

# ACES Simulation



## The ACES Story

I'm a flight sim enthusiast just like you. When I decided to start building my own sim pit at home, I was disappointed to find how little there was on the market that was affordable and targeted to the home enthusiast. Everything was either too expensive, too complicated or both.

From this disappointment, an idea was born. I am an electrical engineer with over a decade of experience developing high fidelity flight training systems for commercial and military use. I decided to apply my experience to make what I needed. Since I was going to make it anyway, I might as well offer it to others too. This was the beginning of ACES Simulation. At ACES the products are aimed at the home flight simulation enthusiast. I work to make all the ACES products easy to use and affordable.

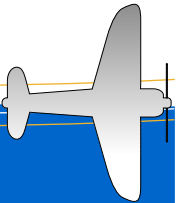


ACES  
Simulation

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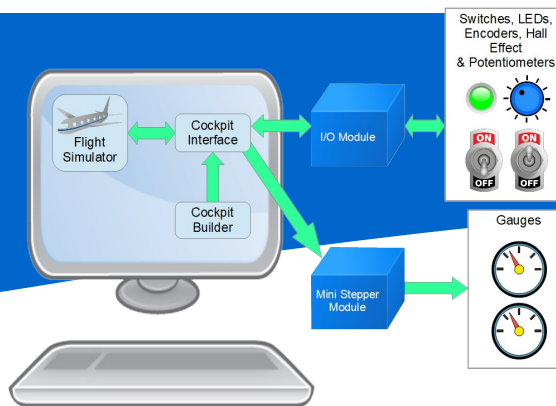
# Cockpit Software Suite



# Cockpit Software Suite

SOFTWARE TO DRIVE YOUR FLIGHT SIM COCKPIT INSTRUMENTS

- Compatible with:
  - IL2 Sturmovik: Cliffs of Dover\* (Requires Team Fusion mod 3.0 or higher)
  - X-Plane\*
  - Prepar3D\*
  - DCS World\* (visit [www.aces-sim.com](http://www.aces-sim.com) for a list of supported aircraft modules)
- \*Requires a software plug-in sold separately.
- Plug and play USB connectivity with ACES Instrument Modules, Pokeys57 and Pololu Mini Maestro servo controllers.
- Runs on Windows 7 and later.



## READY...CONFIGURE YOUR INSTRUMENTS

Connect your ACES Instrument Modules and your instruments. Then configure your instruments with the Cockpit Builder app.

Instrument	Index	Units	Controller	Channel	Channel1
Bomb Bay Door Lamp	1	digital I/O	PoKeys-E1	21	
Tailwheel Lock Lamp	1	digital I/O	PoKeys-E1	22	
Oxygen Pressure	1	psi	Stepper-Left Front	2	
Oxygen Quantity	1	liters	Stepper-Left Front	3	
Brake Switch - Left	1	digital I/O	PoKeys-E1	0	
Brake Switch - Right	1	digital I/O	PoKeys-E1	1	
Nose Wheel Steering Dec/Inc	1	digital I/O	PoKeys-E1	49	50

## SET...MAP TO SIMULATION DATA

Use the sim data map wizard or manually enter the simulation data points you want.

Instrument	Index	Units	SM Offset	Subtype	SM Units
Altimeter 100's	1	feet	L_Altitude	9	feet
Altimeter 1,000's	1	feet	L_Altitude	9	feet
Altimeter 10,000's	1	feet	L_Altitude	9	feet
Artificial Horizon Pitch	1	degrees	L_AH	1	degrees
Artificial Horizon Roll	1	degrees	L_AH	2	degrees
					miles per hour
					rpm
					psi
					feet per min
					-
					-

Instrument	Index	Value	Units
Air Speed	1	216.678	miles per hour
Climb and Descend	1	147.516	feet per min
Tachometer	1	1860.694	rpm
Directional Gyro	1	240.572	degrees

## ...FLY!

Start the ACES Cockpit Interface app, then start your flight simulation program. The Cockpit Interface app gathers and converts the simulation data, then sends it to your instruments. You can monitor the data being sent in the Instrument Display window.

## QUICK START GUIDE

1. Install the ACES Cockpit Software Suite.
2. Connect your instruments to ACES Instrument Modules, Pokeys57 and/or Pololu Mini Maestro servo controllers.
3. Connect a power supply to the Instrument Module(s).
4. Connect the Instrument Module(s) USB port to your PC.
5. Start the ACES Cockpit Builder application.
6. Cockpit Builder will recognize the Instrument Module(s).
7. In the My Cockpit window, configure your instruments.
8. Calibrate each instrument using the buttons in the My Cockpit window. Save your instrument configuration.
9. In the Sim Data Map window, use the wizard to generate a sim data map. Save your sim data map.
10. Start the ACES Cockpit Interface application.
11. Load the sim data map you just generated in ACES Cockpit Builder.
12. Start your compatible flight simulator (such as IL-2 Sturmovik: Cliffs of Dover or X-Plane) and fly a mission with your new instruments. (Visit [www.aces-sim.com](http://www.aces-sim.com) for a list of compatible flight simulators.)

For more information see the Help Center in the ACES Cockpit Builder application. For more information on the Maestro servo controller, see the Pololu documentation.



AT ACES, WE'RE ENTHUSIASTS TOO.

If you have a problem, contact us at [support@aces-sim.com](mailto:support@aces-sim.com). We'll be glad to help.