

NEWS RELEASE

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VABS 4.0 Improves Simulation of Composite Helicopter, Air Mobility Blades and Other Slender Structures

New Capabilities for Calculating Strength and Safety of Cross Sections under Given Loads

West Lafayette, Indiana (USA) - [AnalySwift LLC](#), a provider of efficient high-fidelity modeling software for composites and other advanced materials, announced today the official release of the newest version of its popular blade modeling software, VABS.

Originally developed to address the challenge of quickly and accurately modeling complex helicopter rotor blades, the VABS software rapidly found applications helping engineers in a wide variety of industries. Also used today for wind turbines, urban air mobility, landing gear, industrial tubes, and golf clubs, VABS provides engineers an even better understanding of the products they are designing or analyzing.

"We are excited for the new doors this opens for both current and new users," said Allan Wood, president & CEO, AnalySwift. "VABS continues to deliver on its ability help blade engineers arrive at the best solution more quickly for helicopters, urban air mobility, wind turbines, and more."

"Perhaps the most significant improvement of VABS 4.0 from previous versions is that users can now use VABS to evaluate the strength and safety of a cross section under given loads," said Dr. Wenbin Ye, CTO AnalySwift.

The tool can now perform the following capabilities, in addition to existing ones critical to modeling slender shapes made from composites:

New Capabilities of VABS 4.0

- Compute pointwise distributions of failure indexes and strength ratios over the cross section under given load.
- Compute the safety margin of the cross section under a given load.
- Output the nodal strain/stress values according to the original numbering of the finite element nodes.
- Output the complete set of engineering properties commonly used in conventional beam analysis including extension stiffness (EA), torsional stiffness (GJ), principal bending stiffnesses (EI22, EI33), principal shear stiffnesses (GA22, GA33), tension center, shear center, principal inertia axis, principal bending axis, and principal shear