

DELMIA

DIGITAL MANUFACTURING for Heavy Mobile Equipment

Plan and validate assembly processes and work instructions using 3D

Digital Manufacturing dramatically improves current methods for assembly line planning and shop floor work instruction communication in the Heavy Mobile Equipment industry. DELMIA's Final Assembly and 3D Work Instruction solutions work together to enable manufacturers to have a more comprehensive view of assembly processes and instructions.

DELMIA's end-to-end offering addresses multiple phases of planning; from concept to execution. Many users with different roles collaborate, share and enrich the product, process and resource information. Process planners capture, standardize and reuse proven production practices and business know-how to systematically develop and evaluate planning alternatives. Planners can study "what-if" scenarios to identify assembly errors early, improve resource utilization and throughput, gain the ability to process greater volume or assemble new equipment and configurations within an existing line instead of building new facilities.

By reusing process planning data, 3D work instructions are created, guaranteeing up-to-date, accurate instructions for shop floor workers.

Challenges

- Improve planning quality with less changes and errors
- Flexible and better balanced assembly line with the ability to produce multiple models and configurations of equipment
- Keeping up with seasonal market demands
- Better utilization of existing assets for faster production ramp-up, with higher efficiency and productivity of equipment and resources
- Reuse of common work instructions across different configurations



Solution

- **Gain Manufacturing Agility** - Digital Manufacturing enables manufacturers to perform assembly studies and virtual 3D validation of the sequence of operations.
- **Improve Operational Efficiency** - Using Digital Manufacturing capabilities, adjust production to meet different TAKT times and product mix changes related to seasonal demands.
- **Efficient Communication** - Reuse and validation of instructions means that shop floor workers deal with reduced plan variability. Workers are notified about changes and updates to maintain the most current view.

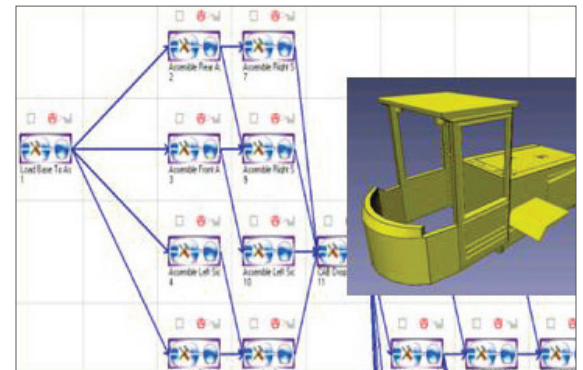
CIMdata's independent analyses of DELMIA customers show that production costs can be systematically cut by up to 15%.

Key Features

- Define assembly operations and process flows / graphs
- Optimize the sequence of operations; identify interferences and collisions
- Define number of stations and workers with respect to a specified TAKT time
- Check sequence of tasks and run "what-if" scenarios
- 3D simulation with instructions for assembly



Achieve a more flexible and balanced assembly line with the ability to produce multiple models and configuration of equipment.



React to assembly line issues at a time when cost of change is low.

For more information, visit our website at plmv5.com/delmiaheavymobile

About Dassault Systèmes

As a world leader in 3D and Product Lifecycle Management (PLM) solutions, Dassault Systèmes brings value to more than 115,000 customers in 80 countries. A pioneer in the 3D software market since 1981, Dassault Systèmes applications provide a 3D vision of the entire lifecycle of products from conception to maintenance to recycling. The Dassault Systèmes portfolio consists of SolidWorks for 3D mechanical design - CATIA for designing the virtual product - SIMULIA for virtual testing - DELMIA for virtual production - ENOVIA for global collaborative lifecycle management, and 3DVIA for online 3D lifelike experiences.

For more information, visit 3ds.com

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