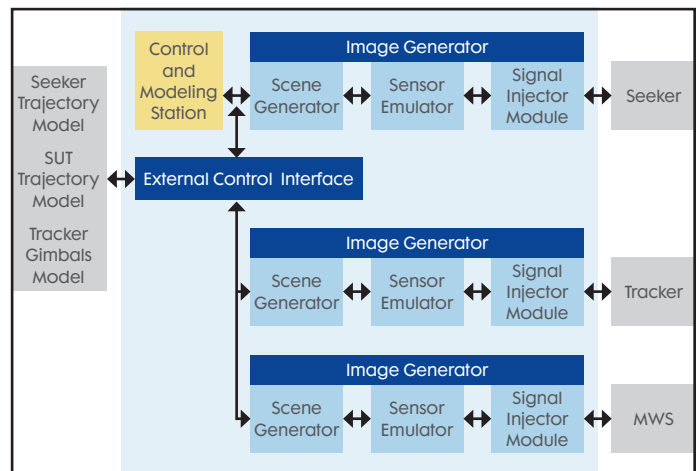




Real-Time Infrared Electro Optic Scene Simulator (RISS)

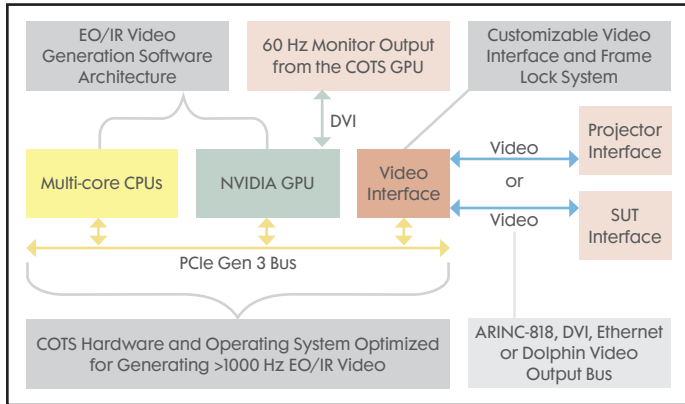
Complete Simulation Solutions

Our Real-Time Infrared Electro Optic Scene Simulator (RISS) product encompasses an integrated software and hardware solution to provide high-fidelity, real-time, reactive imagery for test and evaluation systems in both hardware-in-the-loop and man-in-the-loop configurations. Every aspect of the simulation process is supported, from synthetic environment database development, test scenario laydown, image generation, and sensor effect modeling using our Programmable Sensor Emulator (PSE). The system can be synchronized directly to the system-under-test (SUT) to run at real-time rates or can run faster or slower than real-time as desired. RISS can be used to test a variety of sensor systems, including UAV sensors, hostile fire indicators, missile warning systems, seeker missiles, search and track systems, forward looking IR systems, automatic target detection systems and integrated avionics.



RISS can stimulate multiple sensors simultaneously in a synchronized fashion

RISS is a highly configurable, mature product that provides unrivaled spatial, spectral and temporal fidelity. Our physics-based approach, along with the use of validated models and cutting-edge graphics technology, offers a level of performance and fidelity that cannot be obtained using other simulators designed for training or other visible simulation applications. RISS relies heavily on industry-accepted, validated government models which adds to its degree of verification.



RISS supports large frame sizes at frame rates greater than 1,000 Hz

SPECIFICATIONS

Title	Gen 5 RISS	Gen 6 RISS
Function	Two-color, high frame rate missile warning sensor testing	Low latency, continuous integration missile tracking system testing
Max Frame Rate	1,000 Hz or greater	10,000 Hz or greater for reduced window sizes
Frame Size	2048x2048	1024x1024 / 110x110 for reduced window sizes
Colors per Channel	2	2
Bits per Color	16	16
Latency	2 to 10 frames	Zero (less than sensor integration time)
Hardware	1 computer with PCIe interface card	1 computer with PCIe interface card

Recent advancements include larger frame sizes and higher frame rates in a fully synchronized environment to support the improvements of modern-day advanced EO/IR sensors.

RISS operates seamlessly with our Combat Electromagnetic Environment Simulator (CEESIM) and Synchronization and Control System (SCS) external control interface. RISS combined with CEESIM, SCS and our Signal Measurement System (SMS) creates a complete, multi-spectral lab environment.

FEATURES

- COTS-based architecture
- User reconfigurable
- Scalable solution which allows both additional or more capable hardware to be seamlessly integrated into the system
- Highly verified solution, with a high-level of validation against live-fire exercises
- Direct injection or projection options available
- Frame sizes of at least 2048 x 2048 at update rates up to 100 Hz
- Frame rates over 1,000 Hz for smaller frame sizes
- Multiple output interfaces including DVI, DisplayPort, Dolphin, ARINC and 10 GbE

FOR MORE INFORMATION, PLEASE CONTACT:

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