State of software

SecturaSoft's Pierre Slabber provides insights on the direction fabrication software is taking today and in the near future

by Robert Farrell, owner, Farrell MarCom Services LLC

Pierre Slabber, founder and president of SecturaSoft LLC, is a veteran of more than 25 years in the fabrication software industry. His professional background includes software and product development and engineering. In his various roles, Slabber was responsible for the enhancement and ongoing development of next-generation CAD/CAM nesting and related applications. More recently, he was the chief architect behind one of the industry's leading nesting programs.

Recently, Slabber agreed to share his thoughts on the state of fabrication software as it relates specifically to metal fabricators and job shops.

How did SecturaSoft get its start?

After 25 years in the nesting software business, it was time for a change. Over the past few years, I recognized that there was a real need emerging in the industry – especially among smaller service centers, fabricators and job shops. While CAD/CAM, nesting, CRM (customer relationship management software) and other business applications were steadily advancing, the integration of these systems was lacking.

The truth is that many of these tools, although robust in their own right, don't communicate with one another. Not just on the shop floor, but from the front office to the loading dock, these systems must be integrated across the board. Until that happens, those employing them will not realize the full return on their investments. →

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> *Pierre Slabber, founder and president, SecturaSoft LLC*

Companies today need open-ended solutions. They need the freedom to choose tools that meet their unique needs and budgets without being locked in to a specific vendor – solutions developed specifically for the metal fabrication industry.

With this in mind, we began working to create a web-based quoting and production management solution that could be easily integrated with a company's existing CRM, CAD/CAM, nesting and financial programs. Perhaps more importantly, we wanted to establish a genuine reputation for quality, integrity and trust throughout the fabrication industry.

Regarding the fabrication industry, what are some noteworthy advancements you've seen recently?

Intelligent CAD models have been around for quite some time, but in the past few years, fabricators and job shops have begun to leverage the information stored in CAD files to create more accurate quotes. Geometry-based quoting brings with it a number of advantages and has had a measurable impact for those who are taking advantage of it. At the same time, nesting applications – pretty much across the board – continue to get better and better.

Can you expand on geometry-based quoting?

In the past, quoting processes were based on experience and best guesses for the most part. The process was riddled with manual, calculation-intensive steps and inaccuracies and inconsistencies.

Basing quotes on gut feel rather than on standard rules created a number of problems as the quoting process, and final bid itself, often varied greatly from one salesperson to the next.

Furthermore, most of these quotes were being generated using a simple Excel spreadsheet. This often created a nightmare for locating and retrieving past data. It was a very manual, subjective and time-consuming process. Perhaps worst of all, one could never be certain that a quote would be profitable.

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Geometry-based quoting (see Figure 1) replaces guesswork with known variables. It uses part geometry to determine the type and amount of material needed, machine runtime, secondary operations and all other costs associated with producing the part. This allows sales to create accurate quotes that convert to production instructions and, ultimately, to an invoice. In this way, fabricators will know immediately how much profit a winning bid will bring them.

How important is a good piece of nesting software and what should one look for in a nesting system?

Nesting software is the key for any business that cuts metal. It drives fabrication machinery and maximizes yield. Without this piece of software, cutting, punching and bending machines are just costly pieces of equipment taking up space on the shop floor. →

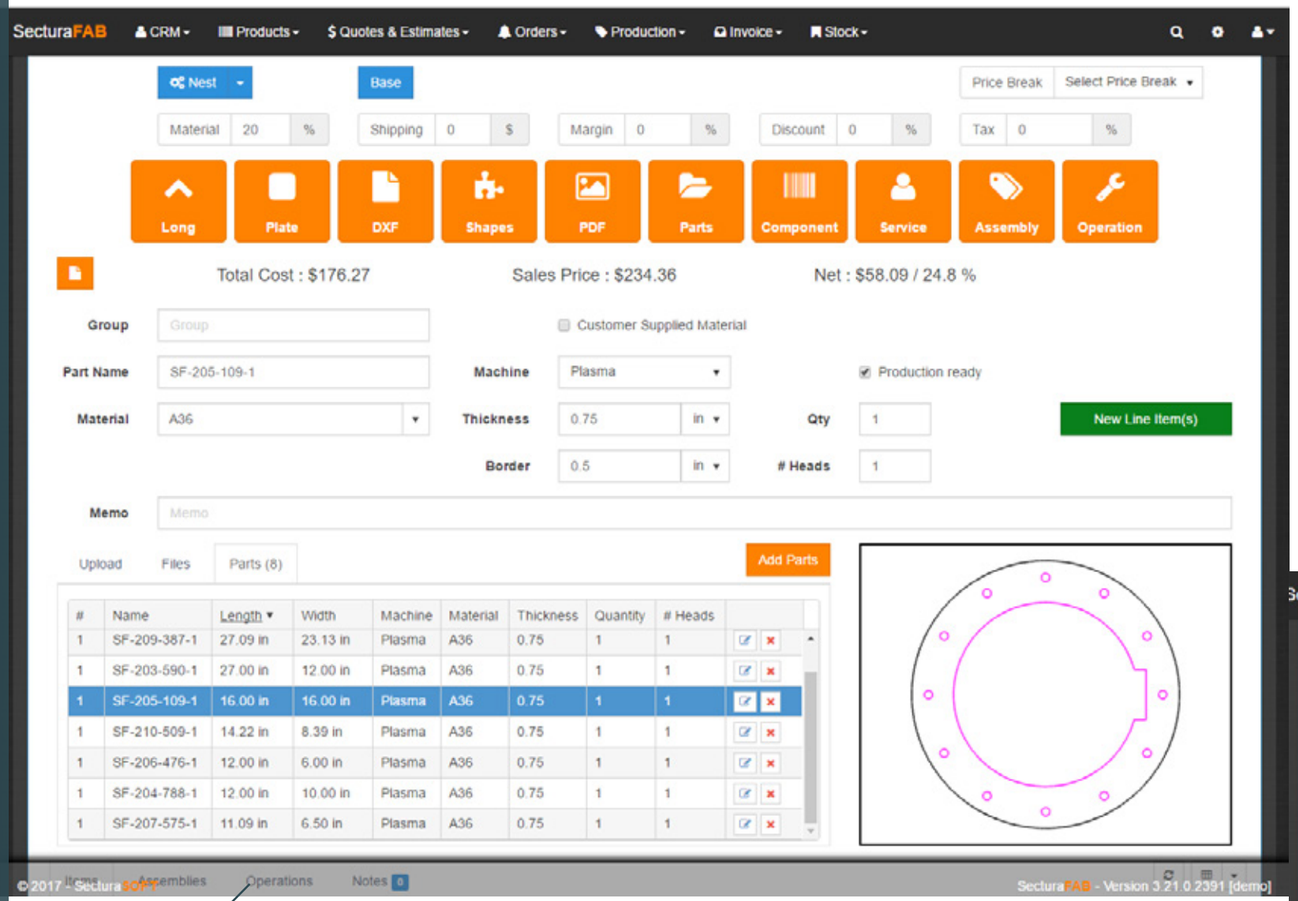
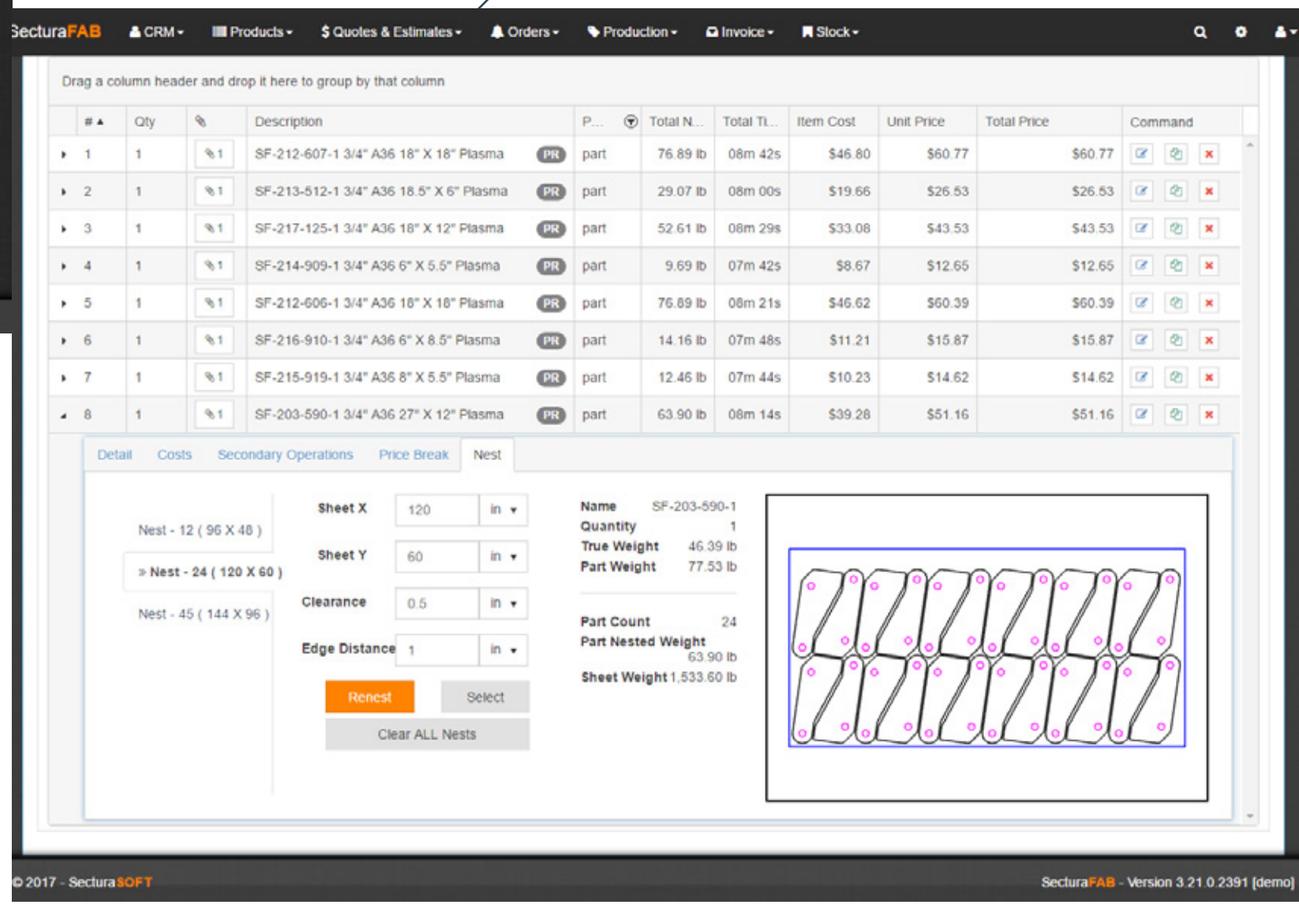


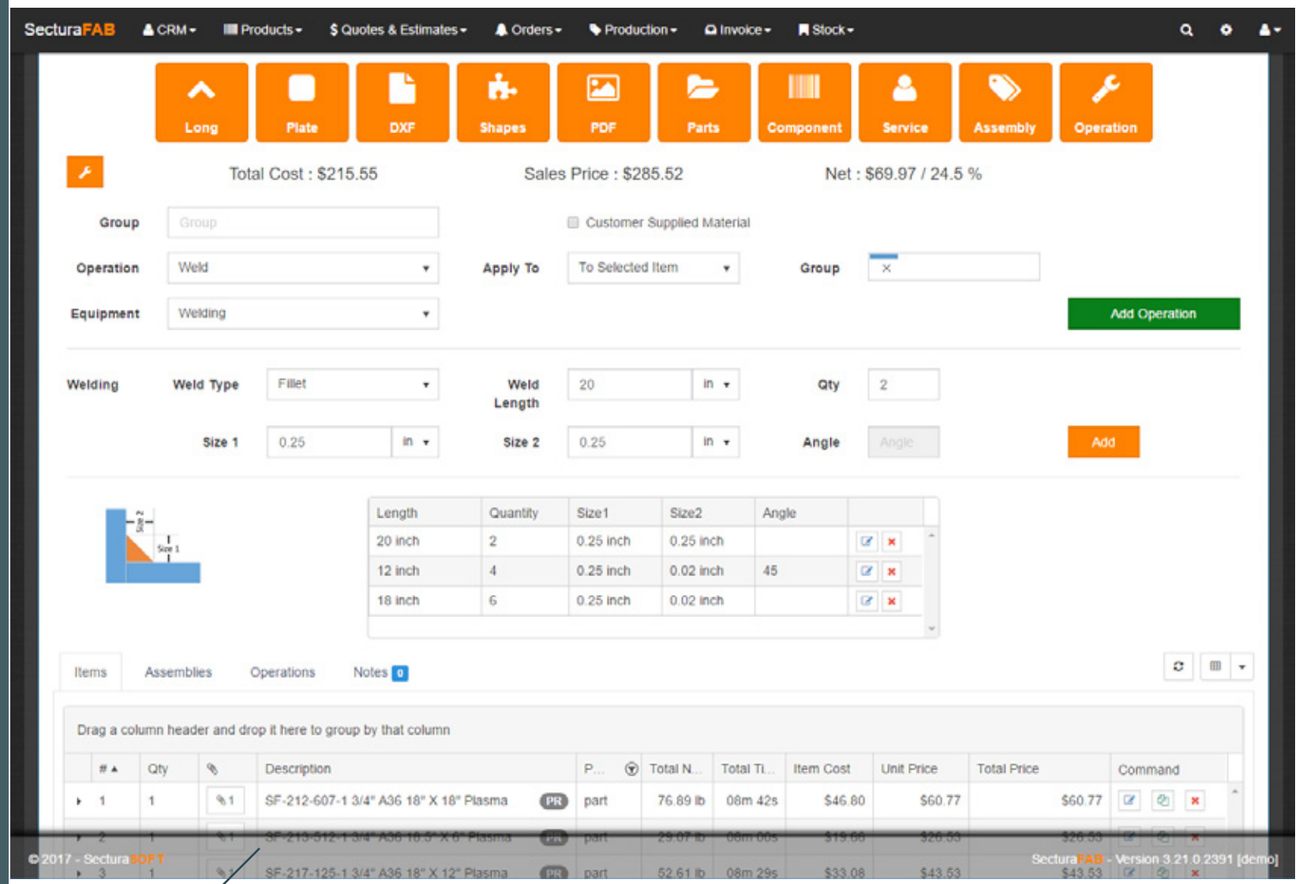
Figure 1. Geometry-based quoting utilizes actual part geometry to determine material cost, machine runtime, secondary operations and other information needed to accurately generate a quote.

Fortunately, the nesting software industry has evolved to the point where a number of good and affordable systems are readily available. Today, nearly all nesting programs are easy to learn and use and are more than capable of delivering good results. Because the basic functionality is pretty much the same across the board, fabricators can select a nesting program based on their budget along with current and expected requirements.

Nesting is the key – and today's MRP systems for the fabrication industry must have a tight nesting integration.

Having said that, I would add that it's critical that the nesting application integrates with in-house business systems. In this way, the production staff can manage production routings and monitor the progress of orders →





To be of value to the fabrication industry, MRP systems must be tied in to operations throughout the company.

that are being manufactured. When orders need to be invoiced, the financial staff is notified and given the ability to create the invoices.

At the same time, the integrated process examines inventory to determine if enough stock is available to complete the job. Up-to-the minute material pricing is accessed to calculate costs for any additional material that might be needed. Furthermore, the process boosts efficiency and profitability by allowing work orders to be combined to fully utilize material and production runtime and costs.

What is the single biggest challenge facing fabricators today?

Over the years, fabricators have learned to adapt to changing conditions. During the economic downturn of 2008, the industry began to take a closer look at all areas of the business in order to become more lean and efficient. For fabricators, the microscope was on the shop floor and its costly equipment and inventory. Anything that did not contribute to making the company more efficient was cut. As a result, manual and redundant tasks were automated and processes streamlined.

Today, this presents an opportunity for these companies to gain real-time visibility to access the exact status of any and every order at any given time. Those who get the orders out the fastest get the work. Visibility, therefore, is the single biggest challenge and opportunity for the fabrication industry today.

Don't MRP systems provide this?

They do, but to a very limited extent. Fabricators should look for an MRP (manufacturing resource planning) system that has been developed specifically for the industry. This is the key. The MRP system should include capabilities for geometry-based quoting and have built-in nesting functionality along with built-in material optimization capabilities. →

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Most importantly, the system must seamlessly integrate with the fabricator’s nesting program of choice. This allows all of the information pertaining to an order to be seamlessly linked to the entire company – from production to the front office to sales and financial.

What do you see as the next frontier for fabricators?

I believe that sooner rather than later we’re going to achieve a reliable and affordable data highway delivering real-time visibility across a company and throughout its supply chain. With the internet and the cloud, we now have the foundation that will allow us to access any information, from any place at any time. Believe it or not, this isn’t so far away. ●

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