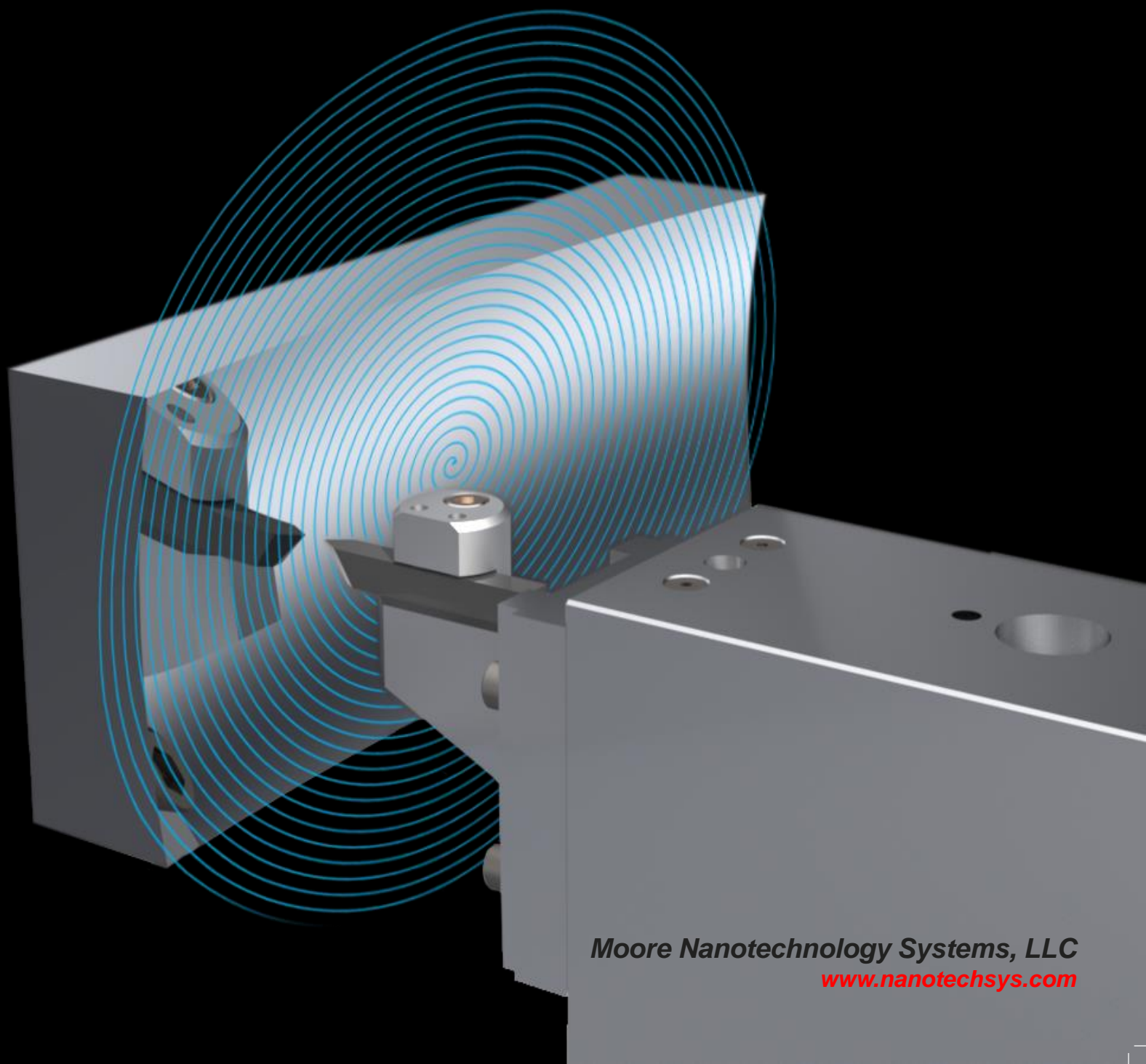


Nano CAM[®] 4

*Ultra-Precision Freeform Programming Software
Specifically Developed for the Optics Industry*

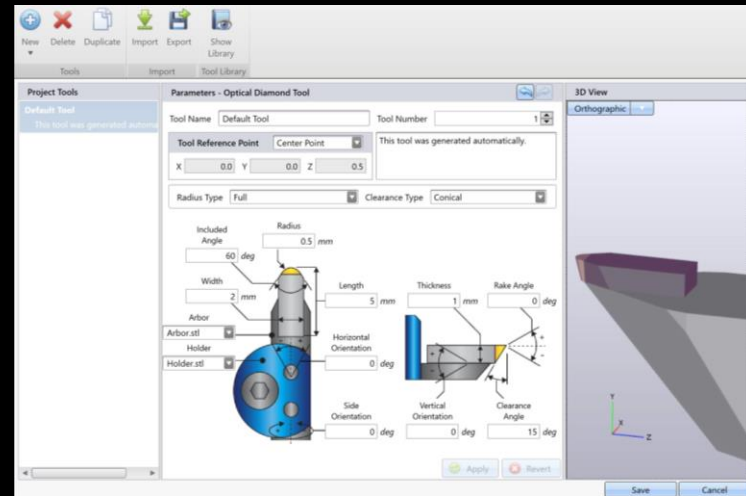


Moore Nanotechnology Systems, LLC
www.nanotechsys.com

Experience the Powerful Benefits of **NanoCAM⁴**

The Only Ultra-Precision Programming Software You'll Ever Need!
 (Diamond Turning, Micro-Milling, Ruling, Rastering, Diffractive / Fresnel, Optical Grinding, Correction)

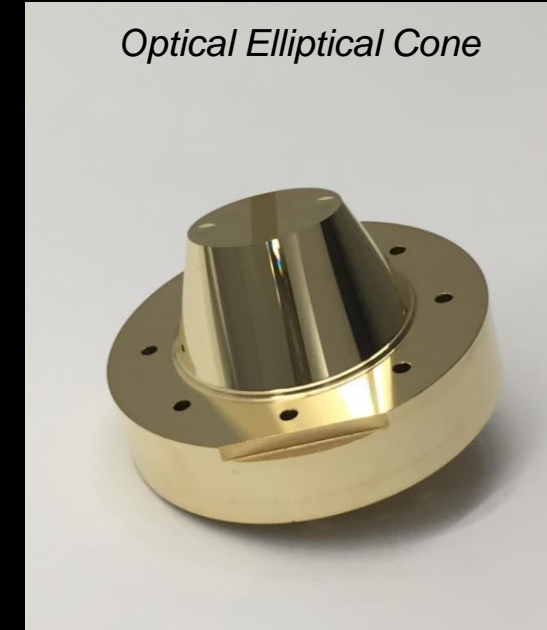
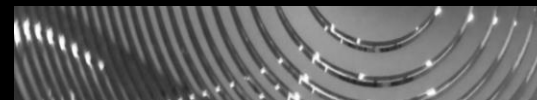
Highest Accuracies ~ Fastest Cycle Times ~ Best Optical Results



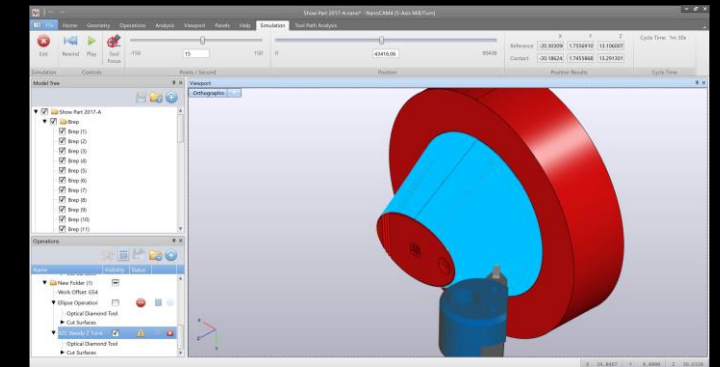
Tabulated Tool Manager Page Enables Simple Creation of all Tooling Rake Angles & Geometries

4 User Friendly Versions

- ◆ 2T (2-Axis Turning)
- ◆ 3T (3-Axis Turning)
- ◆ 3MT (3-Axis Milling & Turning)
- ◆ 5MT (5-Axis Milling & Turning)
- ◆ Diffractive / Fresnel "Add-On"



N4 Keeps You on the Cutting Edge

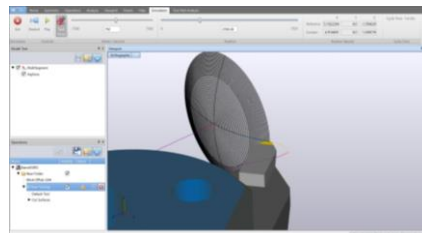


Program with Confidence Utilizing Our 3D Tool Path Simulation

2 - 3 Axis Symmetric & Freeform Turning Packages

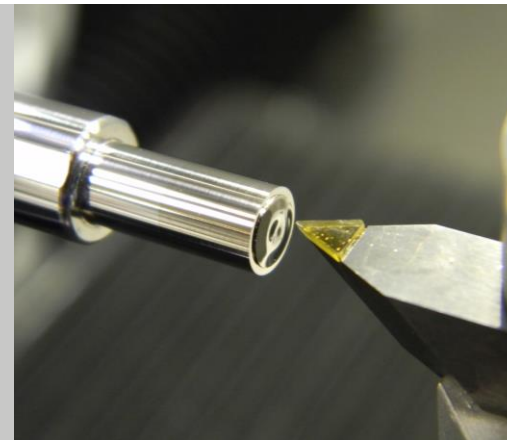
NanoCAM⁴ 2T

2-Axis Diamond Turning



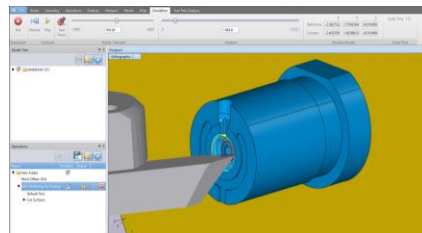
Sample of Main Features:

- ◆ Import & Export Step, IGES and Point Clouds
- ◆ Asphere / Forbes Programming
- ◆ Multi-segment Axisymmetric
- ◆ Surface Analysis / Filtering
- ◆ 2D Measurement Correction
- ◆ Collision Detection / Avoidance
- ◆ Toolpath Simulation / Analysis
- ◆ Filletting



NanoCAM⁴ 3T

3-Axis Freeform Turning



All 2T Features Plus:

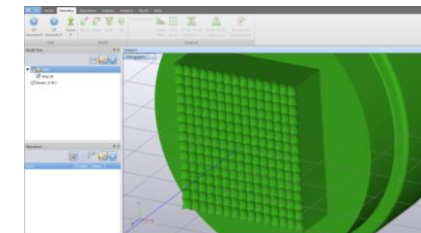
- ◆ Freeform / Off Axis Asphere / Toric
- ◆ Aspheric Lens Arrays
- ◆ Biconic / Polynomial / Zernike
- ◆ Sine / Cosine Waveform
- ◆ Steady X, Oscillating XZ, Dseg
- ◆ XZB Toolpath Programming
- ◆ Surface combining & morphing
- ◆ Smooth linking controls
- ◆ NFTS-6000 Fast Tool Servo



3 - 5 Axis Milling & Freeform Turning Combination Packages

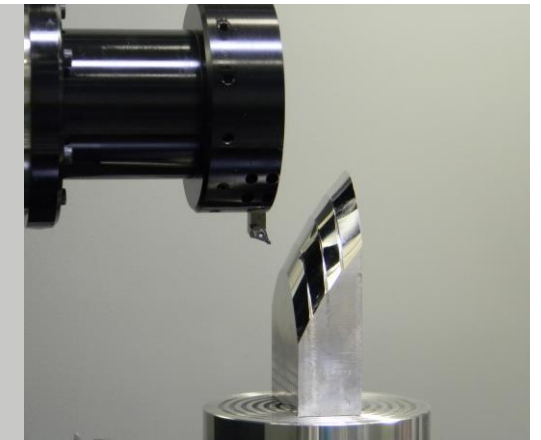
NanoCAM⁴ 3MT

3 - Axis Milling / Turning



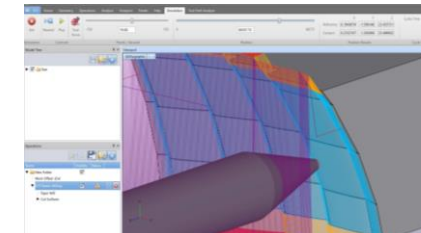
All 3T Features Plus:

- (with numerous milling tool types)
- ◆ XZB Milling
 - ◆ XYZ Raster Milling
 - ◆ XYZ Raster Flycutting
 - ◆ XYZ Spiral Milling
 - ◆ XYZ Ruling



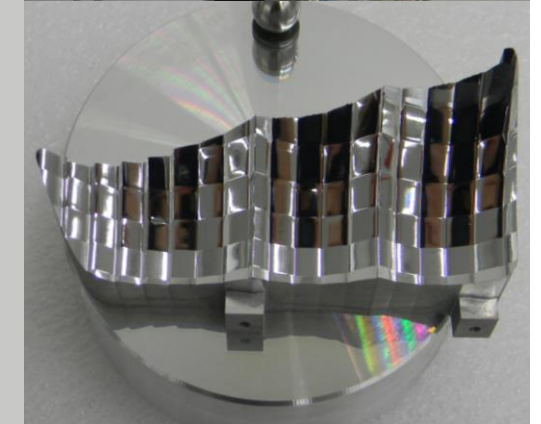
NanoCAM⁴ 5MT

5 - Axis Milling / Turning



All 3MT Features Plus:

- ◆ 4 / 5-Axis Turning
- ◆ 4 / 5-Axis Milling
- ◆ 4 / 5-Axis Ruling

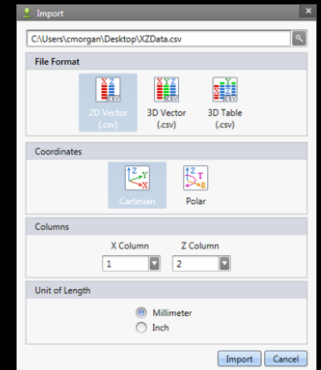
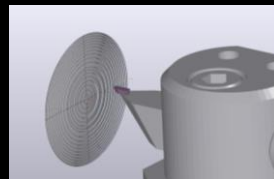
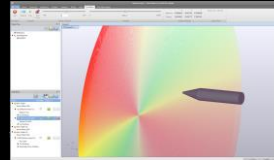


NanoCAM[®]4 *The most comprehensive & ultra-precise optical CAM software package !*

N4 is the result of decades of customer interactions, diamond turning industry expertise and a belief that the future of our industry demanded a more complete easy to use programming package. N4 compliments the many advanced capabilities of Nanotech's systems of today and in the future. It will strengthen your ultra precision programming skills and assist in enabling your machining systems to reach their highest level of potential.

What's **NEW** about NanoCAM4? EVERYTHING!

- ◆ **Over 30 Embedded Optical Equations** support all machining configurations of our latest freeform diamond turning systems: Diamond Turning, Rastering, Ruling, Micro-Milling and Grinding.
- ◆ **Stand Alone CAM Package** eliminates the need of having to go back and forth with any 3rd party software.
- ◆ **Improved Form Accuracies** with direct Importing / Exporting of Step & Iges or Point Clouds. N4 imports actual Non-Uniform Rational B-Splines (NURBS) raw data from 3D CAD models. By eliminating the need to convert to a point cloud first, NURBS raw data provides superior surface accuracies.
- ◆ **Absolute 3D Surface Models** generated within N4, such as for diamond tooling, also use NURBS data extracted from our own proprietary algorithms for exact surface accuracies. The result is smooth form / surface definitions beyond anything you have experienced before.
- ◆ **Tool Path & Machine Simulations** featuring realistic 3D solid models. Visually test and analyze tool geometries and programs prior to actually taking a chip. Import .stl file of part and fixturing for a complete visual simulation of the entire setup for validation.
- ◆ **Negative Tool Rake Compensation** is mastered using N4, not just improved. By combining the NURBS modeled tool and part surface, the exact mathematical point of contact for any negative, positive or zero rake tool, ball nose milling tool or grinding wheel is precisely traversed along the cutting edge from beginning to end.
- ◆ **Color Coded Visual Representation** of velocity & acceleration with their values at every point on the surface is crucial in understanding how to achieve the most precise form accuracies and machine performance.
- ◆ **Oscillating X Dseg** advanced programming capabilities for cell phone camera mold pin manufacturers.
- ◆ **N4 Dedicated Support Team** has been established to provide the best service & support our customers can count on from Nanotech.



Nanotech

Moore Nanotechnology Systems, LLC
230 Old Homestead Hwy
Swansey, NH 03446 USA
Ph: 603-352-3030
www.nanotechsys.com
sales@nanotechsys.com



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