



CAE e-Series MR PRODIGY VISUAL SYSTEM

Overview

To ensure that critical training is as effective as possible, the visual immersion must be as realistic as it can be. The e-Series MR Prodigy Visual Display System creates unprecedented visual immersion which maximizes mission training value and permits the training of complex and risky procedures in a safe virtual environment.

The CAE eSeries MR Prodigy Visual Display System integrates CAE's Prodigy gaming-engine-based image generator combined with synthetic environment solutions deliver stunningly realistic graphics via extraordinarily true-to life visual images. Using Commercial-Off-The-Shelf (COTS) projection technology and an innovative rear-projection display system, CAE continues to lead the way in immersive training for 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 refuelling (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

Training fidelity beyond traditional displays:

- Enhanced Detection, Orientation, Recognition and Identification (DORI) performance
- 120 Hz operation reduces image smearing and eyestrain
- E-collimation eliminates parallax error associated with typical small-radius displays, improves Heads-Up Display (HUD) and Helmet-Mounted Display (HMD) registration
- Innovative training with night-vision goggles (NVG) via dedicated infrared (IR) emitter in projector and dynamic reallocation of image generator (IG) resources
- Available 3D stereoscopic view for ultimate realism in tasks such as close formation flight and air-to-air refuelling



CAE e-Series MR Prodigy Visual System brings the following benefits to your mission training devices:

- Choice of resolutions to satisfy specific training objectives
 - cost-effective 4 arcmin/OLP or high-value 2.5 arcmin/OLP configurations using COTS projectors
- E-360 offers full 360° x 135° for full mission simulators (FMS); E-225 offers optimized 225° x 90° with a smaller footprint for part task trainer (PTT) or entry-level devices
- Optical blending for artifact-free visuals in any time-of-day conditions, including stimulated NVG
- Compatible with a wide range of fast-jet cockpits. Adjustable to align pilot and design eyepoints
- Easy pilot ingress and egress via linear actuated door
- Offered as a turnkey solution, pre-integrated with CAE's Prodigy image generator
- Optional dedicated HUD projector
- Optional light closeout to perform night-time and NVG training

| | 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 | | 8K-class e-shift projectors | |
| Average Resolution | 4 arcmin/OLP | | 2.5 arcmin/OLP | |
| Brightness | 15 ft-L | | 13 ft-L | |
| Contrast ratio | 15:1 - Average | | | |
| 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) | 7 x 6.5 x 6 (m) 23 x 21.5 x 20 (feet) | 6 x 6.5 x 4 (m) 20 x 21.5 x 13.5 (feet) | 7 x 6.5 x 6 (m) 23 x 21.5 x 20 (feet) | 6 x 6.5 x 4 (m) 20 x 21.5 x 13.5 (feet) |

Canada

Tel: +1-613-247-0342
milsim@cae.com

CAE USA - Tampa, Florida

Tel: +1-813-885-7481
cae_usa@cae.com

United Kingdom

Tel: +44 (0) 1444-247535
cae_plc@cae.co.uk

milsim@cae.com

@CAE_Defence

CAE_Defence

cae.com/defence-security

Europe

Tel: +49-2402-106-0
info@cae-gmbh.de

CAE USA - Arlington, Texas

Tel: 1- 817-619-2000
cae_usa@cae.com

Australia

Tel: +61-2-9748-4844
caeaus@cae.com.au

Asia

Tel: +65 6430 4390
milsim@cae.com

India

Tel: +91-80-2625-6000
caeindiapvtltd@cae.com

Middle East

Tel: +971-2-676-7676
milsim@cae.com

Corporate Headquarters

Tel: +1-514-341-6780
milsim@cae.com

