

SIMULATION \

FLIGHTSIM

A POWERFUL AND COST-EFFECTIVE FLIGHT SIMULATION SOLUTION

BENEFITS

- **Flexibility**

Quickly change the flight model or parameters used to describe the performance of a simulated aircraft and swap out aircraft models using the same framework.

- **Results-oriented UI**

FlightSIM provides significant time savings by offering a development workflow tailored to how users work. Define all the parameters of the flight model, engine model, atmospheric model, and defined flight paths directly through forms without writing a single line of code.

- **Pre-Integration & Interoperability**

Create a complete flight simulation and visualization solution using FlightSIM with other Presagis or 3rd party products. Pre-integrating with Presagis STAGE, VAPS XT, and Lyra helps to speed application development. FlightSIM can also connect to any flight simulation framework out-of-the-box through CIGI, HLA, DIS, local shared memory, or networked shared memory.

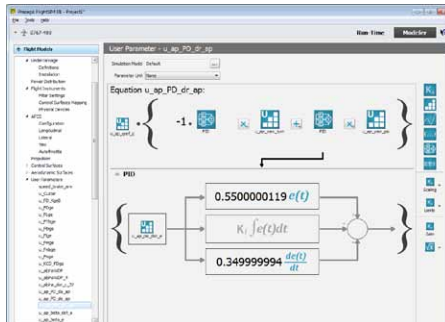


HIGH FIDELITY PHYSICS-BASED FIXED-WING SIMULATION

FlightSIM is the industry standard solution for creating high-fidelity fixed wing flight dynamics simulation. From building and evaluating simulators, training equipment, and cockpits to developing flight training devices or part-task trainers, FlightSIM is ideal for safety-critical simulation applications.

Using FlightSIM, you can:

- Define models of various fidelity depending on the quantity and quality of the aerodynamic data entered
- Conceive and deploy a complete aerodynamic model for the realtime simulation of any fixed wing aircraft without writing a single line of code
- Test both aircraft design and aircraft performance under controlled simulated conditions
- Specify the behavior of subsystems, including flight management systems, autopilot, and flight controls
- Easily integrate virtual and/or real hardware devices and user-development simulation modules
- Quickly and easily tailor flight simulations by entering aerodynamics and environmental parameters into windows and dialog boxes rather than writing software routines to perform the simulation



FEATURES

Aerodynamics modeling capabilities:

- Define each control surface on the aircraft by defining as many points for which there is data available
- Specify each control law that converts pilot inputs into control surface deflections
- Define the impact of the surface deflection on the aerodynamic coefficients
- Specify the installed engine(s)
- Specify external fuel load, landing gear, AFCS, and electrical and hydraulic buses

Simulate a wide variety of aircraft:

- Simulate aircraft driven by turbojet, turbofan, turboprop, turboshaft, piston engines, or by a user customized performance engine:
 - Large transport
 - High speed fighter and surveillance jets
 - Small private jets
 - Commercial airliners
 - Remotely Piloted Vehicle / UAVs

FlightSIM simulates the following physics-based models that can be deployed or replaced programmatically to bring realistic flight dynamics to your simulation application:

- Engine
- Engine Panel
- Undercarriage Deployment
- Undercarriage Brake
- Undercarriage Forces
- Flight Controls
- Aerodynamic
- Equations of Motion
- DME Receivers
- VOR Receivers
- ADF Receivers
- TACAN Receivers
- ILS Receivers
- Marker Beacon Receivers
- Instruments
- Electrical
- Hydraulic systems
- Ambient Air Conditions
- Wind Conditions
- Air Data Computer
- Weight and Balance
- Auto-pilot Logic
- Flight Management System Navigation
- Flight Management System Guidance
- Autopilot Flight Control Computer
- Auto throttle

