



KEY FEATURES

- 2-axis toolpath creation for roughing and rest milling
- Import DXF, IGES, and STEP files for geometry definitions
- Robust geometry chaining to easily designate part and material boundaries
- Ability to edit, regenerate, reorder, backplot, post process, hide, unhide, and delete toolpaths
- Perform multiple setups per operation and multiple toolpaths per setup
- Robust coordinate system creation and manipulation
- Pan and rotate via icons or mouse buttons
- Ability to zoom to window, zoom to fit, or dynamic zoom with scroll wheel, with the zoom origin determined by the cursor location
- Icons and Alt-keys to access the six standard orthographic-projection views plus an isometric view
- Unlimited undo and redo
- Outputs G-code, CL, and Mastercam® NCI data
- 3-axis toolpaths for rough milling and rest milling freeform shapes
- Import STL files for part and/or stock definitions
- Easily create cylindrical or rectangular stock
- Set color and transparency on STL meshes
- Multi-threaded for faster calculations where multiple processors are available

VoluMill Universal™

VoluMill Universal™ is a stand-alone, ultra high-performance toolpath engine from Celeritive Technologies that can be used with any type of CAM system. VoluMill high-speed toolpaths are cutting cycle times by up to 80 percent while doubling and even quadrupling tool life in some cases.

VoluMill Universal is a full-featured, 2- and 3-axis toolpath engine for any geometric configuration, including open shapes and islands. Part geometry is received from any CAM system in popular neutral formats, such as DXF, IGES, and STEP. A dialog accepts the input parameters for the toolpath, and the output is in the form of G-code—from integrated post processing—or CL data. The viewing and manipulation functions included are second nature to NC programmers, so ultra high-performance toolpaths can be generated within minutes of installing the software.

The screenshot shows the VoluMill Universal software interface. At the top, there are buttons for IGES (with a checkmark icon) and STEP (with a checkmark icon). Below these are buttons for DXF (with a right arrow icon) and STL (with a left arrow icon). The main window displays a 3D model of a part with yellow toolpaths. The interface includes a menu bar (File, Edit, View, Create, Toolpaths, Help), a toolbar, and a 'Toolpath Mgr' panel with buttons for Edit, Regen, Post, Delete, Hide, Unhide, Move up, and Move down. Below the 3D view, there are buttons for G-code and CL data. At the bottom, two Notepad windows are shown: one displaying G-code and another displaying CL data.

```
%
O0001
G0 G17 G40 G49 G80 G90
T1 M6
G0 G90 G54 X5.8809 Y-5.2127 S10000 M3
C43 Z-0.99 M8 M8
G0 X5.8809 Y-5.2127 Z-0.99
Z-0.8892
CL Z-0.99 F100.
G3 X5.7593 Y-5.1102 I-0.112 J-0.0095
X5.543 Y-5.2322 I0.0265 J-0.317 F27.9992
X5.4884 Y-5.5336 I0.2432 J-0.505
X5.5614 Y-5.5885 I0.0777 J0.0276 F100.
G1 X3.5973 Y-5.5897 F500.
X6.0381 Y-4.9714
```

```
PARTNO/ 'C:\Users\Laptop\Documents\Program.nc'
MODE/MILL
MULTAX/ON
COOLNT/ON
LOADTL/
SPINDL/10000.000, RPM, CLW
RAPID
GOTO/5.880992, -5.212793, -0.990000
RAPID
GOTO/5.880992, -5.212793, -0.889989
FEDRAT/100.000000
GOTO/5.880992, -5.212793, -0.990000
MOVARC/5.768896, -5.222318, -0.990000,
0.000000, 0.000000, 1.000000,5
0.112499, ANGLE, 90.000000
```