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For Immediate Release

PartMaker

The Power You Need
The Ease of Use You Demand

PartMaker Version 2013 Features Restyled User Interface, More Powerful Surface Machining

The latest PartMaker release will begin shipping in the fourth quarter of 2012

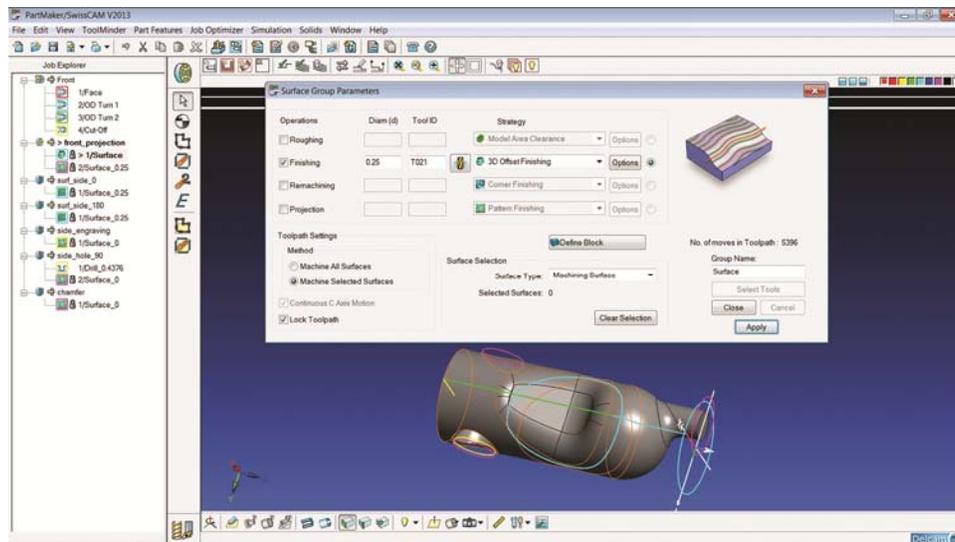


Figure 1: PartMaker Version 2013 will begin shipping in the 4th quarter of 2012. The new version features a restyled user interface and more powerful surface machining.

Fort Washington, PA – PartMaker Inc., a division of Delcam Plc, will begin shipping PartMaker Version 2013, the latest version of PartMaker Software for programming CNC Mills, Lathes, WireEDM, Turn-Mill Centers and Swiss-type lathes in the fourth quarter of 2012. Among a number of other enhancements, this new version will feature a totally revamped surface machining module offering PartMaker users some of the most powerful CAM machining algorithms on the market today for 3, 4 and 5 axis simultaneous milling operations on a variety of machining platforms including CNC Mills, Turn-Mill Centers, Bar-Fed Mills and Swiss-type lathes. PartMaker 2013 also features a restyled, more productive user interface.

“PartMaker Version 2013 is probably the most significant PartMaker release made in the history of the product” says PartMaker Inc. division President Hanan Fishman. “With a new ultra-sleek user interface and a host of new, advanced milling strategies, PartMaker Version 2013 offers its users perhaps the most comprehensive and powerful CAM system on the market today for the full spectrum of production machining applications, all while maintaining the software’s hallmark, industry-leading ease of use.”

"PartMaker's new Advanced Surface Machining (ASM) functionality is based on the same technology and algorithms underpinning Delcam's PowerMILL, the leading CAM system on the market for the manufacture of complex shapes," says Fishman. "The new functionality being offered in PartMaker's ASM answers the needs of our customers making ever increasingly more complicated parts, particularly for those in the medical device and aerospace arena. Also, machine tools are becoming more complex, with 5-axis simultaneous milling now even becoming available on a number of Swiss-type lathes."

Restyled User Interface

PartMaker Version 2013 features a sleeker, restyled user interface. Headlining the improvements in the user interface in PartMaker 2013 is the Job Explorer tree which makes navigating Machining Function Face Windows and Part Features faster. Additionally, a number of new controls have been added to the software to make working even more intuitive. Also, a number of diagrams in the software have been recast and revamped to give PartMaker 2013 a fresh new look. While the user interface enhancements are numerous, PartMaker 2013 has retained the software's traditional work flow with its industry leading ease of use so existing users will not have to worry about any relearning, they will just be able to be more productive.

Introducing the Advanced Surface Machining (ASM) Module

The new high-end milling functionality available in PartMaker Version 2013 will be known as the Advanced Surface Machining module, or ASM for short. ASM will replace PartMaker's Surface Machining Wizard (SMW) module for three, four and five axis machining. For existing PartMaker users, the upgrade to ASM will be provided free of cost and the transition will be very easy to make.

The benefits of the ASM module for PartMaker users are numerous. The will allow for faster tool path calculation, greater tool control and improved surface finishes, among other benefits.

The ASM module will feature a wide variety of high-end milling strategies that can be applied across the entire suite of PartMaker CAM applications including PartMaker Mill, PartMaker Turn-Mill and PartMaker SwissCAM. The powerful surface machining strategies in ASM are the same as those found in PowerMILL, Delcam's industry leading CAM system for the manufacture of complex shapes. Each strategy provides for full tool control enabling them to be used in either traditional 3-axis methods or up to 5-axis simultaneous machining methods, depending on a machine tool's capability.

The advent of ASM extends PartMaker's 5-axis simultaneous milling functionality to CNC milling centers, making PartMaker an unsurpassed solution for production oriented manufacturers to solve all of their CNC programming challenges, Milling, Turning, Wire EDM, Turn-Mill and Swiss with one, unified programming platform.

Vortex Technology for High Speed Machining

PartMaker 2013 will feature Delcam's new Vortex High Speed Machining Strategies (as part of ASM). The Vortex area-clearance strategy, for which Delcam has a patent pending, has been developed by Delcam specifically to gain the maximum benefit from solid carbide tooling, in particular those designs that can give deeper cuts by using the full flute length as the cutting surface. It can be used for 2.5 and 3-axis roughing, 3+2-axis area clearance and for rest machining.

Like other Delcam roughing strategies, Vortex toolpaths are calculated to give more efficient machining by following the shape of the part and by keeping air moves to a minimum. This is particularly important for rest machining operations. One fundamental problem with conventional area-clearance strategies is that the optimum cutting conditions only occur during a straight-line cut. Any internal corners within the model significantly increase the engagement angle of the cutter. To protect the cutter, this increase needs to be balanced by setting a lower feed rate. The user then has the choice of using this lower rate over the whole toolpath, which increases the machining time, or varying the feeds and speeds as the cutter moves around the model and so increasing wear on the cutter.

Unlike other high-speed roughing techniques that aim to maintain a constant theoretical metal-removal rate, the Vortex strategy produces toolpaths with a controlled engagement angle for the complete operation. This maintains the optimum cutting conditions for the entire toolpath that would normally be possible only for the straight-line moves. As a result, the cutting time will be shorter, while cutting will be undertaken at a more consistent volume-removal rate and feed rate, so protecting the machine.

Because Vortex toolpaths have a controlled engagement angle, tools will never be overloaded and so will achieve the maximum tool life. Shock loading caused by changes in the contact angle is minimized, preventing chipping of the flutes. In addition, the stability of the cutting conditions gives more consistent edge temperatures, so prolonging the life of the tool coating and removing heat damage to the surface of the part. Finally, the ability to use stepdowns of up to two, or even three times, the tool diameter spreads the tool wear evenly over the cutting surface of the tool, again contributing to longer tool life.

More on PartMaker

PartMaker is a Knowledge Based Machining system, allowing it to provide a substantial gain in programming efficiency by remembering the tools, material and process information necessary to machine individual part features. It thus relieves the user from reentering the same features information for subsequent parts. It also improves productivity by placing the emphasis on tool management functions.

PartMaker pioneered the field of CAM software for Turn-Mills and Swiss-type lathes with its patented Visual Programming Approach for programming multi-axis lathes with live tooling. It assures quicker learning and easier use. It makes an extensive use of pictures to help the user describe tools, part features and machining data. Synchronization of tools working on multiple spindles is achieved by a few mouse clicks.

PartMaker Inc. is a subsidiary of Delcam Plc, the world's leading developer and supplier of complete CAD/CAM software solutions. Delcam Plc is publicly traded on the AIM exchange in London. In North America PartMaker is sold directly by PartMaker Inc. PartMaker is sold overseas through a network of sales partner offices operating in over 120 countries.

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