**Excel Foundry & Machine**

New revenues and a new future thanks to ReverseEngineering.com

“The clear choice was ReverseEngineering.com (formerly HighRES). It was the only software that could be 100 percent integrated into our CAD modeling system.”

— Chris Dewitt, Senior Design Engineer

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<th>Industry:</th>
<th>Heavy manufacturing</th>
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<td><strong>Challenge</strong></td>
<td>Find software that could digitize directly into CAD easily, quickly and accurately.</td>
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<td><strong>Solution</strong></td>
<td>ReverseEngineering.com’s HighRES Industrial with “Leapfrog” module.</td>
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| **Results** | Ability to measure more parts faster.  
Dramatically increased revenues.  
A true advantage in an extremely competitive global marketplace.  
Greater efficiency and accuracy in all its CAD work. |

**SUMMARY**

Facing fierce competition, Illinois-based Excel Foundry & Machine – a manufacturer of replacement parts for mining and rock crushing equipment - decided to expand rather than stay in place. Discarding its manual processes, Excel deployed CAD-integrated 3D software from ReverseEngineering.com (formerly HighRES) to operate more efficiently and develop new lines of business. The result: More revenue, more customers and a brighter future.

**ABOUT EXCEL FOUNDRY & MACHINE**

For more than seventy-five years, Excel has operated under the highest standards of quality, precision, professionalism and integrity. It manufactures some of the biggest and most demanding parts for the mining industry and other heavy industries, including crusher parts, mining equipment parts and original equipment for manufacturers. Its parts go into cone crushers, hydraulic shovels, electric shovels, rope shovels, excavators, mining drills and drag lines.

**A FATEFUL DECISION TO MOVE FORWARD**

A little more than three years ago, Excel Foundry & Machine faced a dilemma. It could continue with its proven but manual processes – measuring replacement parts in the field, for example, with calipers and other manual instruments – or it could modernize by purchasing a portable coordinate measuring machine (PCMM). Trouble was, the engineers knew the PCMM alone would not give the company the competitive advantage it needed. It was clear that the PCMM hardware needed software that would enable it to deliver its measurement data into the company’s CAD system easily, quickly and accurately. That’s when it found a La Jolla, CA-based company called HighRES, now ReverseEngineering.com.

“We needed to venture off into more complex parts and systems and in doing so it’s rather difficult to get all the dimensions you need with the old hand tools,” said Chris DeWitt, senior design engineer.
INTEGRATION, ACCURACY ... AND PROFITS

After looking at the PCMM-to-CAD software available on the market, Excel quickly settled on a solution provided by ReverseEngineering.com. “We looked at a couple other companies but none of the competition’s software was nearly as robust as ReverseEngineering.com’s - not nearly as integrated into our CAD package,” said Dewitt.

When it deployed the ReverseEngineering.com solution with its new PCMM, Excel had a fully native software bridging solution that drove data directly into its CAD system as modifiable parametric sketches. It was fully plug-and-play, absolutely integrated, operable under harsh field conditions and easily learned and operated.

“Once we started looking at using a PCMM the clear choice for software was ReverseEngineering.com,” said Dewitt. “It was the only software we saw that could be 100 percent integrated into our modeling system.”

THE RESULTS: A TRUE COMPETITIVE ADVANTAGE

Thanks to the direct-to-CAD qualities of the ReverseEngineering.com software, Excel Foundry has:
- Opened up new lines of business that have delivered new revenues to the company.
- Enjoyed unprecedented flexibility, integration, accuracy and dependability from its PCMM and software.
- Been able to make more parts for more machines. “Between the PCMM and HighRES it opened things up for larger, more complex parts that we can supply to the aftermarket,” said Dewitt. “Basically now anything goes. It opened up another world of opportunities. When somebody from sales comes to us asking if we can handle a large complex project the first thing we’ll say is, ‘Let’s get someone on a plane and measure it up.’ Without the PCMM and HighRES, it wasn’t possible to move so quickly.”
- Enjoyed customer service Dewitt characterizes as “great.” In fact, Dewitt is hard-pressed to offer suggestions for improvement of the ReverseEngineering software. “If you can do it in your CAD package you can do it with HighRES. HighRES allows you to do everything inside the CAD,” he says.

THE FUTURE: MORE REVENUES, MORE BUSINESS

Dewitt and Excel also appreciate the flexibility of ReverseEngineering.com software. Though it recently switched to different CAD system, the company was able to stay with the robust ReverseEngineering.com software it has come to depend on – a relief to Dewitt.

In fact, it’s difficult for Dewitt to imagine work without ReverseEngineering.com. “It would probably take four times longer to do the same stuff we do now. We would have had to input everything manually, and the amount of time to do that would have been astronomical. If ReverseEngineering.com didn’t exist we probably wouldn’t have purchased the PCMM. It does everything we need it to do plus a lot more. There are features and functions we haven’t even touched and we use it a lot.”

Excel recently bought a second arm, and second ReverseEngineering.com seat. There was just too much business to handle, thanks in large part to ReverseEngineering’s direct-to-CAD capabilities. “We had a need to digitize straight into our CAD system and no other product could do that the way ReverseEngineering.com does it.”

- Chris Dewitt, Senior Design Engineer, Excel Foundry & Machine

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