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To The Press

C&G SYSTEMS Inc.

## Enhanced the Accuracy and Consistency of 3D Models by New Stock Format

 $\sim$  The function developed to make the best of the merits of surfaces  $\sim$ 

On April 1<sup>st</sup>, our company (President: Mr. Seiichi Shiota) will release "V13.1"; the new version of CAM-TOOL which is the CAD/CAM system able to create programs for 5-axis machining centers. (Hereafter "the new version")

CAM-TOOL is a CAD/CAM system with multiple modules supporting everything from drilling to simultaneous 5-axis including its unique surface modeler. Also, the system allows the use of

surfaces or polygon (triangular) calculations as required, according to the circumstances, such as the priority of precision or of efficiency.

The new version, including various expanded functions and added capabilities, includes the following main Developments:

(1) Enhance the Model Accuracy and Consistency by creating a new Stock Format

In the conventional method, when recognizing un-machined areas (stock model: the blue portions in the right picture), the stock format with the information of Z direction (Single Dexel) has been used. But by adding to it the newly developed format



that carries the information of X and Y directions (Triple Dexel), the Accuracy and



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Consistency of 3D models has been improved. The minimum unit of the precision Accuracy by the conventional method was dependent on the mesh pitch, so there was a problem if the mesh pitch was set small, the calculation time of processing and the data size came out huge. By applying the new format, even if the mesh pitch is twice as big as conventional, the stock model precision & accuracy in X and Y directions comes out accurate. Especially, the Accuracy and Consistency of steep grade walls has been improved. It shows a great effect on the functions using the stock model (such as the model definitions in the machine simulation, stock calculations and comparisons, and so on.)



Z-MAP / Mesh Width = 0.5



(2) New Surface Editing Function (Boolean Trimming)

Surface Plus, a modeling function that was released in the previous version to support necessary editing of models as the preparations for CAM operation, was highly appreciated for its capability of modeling work by the similar operations to those of other solid CAD systems. Since its release last year, more than 200 licenses have been introduced to the customers. The new version has additionally achieved the function of Boolean trimming (Add, Common and Subtract by Boolean logic), which is one of typical functions of solid CAD systems. By grouping the target surfaces as multiple single shapes and processing them like as bodies temporarily, the labors of complex trimming operations are drastically reduced.



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Image of Boolean Trimming

Moreover, we have strengthened as many as 54 functions, including the improvement of operability, the enhancement of toolpath abilities, the enhancement of simulations, the extension of maintenance functions and the extension of translators.

[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 -
- Surface Plus : ¥ 500,000- \*Optional module of Modeler

\*Taxes and the maintenance fees are excluded.

\*The price depends on the module configuration.

## [Annual Sales Target]

250 seats *X*Including all option modules and version-ups.

## [Company Information]

•Foundation: July 2, 2007 •Capital: ¥ 500,000,000 •Consolidated Number of Employees: 234 (as of 2016)

 Description of Business : Development/Sales/Support of CAD/CAM System for Mold & Die, Production Management Systems

Our company is a CAD/CAM solution developer founded in 2010 as the result of business integration and merger with Computer Engineering (founded in 1978) and Graphic Products



(founded in 1981). Both of 2 former companies has more than 30 years' history, and we now have about 6,000 domestic customers and about 1,000 overseas customers.

Questions and Inquiries

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