A graphics library enables reuse of 2D and 3D visuals across multiple documents and online resources. Engineering change orders and service bulletins can be automatically published to secure knowledge-base repositories, allowing service teams to always access precise and up-to-date service and maintenance procedures.



Using Right Hemisphere, you can easily generate and publish 3D graphics directly into Adobe Acrobat PDF to create clear maintenance and repair instructions in IETM form. Example is courtesy of EDS.

The Classrooms of the Future

Globally dispersed teams and international markets make it impractical to limit training to traditional in-class methods. Today's diverse and multi-level skilled workforce puts more importance on training that can be rapidly delivered, any time, any place. Product complexity is also driving demands for new more flexible training solutions. It is no longer practical to fully prepare service and support teams for every situation that might be encountered in the field. Instead, training materials must be split into up-front basic training, and complementary on-going distribution of on-site, in-the-moment training or tutorial resources.

The Right Hemisphere Technical Publications and Training solution allows manufacturers to deliver more training with fewer resources. Content developers can rapidly create, revise, and reuse interactive 3D visuals, shortening the time required to create training materials. The lightweight visualizations—even with interactivity and animations—are easily published in 3D Adobe PDF documents, Microsoft Office documents, or 3D simulation and visualization formats. Training materials can be distributed on-demand over today's networks, and can be the basis for interactive real-time help systems accessible by in-field repair and service teams. By enabling affordable, more visual content, the Right Hemisphere Technical Publications and Training solution lowers the cost of training and accelerates performance gains of service and support teams.



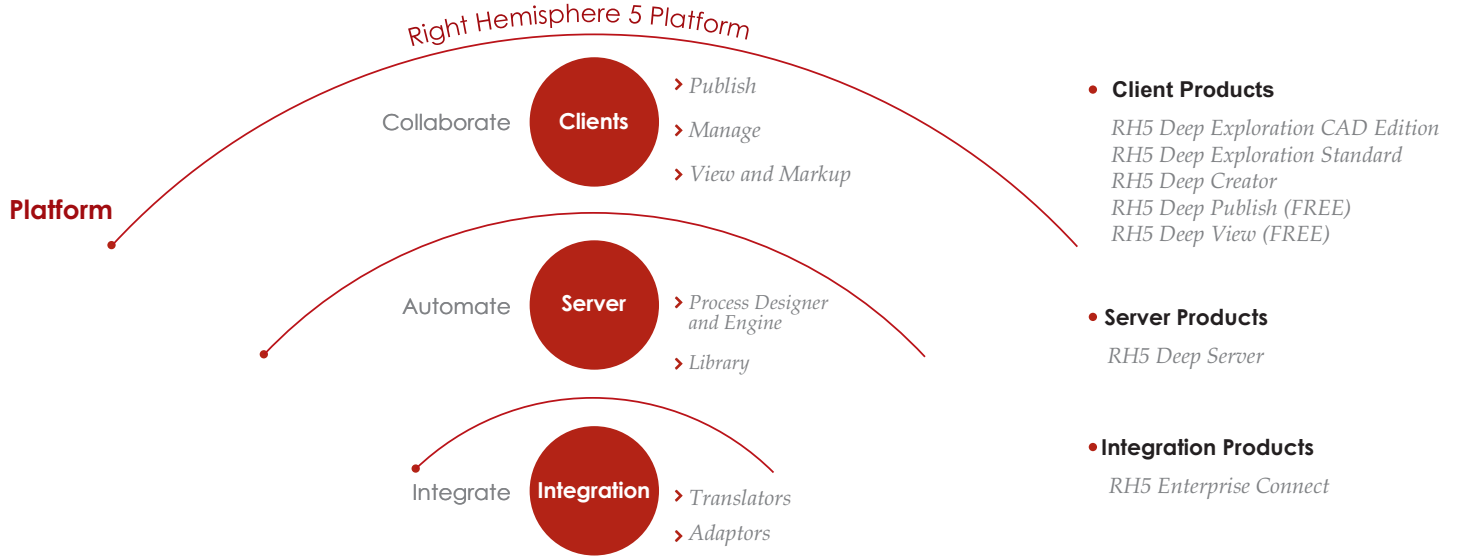
Distribute on-demand electronic training material for interactive real-time help systems, accessible by in-field repair and service teams.

Major Global Automaker Streamlines Technical Documentation Processes

- The Challenge:** Reduce costs, improve quality, and accelerate delivery of 2D technical illustrations for manufacturing assembly instructions, aftermarket catalogs, and service manuals.
- The Solution:** Right Hemisphere's Technical Publication and Training Solution enables an efficient visual pipeline for creating technical illustrations for assembly process sheets and photorealistic images for marketing. CAD files are automatically transformed into optimized 3D models and a centralized graphics library encourages reuse of models and artwork.
- The Result:**
 - Engine and parts transformation reduced from several days to under a few hours
 - Enabled reuse of graphic content across multiple publications
 - Reduced illustrators 'non-value add' time preparing engineering data for technical illustrations resulting in increased productivity.

RH5 Platform for Visual Product Communication and Collaboration

The Right Hemisphere 5 platform is a fully integrated set of products with services that leverages the investments you have made in other enterprise applications such as CAD, PLM and ERP to optimize product communication and collaboration across the extended enterprise.



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Integrate

Integrate existing 3D CAD data with associated metadata such as BOMs and assembly part attributes together with pre-defined document templates using CAD translators, PLM/ERP adaptors, and Deep Server Connect.

Automate

Deep Server, our flagship product, then automates the creation of reusable lightweight 2D and 3D product graphics that conform with industry standards such as S1000D and ASME 14.41, and publishes secure 3D documents in common industry standard document formats such as Adobe PDF and Microsoft Office PowerPoint, Word, and Excel files that can be integrated into business-specific workflows.

Collaborate

Right Hemisphere also provides authoring tools and publishing modules to add additional animation, photorealistic imagery, and interaction to published documents. These collaborative design documents are then immediately available as product designs or other pertinent documents to communicate and collaborate with customers, suppliers, and other key stakeholders.

About Right Hemisphere

Right Hemisphere is the leading provider of enterprise product communication and collaboration solutions enabling manufacturers to optimize their global product development launch and support processes.

Organizations have invested in operational processes and IT systems to improve product lifecycle efficiencies, yet delivery of precise and up-to-date product information to the extended enterprise in a timely, efficient and usable form is difficult today.

Right Hemisphere maximizes knowledge transfer efficiency of product information to downstream stakeholders by automatically publishing product information readily available in CAD, PLM, and ERP systems into common document formats and business applications.

Learn more about Right Hemisphere at www.righthemisphere.com