



CAD/CAM CONSULTING SERVICES INC.

SALES · SERVICE · SUPPORT

Mastercam[®] Mill Version X5 Training

Class I: Interface, Design, Wireframe Toolpaths

- 1.) **Mastercam Interface**
 - a. Menu system
 - b. File menu
 - c. Toolbars/hotkeys
 - d. Right Click Menus
- 2.) **Wireframe Construction & Toolpaths**

Projects include:

 - a. 2D/3D wireframe constructions and modifications
 - b. Introduction to chaining
 - c. Geometry problem solving
 - d. Introduction to wireframe toolpaths
 - e. Single and multiple pass contour toolpaths
- 3.) **Introduction to Tool Definition & Operations Manager**
 - a. Changing parameters for an operation
 - b. Regenerating associative toolpaths

Class III: Wireframe Toolpaths (cont.) & Operations Manager

- 1.) **Wireframe Construction & Toolpaths (cont.)**

Projects include:

 - a. Additional 3D wireframe constructions and modifications
 - b. 2D high speed toolpaths/dynamic toolpaths
 - c. Resetting origin, work offsets, planes
 - d. Geometry selection from solid models
 - e. Feature based machining/drilling
- 2.) **Advanced Operations Manager**
 - a. Sorting operations
 - b. Grouping operations
 - c. Expanding and collapsing the operations list
- 3.) **Posting operations**
 - a. NCI file
 - b. Post processing
 - c. Communications

Class II: Wireframe Toolpaths (cont.)

- 1.) **Wireframe Construction & Toolpaths (cont.)**

Projects include:

 - a. Additional 3D wireframe constructions and modifications
 - b. Job setup
 - c. Contour toolpaths
 - d. Facing toolpaths
 - e. Basic pocket toolpaths
 - f. Basic drill toolpaths
- 2.) **Additional Tool Definition**
 - a. Deleting operations
 - b. Changing the tool for an operation
 - c. Backplot & verify toolpaths
- 3.) **Advanced Operations Manager**
 - a. Editing common operation parameters
 - b. Moving, copying, deleting, undeleting operations
 - c. Importing/Exporting operations
 - d. Display of operations and options

Class IV: Introduction to surfaces

- 1.) **Basic Surface Creation**
 - a. Basic surface creation types
 - b. Surface model problem solving
- 2.) **Derived Surface Creation**
 - a. Fillet surfaces
 - b. Offset surfaces
 - c. Trim/extended surfaces
 - d. Blend surfaces
- 3.) **Solid Model Creation**
 - a. Solids Extrude
 - b. Swept Solids
 - c. Revolve Solids
 - d. Boolean
- 4.) **Solid & Surface Model Features**
 - a. Analyze solid and surface features
 - b. Organize solid and surface models

Class V: Introduction to Surface Machining

- 1.) **Drive/Check Surfaces**
 - a. Description
 - b. Defining
- 2.) **Rough Toolpaths and Parameters**
 - a. Parallel
 - b. Radial
 - c. Project
 - d. Flowline
 - e. Contour
 - f. Pocket
 - g. Plunge
- 3.) **Finish Toolpaths and Parameters**
 - a. Parallel steep
 - b. Shallow
 - c. Pencil
 - d. Leftover
 - e. Scallop
- 4.) **Miscellaneous Surface**
 - a. Surface high speed
 - b. Gap/edge settings
 - c. Batch/recut

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