![3DS DELMIA logo]

3DEXPERIENCE®

FACTORY SIMULATION ENGINEER

3DEXPERIENCE MANUFACTURING & PRODUCTION ROLE

DEFINE FACTORY LAYOUTS AND VALIDATE THE BEHAVIOR OF A STATION, LINE OR A COMPLETE PLANT

DELMIA *Factory Simulation Engineer* empowers Industrial Engineers to design optimal factory layouts. They can design, simulate and analyze multiple production scenarios, all within a realistic 3D environment. It's possible to define and validate the behavior of a station, a line or a complete plant and to see systems in 3D during their design. The performance of a production system can be assessed and fine-tuned, with bottlenecks identified early in the planning process. Feasibility and performance studies are done well in advance, preventing costly production setup problems. With clever resource positioning and well-designed material flows in place, optimal production rates and valuable cost savings are achievable.

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BENEFITS

Assess capacity to produce new or evolved products

In making decisions on new or evolved products, it's crucial to see what's possible in the current production scenario and to determine any new requirements. Early detection of design issues is key to manufacturing right the first time. With *Factory Simulation Engineer*, it's possible to design and validate shop floor layouts in a realistic 3D environment. These results can be shared with other stakeholders to support feasibility studies, or to enrich and validate process plans.

Minimize production cost and risk

This solution helps to prevent production issues like collisions or underutilization. It offers interactive what-if scenarios to identify bottlenecks and find optimal solutions. The impact of machine failures can be simulated, and sophisticated tools are available to fine-tune processes. With multiple attributes and variables at their fingertips, Engineers can tweak systems to find an effective flow. This capacity for collaborative plant design and early discovery of layout problems saves time, resources and costs.

Optimize processes and shorten the production cycle

Multi-cycle simulations and dashboards let users analyze global behavior and detect issues in a station, a line or a factory. Point clouds of existing facilities can be imported. Robot and machine programs, or human tasks are natively integrated into the solution and can be simulated. It's even possible to fine-tune the behavior of each resource or worker (e.g. adjust worker movement to product weight, or conveyor speed to robot timings). With 3D production environment layout models properly validated, faster production cycles are achievable.

HIGHLIGHTS

This solution enables rapid equipment feasibility and performance studies. Engineers can easily evaluate production rates and resource utilization via KPI monitoring, analysis and reporting.

- Material and resource flow design in 3D - with or without planning data
- Early recognition and elimination of trouble spots and bottlenecks
- Share process flow analysis results via the **3D**EXPERIENCE® platform
- Ease of user community adoption
- Modeling and simulation at multiple levels of detail
- Advanced Automated Guided Vehicle (AGV) traffic management
- Speedy process evaluation
- Optimize resource allocation with Calendar Shift Management
- Complex Traffic and Battery Management
- Define multiple scenarios to run in batch mode
- What-if analysis
- Import Point Cloud data
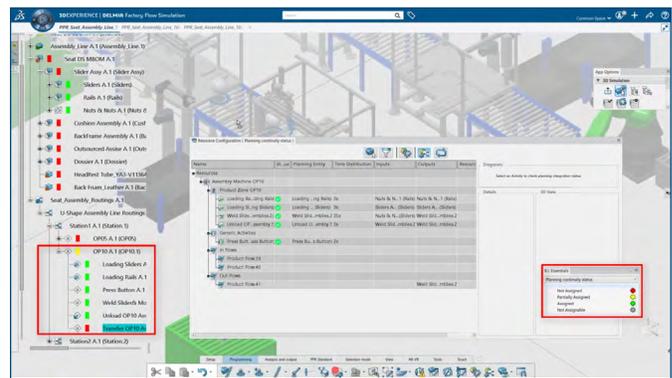
Define, simulate and analyze multiple production scenarios, in a realistic 3D environment

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Our **3D**EXPERIENCE® platform powers our brand applications, serving 11 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the **3D**EXPERIENCE Company, is a catalyst for human progress. We provide business and people with collaborative virtual environments to imagine sustainable innovations. By creating 'virtual experience twins' of the real world with our **3D**EXPERIENCE platform and applications, our customers push the boundaries of innovation, learning and production.

Dassault Systèmes' 20,000 employees are bringing value to more than 270,000 customers of all sizes, in all industries, in more than 140 countries. For more information, visit **www.3ds.com**.

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