High-precision CAM system with totally simplified operating environment, utilizing the reliable “CAM calculation program”.

USER INTERFACE

Main Menu
The user-friendly interface enables the user to create NC data easily, using the main menu in order from the left. To create NC data, users only need to prepare a machining project and apply a template, then start CAM calculation and check the results.

Process List
“Process List”, corresponding to the project tree view, assists in the safe and accurate operation. Some parameter values can be confirmed and revised on “Process List” too.

Project Setting
All parameters related with machine settings, such as “Project type” (3-axis or Multi-axis), “Shape to machine”, “Stock”, “Cutting origin” and “Tool initial position”, can be specified on the single dialog box.

Template
Template is the function to save and recall standardized processes. Users can apply reliable machining processes easily after machining projects or processes are registered as “Favorites”.

CAM FUNCTIONS

Optimization / Cutting Simulation
In addition to the Optimization system like CAM-TOOL’s, there is a Simulation process that uses the Tool and Holder data from the Tooling DB to verify safe results. “Delete air-cut”, “Auto clearance” and etc. help users to create more efficient and safer tool-paths too.

CL Editor
CAM-TOOL’s reputable CL editor is adopted into the system, which provides the verification and edit functions of tool-paths, such as “CL Display”, “CL Information”, “Move/Copy”, “Delete”, “Change Approach Position”, “Change F Value” and etc.

Tooling DB
“Tooling DB” manages cutting-tools, holders and machining conditions. Users can define the shank with multistage taper or R-shape, and this makes an interference check more precise. Cutting-tools and holders can be prepared easily by downloading catalog data of tool/holder manufactures from WEB site.
For 3D CAM, the reputable CAM-TOOL’s CAM strategies for polygon and surface shapes are adopted.

High-precision and high-efficient machining can be provided, as users operate the system to match the required products quality.

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**3DCAM**

- **Z-level Roughing**
  Create Z-level offset tool-paths for roughing. “Insert trochoid” and “Insert R” reduce the cutting-load, and contribute to keeping a constant feed-rate. Non-rectangular solid can be specified as “Stock”, which allows users to create flexible tool-paths corresponding to machining conditions.

- **Z-level Finishing**
  “Z-level Finishing”, which performs climb milling, assures quality high speed and high-precision machining. Spiral tool-paths can be also created, which contributes to the reduction of connecting-moves. This is the best way to machine automatically since gently sloping area and horizontal area can be also executed at once.

- **HOLE**
  In addition to plate drilling, it is also possible to create drilling data on the 3D surfaces. Canned Cycle Drilling, Chamfering and Circular Hole Drilling are available as drilling strategies.

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**2.5D/HOLE**

- **2.5D**
  It is possible to generate machining data by recognizing of sketch or 3D model data. 2D Rough Cutting, 2D Side Cutting, 2D Plane Cutting and 2D Rest Machining are available as machining strategies.

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**Wire**

- **Wire**
  Intended Wire Cutting data can be achieved by the flexible cutting patterns, and various App / Esc types. Also, CG CAM-TOOL supports 4-axis wire cutting data. Operation is very simple. It is possible to generate NC data by recognizing of Sketch and 3D model.

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**Multi-AXIS**

- **3+2 Axis**
  High-precision 3+2 axis machining data of HOLE/2.5D/3D millings can be created, defining the machining direction for each process. “Delete air-cut” for multi-axis machining is also available in “Optimization”.

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**Surface Cutting**

- **Surface Cutting**
  Creating tool-paths along the mesh direction of the specified surface. This cutting mode is useful for additional-machining and part-machining, and also considers the safety of processing for the gap between surfaces.

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**Corner Processing**

- **Corner Processing**
  Creating tool-paths for concave ridge-line portion where smaller cutting tool is often used. It is possible to reduce the cutting-load because the system controls cutting direction automatically corresponding to the angle of the ridge-line. Moreover, “Driving-in”, which removes the stock step by step, contributes to maintain a consistent cutting-load.

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**Low Angle Finishing**

- **Low Angle Finishing**
  The system extracts gently sloping portion automatically by specified angle, and generates tool-paths there. Users can select “Scanning” or “Offset Path” (around the area) as a traveling type, so that it is possible to machine efficiently corresponding to the feature of “Shape to machine”.

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**Horizontal Area Cutting**

- **Horizontal Area Cutting**
  The system automatically extracts horizontal area from “Shape to machine”, and generates tool-paths there. Tool-paths are supposed to travel around the area with climbing-cut direction. This cutting mode is useful to machine horizontal area with radius or square end-mill.

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**Pencil Cutting**

- **Pencil Cutting**
  Not only ball end-mill but also radius and square end-mill can be used for pencil cutting. Tool-paths are created along the edge-line which the system automatically detects.

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**Curve Cutting**

- **Curve Cutting**
  This cutting mode corresponds to the engraving for “Sketch” or “3D Sketch” entities. It is possible to machine groove-portion, edge-line and letters-on-surface precisely, utilizing “Drive Z” function.
### System Requirements

<table>
<thead>
<tr>
<th></th>
<th>Windows 7 Professional 64bit</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS</td>
<td>Windows 8 (8.1) Pro 64bit</td>
</tr>
<tr>
<td>CPU</td>
<td>Multi-Core Processor</td>
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<tr>
<td>MEM</td>
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<td>HDD</td>
<td>80GB or more</td>
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<tr>
<td>Graphics</td>
<td>3D Acceleration OpenGL board (NVIDIA series)</td>
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<tr>
<td></td>
<td>Memory 1GB or more</td>
</tr>
</tbody>
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