

CASE STUDY

Western Electrical Contractors Association



The Western Electrical Contractors Association (WECA), a Chapter of Independent Electrical Contractors (IEC), has training facilities in Sacramento and San Diego, and will be opening a training center in Riverside in summer 2010. It is a state-wide, non-profit organization that serves electrical contractors, their employees and the industry suppliers that support them.

The Western Electrical Contractors Association (WECA) offers federal and state-approved apprenticeship programs as well continuing education for contractors and exam preparation classes for journeymen pursuing state certification in the State of California. They also offer a state-approved Electrician Trainee Program.

The Objective

In 2007, after reviewing the skills being taught in the apprenticeship program, WECA Director of Education Marilyn Crawford realized that the troubleshooting training they were providing was not giving the students the skills they needed and was in need of an overhaul.

"We were teaching some troubleshooting skills through hands-on lab activities," says Crawford. "But that was not a comprehensive approach."

Based on WECA's approach of creating training that is focused on developing measurable learning objectives, Crawford began a search for training aids to help teach troubleshooting competencies to WECA's apprentices more effectively.

During her search she came across the **Simutech Training System** software and knew she had found a tool that met, and surpassed WECA's evaluation criteria for third-party training aids.

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"When we identify excellent learning tools that are developed by other organizations, we often incorporate those into our curriculum rather than reinventing the wheel," says Crawford. "As soon as I completed the demo, and one of the instructors reviewed the entire program, we were thrilled to find that this program met our needs far beyond our expectations."

The Solution

WECA incorporated the **Simutech Training System** into third, fourth, and fifth year apprenticeship programs along with hands-on learning activities, enabling the instructors to provide more effective troubleshooting training and helping apprentices to develop skills that they could use on the job.

"The best part is that test results in the simulations are similar to real world experience," says Jimmie Slep, WECA's Apprenticeship Program Manager and Lead Instructor. "[This software is an] excellent way to prepare for real word troubleshooting events."

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With the success of the improved troubleshooting training in the WECA apprenticeship program, Crawford came to realize that the **Simutech Training System** had the potential to allow WECA to provide high quality, distance troubleshooting training for *all* of their students.

WECA created an advanced standalone course, using the **Simutech Training System**, to provide the opportunity for all of their certified journeymen students to renew their certification by completing the programs remotely, from their home or office, to obtain the 32 hours of Continuing Education credits required to renew journeyman electrician certification in California.

"This is an excellent way for certified journeymen to brush up on critical troubleshooting skills while meeting recertification standards mandated by the State of California," Crawford explains.

"IT PROVIDES students with challenging real-world simulations - not just reading or on line bookwork. The fact that it provides extensive scenarios and tools, plus it measures learning in terms of time, materials, and safety, was more than we expected."

The Simutech Training System software was also incorporated into three of WECA's remote "blended learning" courses that journeymen or electrician trainees participate in via live web cast. Students complete the **Simutech Training System** programs between class meetings, giving them valuable hands-on training and instructor support from a remote location.

Being able to utilize the **Simutech Training System** software in this type of course gave WECA the opportunity to provide its students with high quality, hands-on training not available from other distance learning programs.

"[The software] provides students with challenging real—world simulations—not just reading or on line bookwork," says Crawford. "The fact that it provides extensive scenarios and tools, plus it measures learning in terms of time, materials, and safety, was more than we expected."

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The Results

According to Crawford the **Simutech Training System** software has helped WECA achieve its objective of providing apprentices with safe and effective hands-on training that targets the troubleshooting competencies.

Students who have used the **Simutech Training System** say that the programs are engaging and, because they are based on real world situations, build their confidence and skills in troubleshooting on a variety of circuits and equipment.

"Their scores indicate that the demonstrations in the simulation set [the students] up for success for the testing phases of the courses," says Crawford. "Most importantly, the simulations enable the students to practice in a safe and non-threatening environment which can set them up for working more safely and competently on the job."

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The Simutech Training System has also allowed WECA to offer the flexibility of distance hands-on troubleshooting training to all of their students. The software lets students develop troubleshooting skills on their own schedule without having to travel to a training center, and without compromising the quality of their training.

"The programs are robust, dynamic, well sequenced, and have thorough tutorials and an intuitive interface," says Crawford. "Incorporation of these valuable troubleshooting tools into our curriculum is making a major contribution to the quality of our instruction in developing these troubleshooting competencies successfully."