

"Buy it once, own it forever"

ZW3D

All-in-One, Affordable CAD/CAM

MeT

www.mechdesigned.com



ALL-IN-ONE AFFORDABLE CAD/CAM

EVER SINCE 1986

Overview

ZW3D, an integrated CAD/CAM solution designed for the whole process of product development, features the fastest kernel for Solid-Surface Hybrid Modeling, non-solid mold parting and smart CNC machining strategy from 2-axis to 5-axis. It brings customers multiple benefits such as reduced costs, optimized design workflow and improved efficiency.

ZW3D's Unique Values

1 Truly All-in-One 3D CAD/CAM Solution

ZW3D can complete the CAD/CAM work that previously required standalone CAD and standalone CAM software. The integrated system makes it easier to manage and exchange 3D data.

2 Unique Solid-Surface Hybrid Modeling

Unique Solid-Surface Hybrid Modeling technology can unleash your 3D design ideas by breaking down the boundaries between solid and surface features. It provides designers with more creativeness and opportunities.

3 Cutting-Edge Non-Solid Mold Parting Technology

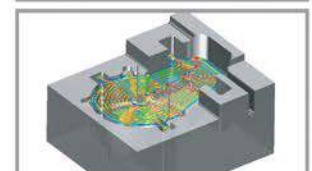
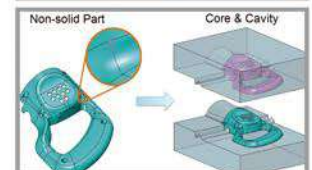
You can design molds based on non-perfect solid features and create core and cavity faster than ever. Skipping the model healing will shorten the whole process of mold production from cost evaluation to manufacturing.

4 Smart QuickMill Technology

Patented QuickMill Technology helps generate roughing toolpaths with uniform cutting loads. It automatically adjusts feed rate using the Advanced Feed Rate Control function to lengthen tool life, reduce tool cost and raise machining efficiency.

5 Easy to Learn & Use

ZW3D ensures fast software implementation and shortens the learning curve with clear and intuitive UI, Show-n-Tell™, tutorial videos, knowledge base and a professional support team.



How ZW3D Can Help You

Intuitive 3D Visualization & Parametric Design

ZW3D speeds up your product development and helps you grasp marketing opportunities through 3D visualization and parameterization of the concept design, product design and mold design.

Conveniently Unify 3D Data in One Integrated System

With CAD, Mold and CAM modules integrated in one system, customers can unify all 3D data and avoid data loss during the transition. Meanwhile, it can ease coordination among the Product R&D, Engineering and Manufacturing Departments.

Flexible and Powerful Modeling Capabilities

With flexible modeling technologies based on ZW3D's Overdrive kernel, like unique Solid-Surface Hybrid Modeling, morphing, wrapping and embossing, it can optimize product R&D workflow, improve design efficiency and deliver more creative and personalized product designs to customers.

Efficient Mold Design

With the whole-process 3D mold design module and the non-solid mold parting technology, ZW3D helps you shorten the time of cost evaluation, quotation and mold design, get orders faster and improve mass production efficiency.

Greatly Shorten Production Cycle & Save Tool Cost

ZW3D helps customers shorten production cycle and save tool cost with the clear and easy-to-use CAM workflow, intuitive UI, automatic feature identification, tactic machining capability, QuickMill technology, and high-performance roughing strategy VoluMill™.



Valued Customers of ZW3D



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About ZWSOFT

ZWSOFT is an engineering software provider committed to all-in-one CAX solutions. With over 20 years' experience in the industry, its products and service have been proven by over 900,000 users across 90 countries.

ZW3D CAD MODULE

EVER SINCE 1986

Overview

The ZW3D CAD solution possesses strong capabilities of product design with unique Solid-Surface Hybrid Modeling, multi-object file management, powerful data exchange and reliable product verification tools. Further to this, the solution features sheet metal and reverse engineering. Benefiting from the shortened learning curve and the flexible design module of ZW3D, you can speed up the product design process and boost design productivity.

Top 5 Reasons to Choose ZW3D CAD

1 Excellent Data Translator

Eliminate the barriers between different 3D modeling systems and maximize data reuse. There is no need to worry about CAD data exchange with your suppliers.

2 Easy to Learn & Use, 3D Visualization & Parameterization

The intuitive UI, clear 3D design workflow and the built-in Show-n-Tell™ tutorials help you shorten your learning curve and reduce training costs. Plus, product design can be directly visualized in 3D with full parameterization.

3 Flexible & User-Friendly Modeling Tool

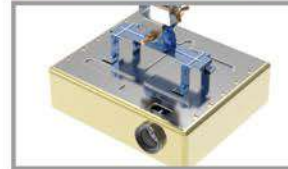
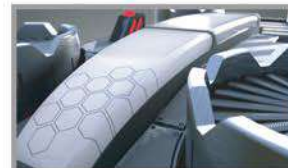
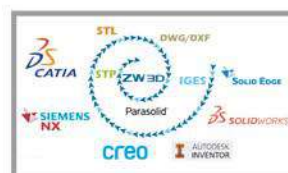
Thanks to the unique Solid-Surface Hybrid Modeling, ZW3D can help speed up modeling process and increase design flexibility with creative and personalized product designs delivered.

4 Versatile 3D CAD Platform

Various CAD functions, like 3D modeling, assembly, 3D annotations, 2D drawing, sheet metal, advanced FTI, reverse engineering and more, are provided in ZW3D, making it possible to meet the needs of different departments in your company.

5 Effective Yet Budget-Friendly 3D CAD Software

With a powerful file translator, an intuitive UI, minimized re-learning costs, and strong design & manufacturing capabilities, ZW3D provides an effective yet budget-friendly CAD/CAM solution.



Highlights of ZW3D CAD

1. Easy File Management

- Users can store all objects, like part, assembly, 2D sheet, CAM plan, etc. of an entire project in one file to improve the efficiency of data management.
- Creating and managing object files is easy in the single root object mode; so is the integration with PDM/PLM systems.

2. Unique Solid-Surface Hybrid Modeling Technology

- Designers do not have to worry if the object is a solid or a surface in ZW3D. It is possible to conduct Boolean operations between surfaces and solids directly.
- Solid-Surface Hybrid Modeling technology eliminates the barriers between solid modeling and surface modeling to speed up the modeling design.

3. Better Design Cooperation

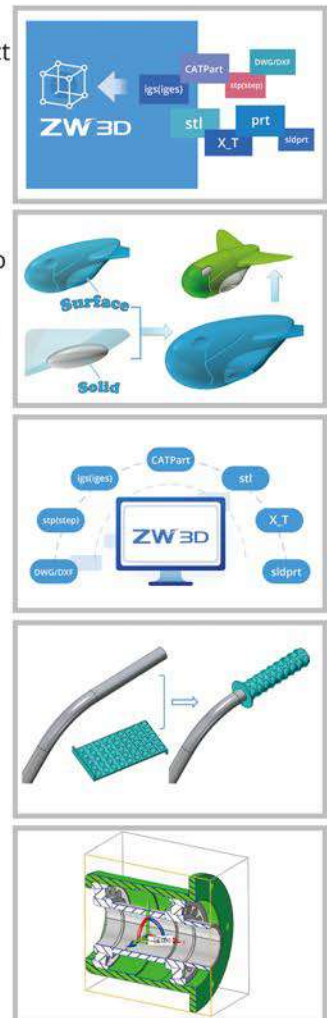
- Quickly generate 2D sheets of different standards with views, dimensions and BOM tables.
- Directly read mainstream 3D CAD file formats, like Z3, CATPart, prt, asm, sldprt, par, ipt, sat, dwg, dxf, iges, step, x_t, 3dxml, x cgm, obj..., and 2D sheet formats like CATDrawing and slddrw.
- Export models to Z3, step, iges, stl, sat, 3D PDF, CATPart, etc.

4. Flexible Embossing, Morphing & Wrapping

- Quickly emboss a surface of high precision from a raster image.
- Do morphing and wrapping flexibly with solids, surfaces and STL data.
- Designers can set free their creativeness and design in a more flexible way.

5. Product Verification Tools

- Visual analysis tools, like contour stripe, gaussian curvature, draft angle and thickness analysis, can be used to check surface quality and product structure.
- Dynamic section view & interference check help users verify if the parts in an assembly will fit or not.
- Vivid animations can be generated to better demonstrate the product to anyone.



ZW3D CAD Features

• Translator for CATPart, prt, asm, sldprt, par, ipt, sat, dwg, dxf, iges, step, x_t, 3dxml, x cgm, obj and more
• 2D Sketching with Ready-sketch Library
• 3D Wire Frame Tools & 3D Sketch
• Parametric Modeling & Direct Edit
• Solid-Surface Hybrid Modeling
• Shape Morphing, Wrapping & Flex Tools
• Assembly Design, Interference Check & Animation
• Geometry Healing
• Sheet Metal Design, Weldment & FTI
• Reverse Engineering
• 2D Views, BOM/Hole Tables
• PMI (Product Manufacturing Information)
• Library Design

Valued Customer



"ZW3D makes your imagination touchable, merges your ideas with hybrid technology and exposes the forms you want to create."

--Rui Ferreira Job, CAD Department
Director at Moldegama

ZWSOFT Headquarters

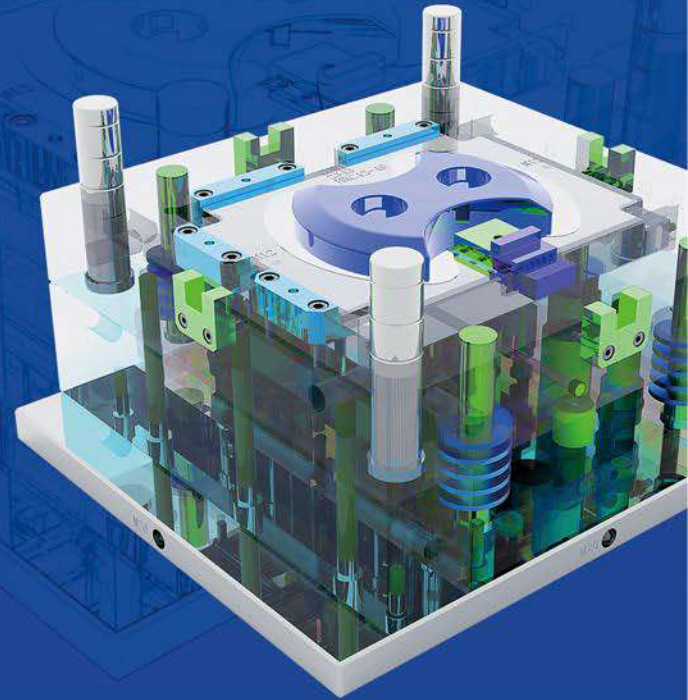
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ZW3D MOLD MODULE

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Overview

The **ZW3D Mold** design solution covers your needs throughout the whole process of mold design, providing high-quality data import, smart model healing, unique non-solid mold parting, extendable mold base and standard parts, and practical electrode design & 2D document. It helps you accelerate the cost evaluation and maximize your productivity by shortening mold design cycle.

Top 5 Reasons to Choose ZW3D Mold

1 Whole-Process 3D Mold Design

Improved efficiency is achieved through a streamlined workflow. In a single system, users can complete all mold design work with 3D visual and parametric design, reducing costs and facilitating collaboration.

2 Powerful Design Verification Tools

Various product verification tools and healing features help mold makers analyze, check and heal, to eliminate design errors, ensuring the manufacturability of product structure.

3 Excellent Time Saver for Quotation

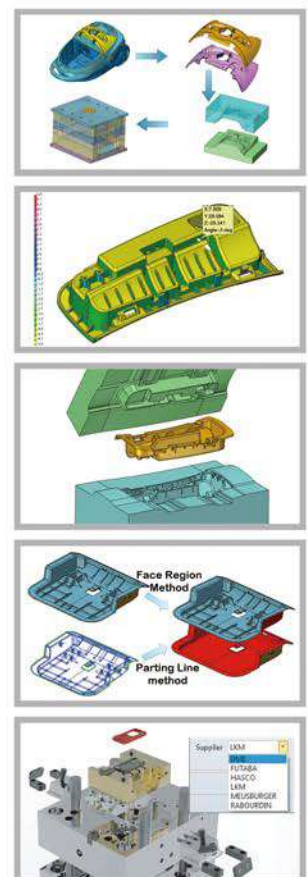
ZW3D's non-solid mold parting without healing makes itself stand out from the competition, which greatly shortens the time of cost evaluation and quotation, speeding up the cycle of mold design.

4 Faster Core & Cavity Splitting

Quick splitting of complex parts with parting lines or the core-cavity region definition method helps users improve work efficiency, reduce delivering time and win more business opportunities.

5 Extendable MoldBase & Standard Parts

Work with an extensive library of mold bases and standard parts that can be modified and personalized, meeting the requirements of different countries and companies.



ZW3D CAM MODULE

EVER SINCE 1986

Overview

ZW3D CAM is a comprehensive CNC machining solution, offering 2-5X milling, turning, high-speed machining and drilling strategies. Powered by the unique QuickMill technology, with automatic feature/region identification and a flexible toolpath editor, engineers can generate highly reliable and easy-to-program toolpaths efficiently, bringing unmatched productivity and reliability.

Top 5 Reasons to Choose ZW3D CAM

1 Easy to Learn & Use

ZW3D provides an intuitive and customizable interface to assist with and optimize your workflow. Whether you are an experienced engineer or a complete novice, ZW3D CAM can be mastered with a pretty short learning curve.

2 A Reliable CAM Suite

Lots of options in ZW3D, like accurate calculation of minimum tool overhang length, safe ramp, gouge detection and collision check between holders and parts, the table, clamps etc., ensure feasible and reliable machining environment.

3 Powerful Built-in CAD Capability

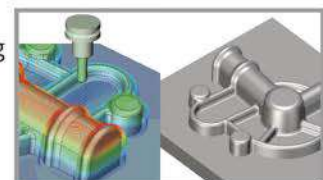
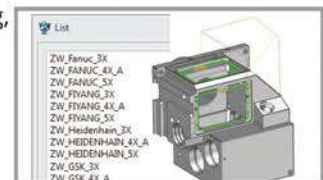
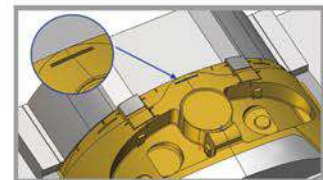
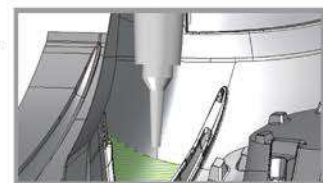
The built-in translator can read mainstream file formats in the industry. Plus, toolpaths in ZW3D CAM module can be synchronized with any modifications of model geometry in the integrated 3D CAD module.

4 A Versatile CAM Platform Suite

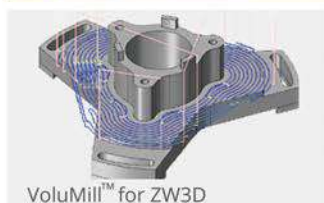
ZW3D offers designers sufficient capabilities to deal with various types of machining, including 2-5X Milling, High Speed Machining, Turning, Drilling, etc. A rich library of customizable post-processors are also provided to drive your machines.

5 Efficient and High-quality Machining

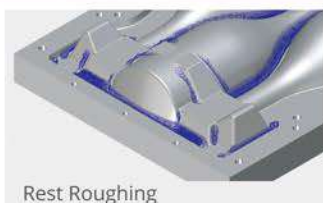
The unique QuickMill technology and VoluMill™ for ZW3D automatically determine the uniform cutting loads and feed rates, increasing productivity by up to 200%. Finishing operations can be well-performed to get high-quality surfaces.



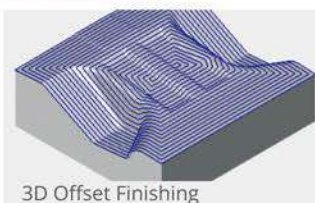
Highlights of ZW3D CAM



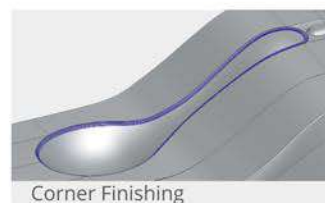
VoluMill™ for ZW3D



Rest Roughing



3D Offset Finishing



Corner Finishing

1. 2-3X High-Performance Roughing & High-Quality Finishing

- More than 40 types of 2X and 3X machining strategies make users deal with all kinds of work easily.

2. Intelligent Machining Feature Recognition

- Hole Tactic—automatically recognizes features and generates manufacturable toolpaths, reducing programming time by 70%.
- With the Reference Tool or Reference Operation, ZW3D can identify previously-machined areas automatically and create toolpaths correspondingly.

3. Flexible & Efficient Toolpath Editor

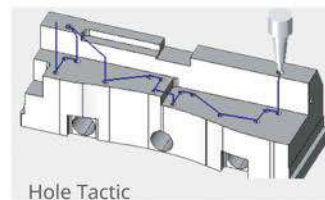
- Edit entire or partial toolpaths with tools like Trim, Re-order, Re-link, Extend & Transform, making programming process more flexible and efficient.

4. Turning & 5X Milling

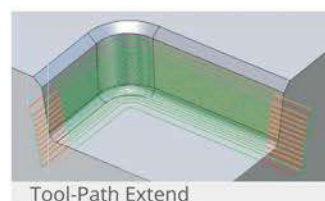
- Turning provides outside and inside Roughing, Finishing, Grooving, Threading, Facing and Drilling to deal with most types of turned parts.
- 5X Milling provides a complete solution for multi-axis machining. Multi-sided work piece can be machined in one set-up to achieve highly accurate cutting with greatly reduced machining time.

5. Verification & Simulation

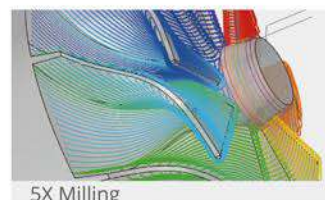
- The Quick Verify and Solid Verify tools can verify the toolpaths and analyze the excess materials to avoid gouges and collisions, delivering more reliable machining.
- Full Machine Simulation function can simulate the actual machining process after taking the kinematic models of machines into account, helping users detect potential issues and ensure manufacturability.



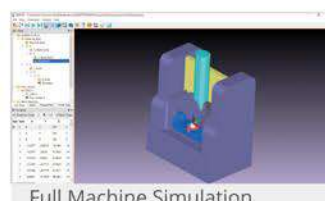
Hole Tactic



Tool-Path Extend



5X Milling



Full Machine Simulation

ZW3D CAM Features

• Built-in Basic CAD tools
• Turning
• Hole Making
• 2X, 2.5D, 3X & 5X Milling
• Auto-Feature Tactics
• Toolpath Editor
• Verification & Simulation
• Operation List
• Post Processor
• VoluMill™ for ZW3D

Valued Customer

"One, we are a small company with limited resources, so our choice has to be budget-friendly. Two, ZW3D doesn't skimp on performance -- it has all the tools we need. And finally, ZWSOFT is very supportive of what we plan to do."

--Russel Pescod

Partner of ULPower Aero Engines



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