



Visual Updates

Flight simulation users are increasingly challenged to provide enhanced fidelity and visual accuracy for improved training quality as well as to satisfy the growing expectations of the market. CAE has extensive experience in the visual market and offers a wide variety of visual updates for both CAE and non-CAE full-flight simulators.

Updates on mature visual systems include CAE Maxvue™ and early version CAE Tropos™ systems. Replacing a vintage image generator (IG) with the CAE Tropos™-6000 combines the proven CAE image quality with the latest commercial-off-the-shelf (COTS) technologies. CAE offers high definition (HD) projectors that exceed current standards while providing a design that easily accommodates future projector upgrades. In order to meet the highest standard of certification, an upgrade to the visual optical display system is often recommended to accompany the IG and projector replacement. These upgrades may include changing the visual bowl, the back projection screen, the projector deck and the collimating display reflective film.

CAE offers a unique, patented process to recoat existing back projection (BP) screens for unprecedented brilliance and resistance to discolouration. Existing film and adhesive are removed and the screen is recoated to fulfill the most rigorous optical and installation requirements.



Day and night of the same scene



HD projector features

- Liquid crystal on silicon (LCoS) technology benefits:
 - Reduced effect of smearing.
 - Eliminates geometry recalibration.
 - Free from convergence drift over time.
- Meets or exceeds all certification requirements such as JAR Amendment 3 and FAA FAR Part 60.
- Employs COTS hardware for low operational costs with minimal replacement parts compared to conventional cathode ray tube (CRT) technology.
- Special projector-independent lens adapter facilitates future projector updates.
- Direct projector control from image generator for centralized power-up, settings, auto-standby and diagnostics.
- Supports multiple host communication (Ethernet, high speed data (HSD), reflective).
- The projector technology is optimized for matching colour, brightness and other visual parameters.
- Brightness measured greater by a factor of two over CRT for more compelling day scenes.
- Contrast ratios measured to be twice that of competing systems.



Lighter weight, lower profile HD projectors replacing CRT technology

Specifications

- Resolution of 2.1 million pixels (Full HD).
- Field-of-view of 180° x 40° (±20) or 200° x 40° (±20).
- Contrast ratios of 4500:1 measured to be twice the value of competing systems. The automated visual calibration system compensates for lamp aging and adjusts brightness and colour across channels.

Customer benefits

- Lifecycle costs are significantly lower than traditional CRT projectors.
- Maintainability is improved over CRT projectors.
- Industry leading global after sales support is readily available.
- The upgradeable design facilitates future projector updates.
- The standard product approach simplifies support issues.



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