For automated programming and efficient manufacturing
Intelligent macros
Users can save rules and conditions, on the basis of which geometry features are automatically assigned to machining steps and adjusted.

Job-Linking allows multiple job steps with the same tool to be combined into a single operation. Connections between job steps are checked for collision, without continually moving the cutter to a safety position. Job linking is available regardless of whether 2D, 3D, or 5-axis machining is involved.

Production mode
The production mode reduces approach and retract movements within a job by allowing unmachined areas to be bypassed free of collisions along the shortest possible path.

**hyperMILL® reduces programming and milling times**

One CAM software for everything: The broad spectrum of machining strategies and optimisation features enables parts to be programmed flexibly and efficiently. Stock tracking, collision checking and avoidance, and the tool database can be used across all strategies, ensuring reliable and efficient working methods.
**hyperMILL®** – The most comprehensive range of CAM strategies under a single interface

From 2D, 3D, HSC and 5-axis milling, to mill turning and special applications, **hyperMILL®** CAM software integrates all available strategies and applications under one simple, Windows-oriented user interface. **hyperMILL®** thus makes it possible to program the complete machining of even the most sophisticated parts with just one CAM software system. And that is always an advantage to users looking for continuous processes, reduced processing times and high levels of reliability.

**Seamlessly integrated:**
A completely integrated version of **hyperMILL®** is available within **hyperCAD®**, SOLIDWORKS and Autodesk® Inventor®. Direct interfaces also enable seamless data imports from CATIA V4® and CATIA V5®, PTC Creo, Siemens NX and SOLIDWORKS. Furthermore, the most common standard interfaces such as IGES and STEP... are available for data exchange.

**Everything in a single user interface:** Just one user interface for all strategies results in significant simplification in terms of training and daily work. The option to structure jobs based on a job list provides more transparency and helps minimise errors.

**Less input time:** **hyperMILL®** strongly supports automated programming and clever utilisation of existing manufacturing know-how. Feature and macro technology enables users to export existing geometry and production information from the CAD system and to edit it in the CAM system. Thanks to intelligent macros, users can save predefined rules and conditions for every stage of the machining process. Job steps are then automatically assigned and adjusted on the basis of these rules and depending on geometry information.
Turning with hyperMILL® milTURN: The milTURN module is completely integrated with hyperMILL® and allows users to freely combine milling and turning strategies in a single program. hyperMILL® milTURN integrates turning strategies for roughing, finishing, grooving, thread cutting and drilling. Lengthwise, planar or contour-parallel roughing is possible. During finishing, various approach and retract macros enable optimised machining. Falling contours can also be taken into account.

2D-machining: Typical 2D tasks are programmed using machining strategies such as face milling, pocket machining, contour milling, rest machining, drilling and 5axis drilling. The fact that controller cycles, such as those for pocket machining, are also supported is a particular highlight of the software. Thanks to feature recognition and processing, pockets and holes can be programmed with particular efficiency. Holes can be defined as center drilling, simple drilling, drilling with chip break, deep drilling, reaming and boring, thread milling and drilling, or gun drilling.

3D-machining: Simple and complex parts can be machined efficiently with 3D strategies – from arbitrary stock roughing to Z-level and profile finishing, to rest machining and special strategies such as complete or equidistant finishing. Active collision avoidance during roughing automatically helps to prevent collisions with the shank or holder. If a collision is detected, hyperMILL® offsets the toolpath laterally, and then continues deeper where possible. hyperMAXX®, a new function in stock roughing for high-performance machining, facilitates a significant reduction in milling times.
5axis-machining: HyperMILL® 5AXIS is known worldwide for its innovative, easy-to-use and reliable 5axis technology. Depending on the machining task and the machine kinematics, users can choose the optimal type of 5axis machining from a variety of tilt strategies, including milling with fixed tool angle 3+2, automatic indexing and 5axis simultaneous machining. HyperMILL® 5AXIS offers all the 3D strategies of HyperMILL® in addition to 5axis tool positions. A whole range of special 5axis strategies are available, such as 5axis top milling, 5axis swarf cutting, 5axis contouring and 5axis cutting edge machining.

HSC with HyperMILL®: To respond appropriately to the strict requirements for precision, surface quality, tool life and machine dynamics, several 3D and 5axis strategies offer special functions for high-speed cutting. These include:
- Filleting of corner radii for high feedrates with continuous machine movements
- Smooth plunging and infeeding for optimal cutting conditions and tool movements between toolpaths
- Spiral or trochoidal machining jobs

Special applications: Geometries such as multiblades, blisks, blades, tubes and tyres have special requirements that standard strategies cannot satisfy. With this in mind, HyperMILL® offers special user-friendly applications that allow users to program easily. Special functions, such as the ‘rolling ball’ feature for milling transition radii on turbine blades, or the simple definition for tube machining, ensure optimal machining results. The user has the entire spectrum of machining strategies integrated completely in HyperMILL®.
Service, support, upgrades

Together, our post-processor development, training and support divisions ensure optimal user support. The Upgrade Agreement includes regular software updates, as well as the free use of the service hotline of our branches worldwide. Please ask your OPEN MIND Technologies sales representative for more details.