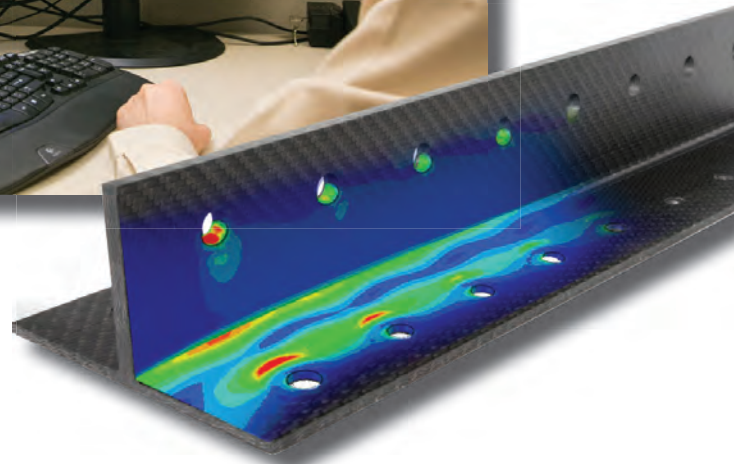
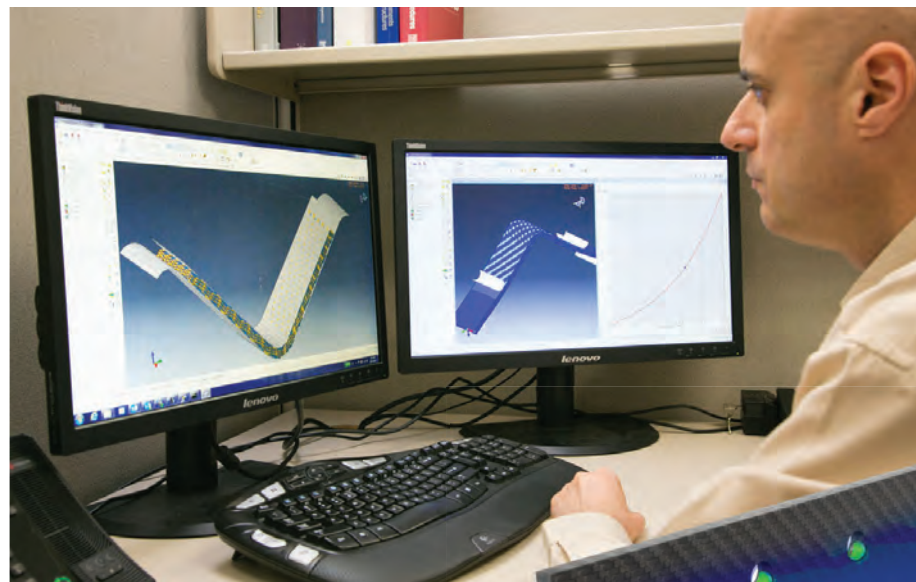


Simulation & Analysis of 3D Composites

What does AEC do? Develop simulation and analysis tools to support the design, fabrication, and certification of our 3D composites.





forming simulation of 3D composite corner element

AEC's proprietary design and simulation tools:

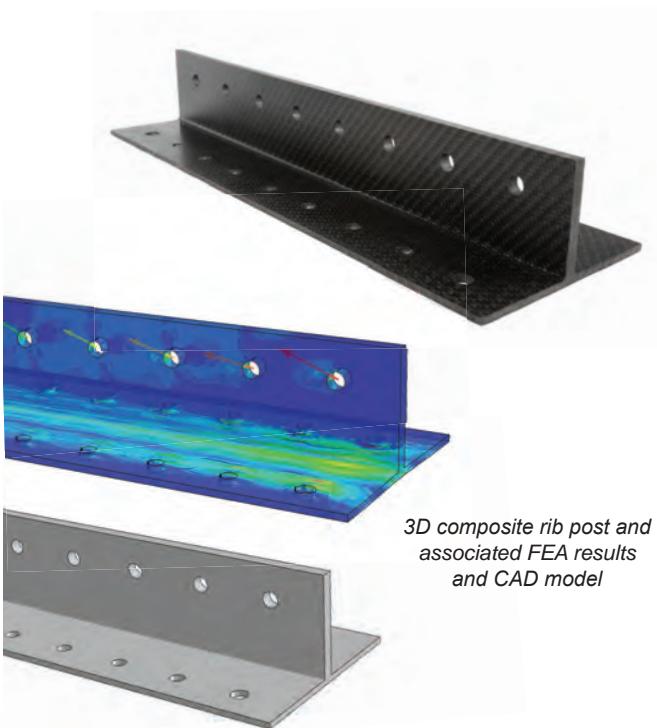
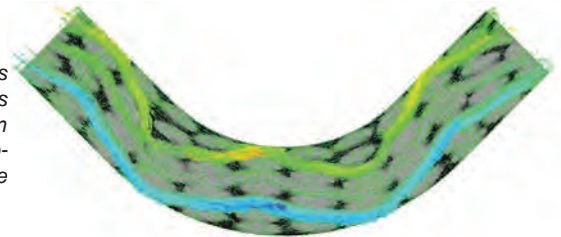
- Allow us to predict realistic fiber paths, which are critical for accurate prediction of effective properties and simulation of 3D composite part performance
- Accelerate our part design cycle time
- Allow AEC to map material properties that capture part fabrication and construction influence on part performance onto customers FEA meshes
- Help guide process development efforts at AEC
- Can help support certification of 3D composite parts

fiber locations from forming simulation



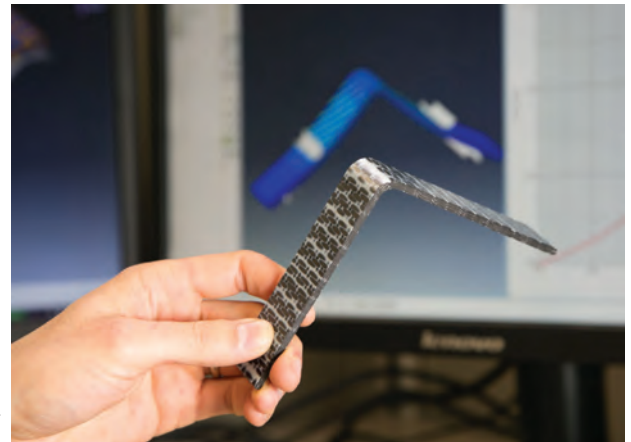
μCT scan of corner element as-formed

FEA results showing stress distribution in the micro-structure



3D composite rib post and associated FEA results and CAD model

3D composite corner element



About Albany Engineered Composites (AEC)

AEC designs, develops, and manufactures advanced composite components. Our core strength is the ability to produce highly tailored components – including 3D, integrated, and complex 2D composite structures. We have specialized research and technology facilities for new technology development and prototype demonstration, as well as integrated product development, continuous improvement, operational excellence, and AS9100C and ISO 9001:2008 manufacturing capabilities to support cost-effective production efforts.



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