



The Paperless 3D
Solution for the
Shop Floor



DELMIA V5

DPMSHOP[™]

The Paperless 3D
Solution for the
Shop Floor

DELMIA DPM Shop offers a graphical, touch-screen capable Product, Process, and Resource (PPR) Information viewer that provides real-time engineering, process, product, resource, and assembly data as well as work instructions to the shop floor worker.

3D for the Shop Floor

- Bring 3D based paperless work instructions, engineering data, and simulations to the shop floor
- Reduce the need for paper based documentation
- Easy-to-use, user controlled interface
- Seamless integration and interoperability with existing MES systems
- A touch screen compatible GUI
- Minimize errors caused by ambiguity in paper-based instructions
- Increase your level of conformance with federal regulations

Real-Time Support for Shop Floor Workers

DPM Shop is much more than a viewer. It is an interactive 3D product and process information resource tool to enhance your workers performance. DPM Shop uses visually intuitive,

graphically intensive, easy-to-use engineering product and manufacturing process data and delivers work instructions directly to the shop floor to replace expensive, error-prone, and hard-to-manage paper-based systems. Designed to be versatile, adaptable, and scalable to fit a broad range of production environments, DPM Shop gives workers a simple, mouse-driven or touchscreen compatible interface to perform their work.

DPM Shop can be integrated with third party tools, such as MES systems or ERP, to access legacy data using standard interfaces, and can fully access data available within the DELMIA Manufacturing Hub. DPM Shop data is always current and reflects the latest engineering and process changes.

Data Your Workers Need, When and How They Want It

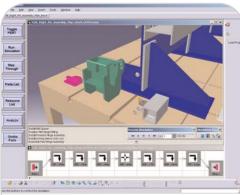
DPM Shop fills the need for comprehensive access to manufacturing process planning and engineering product information by shop floor workers. All of the available information

is delivered as requested, and in the manner requested by the worker. DPM Shop's ability to consolidate all legacy

to consolidate all legacy system data gives shop-floor users on-demand access to information that is routinely omitted from paper-based work instructions — information that is usually lost due to time, cost, and space. DPM Shop saves this valuable data to help improve process

instructions — information to workers the workplace.

In addition, manufacturers can enhance their workers view of their JOB by providing 3D,

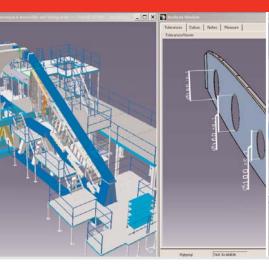


Portability: With the use of laptops and PC tablets, DPM Shop can deliver timely, comprehensive job information to workers virtually anywhere in the workplace.

In addition, manufacturers can enhance their workers view of their JOB by providing 3D, interactive process and product information. The user can have a 3D view of the work instructions as they are executed. Besides viewing the 3D work instructions, the user can view the actual engineering data if desired.

Process Detailing & Validation









Close and prepare surfaces at WS 60 , parts (RbS_1, R1_R7_front_Spar_1, R3_R7_frow_Spar_1)
coate and alon part (RbS_1), RB by assembly go and secure in place

ch drif (2) holes, (1,125+,006-,000) diameter, in part (R3,R7, Resr_Spar_L) using pilot holes in part (R85_L core burns, chas and sharp edges for (2) holes on parts: (R85_L, R3,R7, Resr_Spar_L)

Powerful 3D Work Instructions for the Shop Floor

DPM Shop gives the worker access to valuable engineering data and delivers it in a highly intuitive, graphically intensive 3D format at a rate controlled by the user. The user can zoom in, rotate parts to view them from different angles, check attributes such as material, density, and tolerances, and even make measurements and query the size and location of features.

DPM Shop provides a split screen showing the user-requested process and product at the same time through a simple, user-controlled interface that always delivers the most up-to-date information available. The result is a significant advance toward the goal of a paperless shop producing high-quality error-free work.

More than a Document Viewer

DPM Shop is not merely an EBOM or an MBOM viewer. The 3D information matches the engineering information for the product in the context of the manufacturing plan or Process Plan. The software fully embeds all engineering manufacturing information into 3D data and delivers it to the shop floor. Thus the worker has a potential wealth of embedded knowledge and expertise available at their fingertips that can be leveraged to perform high-quality, error-free work on the shop floor. Work instructions can even include animations, AVI's, and DELMIA recordings simulations,

all of which are easily added to meet shop floor requirements.

Designed to Work With Your System

DPM Shop uses standard interfaces to allow datasharing and integration with third party tools including MES and ERP systems. Factory workers can use MES commands within the DPM Shop environment to open, close, and switch between jobs in the MES system. Manufacturers do not need to re-invent their MES system to realize the benefits of DPM Shop.

Making Your Workers More Productive

An investment in engineering, process planning, and product information is completely leverage only when the data is properly used on the shop floor. DPM Shop delivers product and process data from the DELMIA Manufacturing Hub, directly to the shop floor, allowing factory workers, engineers, and process planners to all work in perfect synchronization. Workers can access specific engineering product data and work instructions on the screen at the same time and have access to as much data as they need to effectively complete their part of the process. This will minimize the amount of guesswork and number of errors caused by ambiguous instructions or product data, thus ensuring the highest level of productivity on the shop floor

The DPM Shop Advantage

- Deliver accurate work instructions based on actual model data
- Reuse planning data to improve quality during manufacturing
- View and interact with 3D simulations.
- View 3D work instructions in conjunction with simulations.
- View reference data through hyperlinks
- Integrates with existing MES systems

DPMSHOP"



DPM Shop & the Manufacturing Hub

DELMIA's entire solution portfolio work on top a unique data model called the Manufacturing Hub, which allow manufacturers to store, manage and reuse all product, process, and resource information required throughout the product lifecycle.

The Manufacturing Hub is part of a collaborative, PPR data system that supports Dassault Systemes' Product Lifecycle Management solution. This PPR data system ensures the seamless integration between CATIA, ENOVIA, SMARTEAM and DELMIA. CATIA provides the product design solution; DELMIA provides the manufacturing engineering solution; and ENOVIA & SMARTEAM provide the lifecycle applications and decision support tools.

With DELMIA digital manufacturing solutions, companies have the power to capture, manage and share their best practices and ensure everyone has access to the right information, at the right time.

The DELMIA Digital Manufacturing Solution

DELMIA's portfolio of digital manufacturing solutions are categorized in three distinct domain suites, based on how the impact the flow of the manufacturing process. Each domain employs a set of tools that steps through the entire manufacturing process from concept to implementation.



Process Planning

Provides a comprehensive process and resource planning support environment. The resulting process diagrams can provide a clear overview of the sequences and links between processes and resources early in product design conception.

- Layout Planning
- Time Measurement
- Process & Resource Planning
- Product Evaluation
- Cost Analysis
- · Line Balancing



Process Detailing & Validation

Employs the structure and diagrams of the Process Planning solutions into the application specific disciplines of manufacturing. Verify process methodologies with actual product geometry and define processes to a greater level of detail within a 3D environment.

- Manufacturing and Maintenance
- Assembly Sequences
- Factory/Cell Layouts
- Machining Operations
- Workforce Performance and Interactivity
- Shop Floor Instructions



Resource Modeling &

Provides a comprehensive process and resource planning support environment. The resulting process diagrams can provide a clear overview of the sequences and links between processes and resources early in product design conception.

- Factory Flow Simulations
- Robotic Workcell Setup and OLP
- NC Machining
- Virtual Reality Scenarios
- Ergonomic Analysis
- Inspection



DELMIA CORP

900 N. SQUIRREL RD., SUITE 100 AUBURN HILLS, MI 48326 TEL: 248 267 9696 FAX: 248 267 8585