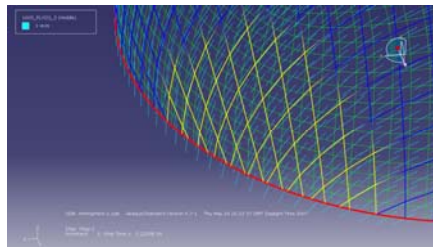


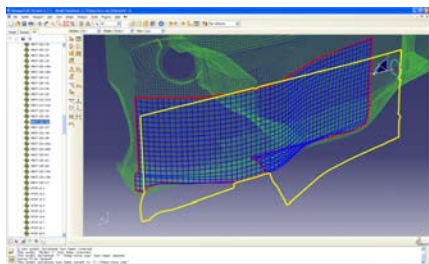
Composites Modeler

State-of-the-art fiber simulation and model building, directly integrated with the Layup Pipeline for Abaqus/CAE

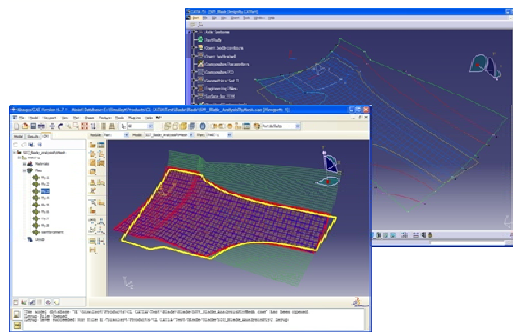
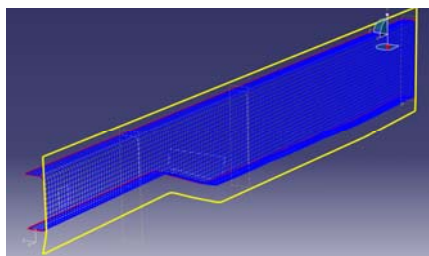
Composites Modeler for Abaqus/CAE from **Simulayt** complements and extends the powerful ply modeling features in Abaqus/CAE by providing proven fiber simulation capabilities and advanced model building — all seamlessly integrated within Abaqus/CAE. Furthermore, direct integration with Simulayt's Layup Pipeline allows direct linkage with Design and Manufacture functions across the enterprise.



Now, continuously-varying fiber orientations and ply thicknesses can be fed directly to nonlinear implicit and explicit solvers for detailed analysis. The resultant orientation of plies on each element reflects the simulated and actual fiber architecture faithfully. This ensures simulations of unprecedented fidelity.



The fiber simulation ensures that unmanufacturable plies cannot be specified, right at the beginning of the process. This avoids costly re-engineering late in the development cycle. Manufacturing data is generated to ensure that final part matches the analysis model.



Finally, direct access to Simulayt's Layup Pipeline allows seamless integration of analysis, design and manufacturing of composites structures. For example, a model developed in Abaqus/CAE can be transferred seamlessly to CATIA V5 for detailing if this is needed. By transferring the model unambiguously, design iterations can be made quickly to improve the efficiency of the entire development process.

CAPABILITIES

State-of-the-art fiber simulation from Simulayt, proven since 1992.

Directly transfers accurate fiber angles and ply thicknesses to Abaqus simulations for unprecedented accuracy.

Allows rapid review and modification of the composites model for rapid design improvement.

Generates manufacturing data to ensure that the analysed model matches the final structure.

Direct integration with the Layup Pipeline for seamless communication across the enterprise.

BENEFITS

Prevents specification of plies and structures that cannot be manufactured, avoiding costly mistakes.

Improves model fidelity and reduces setup time to allow rapid design improvement.

Allows seamless analysis, design and manufacture integration across the enterprise to promote development efficiency.

PREREQUISITES

Abaqus/CAE 6.7 or later



SIMULIA is an authorized reseller of Composites Modeler for Abaqus/CAE.

To learn how Composites Modeler for Abaqus/CAE can add value to your composite design processes, contact your local SIMULIA office.

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