

CAESprint™

Immersive Training Devices

Overview

The CAE Sprint Immersive Training Devices (ITD) are an integral element of the CAE Trax Academy, a student-centric, self-paced training continuum - a system integrating multiple training elements and tools for a mobile-assisted, closed-loop adaptive learning system. The CAE Sprint IDS are a critical medium to deliver lesson content and guided training to help pilots practice, hone requisite skills and prepare for missions.

CAE Sprint Immersive Training Devices (ITD)

The CAE Sprint ITD's range from basic to high-fidelity immersive training devices, affordable, with a small footprint, and no special power requirements. CAE's Sprint Family of Immersive Training Devices provides multiple training options and various levels of fidelity, leveraging the latest immersive technologies. Our devices can be tailored for specific training activities, platforms and customer budgets. All CAE Sprint devices can be further enhanced through the addition of CAE Rise.

Visual immersion is enabled via a headset with high-resolution out-the-window visuals generated by the CAE image generator and delivering the visual acuity to read the instrument panel. Physical controls may include generic or replicated cockpit controls and instrumentation for realistic to true-to-life sensory feedback.



The immersive and realistic Immersive Training experience in the CAE Sprint trainers is enhanced by:

- Platform-tailored configurations leveraging full-fidelity simulation software for increased training fidelity
- Excellent visual quality delivered via the Head Mounted Display (HMD) and CAE image generator

The CAE Sprint ITD's help support better student throughput:

- Students train at their own pace, not limited by communal progress at the group/class level or blocked by scheduling restrictions/access to high end simulators or live aircraft
- The CAE Sprint Immersive Training Devices can be reconfigured to provide training on specific and/or multiple platforms
- Visual database, collimated Heads Up Display (HUD), full weather simulation consistent with high-fidelity simulator
- Multiple CAE Sprint trainers can be linked to enable crew or team training
- A comparably low cost of ownership facilitates an increased number of training devices available for training, with no constraints
- More training devices means more students can be trained

The CAE Sprint ITD's help support better quality training when integrated with CAE Trax Academy:

- Embedded CAE Trax Academy training content provides higher value than AR, MR, or VR simulation alone
- CAE Learning Management System (LMS) including computer-based training (CBT) combined with high-fidelity, virtual reality (VR) enhanced visual content for scenario immersion
- The CAE Virtual Coach delivering immediate, actionable instruction and feedback CAE Rise (Real-time Insights and Standardized Evaluations) performance assessment, tracking and benchmarking, including biometric measures, for continuous improvement
- CAE's simulation-based courseware provides a common core simulation base ensuring continuity throughout the training continuum - from courseware and self-paced ITD trainers to full-flight training devices and full-mission simulators.

Mixed Reality Versus Virtual Reality Fulfills Different Training needs. MR and VR are both excellent options for immersive training. The main difference is Mixed Reality (MR) provides a view of the real physical world, overlaid with digital elements, where a heightened level of realism and immersion can be achieved through enhanced physical interaction with switches, displays, and other cockpit components. Virtual Reality (VR) training is mostly consumed through a fully immersive digital training environment, where interactions within the trainer are performed through gestures within the virtual scene.

CAE Sprint Virtual Reality (VR) Training Device

The CAE Sprint VR Trainer is an effective immersive training device, both small and affordable. Visual immersion is enabled via a VR headset and a high-resolution out-the-window scene which provides the visual acuity to read the instrument panel

The CAE Sprint Mixed Reality Training Device (MRTD)

A high-fidelity tactile immersive training device consisting of a tandem configuration cockpit paired with chroma key VR technology. It enables trainees to see the actual cockpit interior - avionics, controls and fellow crewmember - while the out-the-window view consists of a virtual environment.

Currently used in training at Fort Novosel, the device provides an incredible immersive experience by combining real cockpit hardware and a 360° virtual view in a small, self-contained system which fits into a small conference room with no special power requirements.

The CAE Sprint trainers offer the ability to offload training tasks from high-end flight training devices and simulators. CAE Sprint ITD's can foster basic task-orientated skills or build and reinforce platform familiarity depending on muscle memory for better, more realistic immersion and training.

The effectiveness of the CAE Training Devices increases with the integration of training content and support. Smaller, sophisticated and affordable, the CAE Sprint ITD's make self-paced immersive training highly accessible. Student pilots practice and put learning into action for optimum progress in training.

CAE Sprint training devices are effective, affordable training devices with a small footprint.

