Notational fighter concept modeled in AVID PAGE software

AVID PAGE (**P**arametric **A**ircraft **G**eometry **E**ngine) is a rapid parametric geometry modeler that allows the user to think in terms of aircraft parameters and quickly develop advanced concepts. It frees the user from concern over minute geometry details, allowing for the generation of aircraft concept geometries quickly and accurately. PAGE is simple and intuitive, utilizing context-aware menus to define the geometry parameters.

Geometry components in PAGE include multi-section wings, multi-section fuselages, pods, ducts, and propellers. Wings are defined through an extensive library of airfoil shapes or by user-defined custom airfoils. PAGE also supports modeling internal components such as fuel tanks. Non-uniform Rational B-Splines (NURBS) are used for creating curvature-continuous geometry. Geometry surfaces are therefore naturally watertight and smooth.

The mass properties feature in PAGE calculates the center of gravity automatically while moments of inertia and the weight of each individual component are based on a user-specified density. By using a revolutionary algorithm that calculates the mass properties of arbitrary geometry shapes, each component can either be defined as a solid, or if a surface thickness is defined, be considered a shell. PAGE also automatically determines the overall mass properties of the complete vehicle being modeled.

PAGE supports export to IGES format, allowing the geometry to be loaded into CAD for further refinement. This also allows for the direct export of geometries into CFD and FEA grid generators. The compatibility of PAGE with other analysis tools makes it an invaluable component in the aircraft design process.

Better Geometry – Better Models Great Designs

AVID PAGE

Features

- Offers Intuitive Graphical User Interface (GUI) including context aware menus for geometry definition. Concept visualization of vehicle models:
  - Parametric geometry allows quick prototyping of airframe concepts.
  - Ability to model internal components such as fuel tanks and radar.
- Mass Properties calculation including, CG, Moments of Inertia, and weight for individual components. Total mass properties for the complete vehicle are also provided.

Benefits

Advantages over CAD:

- Aerospace-oriented parametric components accelerate model development.
- Fast learning curve.
- Lower per-seat license costs.

Watertight, curvature-continuous geometry generation for external tools:

- IGES export to CAD accelerates development of higher-fidelity models.
- Model development for AVID APEX (Aerodynamic Prediction Express) and AVID VorView (Vortex lattice method aerodynamics).

System Requirements

Minimum OS requirements:

- Windows 7
- Mac OS X 10.8
- Linux 3.3

Graphics requirements:

- Graphics card that supports OpenGL

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