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VisualCAD 2012 Features	Standard	Expert	Professional	Premium	Benefit
<b>Modeling</b>					
New Mesh Boolean library	X	X	X	X	Mesh modeling is a lot more stable and robust
NURBS surfaces	X	X	X	X	Can use NURBS surfaces for modeling and machining
<b>UI &amp; Display</b>					
Display List processing	X	X	X	X	Speed up display; Use hardware acceleration when possible
Ribbon Interface for CAD functions	X	X	X	X	Ease of use - less button pokes
<b>Data Translators</b>					
Parasolid Translator added	X	X	X	X	
SAT Translator added	X	X	X	X	
API Hookups to 3rd party translators	X	X	X	X	
Rhino 3DM, IGES, STEP and SAT file Export	X	X	X	X	
VM, RC* & VM4SW** 2012 Features	Standard	Expert	Professional	Premium	Benefit
<b>Product Architecture</b>					
64 Bit Version (Only in VisualMILL)	X	X	X	X	Ability to handle large models
Multi-thread Machining	X	X	X	X	Ability to use multi-cores
<b>User Interface Enhancements</b>					
Ribbon Interface in Mops Browser	X	X	X	X	Consolidates Setup & Programming functions, reduces button pokes
Docking Mops dialogs	X	X	X	X	Ease of Use
Clearance Plane Visualization during setting	X	X	X	X	Ease of Use
Graphical Z level Picking for Horizontal machining methods	X	X	X	X	Ease of Use
<b>Productivity Enhancements</b>					
Machining Regions Browser	X	X	X	X	Reuse of machining regions
Knowledge Bases (Load/Save)	X	X	X	X	Reuse of machining operation parameters
Default Parameter Saving	X	X	X	X	Customization of user parameters
Graphical Toolpath Editor	X	X	X	X	Non-associative editing of toolpaths
Drag/Drop Tools to Mops Browser	X	X	X	X	Productivity enhancement
Drag/Drop KB Mops to Mops Browser	X	X	X	X	Productivity enhancement
Graphical Bridge Points Definition/Editing	X	X	X	X	Ability to handle more complex routed parts
Avoid Regions in Pocketing & Facing for clamps	X	X	X	X	Productivity enhancement
<b>Tooling Enhancements</b>					
Stepped Tooling		X	X	X	Ability to handle long tools
New UI for tool definition	X	X	X	X	Productivity enhancement
Radius Mill definition		X	X	X	Router requirements
<b>Materials/Feeds/Speeds</b>					
Materials database completely revamped	X	X	X	X	Productivity Enhancement
Associate textures for stock material	X	X	X	X	Productivity Enhancement

**2-1/2 Axis Machining Methods**

T-Slot Machining		X	X	X	Handles new type of parts Productivity enhancement
Start Point Definition in Pocketing	X	X	X	X	

**3 Axis Machining Methods**

Flats Only Machining			X	X	Productivity enhancement
Start Point Definition in Horizontal Roughing	X	X	X	X	Productivity enhancement

**4 Axis Machining Methods**

Radial Roughing Method		X	X	X
Radial Finishing Method		X	X	X
Projection Pocketing Method		X	X	X

**5 Axis Machining Methods**

Curve Projection Machining				X
Flow Curve Machining				X
Between 2 Curves Machining				X
Drive Curve Machining				X
Surface Normal Machining				X
Swarf Machining				X

**Additional Machining Methods**

Machine Control Operation			X	X	Productivity enhancement
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**Toolpath Simulation**

Distance Based Simulation	X	X	X	X	Better simulation rendering
Texture mapping for materials	X	X	X	X	
Performance Improvements		X	X	X	

**Machine Tool Simulation**

Graphical definition of machines			X	X	Better visualization
Visualization of machine motions			X	X	Helps in reducing errors

**Post Processor Enhancements**

New output file naming rules	X	X	X	X	Productivity enhancement
Post changes for Knife, Plasma, Laser and Water Jet	X	X	X	X	Handles new type of parts
5 Axis Post			X	X	

**Other**

API for 3rd Party Tools

VisualMILL 2012 Add-on Modules	Standard	Expert	Professional	Premium	Benefit
Parts Nesting Module					Block & True shape nesting for wood working industry Marketing, Evaluation of toolpath quality
FreeMILL Module	Included	Included	Included	Included	

\* RhinoCAM v2012 will run inside Rhino version 4.0. Once Rhino version 5.0 is released we will offer another version of RhinoCAM.

\*\* VisualMILL for SolidWorks v2012 will have a later release date than VM and RC. We anticipate this will not be the case for the future release of v2013.