

ProtoTek

Need-to-know info for the precision manufacturing industry

Summer 2010

Volume: 1 Issue: 1

New online look for ProtoTek

We've spent the winter upgrading the capabilities and design of our web site.

Check us out online for:

- Overviews of our Mastercam, Machine Tool Monitoring, Shop Floor Networking and Rapid Shop Floor Inspection products and services.
- Tek Support program details and helpful links.
- Training updates and resources.

www.prototek-engineering.com



Enter our Cool Parts Contest

Win big – and fish big in Alaska!

Got a Mastercam part that features unique complexity – or is just way cool to see? Or parts that have been machined using Mastercam's advanced toolpath capabilities?

Submit your entry to us for review. Winners will be chosen at the end of the year.

Awards:

- **Grand Prize** - Alaskan fishing trip
- **Second Prize** - A copy of Mastercam Design LT
- **Third Prize** - Access to Mastercam University Online Training
- **All entries** - Receive a Mastercam Stainless Steel beverage coolee

To enter and for more details:

- Go to www.prototek-engineering.com/coolparts.html
- Contact Brian Pascoe at bpascoe@prototek-engineering.com or at 952-361-5598, x12



CONTACT US FOR A FREE PARTS INSPECTION

(952) 361-5598 • www.prototek-engineering.com

Tek Success Panther Precision

Opportunity

- Panther Precision had a new opportunity that required cutting a complex variable-pitch stainless steel auger used in food processing equipment.

Challenge

- While they had the right equipment and production capacity, they did not have internal expertise for CNC programming of this complexity.

Recommendations

- Upgrade Mastercam software to provide Curve 5 axis and axis substitution toolpath capability.
- Partner with Prototek to rapidly create a working post processor to output the multi-axis codes used by their Haas machine tool.

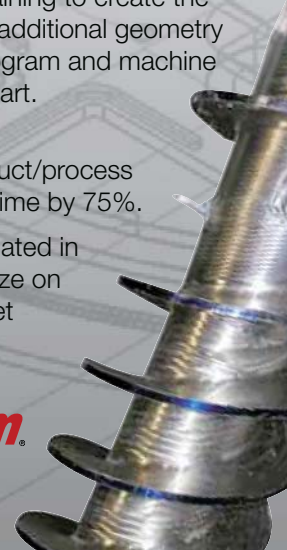
Solution

- Software upgrades and post-processor development completed ASAP.
- Prototek incorporated Panther solid-model geometry that accelerated training to create the toolpaths and additional geometry required to program and machine this complex part.

ROI

- Reduced product/process development time by 75%.
- Production initiated in time to capitalize on lucrative market opportunity.

Mastercam



Introducing **Master3DGage**

Easy, in-process 3D measurement and inspection or GD&T anywhere on the machine shop floor



This handy, quick-mount CMM system allows easy setup for on-demand measurement and inspections anywhere on the shop floor. Use Master3DGage™ right on your machine to verify parts quickly, in process, without removing or repositioning them.

Master3DGage™ makes any 3D inspection easy

Finish typical inspections, such as blueprint, in-process, incoming, first article and final inspections, quickly—with surprising ease and accuracy. Measurement reports are generated automatically, in industry standard formats, so you can know immediately whether parts are in or out of tolerance.

Align, Inspect, Report—simple, repeatable three-step process

Align: Quickly automate alignment by picking targets on CAD features (datums).

Run the routine by probing each target on the part. The Master3DGage™ software walks you through the process with simple, step-by-step instructions.



Inspect: Inspect and view in real time by manually probing or by following automated inspection plans. Easily measure features from precise single points to point clouds. Powerful software technology displays variance between the 3D model and the part.



Report: Using the 3D CAD model as the nominal definition, the system quickly generates custom reports in industry standard formats, including GD&T constraints and color deviation maps, for clear, practical analysis.

No metrology experience needed

With Master3DGage™, simplicity and ease of use are designed right in, so that even those with little or no metrology experience can get up to speed quickly. Controls and interface are easy and straightforward, so users spend less time scrolling through screens and more time making quality parts.

Ultra-accurate, six-axis metrology for precise 3D inspections

Master3DGage™ features an integrated Hexagon Metrology, six-axis CMM—among the world's most accurate—offering a remarkable measuring volume of just 1.2m. This feature provides superior dimensional control of parts, tooling, molds, castings and more.



Powered by Verisurf's model-based 3D inspection software

Powered by Verisurf's world-class, model-based software, Master3DGage™ maintains precise digital workflow, from the start of your inspection to the end.

The ability to precisely pinpoint and resolve quality issues in real time helps reduce scrap, improve efficiency, and boost the productivity of every machine.

Bottom line? With the new Master3DGage™ you'll do more work, with less rework—because both process and results are repeatable, even during high-volume production.

CONTACT US FOR A FREE ONSITE OR ONLINE DEMO

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Why ProtoTek?

Deep client-side experience

Prototek was founded in 1993 by engineering and manufacturing professionals with extensive experience working with CAD/CAM software.

Engineering product/service research and testing

In order to be sure we can offer you the best in CAD/CAM technology, we thoroughly evaluate every product, service or process we offer.

We're in it for the long haul

We work hard to ensure that your software purchase is just the first step in helping you increase productivity and profitability.

Truly customized training

We design our training to fit the specific needs and current expertise of your staff -- no cookie-cutter, generic classes that leave you with too many questions, lost productivity and growing frustration.

Mastercam certification and continuing education

Rely on us to keep your skills sharp now and for years to come.

Best-of-class support

We set the industry standard for fast, effective solutions to the toughest problems from installation to ongoing end-user assistance.

Operating system **compatibility**

“Will this version of Mastercam run on my operating system?”

This is a question we get all the time. With so many recent operating system changes, it can be hard to keep track of which Mastercam versions will run with which Windows® operating system. Throw in 64-bit systems and it gets even more confusing. To help you easily answer these questions, we have prepared some charts indicating which operating systems support different versions of Mastercam.

As you use these charts, pay attention to the following legend:

	SUPPORTED	The selected version of Mastercam has been successfully tested with the operating system.
	NOT SUPPORTED	The selected version of Mastercam has either not been tested or has been tested and failed.
	INCOMPATIBLE	The selected version of Mastercam is incompatible with the operating system and will not run.

Current operating systems

This chart shows which Mastercam versions are supported for the operating systems you are most likely to encounter today:

Released		2009		2006		2005	2001
		Windows 7©		Windows Vista©		Windows XP©	
		64-bit	32-Bit	64-bit	32-bit	64-bit	32-bit
2010	X5 (when released)						
2009	X4						
2008	X3						
2006	X2						
2005	X						
2002	V9						
2000	V8						
1998	V7						
1996	V6						

Older operating systems

This chart shows which Mastercam versions will run on older operating systems:

Released		2009	2000	1998	1995	1993
		Windows 2000	Win-ME	Win-98	Win-95	Win-NT
2010	X5 (when released)					
2009	X4					
2008	X3					
2006	X2					
2005	X					
2002	V9					
2000	V8					
1998	V7					
1996	V6					

For either chart, these ratings apply to the most recent release of the listed Mastercam version—in other words, with the latest service packs or Maintenance Update.

For help with other issues, go to our TekSupport web page and these related links and resources:

Prototek Tek Support

www.prototek-engineering.com/teksupport.html

Mastercam Blogspot

<http://mastercamx.blogspot.com/>

Mastercam Twitter

<http://twitter.com/mastercam>

Mastercam User Forum

www.emastercam.com





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Chaska, MN 55318-2348

Prsrt Std
U S Postage
PAID
Permit #1146
Saint Paul MN



Product Updates

Contact us for more information on these effective – and cost effective – products and services.



ROBOTMASTER

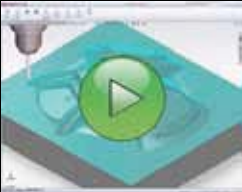
Robotmaster seamlessly integrates robot programming, simulation and code generation inside Mastercam, delivering quicker robot programming.

<http://www.robotmaster.com>

Mastercam for SolidWorks® The Best of Both Worlds

*"This opens a new horizon of CNC programming capability for part designers."
- Brian Pascoe, Prototek President*

CNC Software, Inc. is proud to introduce Mastercam® for SolidWorks®, which combines the world's leading modeling software with the world's most widely-used CAM software*.



Now you can program parts directly in SolidWorks®, using toolpaths and machining strategies preferred the most by shops around the world.

The Core of Your Machining Needs

Mastercam for SolidWorks® includes a suite of the most sought-after cutting strategies, including High Speed Machining (HSM) toolpaths. In addition, Mastercam for SolidWorks® delivers a powerful set of automated toolpaths that get parts off the machine faster, with little or no handwork

