



The Future of CAM in Your Shop Today!

The complete CAM Solution, with revolutionary iMachining, MillTurn^O and Swiss-Type, seamlessly integrated in SOLIDWORKS[®] and Inventor[®]



www.cadnea.com

iMachining 2D



Imagine putting the Knowledge and Experience of Hundreds of CAM and CNC Masters in the Palm of Your Hand – Experience iMachining's Exclusive Wizard & Tool Path!

Patented iMachining: "Truly Amazing"

This is what customers, machine tool manufacturers and tooling companies alike say about iMachining. The revolutionary iMachining CAM module, fully integrated in SOLIDWORKS, will make you and your CNC machines more profitable and more competitive than ever before.



The Revolution in CNC Machining

- Increased productivity due to shorter cycles times -70% savings and more!
- Dramatically increased tool life 5 times and more
- Unmatched hard material machining
- Outstanding small tool performance
- 4-axis and Mill-Turn iMachining
- Automatic, optimal feeds and speeds
- High programming productivity
- Shortest learning curve in the CAM industry

Unique Technology Wizard

SolidCAM's iMachining has the exclusive patented iMachining Technology Wizard, the industry's first and only Wizard that automatically calculates optimal cutting conditions for every segment of the iMachining tool path.

The Wizard provides synchronized values of feed rate, spindle speed, axial depth of cut, cutting angles and chip thickness based on the mechanical properties of the workpieceand tool, while also taking into account the technical limits of the CNC machine.

The "iMachining level slider" lets the user choose from 8 selectable levels, to automatically adjust for "real-world" fixture, tool holding and machine conditions. The slider makes it easy to overcome standard problems with spindle rigidity, fixture rigidity and cutting tool stability.

All SolidCAM customers worldwide, who use iMachining, are enjoying immense savings and have gained a real competitive advantage.



TIME SAVINGS 700/0

iMachining Technology-Wizard

Full automatic calculation of: Feed Rate

Spindle Speed Step Over Depth

VE

iRough, iRest, iFinish and Multi-tool Technologies

- Combined roughing, finishing and rest material functionality in one single job.
- Multi-tool: Easily define and edit related jobs that use multiple tools, all from within a single interface. Geometry and Levels are synchronized and rest material is tracked automatically.
- iRough + iFinish: Optimized roughing and finishing in the same job with the same tool. Ideal for prototyping and the machining of soft materials.
- iFinish: Suitable for hard materials and precise machining with separate tool for finishing floors and walls.
- Optimized rest roughing and bottom finishing of 2.5D features with various strategies.
- Automatic recognition and removal of rest material remaining through the drill tip.

Distinctive & Proprietary iMachining Tool Paths!

Morphing Spirals – iMachining uses an advanced, patented morphing spiral that gradually conforms to the geometry of the feature being machined rather than a conventional offset toolpath. This maximizes tool to stock contact or "tool in the cut" time.

Channels and Moats: Divide & Conquer – In order to most efficiently attack large areas of material removal as well as stand-alone islands, they are separated or subdivided into smaller sections using iMachining's patented Moating technology. This maximizes the continuous morphed spiral cutting.

Eliminate Wasted Time & Motion – iMachining tool paths only cut the stock that needs to be removed, eliminating "air cuts". From the initial approach, right to the last cut, rest material tracking ensures every tool path is always efficiently cutting material.



Most efficient iMachining Morphing Spirals toolpath



Moating: Intelligent Division of Areas to maximize Morphed Spirals

iMachining 2D WITH FEATURE RECOGNITION

Technology that simplifies the Geometry definition process by a remarkable extent

iMachining 2D's Feature Recognition technology detects and defines the part machinable features by utilizing the solid model data, with minimal input from the user.

Feature Recognition Modes

- Faces: Smart Face technology builds chains by just the simple selection of faces. Entire pocket features and their levels, which can consist of varying depths, are recognized automatically.
- Chains: Machinable areas are recognized by chains in combination with the solid model data. Perfect for features not having a floor face to select, such as when milling through pockets and side profiles.
- Outside Feature Recognition: Machinable stock surrounding the target is recognized and its levels are detected automatically.
- Chains without Feature Recognition: Option to use SolidCAM's standard chaining method, without iMachining's Recognition and Protection functionality.



Chains Recognition for Through Pockets



Chains Recognition for Side Profiles



Faces Recognition



Outside Feature Recognition



Recognition + Protection

Taking into account the Stock/Updated Stock and Target models, iMachining 2D automatically:

- Detects and avoids part features that create undercut areas
- Detects and extends stock material in open pocket areas
- Detects rest material at every stage of the machining process
- Protects the solid geometries against cutting tool collisions

Dynamic Display of Depths and iMachining Region

iMachining generates and displays a preview of the machinable regions and their levels. The machining geometry can have varying depths and its preview is dynamically updated on job editing, all of which can be visualized in the SOLIDWORKS Graphics Area.



iMachining's Faces Recognition: Features that make undercut areas are handled with ease



We have found all the claims for iMachining to hold true for our applications in Dixons Surgical – incredible tool life, faster cycles, lighter cutting loads reducing vibration in poor work holding situations (mill-turn), and protection of small diameter cutters. The user interface is very clear and simple, and programming iMachining is faster than traditional strategies."

Jay Dixon, Dixons Surgical Instruments

We discovered that SolidCAM reduced our NC programming time by half. On our previous CAD/CAM system, we had to substantially edit G-codes to make the program operate. Now, with SolidCAM, the post processor produces perfect NC-code, making it far simpler and quicker to produce a new CAM program."

Bob Luck, Alcon Components Ltd



Welcome to the SolidCAM Forum

We believe that up-to-date information for our customers and resellers is a priority, so we launched the SolidCAM forum, where everyone can get in depth information about SolidCAM products and future developments.

Check out **forum.solidcam.com** for more details or get the **SolidCAM Forum App** available for IOS and Android from the App-Store & Google Playstore.

SolidCAM on Facebook

Join our Facebook page for daily posts in your News Feed about SolidCAM News, iMachining Success Stories, SolidCAM Professor Recordings, Upcoming Webinars, Events and Product releases.

www.facebook.com/SolidCAM

SolidCAM on YouTube

See recorded SolidCAM webinars and powerful cutting videos of SolidCAM & iMachining, on our SolidCAM YouTube channels:

www.youtube.com/SolidCAMiMachining www.youtube.com/SolidCAMProfessor

SolidCAM on Twitter https://twitter.com/solidcam

Follow us on Instagram https://www.instagram.com/imachining/













AMERICAS

SolidCAM Inc. E-Mail: infonorthamerica@solidcam.com Phone: +1 866 975 1115

ASIA-PACIFIC

SolidCAM ANZ E-Mail: info@solidcam.com.au Phone: +61 7 3805 7518

SolidCAM India E-Mail: info.india@solidcam.com Phone: +91 11 49425170

SolidCAM China E-Mail: marketing.china@solidcam.com Phone: +86 10 8599 7302

SolidCAM Japan K.K. E-Mail: info.japan@solidcam.com Phone: +81 3 6300 6730

SolidCAM Korea E-Mail: info_korea@solidcam.com Phone: +82 32 876 8762

SolidCAM Singapore Pte Ltd E-Mail: snges@solidcam.com.sg Phone: +65 9737 8116

EUROPE

SolidCAM GmbH E-Mail: info@solidcam.de Phone: +49 7422 2494-0

SolidCAM UK E-Mail: info@solidcamuk.com Phone: +44 1226 241744

SolidCAM France E-Mail: info@solidcam.fr Phone: +33 3 4457 1385

SolidCAM Baltics E-Mail: info@solidcam.lv Phone: +371 26882932

SolidCAM Italia E-Mail: info@solidcam.it Phone: +39 051 0952911

SolidCAM Spain E-Mail: info@solidcam.es Phone: +34 900 909 878

SolidCAM CZ E-Mail: ivan.cimr@solidcam.cz Phone: +420 603 893 701

SolidCAM Ltd. E-Mail: info@solidcam.com Phone: +972 3 5333 150

SolidCAM in Your Country

Contacting a SolidCAM office or reseller is easy. The complete list of our worldwide, dedicated distribution and support network is available on solidcam.com











99 My personal goal was to be able to program all CNC machining operations consistently with a single CAM system. The biggest challenge here was to bring the Swiss-type lathes on board. Thanks to the extensive support provided by SolidCAM, that also worked out wonderfully!"



Steffen Rudischhauser | Managing Director Rudischhauser Surgical Instruments & Implants Manufacturing GmbH | rudischhauser.com



99 What matters to us are the structure and quality of the generated CNC programs that go to the machine, as well as how guickly and easily they can be generated. The service at SolidCAM is unparalleled. The technicians have done a great job with the post-processors for our complex Bumotec machines. And if we ever have a problem, someone from the support team is immediately offering help. These days, that isn't a given; it's unique!"

> Stjepan Matacun | Production Manager Stuckenbrock Medizintechnik GmbH

99 After only two weeks with SolidCAM we had more success than with the previous CAM system after three years. We can now program the most complex workpieces much faster. Creating the tools is much easier and I can already program a part even if the final tool data is not yet completely available. This was not possible in the past."

> Franz Fuchs | CNC & CAM Programming Hefter Maschinenbau GmbH & Co. KG | hefter.de





