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

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”

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

Highest Accuracies ~ Fastest Cycle Times ~ Best Optical Results

N4 Keeps You on the Cutting Edge

**Optical Elliptical Cone**

Program with Confidence Utilizing Our 3D Tool Path Simulation

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**2 - 3 Axis Symmetric & Freeform Turning Packages**

**NanoCAM4 2T**

- 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
  - Filleting

**NanoCAM4 3T**

- All 2T Features Plus:
  - Freeform / Off Axis Asphere / Toric
  - Aspheric Lens Arrays
  - Biconic / Polynomial / Zemike
  - Sine / Cosine Waveform
  - Steady X, Oscillating XZ, Dseg
  - XZB Toolpath Programming
  - Surface combining & morphing
  - Smooth linking controls
  - NFTS-6000 Fast Tool Servo

**NanoCAM4 3MT**

3 - 5 Axis Milling & Freeform Turning Combination Packages

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**NanoCAM4 3MT**

- All 3T Features Plus:
  - XZB Milling
  - XYZ Raster Milling
  - XYZ Raster Flycutting
  - XYZ Spiral Milling
  - XYZ Ruling

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**NanoCAM4 5MT**

- All 3MT Features Plus:
  - 4 / 5-Axis Turning
  - 4 / 5-Axis Milling
  - 4 / 5-Axis Ruling
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.