

To The Press

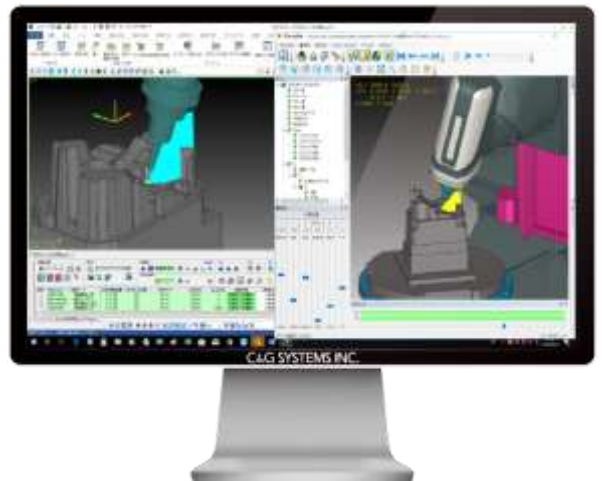
C&amp;G SYSTEMS INC.

## Reform the Automatic Transitioning Function of Simultaneous 5-Axis Data

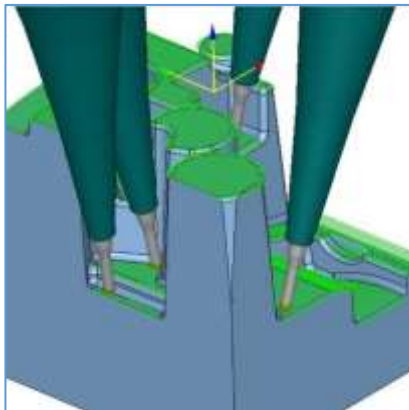
～ Automatic Creation of Stable 5-axis Data with Easy Operation ～

In November, our company (President: Seiichi Shiota) will release “V14.2”, the new version (Hereafter “this version”) of CAM-TOOL which is the CAD/CAM system corresponded to 5-axis machining center for molds & dies.

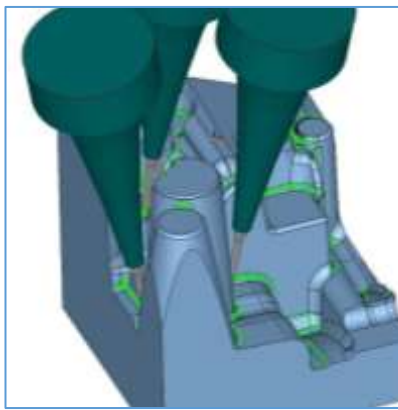
In this version, we have reformed the “simultaneous 5-axis data automatic transitioning function” which enables the easy creation of 5-axis data without any tooling interference in the procedure. Just by setting the angle values which are the bases of 3-axis machining paths, it automatically creates non-interfering 5-axis data. This function is based on the creation of 3-axis data that realizes high precision finished surfaces, and when the machining by 3-axis is impossible due to the interference of tools and tooling, it applies simultaneous 4-axis with fixed table tilting shafts first. Then, if there is still some interference, it applies simultaneous 5-axis that controls accumulated inaccuracy by keeping the number of axes that work simultaneously to a bare minimum. Furthermore, by adding tilting shafts of tables and smoothing processing (the smooth machine operation with controlled rapid angular variations) of pivots, it controls tool attitude changes caused by reverse rotations, and realizes high quality machining surfaces and stable simultaneous 5-axis machining. By using this function, it becomes possible to create 5-axis machining data which are safely free of interference, realizing high quality machining surfaces by easy operation without relying on the experience or the skills of 5-axis machining creation.



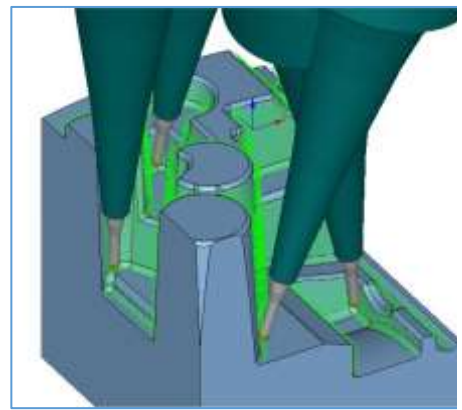
Examples of Conversion by “Simultaneous 5-axis Automatic Transitioning Function”



Scanning Line Areas



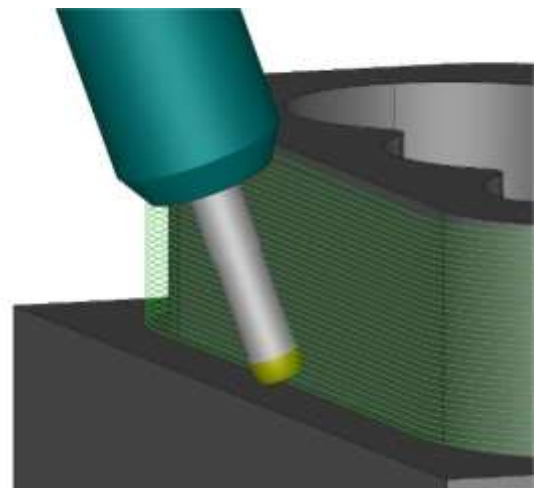
Remainder Machining



Contour Line Finishing

**Correspondence of barrel lenses to simultaneous 5-axis**

Also, this version is equipped with a “barrel tool” which is suitable for wall machining, and a “lens tool” which is suitable for gently curved surface machining. Those new simultaneous 5-axis corresponding types of tools have enabled the curved surface machining which was difficult with existing tools before. Up to now, the correspondence of barrel tools had been limited to 3-axis, and up to 5-axis for positioning; but now they are useable with simultaneous 5-axis too, and the application range of machining has been greatly expanded.



Example of Contour Line Finishing by Barrel Tool (Side Blade)

\* \* \*

[ Product Prices ] (All prices below are in Japanese Yen.)

- CAM-TOOL 3-axis package : ¥ 5,200,000 -
- CAM-TOOL 5-axis package : ¥ 6,400,000 -

[ Annual Sales Target ]

250 licenses \* Including all option modules.

[ Company Information ]

- Foundation : July 2, 2007 (\*1)
- Capital : ¥500,000,000-
- Description of Business : Development/Sales/Support of CAD/CAM System for Mold & Die, and Production Management Systems

(\*1) Our company is a CAD/CAM solution developer founded in 2010 as the result of a business integration and merger with Computer Engineering (founded in 1978) and Graphic Products (founded in 1981). Both of the 2 companies had more than a 30-year history, and we now have about 6,000 domestic customers and about 1,000 overseas customers.

Questions and Inquiries

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