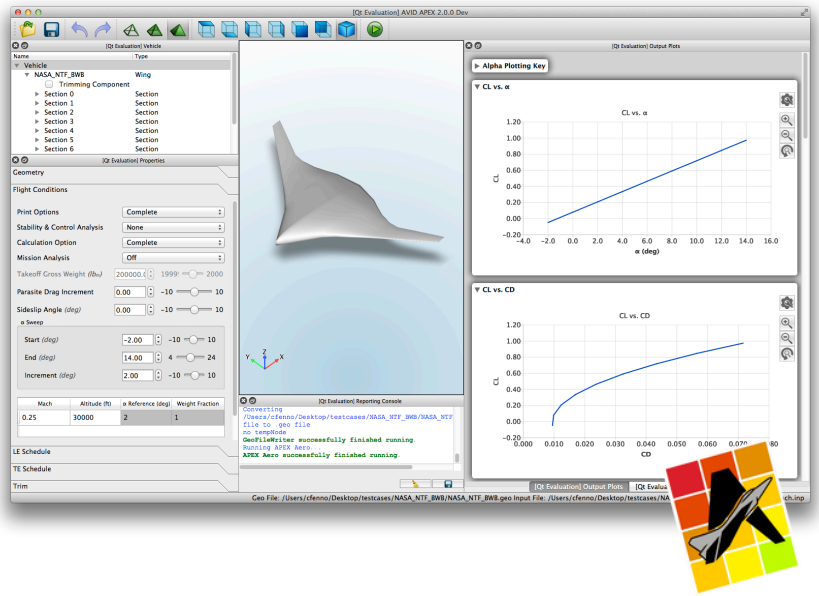
Better Geometry – Better Models
Great Designs



AVID APEX

Features

- Direct geometry import from AVID PAGE and OpenVSP.
- Intuitive Graphical User Interface (GUI) including results visualization.
- Calculations support wings, slender body fuselages and engine pods.
- Aircraft component-based drag build-up, including parasite and induced drag.
- Full range of Mach numbers (subsonic, transonic and supersonic).
- Angle of attack sweeps.
- Wide range of leading and trailing edge high lift devices.
- Longitudinal static stability derivatives.
- Spanwise load prediction.

Benefits

AVID APEX is a validated and well-documented tool that is more comprehensive than regular vortex-lattice methods. The advantages of using this software include:

- Onset of stall effects.
- Parasite drag buildup.
- Accurate transonic analysis capability.
- Fast and accurate computation.

System Requirements

Minimum OS requirements:

- Windows 7
- Mac OS X 10.8
- Linux 3.3

Graphics requirements:

- Graphics card that supports OpenGL

AVID APEX (**A**erodynamic **P**rediction **Ex**press) is a comprehensive, medium-fidelity aerodynamic analysis tool designed to analyze full aircraft configurations. APEX is capable of analyzing complex geometries through the subsonic, transonic and supersonic flight regimes.

APEX has been used for the analysis and conceptual design of numerous aircraft types, including small UAVs, transport aircraft, fighter jets and general aviation airplanes. The package includes options to specify leading and trailing edge high-lift devices. Complete aircraft polars are available through arbitrary angle-of-attack sweeps.

The basis for this tool is a robust vortex-lattice analysis, supplemented with 2D airfoil analyses, flow and surface interaction corrections, and a concise lift and drag build-up methodology. This approach provides fast and accurate performance predictions that are unparalleled among vortex-lattice solvers available today.

With a standard desktop computer, AVID APEX runs a complete analysis in a fraction of the time required to run a CFD solution. APEX offers the data you need, when you need it–all wrapped up in an easy-to-use, fully 3D graphical user interface. It is fast, accurate, fully-featured, validated and well-documented.

Equivalent analysis would require tedious vortex-lattice construction along with manual inclusion of semi-empirical corrections and numerous offline calculations. APEX integrates these tasks into a fast, comprehensive, easy-to-use aerodynamic analysis tool.