

# VITAL 1100

## Visual Simulation Systems

*Reality Simulated for Superior Training Performance*



**FlightSafety**  
international

# VITAL 1100

## More Than Four Decades of VITAL Excellence

FlightSafety VITAL visual systems set the standard for simulation technological innovation, superior performance and timely logistics support. And we've been an industry leader since 1972, when the first VITAL system went live. Enhancing safety through superior simulation fidelity, VITAL visuals meet and exceed the needs of the global aviation community, including business, commercial and military applications.

**A Legacy of Firsts** – VITAL was the first Computer Generated Imagery (CGI) visual system to receive FAA certification for airline training. First to deliver high-quality military training using low-cost CGI. First to deliver certified Enhanced Vision System (EVS) simulation to the commercial market. First to deliver realistic night vision goggle (NVG) stimulation.





Image generation



Databases

### **High Performance, Low Cost**

VITAL 1100, our current state-of-the-art visual system, provides high-performance, low-cost training solutions for both civil and military applications. VITAL 1100 incorporates Commercial-Off-The-Shelf (COTS) PC graphics hardware, advanced PC Graphics Processor Unit (GPU) and a comprehensive Display Management System. These components dramatically reduce initial and recurring system costs, maximize system performance, improve scene fidelity, optimize display quality and enhance system flexibility. The system replicates real-world scenes with satellite imagery and unique, high-resolution rendering techniques.

### **Superior NVG Simulation That Stimulates User's Real-World Goggles**

Night Vision Goggle (NVG) training constitutes an increasingly important element of the pilot training syllabi. VITAL 1100 effectively stimulates actual goggles for realistic, simulation-based training with scenarios difficult or impossible to replicate in actual flight.



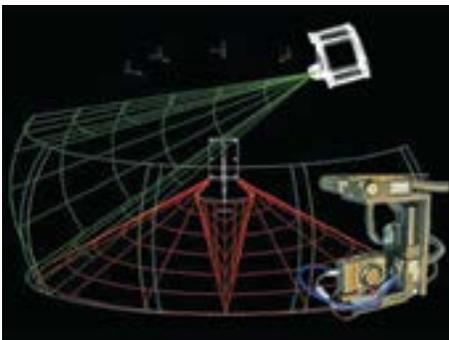
**Displays**



**Auto calibration**

### **Automated, Easily Maintained**

Our Display Management System (DMS) greatly enhances system maintainability. DMS comprises software and hardware to manage multi-channel display and calibration systems specifically designed for the simulation training industry, fully automating the photometric, colorimetric and geometric alignment of the visual system.



DMS provides comprehensive auto calibration of LED, DLP, LCOS, LCD or laser projectors for both out-the-window visual and night vision goggles stimulation.

This technology satisfies the need to stimulate the actual goggles using simulator displays – a process we have mastered and deployed for many years. VITAL 1100 provides a range of system enhancements leading to improved stimulation repeatability and determinism.

# VITAL Visual Solutions



**Out-the-window realism**



**Dynamic shadows, unique shading**



**Unprecedented scene detail**



**Emergency response scenarios**



**Business aircraft visuals**



**Commercial airliner visuals**



**Multi-vis weather simulation**



**Military mission rehearsal**

## ThinkSafety®

FlightSafety International is the world's premier professional aviation training company and supplier of flight simulators, visual systems and displays to commercial, government and military organizations. The company provides more than 1.3 million hours of training each year to pilots, technicians and other aviation professionals from 167 countries and independent territories. FlightSafety operates the world's largest fleet of advanced full flight simulators at Learning Centers and training locations in the United States, Australia, Brazil, Canada, China, France, Japan, the Netherlands, Norway, South Africa and the United Kingdom.

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