

COMPOSITES PLANNING for Aerospace Manufacturers

Minimize composites manufacturing **planning time** with sustained accuracy

DELMIA's Composites Planning solution delivers comprehensive process planning and documentation capabilities to automate these processes and improve speed and accuracy.

Currently, composites process plans are typically created by time consuming manual entry and re-entry. This can lead to errors that will end up on the process documentation, resulting in product defects.

Implementing the DELMIA solution can greatly reduce planning time and deliver validated documentation, minimizing the risk of errors on the shop floor. Users have the ability to define rules and automatically generate process plans based on engineering ply details. Process definitions can be re-used following any design changes on the ply data. Users can also benefit from the solution's integrated documentation authoring capability.

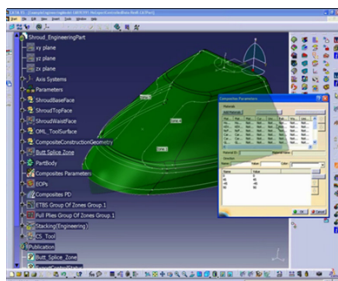
With validated process plans and documentation, aerospace manufacturers can increase planning efficiency and the accuracy of their composites strategy. Costly errors can be eliminated by automating updates and re-using as-designed engineering data.

Challenges

- Defining the entire composites fabrication plan faster and more accurately
- Accurate communication of as-designed parts in the as-planned process
- Out-of-sequence processes and documentation typos
- Process updates communicated to shop floor
- Validated documentation updates
- Improving worker accuracy and comprehension for process plan execution

Solution

- **Share and Retain Knowledge** by re-using authority design data to deliver manufacturing ply sequence data. Define the entire composites fabrication plan, faster and more accurately, by automating the re-use of design data.
- **Maintain Composites Manufacturing Process Control** by automatically generating shop floor documentation. Eliminate composites fabrication rework caused by simple documentation typos and extended delays from data updates.
- **Ensure Shop Floor Accuracy** by leveraging a model-based central repository for authoring and maintaining certified manufacturing processes. Ensure regulatory compliance by maintaining a single, comprehensive composites plan per part and delivering the complete package for shop floor use.

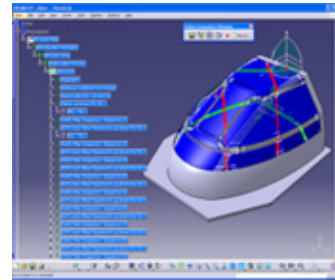


Author shop floor execution details directly within model-based planning, where instructions are associated with the 3D part model details.

Reduce planning time by up to 90% with automated process planning and documentation generation.

Key Features

- Integration between product, process and resource enables concurrent engineering among respective departments
- Enables easy updates to process documentation following any product or process change
- User defined planning rules and knowledge re-use
- Author, maintain, and deliver comprehensive model-based composites documentation per operation, leveraging model-based design and planning
- Validate part updates in context of the overall plan in association with the composites design and resource requirements
- Re-use the existing planning environment for off-line programming tools



Automatically generate rules-based process plans directly from the composites model-based design.

For more information visit www.3ds.com/delmia

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