

## Product

Maxwell Systems® Estimation®

## Company

Arco Electric  
Idaho Falls, ID

## Industry

Arco Electric, Inc. is a leader in the electrical contracting business providing electrical and telecommunications design and installation for new construction and renovation.

## Challenges

Experiencing increased competition, Arco strives to produce more accurate estimates to bid more jobs quickly. And due to the complex nature of electrical projects, the company desires software functionality that is flexible and easy to use.

## Solution

Arco leverages the robust functionality of Maxwell Systems Estimation software tailored for electrical contractors to achieve a seamless takeoff, estimating, and bidding process for improved productivity and profitability.

## Results

Understanding that accuracy is essential to winning jobs and being successful in today's complex and competitive construction market, the estimators at Arco rely on Estimation to easily find data, make changes, and review information for future projects, and can increase precision across processes and have confidence with every bid.



## Estimation

### Maxwell Systems Case Study

## Arco Electric

Arco Electric, Inc. of Idaho Falls, Idaho prides itself in providing peace of mind for its customers. As an electrical contractor serving southeast Idaho and parts of Wyoming for more than 20 years, Arco's expertise is in high voltage, automation, security, fiber optics, power distribution, and data distribution systems.

With 15 to 35 employees at any given time, the electrical contractor does a wide array of commercial, industrial, and some residential projects that vary in size up to about \$3.2 million.

"We estimate about 150 jobs a year," said Jed Miller, an estimator at Arco Electric who joined the company in 1992 as a journeyman electrician. In 1997, Miller became an estimator. At that time, Arco had been using Estimation since the late 1980s and was shifting to the Windows version of Maxwell Systems Estimation, a seamless takeoff and estimating solution tailored to the needs of electrical contractors enabling them to automate the bidding process, lower costs associated with bidding, and win more jobs.

### Speedy and Streamlined

Experiencing increased competition, contractors need to be able to produce more accurate estimates and bid jobs more often. Arco has been leveraging the robust features and functionality of Estimation to help improve its productivity and profitability for nearly two decades. By using the software for seamless takeoff, estimating, and bidding, Arco estimators can increase precision across processes and have confidence with every bid.

To illustrate how Arco uses Estimation on a daily basis, Miller walked through a typical bid opportunity. Using a brand new high school as an example, he explained how he first looks at all the parameters of the bid items so his takeoff can be entered accordingly, opens up to the site drawings, and uses a digitizer board to set the scale to what is required for the electrical utility at the site. After he completes the electrical, he then takes off the phone, cable, and fiber optic utilities placing the items in one section or in separate sections depending on the breakout requirements down the road.

"Next, I do the outside lighting, sometimes putting it in its own section. I can also place individual codes by the lighting, which allows me to run summary reports on the specifics at any point in the process, if needed," Miller explained.

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After the lighting, Miller makes a new section for the switch gear. He has tailored the Estimation solution to create one takeoff assembly for switchgear, another for panels, etc. He is then able to lump like items together in one take off operation or to take each panel or switchboard off individually. He explained how he is able to takeoff everything shown on one line gear separately then easily move to the feeders and quickly takeoff exactly what is shown. With Estimation prompting the questions down to the wire size, he can be assured he isn't missing any pieces of the project.

Miller then continues from the feeders to the specific grounding. Once each page is done, he then goes through the fixtures, followed by the branch lighting where all the light switches and components are counted. He then continues on to the branch power, where he said that if there are any disconnects, they will show up here. Lastly, he finishes the takeoff with the mechanical systems.

## Flexible and Feature-rich

The flexibility of Estimation allows Miller to use it and adjust it to fit his particular preferences. He also appreciates a number of the solution's valuable estimating features that help him work with optimal efficiency every day.

Using the comprehensive database within Estimation, Miller has access to historical pricing on cost items including materials, equipment, and labor. "When prices change for individual items or components, they are updated automatically in Estimation. This increases accuracy, as well as the fact that everything is measured and there are no averages like with the manual process," he said.

"By being able to break down our jobs into sections or by components, we are able to better evaluate projects down the road," Miller explained. "It makes it easy for us to compare projects and determine the cost differences and helps us to make better decisions on future jobs."

Arco uses the Estimation Ei Matrix tool that links Estimation to Microsoft Excel. This allows for the exportation of material into an Excel file along with the pricing and labor for the material. Arco uses this feature to present itemized change order information for approval. By automatically transferring all the data and formulas from the summary reports directly into Excel, Arco can be assured of the integrity of their reports and saves significant time by not having to reenter any data or formulas.

## Being a Consistent Bidder

With the complex nature of electrical projects, Miller emphasized the importance of being able to break down jobs. "All the information from the takeoff is automatically sent to Estimation and can be broken up 10 ways to Sunday. I like to keep it all separated. It helps us to easily find data, make changes, and review information for future projects."

Miller continued: "I also like the fact that I can tweak anything in Estimation by adding items or requiring more or less detail. I have created many takeoff assembly keys to include specific questions that I want to ask for our business."

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Understanding that accuracy is essential to winning new jobs and being successful in today's complex and competitive construction market, he concluded: "I can guarantee you, the way we bid using Estimation makes us among the most consistent bidders in our area. We are often asked to do price checks for people because they know how consistent we are."

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