

# EP®-8000 image generator system



Unprecedented realism and performance for today's complex training applications. Scalable and adaptable for the challenges of tomorrow.

At Rockwell Collins, we understand the need for unprecedented realism in simulations that mirror the varied environments and situations warfighters encounter in the real world – while preparing for the unknown needs of the future.

The purpose-built Rockwell Collins EP®-8000 image generator system introduces a new paradigm for training applications, combining groundbreaking realism and performance with a scalable, adaptable design that meets the most complex training requirements now and in the future – at the lowest life-cycle cost.

Utilizing COTS PC technology, the EP-8000 generates unparalleled scene density, environment processing, and performance. Paired with a completely programmable COTS FPGA graphics pipeline – unique in the marketplace – the EP-8000 will protect your investment in core visual system components while providing an open, scalable approach allowing new features and technology insertions over the life cycle of the training program.

#### KEY BENEFITS

- › Industry-leading image quality yielding superior pilot cues and target recognition
- › Striking increase in fidelity with real-world scene density within a whole earth environment
- › Dramatic increases in paging and database loading speeds, allowing very high-resolution texture updates at maximum ownership velocities

- › Easily drives beyond Quad-WUXGA resolution with geometric NLIM and ultrasharp antialiasing for unprecedented visual acuity
- › Fully programmable graphics pipeline enables ease of feature enhancement with “boot-time” firmware upgrades
- › Meets or exceeds training and regulatory requirements for fast jet, tanker transport, and tactical helicopter applications
- › Upgrade paths preserve investment in legacy databases and host interfaces
- › Highly reliable and maintainable for up to 20 years, reducing overall life cycle costs

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## KEY FEATURES

- › Industry's largest available texture memory enables sub-meter, out the window and sensor imagery over very large areas
- › High fidelity sensor simulation addressing IR, NVG, EO and LLTV requirements
- › Specifically addresses long-range, narrow-field-of-view sensor viewports with variable range focus
- › Pixel fill rates that drive the latest high-resolution projectors, supporting greater than 10 million pixels
- › Real-world lighting, advanced physics-based atmospheric light scattering and particle effects
- › Adaptive architecture provides efficient volumetric rendering (patent pending) for more realistic clouds, smoke, and dust
- › Dynamic terrain and realistic embedding of cultural features
- › Rapid runtime publishing of independent database layers assembled on the fly

## EP®-8000 IMAGE GENERATION SYSTEM SPECIFICATIONS

The EP-8000 is the new leader in high performance image generation. The straightforward design provides compact system configuration as well as ease in support and maintenance.

### Hardware components

- › Real-time computer (RT) – 5.25 in. high rack mount
- › Scene processors – each only 3.5 in. high rack mount
- › Five channel OTW example – only 22.75 in. high rack space

### Software components

- › Rockwell Collins EP2™ Run-time software
- › Whole-earth environment database with high resolution airfield, imagery, elevation and feature insets
- › Standard CIGI and Rockwell Collins opcode host interfaces

### Options include

- › Sensor post-processor for sensor device effects
- › Database Generation System with Rockwell Collins' next-generation Environmental Creation Tool-ECT2™\* and powerful third party tools
- › Standard and custom display solutions
- › Standard and custom database environments

\*ECT2 supports import and export of standard synthetic environment formats such as NPSI, CDB, OpenFlight.

## GLOBAL SERVICE AND SUPPORT NETWORK

- › Rockwell Collins material distribution network maximizes availability through rapid deployment of critical parts
- › Customer Service Engineering network provides first-response capability and allows efficient deployment of visual system specialists to assist with complex technical problems
- › Service/Repair centers provide 24/7 support when customers need it most
- › Engineering design with the life-cycle in mind for obsolescence management

## TOTAL TRAINING SOLUTIONS PROVIDER

At the forefront of technology, Rockwell Collins continues to enhance training effectiveness by providing the most advanced training solutions at the lowest cost of ownership.

By leveraging our strengths in avionics systems development and training systems design, we deliver total integrated solutions. Our diverse portfolio spans the entire training life cycle, from instructional systems design through fully integrated high fidelity training systems and support.



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

## Building trust every day.

Rockwell Collins delivers smart communication and aviation electronic solutions to customers worldwide. Backed by a global network of service and support, we stand committed to putting technology and practical innovation to work for you whenever and wherever you need us. In this way, working together, we build trust. Every day.

## For more information, contact:

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