



Create. Innovate. Engineer.

VIRTUAL MAINTENANCE TRAINERS (VMTs)

REVOLUTIONIZING U.S. NAVY TRAINING

Virtual Maintenance Trainers (VMTs) developed by Tech Wizards Inc. (TWI) **replicate the hardware design, layout, functionality, interfaces, interconnections, system/subsystem connections and system responses to system faults, component/subcomponent failures, incorrect signal flow paths, and user actions of VMTs as it relates to a maintainer.**

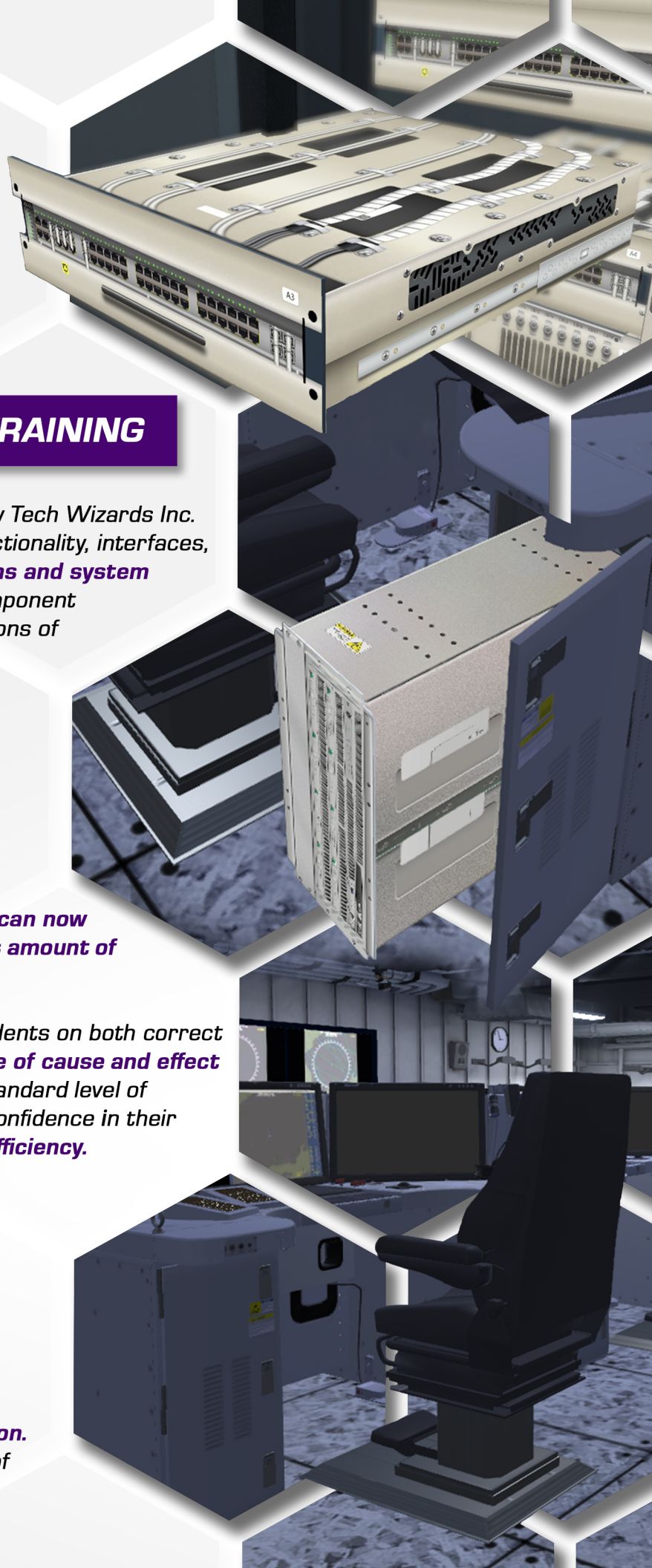
INCREASED REPETITIONS

VMTs **increase sets and repetitions for students in a virtual environment.** Rather than training a few students at a time in a Tactical Training Equipment (TTE) classroom, **instructors can now expose dozens of trainees to an almost limitless amount of fault combinations.**

Additional benefits of VMTs include educating students on both correct and incorrect actions. This **instills the importance of cause and effect in the maintenance process.** By improving the standard level of competency, sailors avoid hazards and increase confidence in their training, which **translates to greater ship self-sufficiency.**

REDUCE COSTS

VMTs engineered by TWI are no cost per-seat, Commercial-Off-The-Shelf (COTS)-based solutions. **Customizable, guided XML-based scenarios and Free Play mode capability, replace the need for a traditional classroom setting with a true simulation.** TWI's VMTs drastically reduce the training costs of maintenance training.



TRAIN AS YOU MAINTAIN

TWI's VMTs are **identical virtual twins**, in **appearance and behavior**, to TTE and maintenance troubleshooting processes used in training centers and onboard ships. **Faults can be pre-programmed** in the form of a scenario or injected live as a trainee maneuvers through the simulation. This provides students with real world **end-to-end procedural experience**.

TRAINING – ANYTIME, ANYWHERE

Training on virtual machines makes it possible to bring the schoolhouse anywhere. **TWI's state machines track all actions:** correct or incorrect. If a safety violation or fault is made by a student, the instructor is notified, the mistake can be localized, and the **instructor can provide feedback** to the student **without being in the same location**. Training experience is gained on portable devices without any custom hardware, making the VMTs lightweight and easily maintainable.

THE FUTURE OF TRAINING – TODAY

VMTs utilize sophisticated state machines to **track actions within the simulation** that are **captured in a xAPI database** for future analysis of students' performance. This ensures instructors on **student proficiency following procedural compliance for maintenance tasks**. TWI's VMTs provide **high fidelity game-based training** in support of the U.S. Navy's **Ready Relevant Learning (RRL)** initiative.

Tech Wizards is a U.S. Navy Surface Training Advanced Virtual Environment (STAVE) solutions provider. TWI supports government and commercial arenas with systems, software, and cyber security services. TWI is a small business founded in 2005 and is based in Dahlgren, Va. For more information on Tech Wizards, our VMTs, contracts, and employment opportunities, visit: www.tech-wizards.com

