



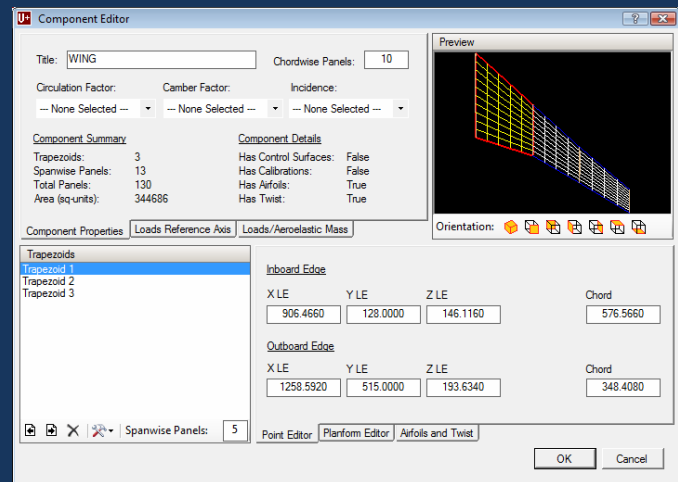
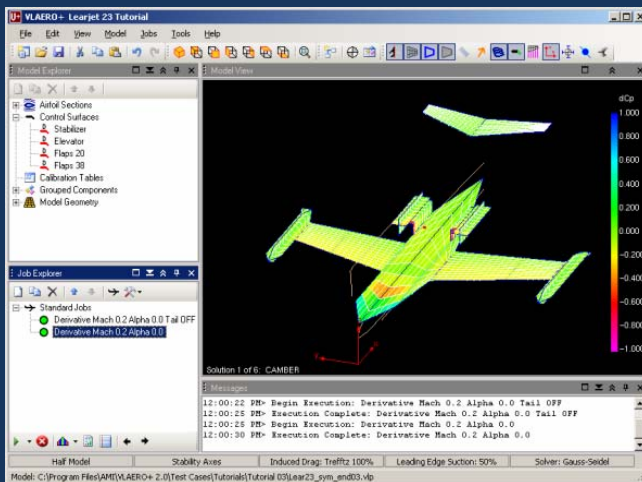
# Analytical Methods, Inc.

CFD Software and Consulting Services – Since 1971



# VLAERO+ 2.0

## FREE Academic Site License<sup>†</sup>



Analytical Methods, Inc. (AMI) is proud to announce the release of VLAERO+ 2.0, an exciting new tool for aerodynamic analysis of subsonic and supersonic configurations. VLAERO+ is designed for rapid parametric evaluation of aerodynamics, stability and control, static aeroelasticity, inertial and aerodynamic loads. Whether used as a predictive tool or as a calibrated aerodynamic model, VLAERO+ is a valuable asset from preliminary design through detailed design and service. VLAERO+ incorporates a robust vortex-lattice solver with a simple yet functional user interface.

AMI is committed to the education and training of America's future engineers. Free academic site licenses are being offered to eligible U.S. colleges and Universities. To obtain a demo license or to request a free academic site license, visit <http://www.am-inc.com/education>



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## VLAERO+ is Educator Friendly

VLAERO+ is designed to provide maximum functionality with minimal user effort. The element-based user interface is easy to master and students are often able to produce solutions in minutes. The online documentation includes several tutorials which demonstrate all features of VLAERO+. Educators can assign these tutorials to minimize the class-time required to teach the program. VLAERO+ is an integral part of the curriculum at several Universities throughout the country.

## VLAERO+ is Highly Functional

The embedded solver has been an industry leader for decades. The accuracy of the method has been demonstrated through countless wind tunnel and flight tests.

- Basic Functionality
  - Linear aerodynamic coefficients in stability and body axes ( $C_L, C_D, C_m, C_Y, C_l, C_n$ )
  - Stability and control derivative estimation ( $\alpha, \beta, p, q, r$ , control deflections)
  - Trim for level flight and trim in a maneuver
  - Integrated component and control surface loads along an arbitrary reference axis
  - Inertial and aerodynamic loads calculation
  - Tail surface and control sizing
  - Integrated beam model for static aeroelastic coupling
  - Prandtl-Glauert compressibility model
  - Leading edge suction model and Trefftz plane induced drag calculation
  - Supersonic influence calculation for slender configurations
  - Advanced calibration methods for matching experimental data
- Analysis Modules
  - Eigen-mode Dynamic Stability Analysis (expected release 2008)
  - Simulation Analysis (expected release 2008)

## VLAERO+ is Used by Industry

VLAERO+ is in use at companies and universities throughout the world. The following companies represent a small sample of current VLAERO+ users: Boeing, Gulfstream, Scaled Composites, General Atomics, more ...

The "Academic site license" refers to a collection of network floating licenses. The number of licenses should not exceed the maximum expected number of simultaneous instances of VLAERO+. Licenses are provided without technical support with the exception of support pertaining to software fault or installation. Installation support should be initiated by a systems administrator. Technical support and on-site training are available for a fee. A network license server running Windows XP/2000/2003/Vista is required to serve licenses to remote instances of VLAERO+. The AMI License Manager is a standalone service employing the FLEXnet™ architecture.