Cimatron
NC Programming
for Molds, Dies, Plates & Discrete Manufacturing
Programming of multi-axis, high quality parts of any complexity
Machine parts faster with confidence while protecting machines & tools
Program toolpaths easier & faster with “Flexible automation”
Prepare parts for manufacturing with full built-in CAD capabilities
Use dedicated strategies to machine differing part types

Fast Programming, Effective Toolpaths
• Control over machining process with NC Setup, immediate stock review, and Job Manager.
• Rapid programming with customized NC templates and fast calculation using multi threads, background execution, and calculation on another PC.
• Creation of efficient and safe toolpaths with analysis, preview and simulation.
• Automated and customized NC reports with 3D images, dimensions and notes (PMI).

Efficient Roughing, High Quality Finishing
• Powerful roughing, with ultra-high material removal rate all-rounded roughing (VoluMill).
• Superior surface quality with rich 3-5-axis finish, cleanup and rest material strategies, including air extensions and elimination of waterfalls.
• Multi-directional 3D mesh stock for 5-axis positioning efficient, collision-free toolpaths.
• Dedicated functionality for electrodes and micro milling.

Plate Machining Seat and Automated Drilling
• Manufacturing Feature Recognition (MFR) tool automatically recognizes Pocket’s heights, shape and draft angle for safer and faster programming.
• A 2.5 axis Rough Pocket procedure handles open and closed pockets, supports HSM options (i.e. round motions) and delivers holder collision avoidance.
• Ultra-high material removal rate pocketing (VoluMill), with open pockets and 2D cleanup.
• Automated pocket and profile using surfaces with criteria-driven templates.
• Save 90% programming time with auto drill, including hole and actual stock recognition.
• Safe gun drilling, with all feed/speed parameters recognizing intersected drilled holes.

5-Axis Programming for Part Production
• Safely complete any job with full user control over 5-axis roughing and finishing.
• Time-saving applications for blades, impellers, blisks, ports, inlets and turbines.
• 5-axis machine and material removal simulation for medical, aerospace, and other complex parts.
• Access to a rich library of proven posts for any 5-axis machine and controller.

Simulation and Verification for Confident Machining
• Machine simulation with true representation of the kinematics, work piece and fixtures.
• High quality embedded multi-axis material removal simulation.
• Reliable collision and gouge detection for machine, fixtures, stock, part, tool and holder.
• Toolpath verification with gouge and collision reports and color-coded remaining stock.

Powerful CAD for NC with Reliable Data Import
• Repair the model and apply drafts and rounds with a hybrid CAD environment.
• Dedicated features for capping holes and slots, and extending surfaces.
• Import data from all standard and native formats, e.g. AutoCAD, Inventor, Catia, Creo, NX, and SolidWorks.