The Size of Your Shop Doesn’t Matter

Mark McKim started McKim Design & Fabrication in Friendswood, Texas (just south of Houston) in September of 2006. It’s not a big shop. In fact, Mark McKim does nearly all the work by himself – but McKim Design’s output is remarkably efficient. After years of turning down work because of the complexities that are inherent in manual machining, Mark McKim discovered a CNC solution that allowed him to take on a much higher workload than ever before. Furthermore, McKim Design was now able to compete price-wise with other companies with advanced CNC capabilities.

Mark McKim agrees, however, that “getting a CNC machine was only part of the solution.” He continued that he “needed a CAM software that could quickly generate machine code from my 3D modeling packages. In today’s competitive environment, I get a lot of customers that need one-off type parts in a hurry.” Servicing customers with immediate needs for parts requires both quick and accurate turnaround, and the process usually requires intricate part modeling, design approval, and then, the actual production.

Choose Your Tool Wisely

As the sole user of his CNC machinery (Tormach Mach 3) and CAD software (Alibre, Rhino, SpaceClaim), McKim first turned to SprutCAM to provide the effective connection between design and production software. However, Mark concluded that SprutCAM’s difficulty of use and the steep learning curve made it inefficient, especially in a small one man shop environment. “Technical support,” Mark lamented, “was almost non-existent.”

Understandable, since SprutCAM is developed in Russia, and required its users to discover solutions by collective trial and error – but as Mark McKim discovered, a better tool was available, that provided equal or greater power, functionality, affordability, and un-paralleled ease of use.
Ease of Use = Return on Investment

Ease of use is the primary driver of ROI for most engineers. A recent article in MCADCafe said that engineers spend 60-80% of their work time changing designs. Each design change means new tool changes, settings, and a myriad of other small steps that can require endless hours of valuable time—time that could be spent machining and producing complete products for the client.

Mark McKim used VisualMILL to take 3D models from Alibre, Rhino and SpaceClaim (or customer models that are developed in other programs), and output the G-code for his Tormach that uses the Mach 3 controller. VisualMILL allowed Mark to determine his method of machining and simulate the machining process prior to cutting the parts on his machine.

Accurate simulation can save an engineer a huge amount of time and resources, but requires that the CAM software allows for configuring the various machine settings easily and effortlessly. Another feature that makes these savings possible is VisualMILL’s tool library – with over 30 tools in his library, VisualMILL makes it easy to develop complex code for McKim’s machine by just clicking and choosing his custom tools sets without having to set each one up individually every single time.

McKim says, “once I have the part modeled and the customer approves the design, VisualMILL makes the rest of the project fairly simple.” He continues, “I can now turn around fairly complex parts from conception to completion in hours instead of days, or days instead of weeks.”
McKim might be a degreed engineer, but his 15 years of experience working as an engineer in the Oil / Gas / Chemical industry didn’t involve CAD CAM products. His pursuit of his passion of designing, fabricating, and manufacturing one off custom parts from automotive part and component prototyping to industrial machinery party redesign and reverse engineering to custom art, only started a few years ago in 2006.

He’s only owned his Tormach since 2008. Ever since he purchased VisualMILL, he’s been doing the same work bigger shops have been doing for years – everything from 2.5 D machining and engraving, to complex 4\textsuperscript{th} axis and 3D machining – without any formal training.

“When I was evaluating CAM software, I contacted MecSoft and got a one-on-one online demonstration with one of your tech support [representatives] for about 45 minutes. That 45 minutes not only sold me entirely on your product, but it accelerated my learning curve so much that I basically taught myself the rest with the online demonstrations and manuals,” claims McKim. “After I installed the software on my computer, I had my first part machined the very next day.”

Mark McKim is just one of thousands of satisfied VisualMILL users who have found the software to be intuitive and effective through its ease of use, but there are always new challenges to be faced and solutions to be derived. Despite his satisfaction with all the other elements of the software, Mark McKim says, “the best attribute of VisualMILL is the customer and technical support. While the software is intuitive and the manual and examples are great, there are times when I need help.”

Regarding the technical support, McKim is adamant: “Every time I have called for support, I get the answer I needed. Your knowledge of your product is second to none. When I call, and technical support is busy, I always have been called back. That comfort knowing that support is just a phone call away is the biggest plus for me.”

After I installed the software on my computer, I had my very first part machined the very next day.