

Bespoke Simulator & Training Equipment

Overview

Training is more effective when high fidelity training simulators are used, where the look and feel of the equipment accurately represents the real environment. Training on real equipment is often not practical, due to the costs associated with the equipment and its availability as well as the revenue lost by tying up valuable assets for training use only. Our service includes surveying real in-field equipment, defining suitable system architectures and solutions for training installations and supplying facsimile simulator systems.

Features

- Safe, cost-effective alternative to use of live equipment
- Electronics, software and mechanical design
- Site surveys, project management and manufacture
- Mechanical and electrical form and fit optimised
- Matching to OEM equipment
- Simulation of external data feeds
- Flexible interfaces allowing training in multiple scenarios
- Video and audio - signal processing
- Security and encryption options

Data Feeds & Interfaces

By simulating the operator's equipment, consoles and environment we can generate suitable external data feeds. This allows the simulation of real system failures without the associated cost or risk - providing effective training of operators for the worst-case scenarios and minimizing the need for other external related OEM equipment.

In some cases the use of OEM equipment provides the most cost effective or only solution for the training environment. This can include systems that implement restricted/secret functions such as an algorithm processors or patented/copyright features and cryptography. We are able to provide bespoke interfaces to this type of equipment allowing system control from instructor panels - to minimise the peripheral OEM equipment required to operate the system. This can include the simulation of any required data to keep the system live, eg ARINC data bus, I/O, and watchdogs.

High Fidelity Look & Feel

Personnel working in complex critical scenarios are ideally trained on equipment that is as close to real life as possible. This maintains the effectiveness of the training while reducing the time and risks associated with sending trained personnel out into the field. We can design and manufacture enclosures, user interaction devices and physical interfaces to suit. It may be necessary to replace an entire piece of equipment and we can advise on how best to implement this.

We also have wide experience in designing replica enclosures, which are tailored to the training market sector and provide cost-effective solutions, manufactured to fit the space available. We are able to provide replicas to several standard mounting systems for equipment such as VCS & ARINC 600.

Video & Audio

Where training requires complex combined platforms with multiple operators working within one training scenario the ability to monitor and allow communication is critical. We can provide audio, video and communication systems that provide high fidelity replicas of real equipment at a lower cost. Headset exposure limiting circuits prevent unsafe audio levels. Where security is important, we are able to provide encrypted routing and solutions

Markets

- Industrial
- Aerospace and Defence
- Security
- Subsea and Marine
- Education