

Proven in Production

FiberSIM is proven in production at more than 80 companies worldwide, including manufacturers of helicopters, fighter planes, commercial transports, and formula one race cars. Join these companies in achieving revolutionary improvements to your composite engineering process.

- FiberSIM reduced hand lay-up time and manufacturing engineering time by 50% on Boeing X-32 Joint Strike Fighter
- Enabled design optimization and achieved a 4 to 1 reduction in the time to produce complex composite parts on the Bombardier Aerospace CRJ Series 700 Jet
- Lockheed Martin cut time to prototype Joint Strike Fighter component by 53% using FiberSIM software

The highlights of the software include:

- Feature-based Design
- Automated Laminate Creation
- Producibility Assessment
- Flat Pattern Generation
- Laminate Surface Generation
- Configurable Materials Database
- Open Architecture (API)



Bombardier Aerospace cut engineering design time in half and eliminated part rework due to ply geometry issues



Sikorsky Aircraft cut development time by 27% and reduced change orders by over 90%



Raytheon Aircraft used FiberSIM to reduce shop floor changes by 5 to 1 on first Premier I Business Jet

Service and Support

The goal of the VISTAGY Product Support & Services organization is to help customers resolve any issues or questions regarding the successful use of VISTAGY products. We do this by providing a wide range of consulting, training and support services to our customers throughout the world. Our staff is highly experienced in both composite design and CAD software. We maintain close partnerships with a variety of equipment, computer, and CAD suppliers, as well as composite research and academic institutions.



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The World's Leading Software for Composites

FiberSIM™

*Composites —
the Promise
the Challenge
the Solution*

Today's advanced continuous fiber composite materials offer dramatic opportunities for producing lightweight laminates with tremendous performance capabilities. However, the high cost and complexity of designing and manufacturing composites have largely offset the benefits of using these materials.

The FiberSIM™ suite of software tools is the key to unlocking the incredible potential of composites for aerospace, automotive, marine, and consumer product applications.



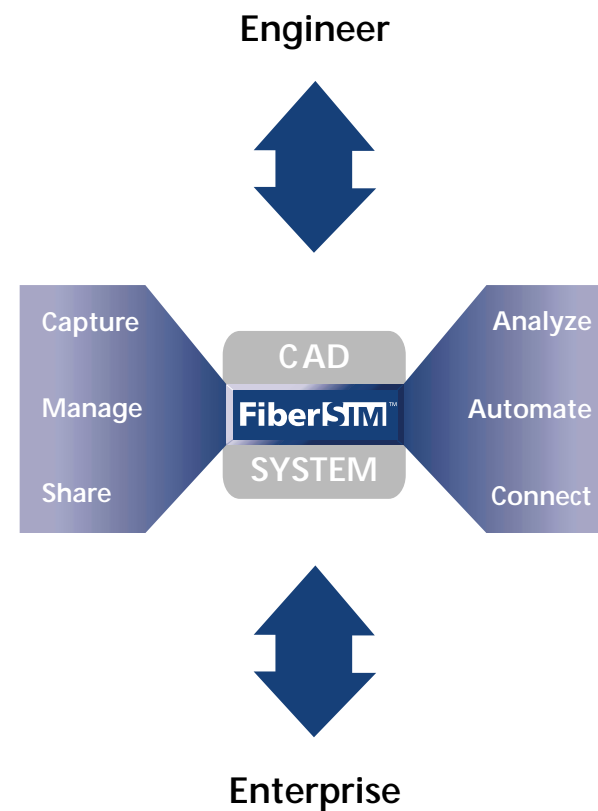
The Solution

VISTAGY has created the FiberSIM suite of software tools to transform your current CAD system into a high-performance tool for designing and manufacturing composite parts.

FiberSIM provides you with the specialized engineering environment you need to master the complexity of composite materials and structures. With FiberSIM, you will **CAPTURE** the complete definition of your composite part in the CAD system, **MANAGE** your composite data, and **SHARE** the result with the rest of the enterprise.

Engineers at leading aerospace and automotive companies have used FiberSIM in production to generate better designs faster by using its specialized tools to overcome the challenges of working with advanced materials.

FiberSIM Empowered Engineering Environment for Composites



The FiberSIM suite of tools has been specifically designed to achieve:

- shorter design to manufacturing cycles,
- early identification and easy resolution of design and manufacturing problems,
- a seamless link from the 3D CAD model to the manufacturing floor,
- the ability to design with composite features in the CAD system,
- open communication with external applications,
- high productivity through tight integration with the CAD system and the use of familiar menus and commands.

Integrate Your Entire Composite Engineering Process

FiberSIM supports the entire composite engineering process by using a unique material simulation technology that predicts how composite materials conform to complex surfaces. FiberSIM enables engineers to concurrently balance part geometry, material and structural requirements, and process constraints. With FiberSIM, engineers can quickly visualize ply shapes and fiber orientations, identify manufacturing problems and take corrective action during the design phase. Finally, FiberSIM helps designers to easily create and transition accurate designs, drawings, and related data from preliminary design, through detailed design, and ultimately onto the manufacturing floor.

PART CONCEPTION

- Composite Features: Laminate, Ply, Core, Rosette, Zone, Design Station
- Configurable Materials and Process Database
- Automated Zone-to-Ply



PRELIMINARY DESIGN

- Core Sample
- Producibility Assessment
- Ply Weight, Area, and Center of Gravity



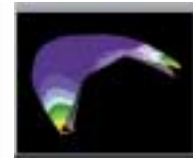
DETAILED DESIGN

- Ply Darting and Splicing
- Automatic Drop-off and Stagger
- Flat Pattern Generation
- Offset Surface and Solid Generation



ANALYSIS AND CERTIFICATION

- Laminate Verification and Rating
- Finite Element Analysis Interface
- Resin Flow Modeling Interface



ENGINEERING DOCUMENTATION

- Cross-Sections
- Ply Labels
- Material and Ply Tables
- Part Thickness Callouts



MANUFACTURING ENGINEERING

- Ply Lay-up Diagrams
- Flat Pattern Export to Nesting Systems
- Laser Projection Data
- Fiber and Tow Placement Interface



FiberSIM is a suite of software tools integrated into popular CAD systems that reduces the cost and time required to design and manufacture composite parts. FiberSIM consists of a core **COMPOSITE ENGINEERING ENVIRONMENT (CEE)** and optional modules that address specific composite design and manufacturing needs. The software can easily be configured for current needs and extended to meet any future requirements.

FiberSIM provides enhanced communication with the enterprise through its open and customizable XML communication layer. This allows exchange of composites part data across the enterprise between FiberSIM, engineering, manufacturing and business applications.