



## Maxwell Systems Case Study DG Frondorf and Associates LLC

### Product

Maxwell Systems™ Quest Estimator™, Quest Earthwork™, Quest Takeoff™, Quest Cross Sections™

### Company

DG Frondorf and Associates LLC  
Cincinnati, OH

### Industry

Company provides quantity takeoffs, cost estimates, scheduling, scope of work analyses, and post-bid work as well, such as claims and change order preparation and invoicing. Clients include sitework contractors, architects, engineers, construction management firms, developers, property owners, and other consultants.

### Challenges

Because the company's core business is estimating and bidding, it is critical that the firm has the right tools and processes in place to efficiently provide reliable estimation and bid data to its clients.

### Solution

DG Frondorf and Associates LLC uses Maxwell Systems Quest solutions to quickly takeoff and create accurate budgets and bids. The solution helps to save valuable time and provides precise data that prevents potential costly mistakes.

### Results

Since using Maxwell Systems solutions, DG Frondorf and Associates LLC's sales have increased each year. As more of the firm's clients see the value, their customer base grows and they are able to produce more information in significantly less time, which means more submitted bids and more won contracts.

Recognizing that in many small and mid-sized sitework contracting firms, the owners, as well as other employees, wear multiple hats and do not have full-time estimators on staff, Daniel G. Frondorf, CPE founded DG Frondorf and Associates LLC in 1999. He knew that often the two most important functions in a contracting business – estimating and bidding – were put on the back burner and handled by the owner after a full day of serving as the firm's accountant, foreman, human resources officer, and laborer.

Understanding the challenges these contractors face, DG Frondorf and Associates LLC provides sitework contractors of varying sizes with quantity takeoffs, cost estimates, scheduling, scope of work analyses, and post-bid work as well, such as claims and change order preparation and invoicing. Over the years, the Cincinnati, Ohio-based firm has grown and expanded its wide range of services to not only sitework contractors, but also architects, engineers, construction management firms, developers, property owners and other consultants.

### The Technology Revolution

"I have seen bidding and estimating change significantly over the past 10 years," said Frondorf. "Computers have revolutionized construction estimating. There are more software packages, more options on the Internet to find bid opportunities, and more real-time information to leverage. We have found that contractors of all sizes are struggling with information overload and searching for new ways to effectively manage their businesses."


Unlike its clients, DG Frondorf and Associates LLC's core business is estimating and bidding. It is critical that the firm has the right tools and processes in place to efficiently provide reliable estimation and bid data to its clients.

### The Quest for Accuracy

Not long after the company was founded, Frondorf was introduced to Quest Estimator, the first of many Maxwell Systems Quest solutions it would purchase, including Quest Earthwork, Quest Takeoff, and Quest Cross Sections.

For the Frondorf team who works with many sitework contractors, construction managers, civil designers, landscape architects, and owners, Maxwell Systems Quest Earthwork, the company's core earth-measuring program, has become an invaluable tool.

"Knowing not only how much material our clients will have to move for a project, but also what types of materials are involved, is a major factor in creating an accurate budget or bid," explained Frondorf.

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For example, the firm received a request at 10 a.m. on a Tuesday to verify data for a bid due on Friday for the sitework for a new jail. This is not uncommon for the firm to receive projects under tight deadlines. The contractor asked DG Frondorf and Associates LLC to double check the material quantities provided by the owner. They wanted to know exactly how much rock they would be digging up versus clay, as rock is much more expensive to excavate and these specific details about the types of materials were not provided by the owner.

Using Maxwell Systems Quest Earthwork, DG Frondorf and Associates LLC was able to do an accurate takeoff of the site, by taking a geotechnical report and breaking down the cut and fill based on the type of material in specific locations on the job. Although the owner provided some information for the site, this geotechnical information helped the contractor verify the information and more accurately calculate the specific types and amounts of materials that would need to be excavated.

"If we had done this project by hand, it would have taken three or four days," explained Frondorf. "With Quest Earthwork, we were able to complete the takeoff in less than four hours. It not only saved us valuable time, but also provided more precise data that potentially prevented costly mistakes on the project."

### Visualizing the Job

For so long, contractors have relied on blueprints for project planning purposes, but these one dimensional tools have their fair share of limitations. For most estimators, visualizing the job is a must. "Quest has stunning graphics that help clients see where cuts and fills are and the depth of color helps them easily visualize and plan how the job will get done. The use of 3-D, grid, and cross section formats to visualize the project is a huge time savings and definitely increases our accuracy," said Frondorf.

"We have been using Quest Cross Sections for a couple years and have been thrilled with it," said Frondorf. "Doing dirt takeoffs can be drafting intensive and inherently time consuming. Typically many drawings are required to be produced by the Estimator, rendering the takeoff process more susceptible to error. Using Earthwork and Cross Sections, we can break out separate sections of the project, take off the elevations for each area and easily view the amounts of cut, fill, and stripped soil that remain. If a mistake has been made, a visual spike will be evident and a change can be made immediately. With manual takeoffs, we may not see the error, compromising the accuracy of the takeoff."

"We looked into other potential solutions on the market and also have the chance to see the reports generated from these other products when our clients send us information from their own systems. No other solution matches the quality of the graphics that Maxwell Systems Quest Earthwork offers. Earthwork is intuitive and the

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ability to import AutoCAD drawings saves us significant digitizing time. These graphics help us visualize the job," added Frondorf.

"Quest solutions are user friendly, very intuitive, have outstanding graphics and awesome output," said Frondorf. "The problem is that we have actually lost clients that have seen the benefits of Maxwell Systems products and decided to purchase them themselves."

### **More Bids, More Contracts**

"Since we have been using Maxwell Systems Quest Earthwork and the other Maxwell products, our sales have definitely increased each year. As more clients see the value, our customer base grows. We are able to crank out a lot of information in significantly less time, and the more bids a contractor can submit, statistics show, the more contracts they should win," explained Frondorf. "It's great for us and for our clients."

Speed is important, but even more critical is ensuring the accuracy of the information the firm is providing its clients. Frondorf explained, "If we do an earthwork takeoff manually, there is a greater opportunity for error. With Quest Earthwork, the program does exactly what we would do manually, but it's quicker and more reliable. We can nail down the details to the last cubic yard, eliminating guesswork and waste on the projects. We are able to plug in numbers with certainty and be more accurate in cost estimating and bids."

Frondorf also likes the fact that he has 24/7 customer support if needed. He explained, "We have not had to leverage the services of Maxwell Systems much, but when we have, they've been outstanding. One time in eight years, I needed help at 3 a.m. and a Maxwell Systems customer representative was there to assist me. Their team has a thorough understanding of our business and knows how to leverage the software to address our challenges, and they always encourage recommendations for their products from the user community. Working with Maxwell Systems has been great and I would recommend Quest Earthwork until the cows come home. It is our money maker – it makes us really shine."

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