Selex ES
A Finmeccanica Company

Air Systems, UAS & Simulators

COMPUTER-BASED AIRCRAFT MAINTENANCE TRAINING SOLUTIONS

For over two decades, Selex ES has established itself as one of the leading specialists in the design and supply of computer-based aircraft diagnostic and corrective maintenance training solutions.

Having delivered our first such programme for the Royal Navy's Sea Harrier in 1994, we have since provided computer-based maintenance training programmes for platforms across Europe, including:

- Apache WAH-64
- Eurofighter Typhoon
- F-16
- Generic Aircraft Propulsion Systems Trainer
- Generic Avionics Systems Trainer
- Tornado

BENEFITS OF COMPUTER-BASED MAINTENANCE TRAINING

In each of these programmes, computer-based maintenance training solutions have helped develop the knowledge, skills and aptitude expected of end-users, and to improve overall operational capability.

Our aircraft computer-based maintenance training solutions help:

- Reduce Costs: by re-using of best of breed Commercial Of The Shelf (COTS) training technologies, every student has instant access to equipment without the need for expensive Ground Fix Assets. This also helps reduce costs by condensing the training course timescales.
- Increase Operational Capability: Our synthetic trainers reduce the need to take operational equipment out of service and gives students experience with unfamiliar kit or a particular uncommon or complex fault scenario
- Improve equipment reliability: by improving system knowledge and diagnostic skills, front-line capability is ultimately enhanced by properly skilled and experienced maintenance crews

CORE FEATURES

Although each learning challenge demands that its own specific training requirements are addressed, our computer-based maintenance training solutions typically consist of the following features to support both student and instructor engagement:

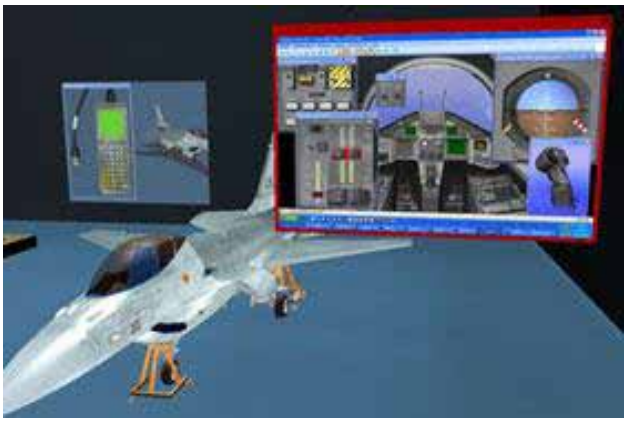
- **A virtual system on a desktop** – a truly virtual free-play environment allows students to view and interact with the system in any way they choose, and be confident that the consequences of their actions replicate precisely any interactions with the real equipment. Environments can be enhanced by the use of any COTS graphic package.

- **Inject of system faults** – instructors can inject faults, the effects of which propagate through the equipment. Resultant symptoms can be observed and then diagnosed by students, who can learn maintenance tasks such as fault isolation / detection, removal / replacement procedures, operational / functional checks, and maintenance task rehearsals.
- **Interface with real or modelled equipment** – students can interact with equipment such as test sets and prognostic systems, directly with the virtual system. This furthers the learning experience by allowing maintenance technicians to learn how to operate the tools that they will go on to use in their operational roles.
- **Aid instructor functionality** – instructors can choose from a variety of options to monitor students as they undertake tasks; demonstrate particularly complex procedures for the students on their PC; record student performance and playback for debrief; and evaluate and store student progress through an integrated learning management system.
- **Team Training Tasks** – many maintenance training tasks require technicians to work in teams. Our solutions enable students to work across networked systems to interact with each other, and simultaneously undertake a team training task as in real life.
- **Multi-Configuration Scenarios** – new military systems tend to comprise a range of variants. Our training systems architecture allows for the development of type specific variants as well as catering for differing training philosophies.

AN INVESTMENT IN TECHNOLOGY

To continually meet the rapidly changing operational requirements, the way in which training is delivered is constantly reviewed. In support of this reality, Selex ES is dedicated to incorporating the latest training techniques and technologies to continue to provide relevant and cost-effective training solutions. To this end, Selex ES has invested in a technical road map that addresses the areas including:

- **Point of Use Support**– our synthetic equipment trainers are built on a flexible open architecture to enable maintenance support to be delivered at point of use, or on deployment via devices such as laptops or PDAs.
- **Distributed working** – rather than instructors and technicians being co-located, there is a growing operational requirement to support maintenance tasks when the workforce are distributed and remote from technical experts. Selex ES' training solutions have been developed to work across the internet and even embedded within 3rd party virtual environments. This capability further supports the demands for remote learning, rapid deployment and through-life cost efficiencies.



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