

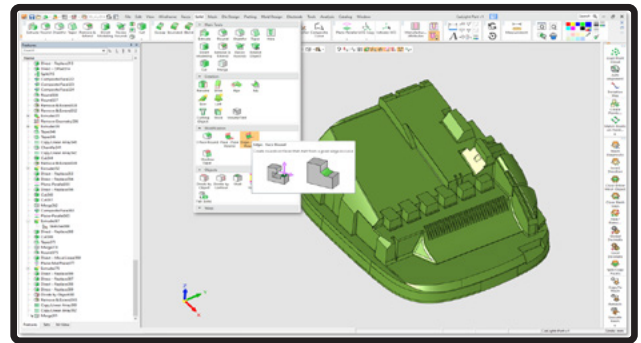


What's New in Cimatron 16

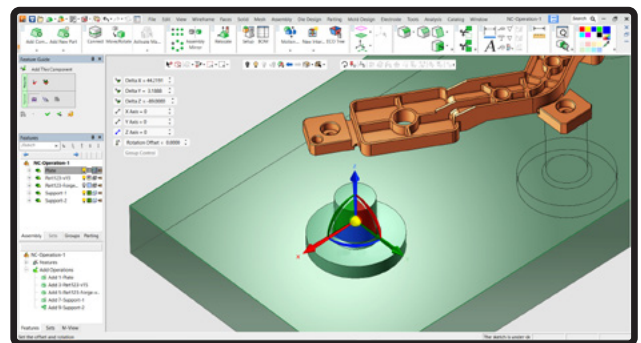
Cimatron 16 offers a clean new UI and increased automation for faster mold design, electrode creation, and NC programming for toolmakers. Powerful functionality dedicated to tool making includes die addendum surfaces, mesh manipulation, and drafting detailing. Here are just a few highlights:

General UI Improvements

- An **improved graphical interface** with cleaner icons and sleek on-screen buttons makes Cimatron 16 easier to use and shortens the learning curve.
- Numerous UX improvements increase programming efficiency such as the **New Triad Tool for drag and preview** for fast, accurate dragging in X, Y and Z directions or on XY, XZ and ZY planes. It also allows free dragging and rotation around each one of the axes.
- **AutoSave Drag & Drop DI files** now automatically saves all files when closing rather than manually saving one at a time.



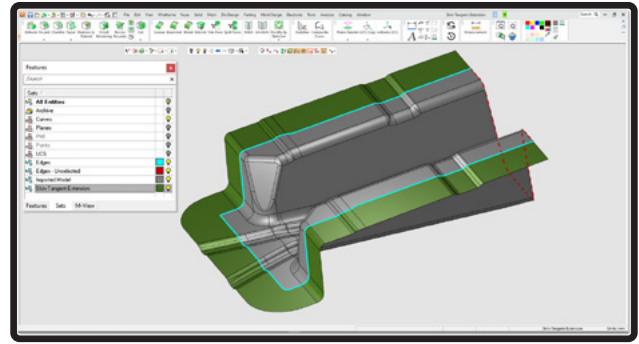
Clear new UX for increased programming ease



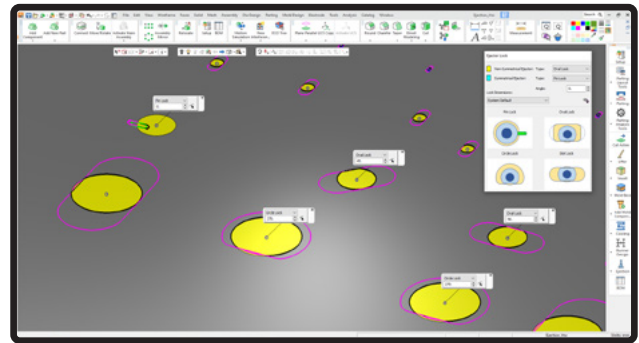
Triad Tool for drag and preview

Tool Design and Modeling

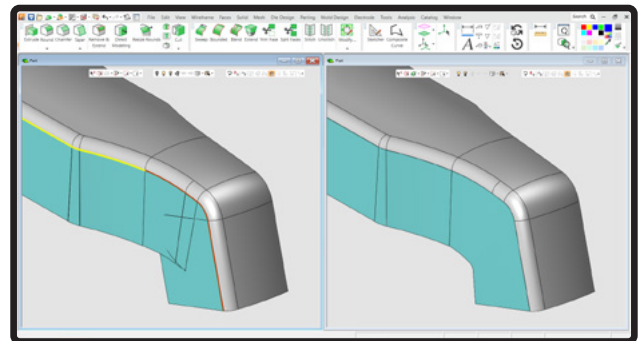
- Skin Tangent Extension** is a new modeling function that extends faces tangentially in the same direction of the original surfaces. The new function is especially useful to extend general faces (i.e., not planar or conic faces). The user can unselect edges in order not to extend them.
- Several New Mold Layout** types are now available including smart mirror and array. The Setup table controls the parameters for layout sub-type, rotations, and cavity distances.
- Ejector Lock Design Automation** detects ejectors that need to be locked to prevent their rotation in the ejector plate, and it modifies the ejector head according to the required lock type to create the appropriate pocket on the plate. Version 16 provides four lock types for ejectors and cutting objects, represented by four shapes.
- Die Design Extend Faces** feature allows users to replace the surfaces created along several segments with one smooth continuous patch.
- Mesh** - local Re-Mesh, Curvature-Map and Close Open Gaps. In Cimatron 16, you can control the scope of the re-mesh to either global or local. The new Local option lets the user fine-tune specific areas without affecting the entire model.
- Rib Creation - Source Contours** simplifies creation of structural ribs automatically using either 2D contours (parallel to the rib direction downwards from a 2D contour) or from a smooth 3D contour.
- BOM Reports** now offer the option to view and export BOMs by assembly structure to reflect the nesting order.



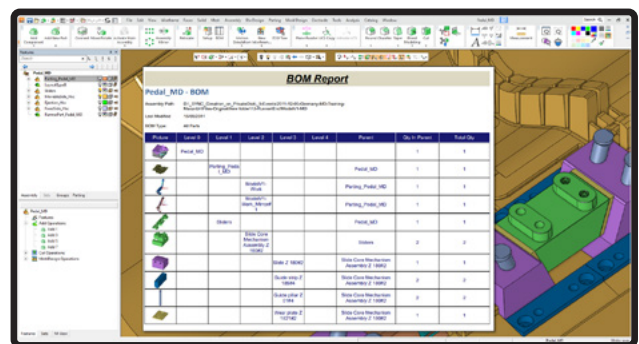
Skin Tangent Extension



Ejector Lock Design Automation



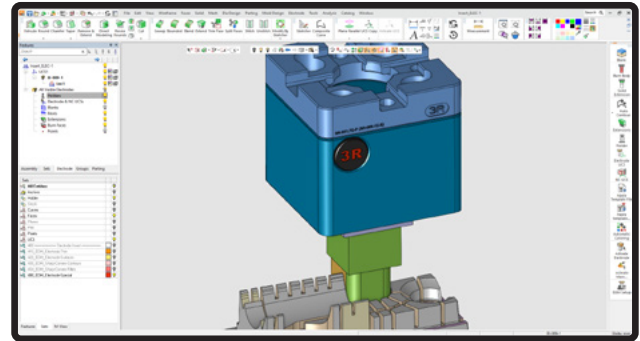
Die Design Extend Faces



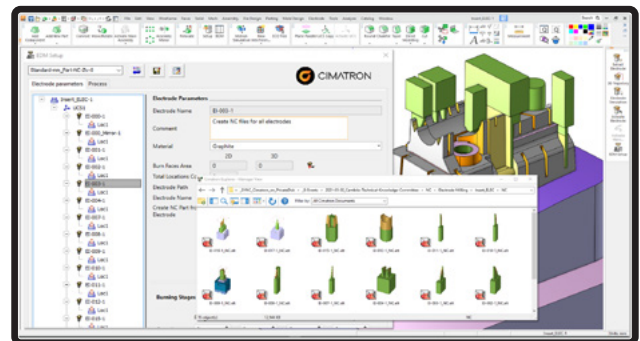
Export BOM report by assembly structure

Electrodes

- **Support for System 3R Electrode Holders** now allows customers to use different orientations for the holder depending on company standard and the RFID orientation, to accommodate the RFID reader on the robot.
- **Electrode Machining** is easier to control. Users can now specify the electrode burning stage from rough through polish directly within the NC-Setup. All specified TP-folders automatically apply the same burn stage for electrode creation. All relevant machining parameters will be applied automatically according to the EDM setup.



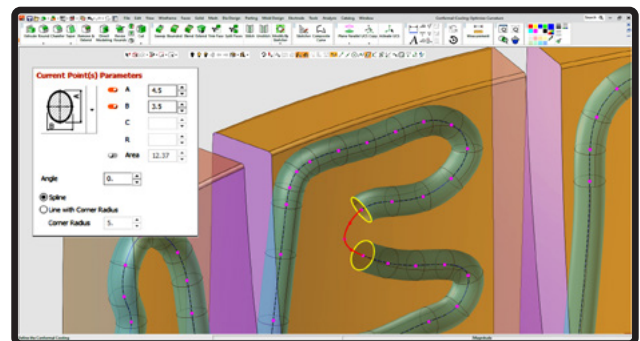
Support for System 3R Electrode Holders



Automatically create electrode NC in EDM setup

Conformal Cooling

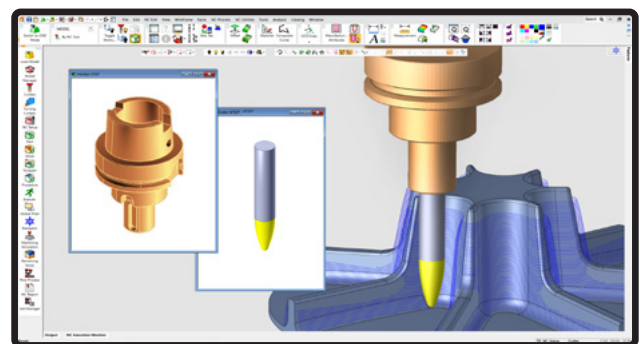
- Cimatron 16 now offers more automatic options for superior cooling path generation and greater efficiency. The new **Virtual Volume** function lets the user limit a cooling circuit to a portion of the shape volume and avoid areas that don't need a cooling channel.
- **Optimize Curvature** displays areas where a cooling channel cannot be created, giving you point-and-click control to correct the channel.



Optimize Curvature for conformal cooling

NC Programming Automation

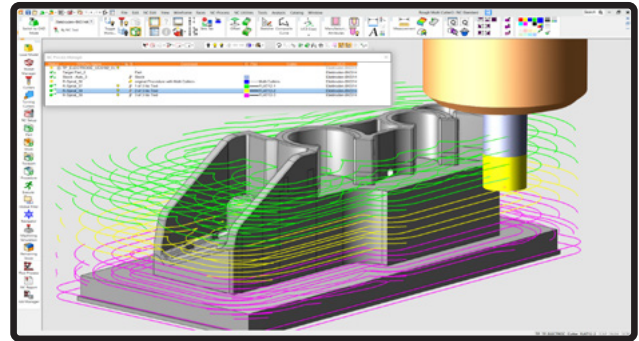
- **Import Cutters & Holders** directly from external data interface formats such as STEP, IGES and STL, as well as Cimatron solid files (ELT). The system automatically identifies the shapes and creates their respective representation in the cutter table.
- **Copy-Paste Geometric Data between procedures** empowers users to efficiently input data between machining procedures, or to multiple procedures, for easy and error-free programming.



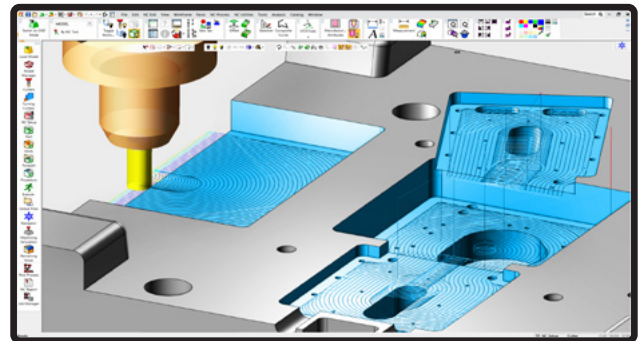
Import cutter and holders from external data interface

Enhanced CAM Strategies

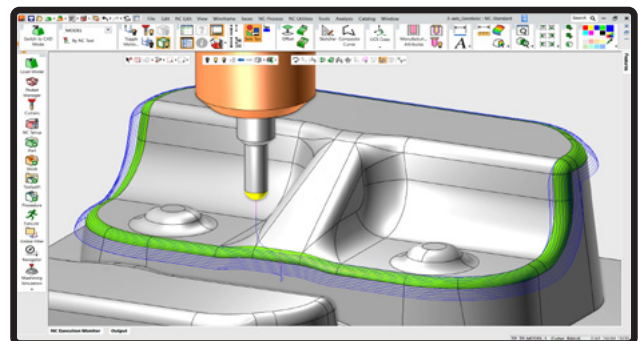
- **3-Axis Rough & Volume Pocketing** now supports automatic selection of multi-cutters of different lengths for the optimum cutting sequence. This efficiency feature for Rough Parallel, Rough Spiral and Volume Pocket results in better tool selection, less tool vibration and faster cutting speeds.
- **Multi Heights & Multi Pockets** - VoluMill™ Pocket can now mill multiple pockets of differing heights and depths as a one-step routine. The combination of VoluMill's effective toolpath with the automation of the Pocket Manager for regions defined by contours gives users the best of both worlds.
- **New Automatic Drill Modes** can run via NC template for seamless creation of hole groups, and also account for unique stock shapes for safer, faster drilling. An enhanced 2.5-axis slotting procedure uses pre-drilled holes in order to speed up machining with the optimum tools.
- **3-Axis Improvements:** Geodesic procedure is now available for all NC users, as in Rough 3+2 Automatic Orientation.
- **5-Axis Improvements:** 5-Axis Deburring now supports new cutter types including End mill, Sphere mill, Lollipop mill, Taper mill and Chamfer mill. In addition, tools without a full tip radius can now define the contact point for the tool and the machined edge. The Multiple Cuts feature can approximate a flat (chamfer) or rounded, (fillet) shape using more than one pass.
- Numerous added enhancements include Automatic Arc for Lead-In/Lead-Out, additional Surface Path options for milling, better handling of undercuts for 5X Roughing.



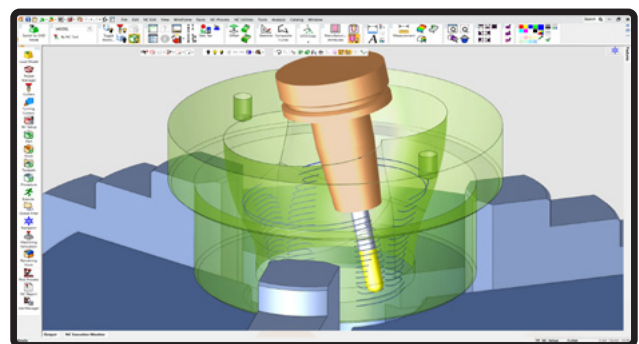
Automatic Multi-Cutters for 3-axis rough and volume pocketing



VoluMill Multi Heights and Pockets



3-Axis Geodesic available for all NC users



5-Axis Undercutting