

Simulation Training for the U.S. Army

A more efficient training method for our soldiers on water purification systems

The Challenge

The United States Army uses a water purification system when they are out in the field. This system is used in many different environments and is an important part of obtaining healthy drinking water for soldiers. Typically, their water purification training module consists of real equipment and a “hands-on” approach in the field. This method created many limitations such as weather delays, equipment that couldn’t handle constant repetition for training, and their student head count exceeded more than the equipment they had on hand. They also realized they were losing valuable training time due to setting up and tearing down these training modules.

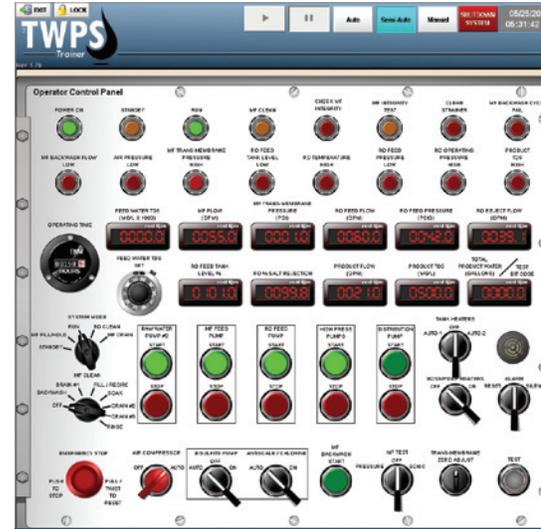
The Solution

Guild Associates approached MartinCSI with the idea that their engineers could design a simulation training program for the soldiers. The simulator would be engineered as an exact duplication of the water purification system The Army uses in the field. It would replace the “hands-on” equipment, and training can

be performed in a classroom setting. The application simulates typical scenarios such as running pumps, leaks, faults, and interactions with operator panels. The application itself was designed and developed using Inductive Automation’s, Ignition Software, an industrial application platform with tools to build SCADA, MES, and IIoT solutions. The project itself took over 2800 hours to develop and program the simulation screens. The simulation training software can be performed on any personal PC or on a touch screen, such as, Tek Panel™, making it more portable.

The Result

- The United States Army can train soldiers more efficiently.
- The system is portable and training can be performed on any personal PC, so weather delays are no longer a factor.
- Creates the opportunity for others to use this type of training method.
- Saves the life of the real equipment, by using a simulator for training.
- Provides more time for training because set up/tear down is easier.



About Guild Associates

For over 30 years Guild Associates has been providing engineering and technical solutions to industry and the military. Areas of specialty are:

- Natural Gas/Biogas Upgrading Systems for Removing CO₂, H₂S, Nitrogen, Siloxanes and Water
- Gas Compression and Gas Separation systems
- Containerized Military Systems
- Chemical Warfare Decontamination
- Pollution Abatement Catalysts
- Chemical Warfare Filtration Media

Guild Associates is a full-spectrum company, they perform basic research, then develop, manufacture, and field service their products.

For the military, Guild Associates is focused on improving the life of the warfighter. Guild Associates’ products protect warfighters from chemical and biological warfare agents, efficiently launder their clothes wherever they are deployed, and enable Mortuary Affairs to respectfully preserve the remains of those who make the ultimate sacrifice.

Source: Guild Associates Website

