

***NEWS RELEASE***

For Release: **IMMEDIATELY With Art:**  Three Digital Images

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**OPEN MIND to Highlight *hyper*MILL® 2024 CAD/CAM Software Suite at IMTS**

***OPEN MIND and Oak Ridge National Laboratory to also***

***Present Additive/ Hybrid Manufacturing at IMTS Conference***

A blue and red machine

Description automatically generated*NEEDHAM, MA U.S.A.* *(June 12, 2024) –* [OPEN MIND Technologies](https://www.openmind-tech.com/en/), a leading developer of CAD/CAM software solutions worldwide, announced it will be highlighting the *hyper*MILL® 2024 CAD/CAM Software Suite at the **International Manufacturing Technology Show** (**IMTS) Booth #133351 located in the Software Pavilion - East Hall at McCormick Place, Chicago IL from Sept 9 - 14, 2024.** OPEN MIND recently introduced its latest *hyper*MILL® 2024 CAD/CAM software suite which includes a range of powerful enhancements to its core toolpath capabilities, as well as new functionality for increased NC programming efficiency in applications ranging from 2.5D machining to 5-axis milling.

In 3-axis and 5-axis machining (image), new algorithms for rest material detection ensure that all rest material areas are automatically accounted for in full.

In addition to its show presence, OPEN MIND together with Oak Ridge National Laboratory will be making a presentation at the IMTS Conference Sessions titled *“HEAL-IT: Hybrid-Manufacturing Enabled Agility and Longevity of Industrial Tools”.* The presentation by David Bourdages, Additive Manufacturing Product Manager at OPEN MIND Technologies and Lauren Heinrich, R&D Staff Member at Oak Ridge National Laboratory Manufacturing Demonstration Facility, will focus on a recent collaboration to repair a bottle mold using hybrid manufacturing (additive and subtractive machining), and will take place on Wednesday, September 11th at 11:00 a.m. – 11:55 a.m. in Room W192-C, West Hall at McCormick Place. For more information and to register, visit <https://www.imts.com/conference>.

**New and Enhanced CAM Capabilities**

An **Optimized Deep Hole Drilling** CAM strategy offers improved machining reliability by providing a user-friendly interface with process-relevant parameters clearly defined on a new process tab. ***New*** capabilities enable coolant and dwell time stages to be identified, allow a chip break to be integrated into a drilling process, and more. A ***new*** single-tip gun drill tool simulation function provides precise collision checking and a detailed visualization of the stock removal.

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A ***new*** algorithm for 3-axis and 5-axis **Rest Machining** ensures automatic, complete detection of all rest material areas, in addition to optimized toolpath calculations for faster, reliable machining. Toolpaths are now optimally divided to ensure more efficient machining, and the detection of intersection areas where paths meet has been optimized for collision avoidance.

An additional toolpath improvement is an **enhanced path layout for the 3D Plane Machining cycle**. The ***new*** strategy has a smoother path and fewer pick-ups. While the toolpath length (distance) may be longer in some cases, the machining time, as tested on a variety of NC controllers, has been reduced.

*hyper*MILL® “CAM Plan” calculates the optimum point distribution based on part topology data.

Blue and red model of a machine

Description automatically generated with medium confidenceA ***new, novel*** generation of programming assistance and analysis, “**CAM Plan**” is introduced in *hyper*MILL® 2024, simplifying various programming tasks and identifying possible sources of error. Predefined workflow steps safely guide users through the preparation and programming process, while the geometries and features required are automatically created. Also, potential errors are flagged for removal such as double surfaces or gaps between model patches.

*hyper*MILL® “CAM Plan” automatically creates cover surfaces for holes.

Once the data is organized, the CAM workflow can be processed with more intelligence and higher efficiency. The first benefit from *hyper*MILL® CAM Plan is that component topology is analyzed to produce a precise toolpath that has command locations aligned with key geometric features and with optimized point distribution for milling. The result is improved surface finishes, easier processing by NC controllers, and reduced machining times.

**Optimizing VIRTUAL Machining**

For easy generation of 3-axis and 5-axis NC programs with axis change and an optimized use of the workspace, the NC Optimizer feature in the ***hyper*MILL® VIRTUAL Machining strategy** now offers the option to transform X- and Y-axis movements into a movement that utilizes the rotation axis in the table. By swapping axes, an XY movement is transformed into a simultaneous CX movement which eliminates rewind movements during machining. This is especially impactful on machines that have a limited linear axis range.

**A blue mold with a graphic

Description automatically generated with medium confidence**

The **reading back of measuring points** when using *hyper*MILL® VIRTUAL Machiningis a ***new*** feature that allows graphical representation of measured points on the part model, rather than comparing a list of measurement results. Users can also quickly identify measuring points that are out of tolerance on a 3D part model and compare trends over sequential measurements. As a result, it is much easier to analyze and compensate for inaccuracies and tool wear after milling.

Measuring points read back for improved quality and process control. The 3D model of the component shows at a glance which measuring points are outside the tolerance.

For more information on *hyper*MILL® 2024, visit: <https://www.openmind-tech.com/en-us/cam/hypermill-2024/>.

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About OPEN MIND Technologies AG

OPEN MIND Technologies AG is one of the world’s leading developers of powerful CAD/CAM solutions for machine and controller-independent programming. OPEN MIND develops optimized CAD/CAM solutions that include a large number of innovative and unique features that can deliver significantly higher performance in both programming and machining. *hyper*MILL® is a completely modular CAD/CAM solution that provides state-of-the-art CAM technologies on its own CAD platform: from 2.5D, 3D and 5-axis machining as well as turning strategies and solutions for additive manufacturing, HSC and HPC machining. Whether automation, simulation or virtual machine – trendsetting technologies expand the product range and enable continuous digital process chains. Special applications, the perfect interaction with all popular CAD solutions and a customer-oriented service complete the product range.

According to the "NC Market Analysis Report 2023" compiled by CIMdata, *hyper*MILL® is ranked in the top four CAD/CAM solutions worldwide. The innovative CAD/CAM technologies fulfill the highest demands in the automotive, tool and mold manufacturing, production machining, medical, job shops, energy, semiconductor and aerospace industries.OPEN MIND is a Mensch und Maschine company and has subsidiaries and qualified sales partners on all continents. You can find more information at[**https://www.openmind-tech.com/en-us/**](https://www.openmind-tech.com/en-us/)**.**

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