Case Study

Conewago Enterprises Sees Immediate Productivity Gains and Cost Savings with CM Labs' Simulation Training System

Situation

Conewago Enterprises is one of the mid-Atlantic's leading design-build general contractors. With core values that include safety, integrity, quality, and efficiency, Conewago Enterprises is always looking for the safest, most efficient way to prepare operators for the worksite.

Solution

A CM Labs simulation training system, equipped with multiple training packs for cranes and earthmoving equipment, helped Conewago Enterprises improve training efficiency and safety while also cutting costs.

Why CM Labs

Conewago chose CM Labs for its unparalleled realism. The company had several experienced operators test out CM Labs' simulator, all of whom found that it felt just like operating real machines.

Benefits

Conewago Enterprises has reduced its onsite crane training time from 6 months to 7 weeks and reduced its training costs by over 60%, from $40,000 to $15,000 per operator. In addition, through the use of a CM Labs simulator alone, an excavator operator was able to reduce his cycle time by over 37%.

Conewago Enterprises, Inc. is one of the mid-Atlantic's leading design-build general contractors. Founded in 1956, the family-run construction company has grown to over 300 professionals today, with projects including a 150,000-square-foot state-of-the-art manufacturing facility for Schindler Elevator, the $21 million Gateway Hanover retail center, and the $45 million Wyndham/ Courtyard Hotel and Conference Center in Gettysburg.

"The reason our clients select Conewago Enterprises is really simple: We do what we say we're going to do," said Adam Hicks, Conewago's Vice President of Administration. "We can tell an owner what their building's going to cost and how long it's going to take, and then we deliver on that."

> ***"We can bring applicants to the simulator and actually test them compared to our known and reliable operators."***

When you have this kind of reputation on the line, it's critical to ensure that your workforce meets the highest standards of qualification and productivity. Conewago determined that simulation-based training would allow it to realize a number of benefits that aligned with its core values, including increased operator efficiency, more effective training for novices, and a safe way to conduct training without having to pull equipment out of the field.

After having come across CM Labs' simulators at CONEXPO, Conewago executives and operators visited a CM Labs simulator installation at Missouri Valley Line Constructors in Wisconsin, and were thoroughly impressed.

"I took three very experienced operators, and I kept telling them, 'guys, I want a productive tool, not a toy,'" said Hicks. "All three loved it. They said the simulator felt like the real machine, whether it was a crane, excavator, or wheel loader. By the time we left, we were ready to purchase the simulator."

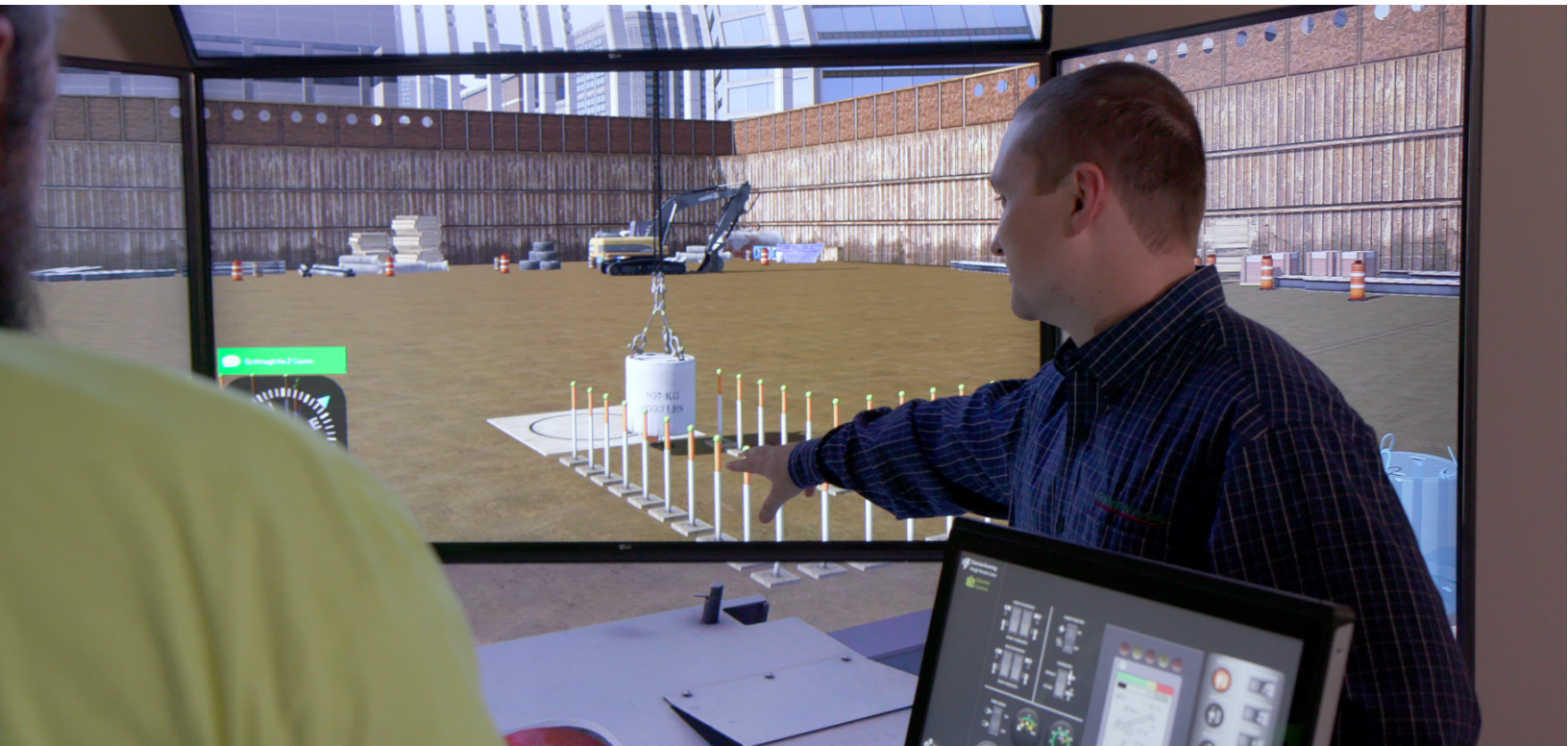
Once installed, the CM Labs simulator rapidly demonstrated its value for Conewago, which saw immediate productivity gains among some of its newer operators in the field, who were able to use the simulator to hone their skills.

Additional benefits soon became apparent as the company increased its reliance on the CM Labs simulator.

Reducing Cycle Time with CM Labs' Excavator Simulator

When skilled labor is in short supply, it's vital to take advantage of each job applicant's potential.

"There is real value to using the CM Labs simulator for the hiring process," said Greg Smith, Project Manager for Conewago Enterprises.



"We can bring applicants to the simulator and actually test them compared to our known and reliable operators. This allows us to gauge where they're at in their experience. It might result in an understanding that they're not quite as experienced as they'd indicated, but also that they might just need some time on the simulator to hone their skills and to be ready for the jobsite the way we need them to be." Greg Smith, Project Manager at Conewago Enterprises

Conewago also regularly uses the simulator now for operator benchmarking. This allows it to identify particular skills that some operators may need to enhance.

One operator, who was already bench loading for the company, went through ten exercise sessions on the simulator. By the tenth time, he had reduced his cycle time from four and a half minutes to three minutes—saving about a minute and a half on excavator cycle time.

Smith explains the impact of this improvement: "When you look at ways to track productivity gains on excavator cycle time, you can get some conceptual numbers based on a perfect world scenario. You should see approximately $13,000 worth of savings on a 30,000-cubic-yard project, all the way up to $40,000 for a 100,000-cubic-yard project. And that's by shaving just 30 seconds off of cycle time. We were in a position to triple those numbers thanks to the CM Labs simulator."

Immediate Cost Reductions for Heavy Equipment Operator Training

Incorporating the simulator into Conewago's operator training program resulted in almost immediate savings, said Smith.

> ***"Using the CM Labs simulator, we were able to cut crane training costs by around $30,000 per operator."***

In particular, Conewago found that the move away from on-the-job training provides relief for the equipment from the very beginning. "When you put somebody on a piece of equipment for the very first time, their inclination is going to be to operate the equipment very slowly, and probably in the idle range," said Smith. "But a lot of equipment needs to be run in a high range to use the full hydraulic capacity of the equipment and prevent shortening the lifespan of any parts or pieces of that equipment. With the simulator, you are removing this stress on the equipment."

In addition to these direct cost savings, Conewago Enterprises experienced other savings attributable to reduced opportunity costs. With the CM Labs simulator, Conewago no longer needs to train new operators on a worksite crane under the supervision of an experienced operator. This means that training no longer involves a loss in productivity, with less skilled operators pushing out the duration of the project.

"Now, we can isolate those operators from that crew, allow them to train on the simulator, and all we're paying really is their wages on the simulator, as well as a trainer to advise them," Hicks explained. "They can actually build their skills in an environment that's not impacting our revenue source in the field."