Mastercam X⁷
Lathe

Cutting Anything. Everywhere.

Precision Turning

Mastercam's streamlined CAD engine makes design work easier than ever before. Each piece of geometry you create is "live," letting you quickly modify it until it's exactly what you want.

Tools to Make Programming Easier

Efficient turning means more than just programming a toolpath. Mastercam Lathe gives you a set of tools that impact your entire process.
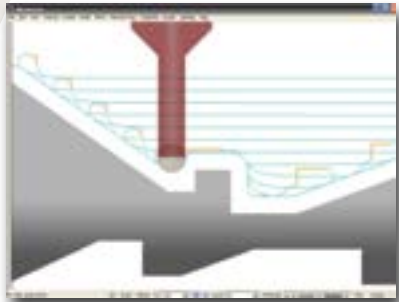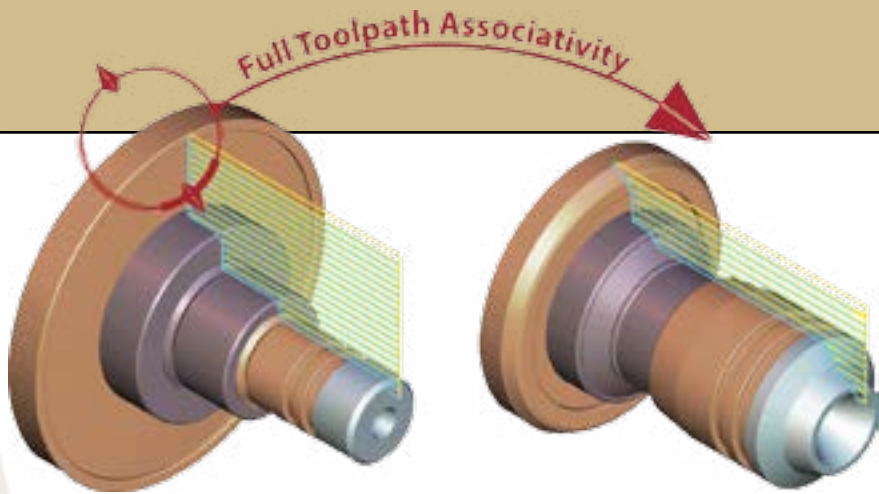
- Fully associative toolpaths are linked with your geometry. Modify any element of a job and get updated toolpaths immediately without starting over.
- Mastercam's CAD File Change Recognition tracks files from Mastercam or any other CAD system and shows what's been changed for easy toolpath updating.
- Comprehensive insert libraries including ISCAR™, Sandvik®, Kennametal®, and Valentine®.
  - See your part as it will come off the machine with solid-model toolpath verification.

Dynamic roughing cuts faster and extends the life of button inserts with automatically adjusting engagement.

Variable depth roughing for efficient turning with ceramics.

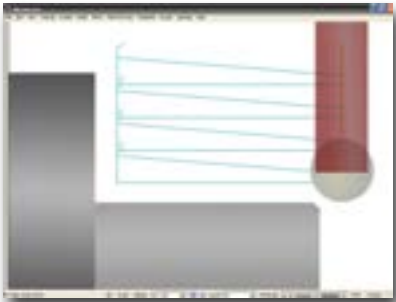**Aerospace** • Automotive • Medical • Energy • Consumer

"Harbec's success is driven by its focus on value. Mastercam Lathe allows us to extend its value onto our customers with its ease of use, strong emphasis on efficiency, and seamless transitions between other Mastercam products. It helps us keep a turn ahead of the competition."
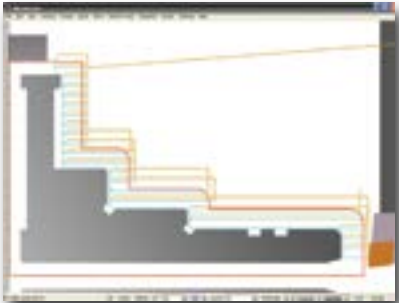
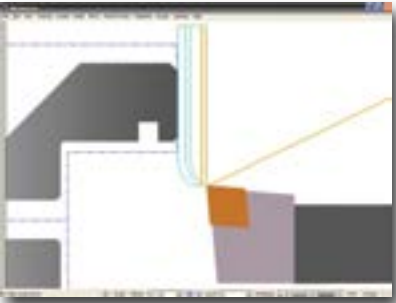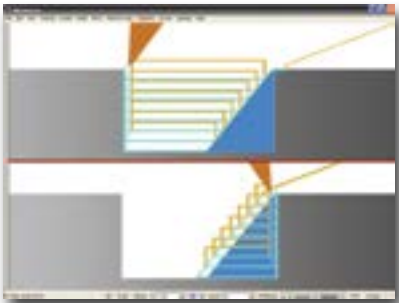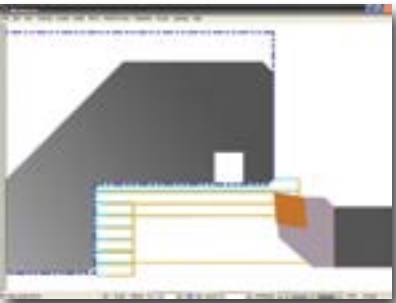Pete Knapp
Mold Maker
Harbec, Inc.
Ontario, NY

Roughing to an outer boundary.

Automated facing from the center line out.

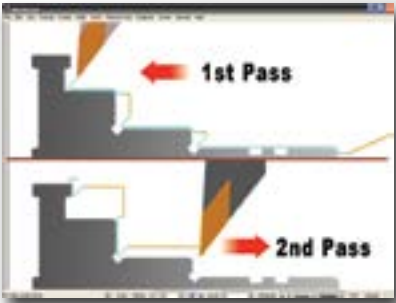*Stock recognition detects what is left after each operation.*

Smart ID roughing.
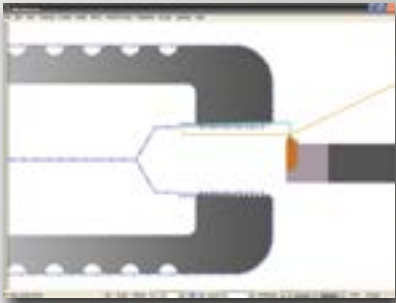
Fast, Easy, and Precise Turning

Mastercam Lathe delivers a streamlined set of programming tools.

- **Mastercam's "Quick Toolpaths"** let you program parts with just a few clicks.
- Click and drag a machining start point to anywhere on your model.
- **Intelligent ID and OD roughing**, including roughing to a boundary for castings.
- Easy facing including roughing and finishing.
- Optimized finish contouring (profiling).
- **Dynamic roughing** extends button insert tool life and reduces machining time on hard materials.
- **Variable roughing** alternates the contact point between the surface and ceramic tool inserts to prevent notching and improve tool life.
- Automatically create a finish pass after a rough operation using the same tool.
- Set feedrates for desired finish quality.
- Grooving with multiple depth cuts and pecking.
- Easily assign groove depth, width, wall angles, corner radius, chamfer, and corner dwell.
- Automatically skip over a groove or cavity when roughing or finishing.
- Complete threading with multiple starts, diameter calculation, and thread tables.
- Full-radius **plunge turning**.
- Automatic gouge checking watches the front and back of the tool.
- Chuck, part, steady rest, and tailstock detection.
- Open and directly machine a solid model.
- **Mastercam's Tool Inspection** option lets you automatically stop machining, allowing you to check the insert during roughing, finishing, and grooving operations.
- Quick-turned profile generation for uniform and non-uniform parts.
- **Full milling and turning support** available for machines with B-axis tooling arms.
- Live tooling for B, C, and Y axes.

Go to **www.MastercamLathe.com** for more.

Full C-axis machining when combined with Mastercam Mill.
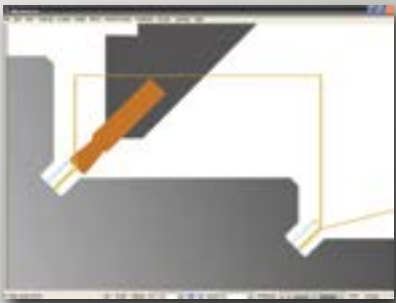
Multiple contouring for complete finishing.

Fast thread machining.

Step and stepless grooving.

Multiple grooving styles, including angular.

Smart finish passes detect flat (finishing up) and wall (finishing down) cut regions and program them with optimized motion.

Specialized Options

You may know that we offer a suite of software for turning, milling, wire EDM, router applications, and more. But we also offer a set of highly specialized Add-On options for those times when just that one additional CAD or CAM tool will make a specific job easier, faster, and more profitable. These include:

- Automatic separation of surface model into core and cavity, including draft angle analysis and identification of problem surfaces.
- Use of point data to create surfaces or STL data for reverse engineering and manufacturing.
- Focused 5-axis programming tools tailored to cutting multi-bladed parts and cylinder head ports.
- Complete programming for complex machining robots.
- Automated EDM electrode creation, including a library of definable stock sizes and materials.

See a full list at:

www.Mastercam.com/Products/AddOns.

	Mastercam Lathe	When combined with Mastercam Mill Level 1	When combined with Mastercam Mill Level 3
CAD			
Quickly create and dimension live wireframe geometry	x	x	x
Read/write IGES, DXF, SAT, Parasolid, EPS	x	x	x
Read native AutoCAD, SolidWorks, Solid Edge	x	x	x
Read CATIA, Pro/E, Unigraphics (UG NX)	optional	optional	optional
Live surface modeling	x	x	x
CAD File Change Recognition	x	x	x
Solid modeling	optional	optional	optional
CAM			
Streamlined "Quick Toolpath" programming	x	x	x
Intelligent ID and OD roughing	x	x	x
Easy finishing	x	x	x
Optimized facing	x	x	x
Grooving	x	x	x
Threading	x	x	x
Canned cycle support	x	x	x
Automatic gouge checking	x	x	x
Boring, drilling, and point-to-point machining	x	x	x
Machine directly on a solid	x	x	x
Chuck, part, steady rest, and tailstock collision check	x	x	x
Fully associative toolpaths	x	x	x
Machine and control definition	x	x	x
Face and cross contour	x	x	x
Face and cross drilling	x	x	x
3D C-axis contour machining	x	x	x
Plunge turning	x	x	x
2D High Speed Toolpaths		x	x
Engraving		x	x
All pocketing routines		x	x
All contour routines		x	x
All drilling routines		x	x
Full multisurface and solid roughing			x
Full multisurface and solid finishing			x
Full multisurface and solid "cleanup" machining			x
3D High Speed Toolpaths			x
Multiaxis machining			optional

System Requirements

- **Processor:** 32-bit or 64-bit Intel or AMD w/SSE2 support.
- **Operating System:** 32-bit or 64-bit Windows 7 or Windows 8.
- **System Memory:** 2GB (32-bit OS) or 4GB (64-bit OS).
- **Hard Disk Space:** 40GB, 1GB free.
- **Graphics:** Minimum 1280 x 1024 resolution monitor, 128 MB graphics memory, OpenGL driver support.
- **Microsoft Products:** Microsoft IE v6.0 or higher, Excel and Word 2007 or higher.

30 Years
Cutting Anything. Everywhere.

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