About ModuleWorks

ModuleWorks is a software component provider for the CAD/CAM industry. ModuleWorks' expertise in toolpath creation and simulation is recognized throughout the CAM industry and its software components and development services are used by the majority of the leading CAM vendors for sophisticated industry focused solutions across diverse business sectors. ModuleWorks 5-axis and simulation software has been used in the manufacture of complex parts for over a decade and they have many users across the global CAD/CAM industry.

Research Partners

Contact

ModuleWorks GmbH
Henricistrasse 50
52072 Aachen, Germany

www.moduleworks.com

Director Research
Dr. Marc Stautner
+49 241 990004-29

marc@moduleworks.com

Research Manager
Dr. Denys Plakhotnik
+49 241 990004-32

denys@moduleworks.com

Research Manager
Eva Berckmann
+49 241 990004-33

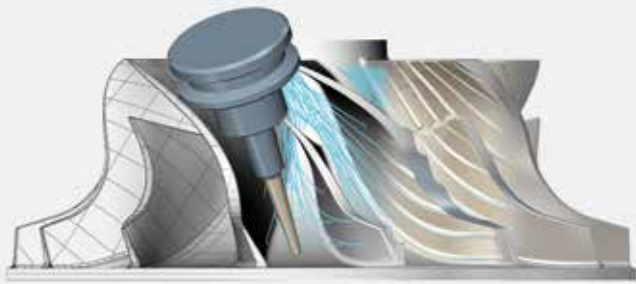eva@moduleworks.com

ModuleWorks is a CIRP Corporate Member

Free academic licenses

ModuleWorks

Get There Faster.

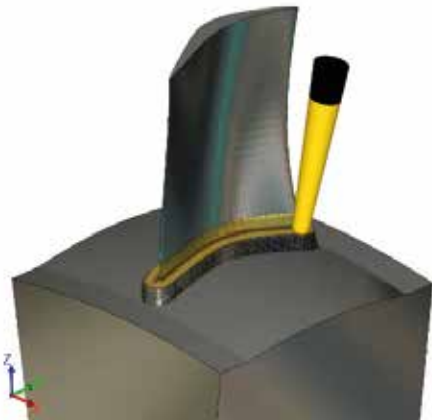**CAD/CAM software components from a world leading provider**

Toolpath Generation
Machining Simulation
Machine Tool Simulation
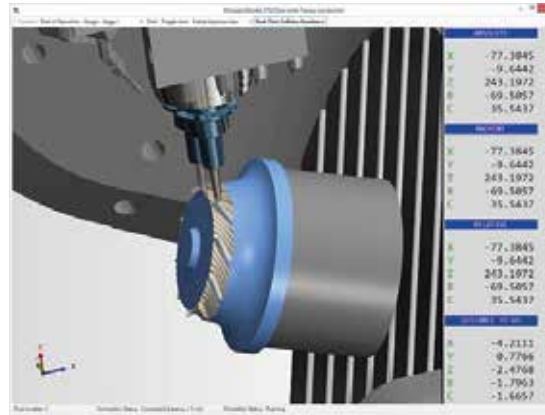
Toolpath Calculation

All types of toolpath calculation from 2D and 2.5D including turning cycles to 3D roughing- and finishing cycles and 5-axis machining for dedicated applications.

ModuleWorks also provides process-specific toolpath calculations, e.g. for additive manufacturing or robot-driven laser welding.

Material Removal Simulation

Full support for 5-axis undercut machining. Collision detection during the simulation. Color schemes for toolpaths and stock to visualize, e.g. cut volume, cutting direction, tool engagement, cutting depths and stepover.

Machine Simulation and Kinematic Solver

A full kinematic machine builder supports mills, lathes, mill/turn, robots and CMM machines with support for an unlimited number of axes.

Support of Additive Manufacturing (AM)

A complete set of modules is available:
- Slicing and support generation algorithms
- Different toolpath patterns for AM
- Volumetric simulation

Statement

ModuleWorks is looking for new academic partners and projects to enlarge its research network and broaden its capability.

Our goals are:

- Enlarging our research network
- Getting access to public funds
- Developing high-risk technologies
- Envisioning future customer requests
- Getting in touch with top performers from academia
- Proving industrial leadership through publishing papers in high-ranked scientific journals

We offer:

- *Free access to the ModuleWorks Toolpath Libraries*
- *Free access to the ModuleWorks Verification Application and Rhino plugin*
- *Free access to the ModuleWorks Simulation Libraries (C++ SDK)*
- Assistance with preparing grant proposals
- Support with writing publications
- Expertise in developing CAM software
- Easy commercialization of research results

Facts:

- Experience in EU-FP7, EU-H2020, Manunet, M-era.Net, EUREKA Eurostars projects
- 8 PhD holders
- Regular peer-reviewed publication and participation in CIRP-sponsored conferences