

AERO SIMULATION, INC.

ATLAS

TRAINING DEVICE PERFORMANCE MEASUREMENT



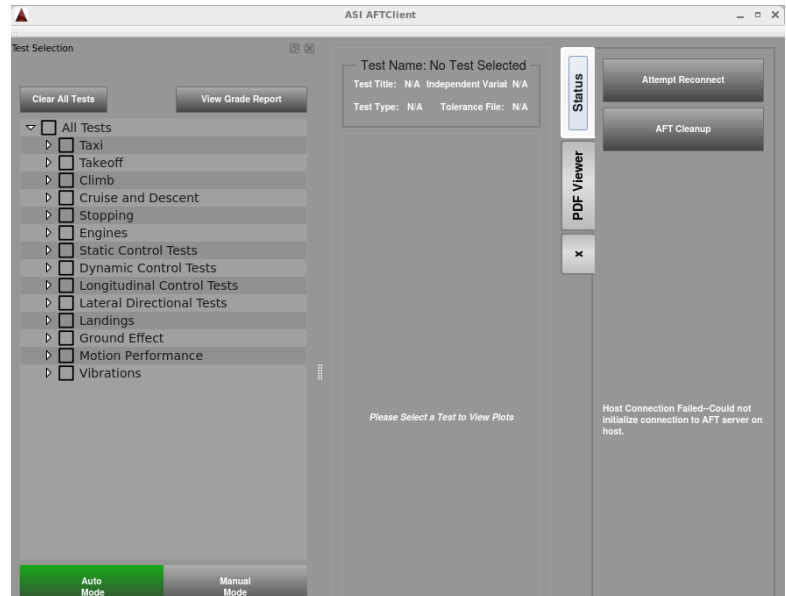
Atlas is a modular application providing the user with the capability of testing and tuning the flight dynamics and engines performance of flight training devices. A graphical user interface is provided which is intuitive and user friendly. Atlas has been used to qualify U.S. military training devices with qualification up to FAA Part-60 Level-D.

Atlas manipulates the primary and secondary flight controls to replicate pilot actions during simulated flight test events. The dynamic responses of the flight and engine simulations are recorded and compared against criteria data (developed from actual aircraft flight test data). Automatic trim control is provided to ensure the initial condition of the trainer model accurately reflects that of the recorded aircraft conditions prior to the start of any tested event. The system is then tested either statically or dynamically utilizing the same input controls as provided by the pilot during the testing of the simulated aircraft.

Test results are provided in tabular, cross plots, and time history plots as appropriate for the tested event. Test results are compared to criteria data and displayed on the computer monitor and recorded in electronic format. Tests can be executed repeatedly with each successive result presented in different colors allowing comparison of results as adjustments are made to the model.

Features include:

- Import Flight Test Data (criteria data)
- Trimmer components specifically designed for fixed wing, rotary wing and VTOL aircraft
- Test case trims self-calibrate which reduces the time-to-trim on successive runs
- Synchronous host communication for accurate and repeatable testing capabilities
- Summary dashboard of tests during execution (white – pending, green – pass, red – fail) presented as a compact graphic
- Limited Host intrusion which minimizes the development time necessary to implement on new devices
- Automated scoring of test cases (Pass/Fail)
- Graphic overlay of error tolerance bands
- Color coded tolerance exceedances on time history plots and static points
- Display of time to complete by test and total
- Tests may be selected individually, by group or all
- Tests may be run manually or automated
- Test results may be saved for future reference
- Test results presented graphically through the GUI and can be saved as PDF for reports
- User control over trimmer and tracker precedence, gains, rates, limits, timeouts
- User control can be applied on a per test case basis to override global settings
- Reset to factory settings without loss of user custom settings



Integration and setup of Atlas can be performed by qualified aerodynamics engineers by referencing the User Manual. An Atlas configuration file is delivered as part of the software package. The configuration file is a plain text file that Atlas uses to tailor the installation and operation to a specific flight training device. Additionally, ASI engineers are available to perform the initial integration and setup or provide training for qualified personnel.

Atlas is sold as a COTS software product with a validation dongle containing the license key. During initial development the license key is unrestricted, but the dongle must be present for Atlas to operate. When the fully licensed dongle is configured for the authorized device(s), it removes the “UNLICENSED COPY” watermark from the plots & results but does not require a cold start or configuration changes for Cybersecurity.

Software is priced per installation. Initial setup can be performed by the customer or by ASI. ASI will provide a Firm Fixed Price proposal for initial setup or a Time and Materials hourly rate. ASI will also provide a price for a training class. The setup includes creation of a tailored Atlas configuration file and support through successful execution of each class of test cases.

Optional services offered include the reduction and formatting of flight test data into the individual test cases.

Atlas is **\$27,500 with 6 Months ARO** at this time

For Inquires or Placing an order, email us at sales@aerosimulation.com or by phone at (813) 628-4447.