



## CAE Medallion MR

e-SERIES VISUAL SYSTEM

### Overview

The CAE Medallion MR e-Series visual system integrates CAE's best-of-breed CAE Medallion image generator and synthetic environment solutions with leading-edge Commercial-Off-The-Shelf (COTS) projection technology and innovative rear-projection display system. The exceptional realism provided by this visual system creates unprecedented visual immersion maximizing mission training value and permits the training of complex and risky procedures in a safe virtual environment.

CAE's Medallion MR e-Series visual system provides a high-quality, realistic visual environment for training an extensive range of mission operations in single and tandem seat military fighter and fast-jet applications.

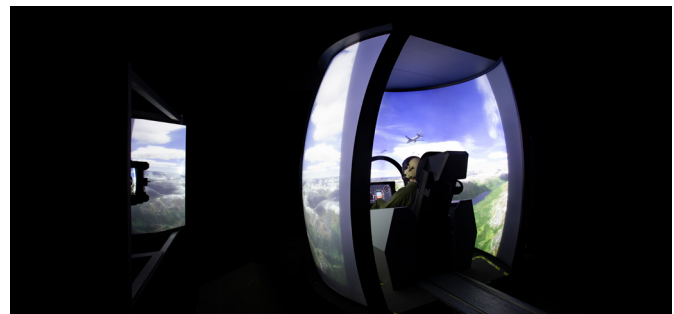
Designed to be flexible and scalable in both field-of-view and resolution, this integrated solution is suited for intermediate to advanced levels of training, including distributed mission operations (DMO) and integrated Live-Virtual-Constructive (iLVC) environments.

### Our most immersive visual training experience optimizes the balance of live and synthetic training to enable pilots to:

- Train in a bright, high-contrast, high-resolution simulation environment populated with realistic and challenging content
- Fly in formation; detect and engage ground and air targets in a detailed, compelling visual environment
- Perform complex maneuvers such as air-to-air refueling (boom and hose and drogue) safely, without high logistic overhead
- Fly tandem cockpit configurations via two linked visual displays - each crew member benefits from the same high-fidelity, no-compromise visual experience
- Fly within rich and realistic scenery using CAE's latest Medallion-6000MR image generator technology

### The training organization can benefit by:

- Leveraging the Open Geospatial Consortium Common Database (OGC® CDB) standard, maximizing database correlation and facilitating content management.
- Transferring some qualified flying instructor (QFI), training to synthetic media, thus increasing pilot throughput.



### Training fidelity beyond traditional displays:

- Near eye-limiting resolution for enhanced Detection, Orientation, Recognition and Identification (DORI) performance
- Available full 360° coverage with minimal rear cut-out
- 120 Hz operation maximizes dynamic resolution with no loss of display brightness
- E-collimation eliminates parallax error associated with typical small-radius displays, improves Heads-Up Display (HUD) and Helmet-Mounted Display (HMD) registration
- Innovative, hybrid night-vision goggles (NVG) via dedicated infrared (IR) emitter in projector and dynamic reallocation of image generator (IG) resources in NVG mode
- Available 3D stereoscopic view for ultimate realism in tasks such as close formation flight and air-to-air refueling

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training partner  
of choice



## The CAE Medallion MR e-Series visual system brings the following benefits to your mission training devices:

- High-brightness, high-contrast, ultra-high-resolution rear-projected display with unobstructed field-of-view
- Choice of resolutions to satisfy specific training objectives – high-value 4 arcmin/OLP or cost-effective 2.5 arcmin/OLP configurations using COTS projectors
- E-360 offers full 360° x 135° for full mission simulators (FMS); E-225: optimized 225° x 90° with smaller footprint for part task trainer (PTT) or entry-level devices
- Continuous blended imagery across screen segments
- Optical blending for artifact-free visuals in any time-of-day conditions, including stimulated NVG
- Compatible with a wide range of fast-jet cockpits. Adjusts to align pilot and design eyepoints
- Easy pilot ingress and egress via linear actuated door
- E-360: Compact 8 m x 6 m (26' x 20') device footprint. Can be accommodated in less than 6 m ceiling height (depending on cockpit height)
- Offered as a turnkey solution, pre-integrated with CAE's Medallion-6000MR image generator supporting extensive synthetic environment content, including OGC CDB
- Meshes seamlessly with CAE's MR Series Synthetic Environment to provide a comprehensive, correlated and high-quality training experience, including distributed mission operations (DMO) and integrated Live-Virtual-Constructive (iLVC) environments
- Optional dedicated HUD projector
- Optional light closeout to augment facility lighting management

|                       | CAE MEDALLION MR E-360   | CAE MEDALLION MR E-225               | CAE MEDALLION MR E-360X                      | CAE MEDALLION MR E-225X              |
|-----------------------|--|--------------------------------------|--|--------------------------------------|
| Display type          | 10 channel rear-projection dome  | 5 channel rear-projection            | 10 channel rear-projection dome              | 5 channel rear-projection            |
| Field of View         | 360° x 135°  | 225° x 90°                           | 360° x 135°                                  | 225° x 90°                           |
| Projectors            | 4K Pixel Shift projectors; 120Hz operation   |                                      | 8K-class e-shift projectors; 120Hz operation |                                      |
| Average Resolution    | 4 arcmin/OLP   |                                      | 2.5 arcmin/OLP                               |                                      |
| Brightness            | 15 ft-L  |                                      | 13 ft-L                                      |                                      |
| Contrast ratio        | >15:1  |                                      |  |                                      |
| Eyepoint Correction   | Yes, via head-tracked e-collimation  |                                      |  |                                      |
| Smear Reduction       | Yes, via 120 Hz, no brightness loss  |                                      |  |                                      |
| Stereoscopy           | Yes, with optional 3D eye wear   |                                      |  |                                      |
| NVG                   | Unique Hybrid-mode Stimulated NVG driven by dedicated IG with available IR-specific features |                                      |  |                                      |
| HUD                   | Optional dedicated HUD projector matched to OTW  |                                      |  |                                      |
| Footprint (L x W x H) | 8 x 6 x 6 (m)<br>26 x 20 x 20 (feet)   | 8 x 5 x 3 (m)<br>26 x 16 x 10 (feet) | 8 x 6 x 6 (m)<br>26 x 20 x 20 (feet)         | 8 x 5 x 3 (m)<br>26 x 16 x 10 (feet) |

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