Peace of Mind with Catia V5
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In our last article, we described why outsourcing CNC programming is a cost-effective solution. We briefly named the many reasons. Among them: shrinking the engineering backlog, the ability to take on extra projects, and most importantly tremendous financial advantage.

However, Catia allows us to offer our customers something even more important: peace of mind. Like most contract/consulting businesses the "when it rains, it pours" cliché definitely applies to us. CNC programming by its nature is a seasonal up and down business. And, it takes much more than talent as an NC programmer to survive.

We feel that this would not be possible without the use of the Catia CAD/CAM system.

With Catia, everything is linked. This does not just mean Model to Tool path as in other CAM systems, but Model to Catalogued Tool paths to Proven Processes to Customer Data Bases to Verification Records/Reports to the NC Program and finally to the Set-up Instructions/Tool Lists.

The data that comes from our customer is exactly the data we program from. That same data is exactly what is verified. All tool paths are copy-linked from individual customer catalogs that are saved in Catia -with every detail of every path pre-configured from previous jobs that gave good results. Having many customers, each with unique machines, tooling, and preferred methods requires extreme efficiency and organization. Even the instruction sheets are linked to Catia by custom-written VB scripts which eliminate human error in tool descriptions/set-up sheets that could potentially create scrap even after Catia says the program is good. These scripts work by pulling the exact data that was used in the solid model machine verification directly from Catia and inserts the data into forms automatically. This way we know that the tool-lists and set-up sheets will be error free so when our Catia verification report shows a collision free and part violation-free program, we know that the set-up sheet will contain the exact data to support this.

One of the greatest features of Catia is its powerful visualization. When using Catia everything is seen on the screen. We can see the part run while held in a custom fixture on the machine table and see the exact plan of attack. This is important when a customer needs a program updated to a new engineering order that was programmed two years and a thousand parts ago. We can watch the simulation and 5 minutes later, our memories are refreshed, and we can continue as if we left off programming yesterday. It makes it easy to manage many projects at once, and we can even record and provide these simulations for your enjoyment. Well…they're fun to watch!

All these things allow us to remain competitive and offer powerful service and support to all of our customers. They give us all the data and we take care of the NRE. Our customers get to relax with the engineering off their hands so they can focus on sales, marketing, management, and making money- knowing that their important engineering tasks are in good hands. Using Catia, we have maintained a zero scrap rate and 100% on-time delivery for the past 3 years since switching to the Catia system. Don't get us wrong- as many know, Catia is not simple software. It is vast and complex and requires years to master and some never really have the time to figure it out. We here at True Precision have invested many years to become experts using Catia's powerful tools and for us, it has become simple and second nature. We're very happy and proud of that, and more importantly- our customers have valuable peace of mind.