

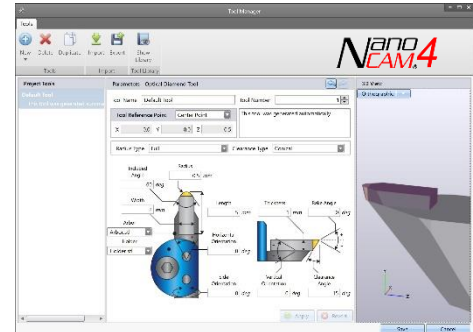
## Ultra-Precision CAM Software Advances Optical Deterministic Capabilities

NanoCAM4 (N4), the highly-anticipated software release from Moore Nanotechnology Systems, is the result of decades of customer interactions, diamond-turning expertise and an understanding that the future of the ultra-precision diamond-turning industry requires a more comprehensive and easy-to-use programming package. N4 compliments and expands the advanced-processing capabilities of Nanotech's current and future products, it elevates ultra-precision programming skills for customers, and it enables ultra-precision diamond-turning machines to reach their highest level of potential.

January 29<sup>th</sup>, 2019, Swanzey, NH - Moore Nanotechnology Systems ("Nanotech"), a leading global supplier of ultra-precision machining systems, has released their next generation **NanoCAM<sup>®</sup>4** software package with capabilities beyond any competing product on the market today.

Nanotech's latest product release has been years in the making and there is nothing like it in the industry. Incredibly comprehensive, yet easy to use, NanoCAM4<sup>®</sup> (N4) brings an accuracy & programming functionality that has been absent from the ultra-precision optical market. Mark Boomgarden, Nanotech's President and CEO, said "We are excited to announce this very important milestone in our product offerings. With the release of NanoCAM4, our customers are able to design and directly transfer their complex optical surfaces seamlessly to Nanotech's machine tools". He continued "Our engineering teams have worked for almost 3-years, and have invested over 20,000 man-hours, in the design, development and testing of this NanoCAM4 package."

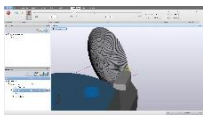
Nanotech partnered with lead customers, technology institutions and software providers during the development cycle - providing opportunities to make incremental changes prior to the release. All previous CAM packages are viewed as "acceptable" for various programming needs, but they all have inherent weaknesses - often requiring intervention by third-party software to complete the task. In other cases, they simply do not have the capability or functionality to program many of the very complicated and diverse optical-machining configurations required in today's market.



*Tabulated Tool Manager Page*

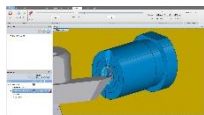
Chris Morgan, Chief Development Engineer for Nanotech, shared "NanoCAM4 is a completely new and superior CAM software package, developed with the goal of being the only **ultra-precision programming software package** customers will ever want or need". He continued "N4 enables improved form accuracies and direct importing / exporting of STEP, IGES or Point Clouds through the actual Non-Uniform Rational B-Splines (NURBS) raw data, thus eliminating the need for cumbersome and less-accurate point-cloud conversion." The output provides a smooth form & surface definition beyond anything you have experienced before. Capable of generating a complete array of programs for diamond turning, micro-milling, ruling, rastering, diffractive / Fresnel, optical grinding and form correction, N4 is available in four different base modules.

**NanoCAM<sup>4</sup>2T**



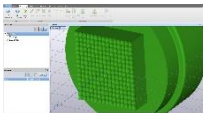
*2-Axis Diamond Turning*

**NanoCAM<sup>4</sup>3T**



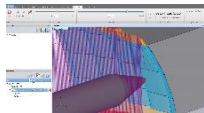
*3-Axis Freeform Turning*

**NanoCAM<sup>4</sup>3MT**



*3 - Axis Milling / Turning*

**NanoCAM<sup>4</sup>5MT**



*5 - Axis Milling / Turning*

Bob Cassin, Nanotech's Vice President of Sales and Marketing, commented "Finally, there is a full-featured, 5-axis CAM package for ultra-precision machine tools that was designed to handle the complexity of today's optical surfaces. Markets like mobile, AR/VR/MR, imaging and automotive lighting are innovating quickly, and we are seeing more requirements for free-form optical elements. NanoCAM4 demonstrates our dedication to keep pace in these markets and support our customers".

The list of value-added advancements contained within the N4 CAM package is extensive, which includes:

> Color-coded representations of exact acceleration and velocity values at every point on the surface enable up front program adjustments that result in reduced machine setup time and the most precise form accuracies.

- > Tool path and machine simulations feature realistic 3D solid models, including any imported fixturing, to visually test and analyze tool geometries, programs and overall setup prior to taking a chip.
- > An integrated Oscillating X Dseg advanced programming capability for cellphone camera mold-pin manufacturers.
- > 30 embedded optical equations and surface precision of 1nm

NanoCAM4 is a “game changing” CAM software package that enables next-generation design and processing capabilities for all diamond-turning customers.

For more information, contact [sales@nanotechsys.com](mailto:sales@nanotechsys.com).

Moore Nanotechnology Systems (Nanotech) was founded in Keene, NH in 1997 as a stand-alone subsidiary of the Moore Tool Company. Nanotech is a world leader in the design, development and manufacture of state-of-the-art ultra-precision machine tools and associated processes (single point diamond turning, micro-milling, micro-grinding and glass press molding) for the production of advanced optical components in consumer electronics, defense, aerospace, lighting, medical and automotive sectors. Moore Tool, founded in 1924 and located in Bridgeport, Connecticut, has a long history in the precision and ultra-precision machine tool markets. Today, Moore Tool provides a complete line of high-performance CNC jig grinders, along with contract precision-manufacturing services certified to both ISO 9001:2008 and AS9100C. Moore Nanotechnology and Moore Tool are vertically integrated under the PMT Group.

Moore Nanotechnology Systems: [www.nanotechsys.com](http://www.nanotechsys.com)

Moore Tool, Inc: [www.mooretool.com](http://www.mooretool.com)

**Nanotech**<sup>®</sup>  
Ultra Precision Machining Systems

**Moore Tool**<sup>®</sup>  
Precision Machinery and Manufacturing

