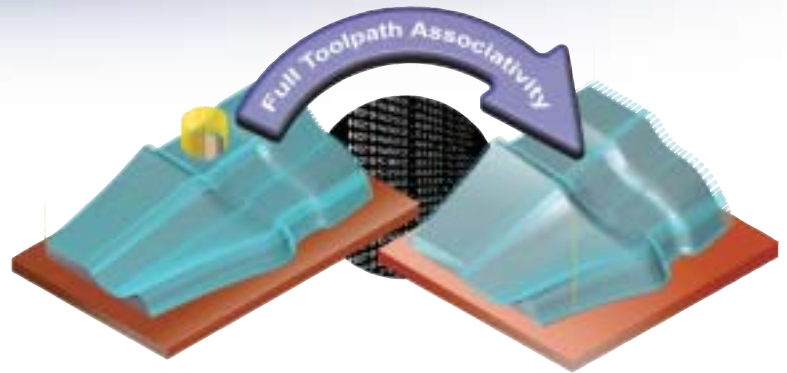
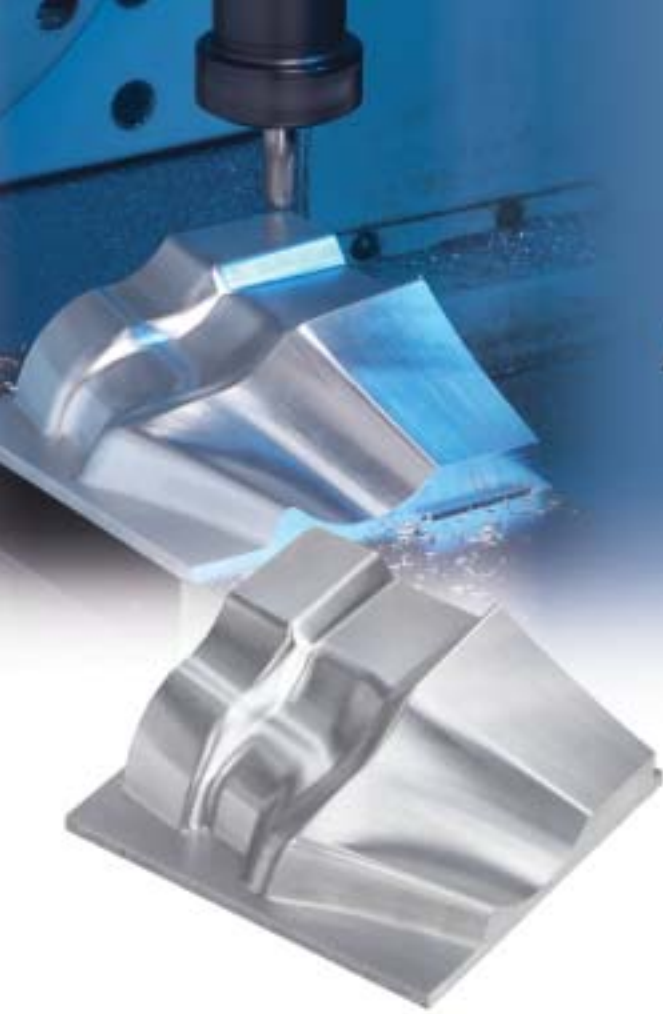


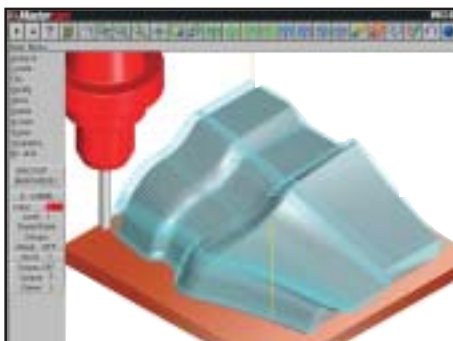
# Mastercam

## Mill Level 2



### Capture Your Machining Knowledge

Mastercam's full associativity gives you the power to capture your knowledge and build on your experience. Once you program a part - any part - you can modify any element of the job and immediately get updated toolpaths without starting over. And Mastercam's intelligent NC programming lets you build a library of machining strategies done the way you want them. Just choose saved operations and apply them to a part, and Mastercam adapts them to the new model. Fast, easy and productive. The way programming should be.



### Logical Part Modeling

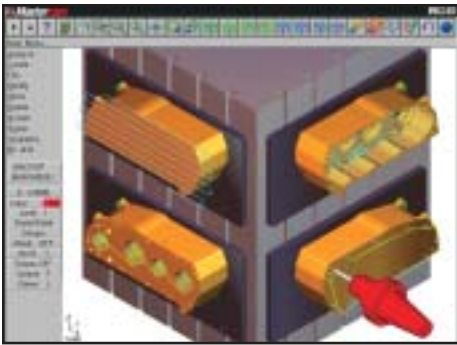
- Easy 2D and 3D geometry creation with complete wireframe & surface modeling.
- Extensive editing and analysis tools ensure your model is accurate.
- Associative dimensions update as you change your model.
- Dynamic rotation, panning, and zooming in multiple views.
- AutoCursor™ snaps to commonly used points to simplify construction.
- New work coordinate system makes it easy to reorient your View, Construction, and Tool planes, allowing you to work on a model without having to move it in space. These new planes are easily transferred to your G-code.
- Built-in data translators for IGES, Parasolid®, SAT (ACIS solids), AutoCAD® (DXF™, DWG, and Inventor™ files), SolidWorks®, Solid Edge®, CADL, STL, VDA, and ASCII. Direct translators for STEP, Catia®, and Pro-E® are also available.

### Associative Toolpaths

- Fully associative geometry and toolpaths let you modify the geometry or machining parameters and immediately get an accurate, updated toolpath.
- Store a library of commonly used operations to automate machining. For example, you can spot drill, peck drill, and tap a new series of holes simply by importing one stored operation.

### Efficient Toolpath Management

- Mastercam's Operations Manager stores all your job's operations in one place. Quickly create, edit and verify your toolpaths, or copy and paste parameters, toolpaths and tool definitions from one operation to another.
- Merge, translate, reverse, rotate, mirror, copy, cut and paste segments of your toolpath.
- User-customizable tool and material libraries automatically calculate feeds and speeds.
- Graphical toolpath editor gives you point-and-click on-screen editing tools.



Machine different faces in the same setup with tombstone programming.

## Pocketing, Contouring and Drilling

- Pocketing styles include highspeed, zigzag, one way, true spiral, constant overlap spiral and "morph" pocketing, each with optional finish passes.
- Machine open pockets without creating additional geometry.
- Automated pocket and contour remachining (leftover stock removal).
- Machine tapered-wall contours, pockets, and pocket islands including islands of different heights.
- Smart pocket area control lets you machine depths without retracting or machine all cuts in a single depth before moving to the next (perfect for thin wall machining).
- Facing cleans stock from the tops of islands or the entire part.
- With the addition of the Solids option, Mastercam automatically recognizes and programs drill holes on solid models, complete with pre-drill operations.
- Full control over approach and retract.

## Smart Feed Rate Optimization

- Automatically vary feed rates based on volume. More material and the cutter moves slower; less material, the cutter moves faster.
- Automatically ease the tool into and out of corners.
- Create optimization libraries for all your machines.

## Powerful 3-axis Machining

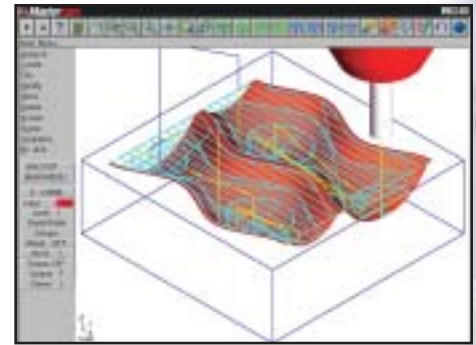
- Efficiently machine single surfaces or single solid faces.
- Rough using parallel, radial cuts, Z contour or pocket methods, with complete control over plunging and positive/negative Z motion.
- Finish machine with parallel, radial, true flowline and more.
- 3D project flowline finishing uses the natural shape of a surface to define the toolpath, delivering a smoother finish.
- Automated critical depth recognition.
- Automated leftover stock removal.
- Limit the area to be roughed or finished with check surfaces or a chained boundary.
- Ruled toolpath includes automatic synchronization by entity, branch or node.
- High-speed machining (HSM) support including smooth tool motion, automatic variable Z-level cuts, and "trochoidal" machining (nibbling).

## Dependable NC Verification

- Watch your part being cut from a block of material with Mastercam's solid toolpath verification. The tool and holder are checked and displayed during simulation.
- Step through the program with toolpath backplotting and get an estimate of machining time. Dynamically view all the vital information about tools and operations at any point in the toolpath.
- Quickly verify 2D toolpaths with a pixel paint of the full tool diameter.

## Easy to Learn and Use

- Logical point-and-click interface lets you program the way you think.
- Fully customizable icon toolbar puts frequently used functions at your fingertips.
- Context-sensitive on-line help provides immediate access to Mastercam tips and instructions.
- Detailed tutorials.



Mastercam's single-surface roughing efficiently removes bulk material.

## Practical NC Tools

- Choose multiple machining areas with a single selection.
- Easily program in different views for tombstone work.
- Wrap a toolpath around a diameter with rotary axis substitution.
- "Safe zones" help ensure safe tool retract in tombstone and rotary work.
- Significantly reduce the size of a program with toolpath filtering.
- Custom tool geometry can be stored with the part file for easy retrieval.
- Automatically generate customizable setup sheets.
- Pick from a library of dozens of post processors or have one customized.

## System Requirements

- Pentium™ based PC
- CD-ROM drive.
- Graphics capability of 800 x 600 resolution and 256 colors.
- Windows compatible mouse
- Windows NT 4.0 or higher, Windows 98, 2000, ME or XP.
- Minimum 64 Mb RAM, 128 recommended; Minimum 350 Mb free disk space in addition to Windows requirements.

# Mastercam®

When Second Best Won't Cut It.

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