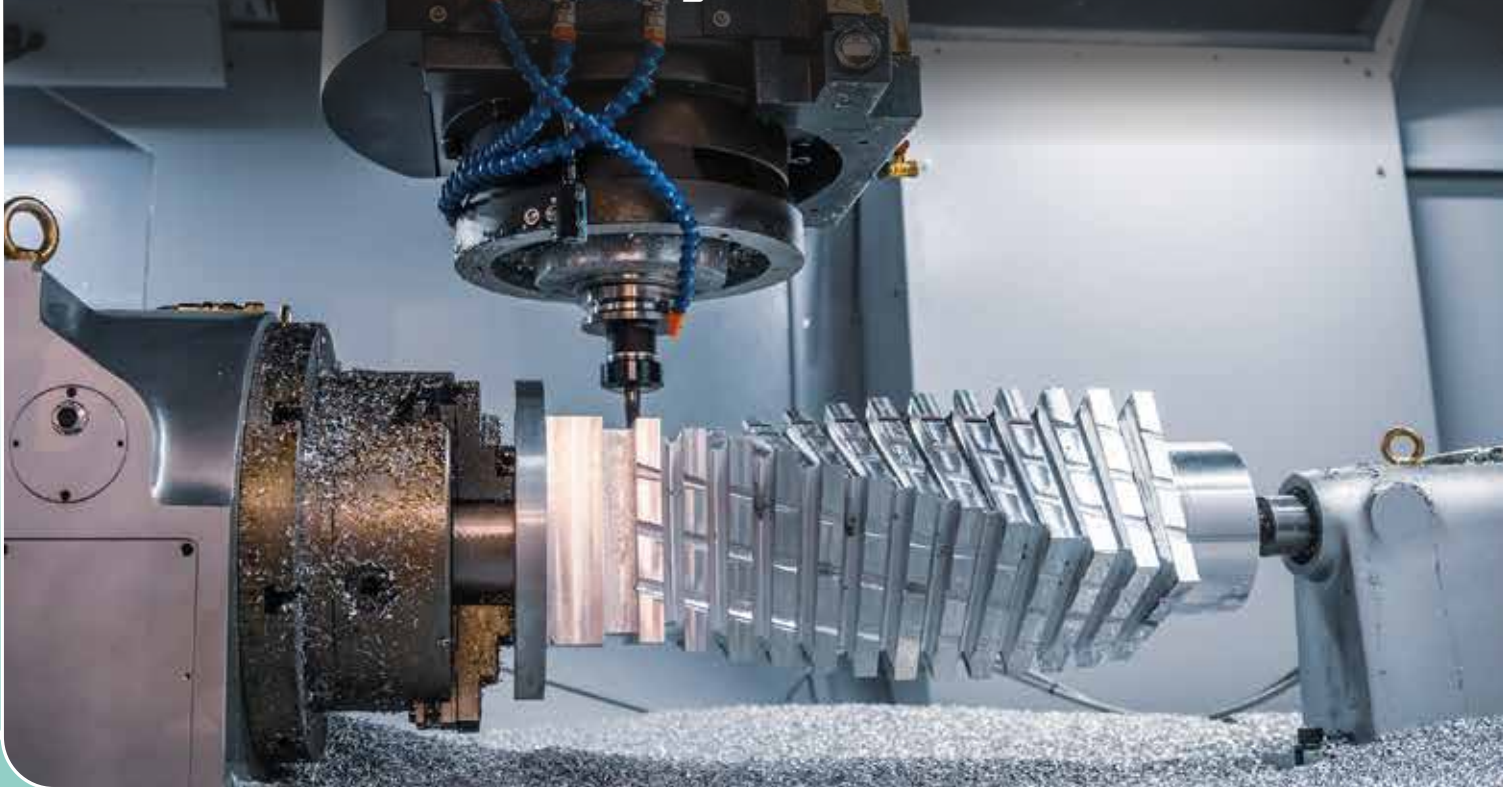


HCLSoftware

Accelerate Machining Productivity with HCL CAMWorks

Fully integrated CAM Software for
SOLIDWORKS® and Solid Edge®



HCL CAMWorks



Program Smarter

Reduce programming time by up to 90% with fully integrated CAD/CAM, feature-based programming and automatic feature recognition



Machine Faster

Decrease cycle time by as much as 85% and increase tool life up to 500%, even in the hardest materials, with revolutionary high speed machining options



Improve Quality and Consistency

Achieve consistent, high-quality output by capturing your shop's best programming and machining practices with knowledge-based machining and CAMWorks TechDB™



Why HCL CAMWorks?

Faster programming time

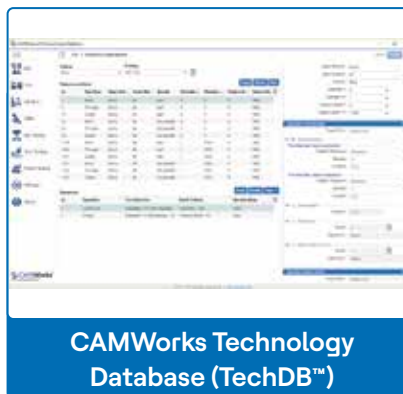
- Fully integrated with industry leading CAD platforms - SOLIDWORKS® and Solid Edge®
 - CAD and CAM data are stored together in one file
 - File translation issues are eliminated
 - Fully associative toolpaths and manufacturing data update automatically to design changes
- Feature-based programming uses intelligence built into the software to select operations, tools, and speeds and feed rates.
- Automatic Feature Recognition automatically identifies the machinable features in a part model

Consistent, high-quality manufacturing

- Knowledge-based machining significantly reduces programming time
- Tolerance-based machining helps achieve superior tolerance and surface finish requirements by reading MBD and PMI data and selecting the machining strategies to meet the specified tolerances
- CAMWorks patented Technology Database (TechDB™) captures and reuses your shop's best programming and machining practices for consistent results
- Provides a company-owned database to store employee knowledge and preferences



Programmer/
Machinist knowledge



CAMWorks Technology
Database (TechDB™)



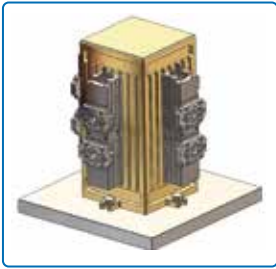
High-quality, consistent
CNC machining

CAMWorks uses your best practices

Complete post processor support

- Post processors for over 2000 machine tool and controller combinations
- Includes a Universal Post Generator (UPG) that enables users to modify existing posts or develop new posts

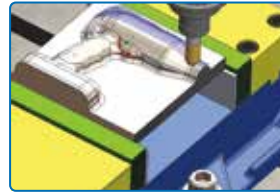
HCL CAMWorks Products



CAMWorks Standard

CAMWorks Standard is the ultimate CAD/CAM programming base product.

- Wide range of 2.5 axis and 3+2 milling, including rotary milling
- Turning capabilities, including sub-spindle support
- High-speed machining using 2.5 axis VoluMill
- Probing capabilities



CAMWorks Milling Professional

CAMWorks Milling Professional includes all the functionality in CAMWorks Milling Standard and additional advanced milling capabilities.

- Multi-axis operations including undercutting, fillet machining and NURB surface machining
- Mill-turn with C, Y & B axis capabilities



CAMWorks Milling Standard

CAMWorks Milling Standard expands the functionality of CAMWorks Standard with additional milling functionality.

- 3 axis rough milling with rest machining
- 3 axis finishing cycles including Z-level (waterline), flat area, pattern project, constant step-over
- Additional 3 axis operations including pencil milling, 3 axis rest machining, and curve project for engraving on 3D surfaces



CAMWorks Turning Professional

CAMWorks Turning Professional includes all the functionality in CAMWorks Turning Standard and provides advanced turning and mill-turn capabilities.

- CAMWorks Sync Manager for synchronous machining on mill-turn machines
- CAMWorks Virtual Machine Standard for full machine simulation with collision detection



CAMWorks Turning Standard

CAMWorks Turning Standard expands the functionality of CAMWorks Standard with additional functionality for lathes and multi-tasking machines.

- Mill-turn with C, Y & B axis capabilities
- Dual turret with pinch turning
- 2 & 4 axis turning with up to 11 axis mill-turn capabilities



CAMWorks Premium

CAMWorks Premium is the ultimate integrated CAD/CAM programming solution. It includes all the functionality in CAMWorks Milling Professional and CAMWorks Turning Professional, plus more.

- Complex 4 axis milling
- Full simultaneous 5 axis milling



CAMWorks is user-friendly, easy to learn, and it reduces our costs in programming and in the whole production process

Boštjan Mivšek
Poclain Hydraulics



With our investment in CAMWorks, we are making an investment in our future to take product performance to the next level

Jeff Fowler
Fowler Performance

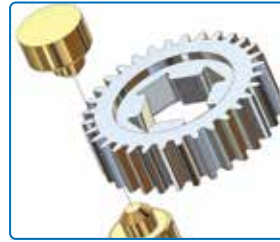
HCL CAMWorks Add-on Products



CAMWorks VoluMill

CAMWorks VoluMill is an ultra high-performance toolpath engine within CAMWorks for 2.5 axis and 3 axis milling roughing operations.

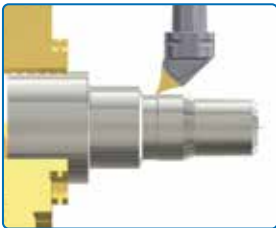
- Significantly reduces cycle times and increases cutting tool life
- CAMWorks 2.5 axis VoluMill is included with all CAMWorks products, and 3 axis VoluMill is available as an add-on



CAMWorks Wire EDM

CAMWorks Wire EDM includes cutting-edge functionality that takes the design model to G-code in one click.

- Searches and identifies the part for machine-able features automatically
- Generates all the operations with the user's preferences and settings
- Creates the toolpaths and posts the G-code



PrimeTurning™

CAMWorks supports Sandvik Coromant's PrimeTurning™ which offers the flexibility for turning operations in all directions.

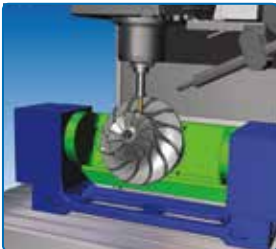
- Reduces cycle time for turning by 50% or more
- Increases insert tool-life by 500% or more
- Full toolpath support for turning in all directions



NESTINGWorks

NESTINGWorks is a fully associative SOLIDWORKS® add-in that optimizes material usage for sheet metal fabrication, woodworking and more.

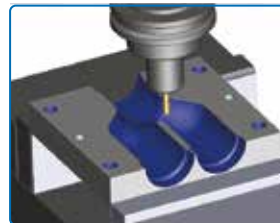
- Maximize material usage
- Optimize your designs
- Save on production cost



CAMWorks Virtual Machine

CAMWorks Virtual Machine virtually proves out CNC programs with true G-code machine simulation to avoid collisions and broken tools.

- Reduce setup time by 50% or more
- True G-code machine simulation, eliminates dry-runs
- Avoid collisions and extend machine life



CAMWorks ShopFloor

Promotes digital manufacturing by providing 3D models with MBD & PMI data and CNC programming information to the shop floor in a single, compact digital format.

- Meet Smart Manufacturing and Industry 4.0 initiatives
- Improve communication on the shop floor with digital technology
- Increase production, decrease turnaround time and reduce waste



What really sold us on CAMWorks was the fact that the software uses the features from a SOLIDWORKS model, which is the Gold Standard we need

Sonia Susac
TECMA, Inc.



With the provided APIs in SOLIDWORKS and CAMWorks, we've been able to achieve an unprecedented level of automation

Daniel Patenaude
.decimal

Case Studies

Rothweiler Feinwerkmechanik's ability to design and build a complete custom motorcycle was made possible in part by the functionality, precision, and ease-of-use of the HCL CAMWorks system. Rothweiler Feinwerkmechanik, located in Pfinztal, uses SOLIDWORKS, CAMWorks and VoluMill to offer a wide range of machining options and provide customers with rapid and flexible assistance.



Thousands of companies, including Fowler Performance, Born Custom Guitars, Albion Swords and TECMA have used HCL CAMWorks to automate their processes and increase their manufacturing capabilities. The advanced technologies in CAMWorks save time and money through seamless integration with SOLIDWORKS, feature-based recognition capabilities, machining simulation, and an extensive knowledge database that captures and reuses best practices.

For more information, visit www.camworks.com/case-studies.



I've always been a hands-on learner, and CAMWorks was so intuitive that I was able to pick it up quickly

Jonathan Miller
Born Custom Guitars



With CAMWorks and SOLIDWORKS, we eliminated our reliance on paper drawings.

Alan Garey
Decimal Engineering, Inc.

HCL CAMWorks Products

HCL CAMWorks provides advanced CAD/CAM technologies to program smarter and machine faster. CAMWorks core products and SOLIDWORKS CAM product options are listed below.

Function	SOLIDWORKS CAM Standard*	SOLIDWORKS CAM Professional*	CAMWorks Standard	CAMWorks Milling Standard	CAMWorks Turning Standard	CAMWorks Milling Professional	CAMWorks Turning Professional	CAMWorks Premium
2.5 Axis Milling Plus*	✓	✓	✓	✓	✓	✓	✓	✓
Cimco Editor/DNC	✓	✓	✓	✓	✓	✓	✓	✓
2.5 Axis VoluMill		✓	✓	✓	✓	✓	✓	✓
Probing		✓	✓	✓	✓	✓	✓	✓
4/5 Axis Indexing		✓	✓	✓	✓	✓	✓	✓
Turning		✓	✓	✓	✓	✓	✓	✓
3 Axis Milling - L1*		✓	✓	✓	✓	✓	✓	✓
Sub-Spindle			✓	✓	✓	✓	✓	✓
Rotary Milling			✓	✓	✓	✓	✓	✓
3 Axis Milling - L2*				✓		✓		✓
Mill-Turn					✓	✓	✓	✓
3 Axis Milling - L3*						✓		✓
Synchronous Machining for Lathes							✓	✓
Virtual Machine Standard							✓	✓
4 Axis Milling (Add-On to Milling Pro only)								✓
5 Axis Simultaneous								✓

Products Available as Add-On

- 3 Axis VoluMill
- Virtual Machine Professional
- Virtual Machine Premium
- PrimeTurning™
- CAMWorks Utilities

Additional Product Options

- Wire EDM
- NESTINGWorks
- CAMWorks ShopFloor

* SOLIDWORKS CAM Standard includes parts only machining

* SOLIDWORKS CAM Professional includes parts and assembly machining

* 2.5 Axis Milling Plus includes 2.5 Axis Milling plus Area Clear Roughing, FlatArea and Z-Level Finishing

* 3 Axis Milling L1 adds a Z-Level Finishing combined cycle for steep/ shallow machining

* 3 Axis Milling L2 adds Pattern Project, Constant Step, Pencil Milling, 3 Axis Rest Machining, Curve Project, and Legacy Rough & Finish Mill

* 3 Axis Milling L3 adds Multi-Axis Operations including Undercutting, Fillet Machining, and NURB Surface Machining



HCL CAMWorks

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About HCLSoftware

HCLSoftware develops, markets, sells, and supports product families in the areas of Digital Transformation, Data, Analytics & Insights, AI & Automation and Enterprise Security platforms. HCLSoftware is the cloud-native solution factory for enterprise software and powers millions of apps at more than 20,000 organizations, including more than half of the Fortune 1000 and Global 2000 companies. HCLSoftware's mission is to drive ultimate customer success with its IT investments through relentless product innovation.

<https://www.hcl-software.com>