



Mastercam X4 Maintenance

Course Description

The Mastercam X4 Maintenance course is designed to help you understand the new features in X4. This course is free to all Maintenance customers.

Course Objectives

Upon completion, you should be familiar with the following features and functions of Mastercam X4.

Feature Chain

Quickly select similar wireframe features based on:

- Identical
- Shape match (similar)
- Attribute Matching

Toolpath Refinement

- Filter randomized points
- Optimize finish

Dynamic Planes

- Use the graphical gnomon to move the origin
- Use graphical gnomon hot spots
- Linear snapping
- 2D / 3D snap locations

2D High Speed Toolpaths

- Remove material with sweeping motion
- Base toolpaths on material removal not offset geometry
- Respect pocket boundaries
- Finish off outside boundary
- Dynamic Toolpaths

Blend Mill

- Use two entities for chain
- Consistent floor finish
- Consistent chip load
- Smooth material removal

Rest Mill

- Remove leftover material from previous operations
- Control on stepover

Dynamic Mill Profile Entry

- Chain geometry for entry control
- Entry motion affects tool motion

Bump Nesting

- Nesting Enhancements
- Delete, Move, Copy, Mirror, and Rotate geometry
- Drag geometry with tool offset
- Nest against edges

Setup Sheet

- Customizable templates
- Incorporate customer/programmer information
- Custom images
- Sheet per operation
- Detailed tool list

Dynamic Transform

- Use graphical gnomon to move the part
- Move on Axis
- Move origin
- Rotate

Peel Mill

- Use two open contours
- High speed loop toolpath
- Micro lift
- Consistent chip load
- Smooth material removal

Area Mill

- Tool motion control on multiple entries
- Entry is a roughing motion
- Helical and ramp contour entry

Dynamic Mill Helical Entry

- Geometry-controlled entry
- Entry affects tool motion
- Drag geometry with tool offset
- Nest against edges

Dynamic Custom Mill with Slot Width Entry

- Chain geometry to control the entry
- Entry affects tool motion
- Offset toolpath