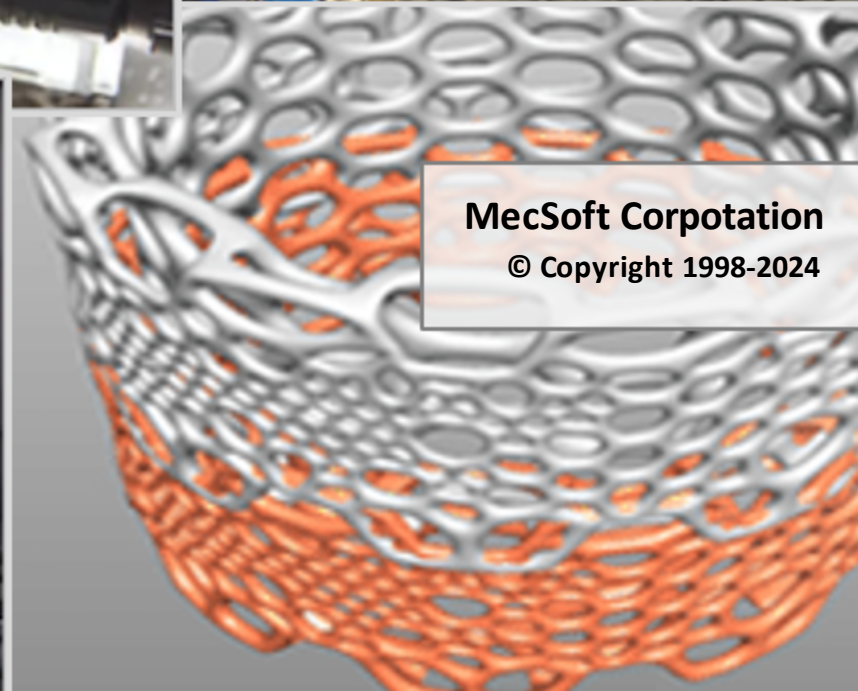


MecSoft

# CAMJam Training with MecSoft CAM

August 2024



MecSoft Corporation  
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## READ THIS FIRST!

[CAMJam](#) is your access to all of the training videos and print media guides produced by the MecSoft technical support staff. You will find videos of both current and previous product versions of MecSoft's CAM plug-ins, links to MecSoft Print Media archive as well as bonus guides and tutorials only available to you as an AMS subscriber! The following topics explain what is included in this CAMJam release.



### Use the Index!

Use the [Index](#) at the end of this [CAMJam PDF](#) guide! It is over 10 pages long and will help you find the exact location in videos to watch to get your questions answered.



### CAMJam PDF Document Version Number

The [CAMJam PDF](#) file publication [Date](#), [Time](#) and [Title](#) will serve as the unique [Version Number](#) of this document. Updates to this document occur on a regular basis.

[Document Version Number:](#)

**8/6/2024.2:03 PM.CAMJam 2024 with MecSoft CAM**



### IMPORTANT NOTE!



It is important to understand as you browse and watch these training videos and guides that MecSoft's CAM plug-ins operate near identically across each PC CAD platform we support!

For example, watching a tutorial of how to program toolpaths in [RhinoCAM](#) can be applied directly to performing the same toolpaths in [VisualCAD/CAM](#), [VisualCAM for SolidWorks](#) or [AlibreCAM](#)!



### Video Information

Each video has its own topic in this document. Listed under the video topic you will find the following information:

1. **Video Title, CAMJam # & Description**
2. **Link to the full video**
3. **Plug-in Platform** - [VisualCAD/CAM](#), [RhinoCAM](#), [VisualCAM for SolidWorks](#) and [AlibreCAM](#). This icon  indicates which platform is shown in the video. This icon  indicates which platforms the video can also be applied to.
4. **Parts Illustrated** - The 2D or 3D part used in the video is shown here. Many of the source part files are available and included in the /File Archive folder of the download archive. [Over 150 individual parts are included](#)<sup>148</sup>. Note that some parts may not be available.

5. **In-Video Topic Links** - These links go directly to the location in the video where the topic is discussed.



### More Learning Options

In the [More Learning Options](#) section you will find even more ways to learn about MecSoft CAM. Make sure to visit the following sections:

- [User Spotlights](#)<sup>126</sup>
- [Case Study Learning](#)<sup>126</sup>



### Part File Archive

In the [Part File Archive](#)<sup>148</sup> section you will find images of each part file included in CAMJam. These are the 2D and 3D part files in neutral file formats that you can open in any CAD system.

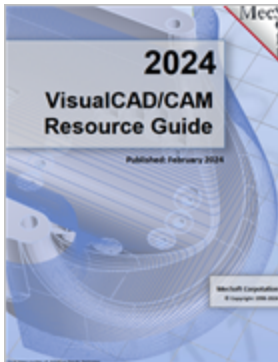
## New 2024 Resource Guides!

Download these PDF Guides for a list of the available 2024 resources.

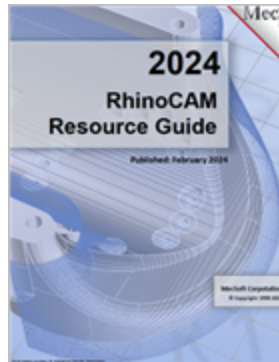
### The 2024 Resource Guides!

*18 Pages*

Lists PDF downloads and Online resources including [Quick Start Guides](#), [Reference Guides](#), [Exercise Guides](#), [Tutorials](#) and More.



[VisualCAD/CAM 2024](#)



[RhinoCAM 2024](#)

## FULL Playlist (300+ Videos)

Choose from the completed [CAMJam Playlist](#) that includes all videos from previous [CAMJam](#) versions:


Videos    Shorts    Live    Posts    **Playlists**    Podcasts    Promotions

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☰ Filter

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Playlist

A thumbnail image for a video playlist. It shows a software interface with a 3D model of a part. A black overlay on the right side of the thumbnail contains the number '330' in white, and a white play button icon below it.

CAMJam  
Add description

---

CAMJam Playlist (300+ Videos)

## What's New in VisualCAD/CAM 2024

### 4.1 VisualCAD/CAM 2024

#### Video Description

---

In this video learn about all of the new features in VisualCAD/CAM 2024. Refer to the topic video links listed below.

[Click here to watch the full video.](#)

[Read the VisualCAD/CAM What's New Document Here!](#)

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



#### In-Video Topic Links

---

Presentations:

[2024 Presentation](#)

Demonstrations:

[Usability Enhancements](#)

[2½ Axis Enhancements](#)

[3 Axis Enhancement](#)

[3 Axis CONTACT Machining](#)

[Cut Depth Enhancement](#)

[3 Axis Skim In Process Stock](#)

[4 Axis Enhancements](#)

[5 axis Enhancements](#)

[5 Axis Drilling](#)

[2½ Axis Face Top Enhancements](#)

[High Speed Facing Enhancements](#)

[Licensing Enhancements](#)

### 4.2 VisualCAD/CAM 2024 Document



**What's New!**

[What's New in VisualCAD/CAM 2024](#)



**The Complete Quick Start Video Play List**

[Here is a link to the complete VCC2024 Video Play List](#)

## What's New in RhinoCAM 2024

### 5.1 RhinoCAM 2024

#### Video Description

---

In this video learn about all of the new features in RhinoCAM 2024. Refer to the topic video links listed below. Note that VisualCAM enhancements are the same as RhinoCAM.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



[Click here to watch the full video.](#)

[Read the RhinoCAM What's New Document Here!](#)

#### In-Video Topic Links

---

Presentations:

[2024 Presentation](#)

Demonstrations:

[Usability Enhancements](#)

[2½ Axis Enhancements](#)

[3 Axis Enhancement](#)

[3 Axis CONTACT Machining](#)

[Cut Depth Enhancement](#)

[3 Axis Skim In Process Stock](#)

[4 Axis Enhancements](#)

[5 axis Enhancements](#)

[5 Axis Drilling](#)

[2½ Axis Face Top Enhancements](#)

[High Speed Facing Enhancements](#)

[Licensing Enhancements](#)

### 5.2 RhinoCAM 2024 Document



**What's New!**

[What's New in RhinoCAM 2024](#)



**The Complete Quick Start Video Play List**

[Here is a link to the complete RC2024 Video Play List](#)

## New Videos (Long Form)

Enter topic text here.

### 6.1 2½ Axis Prismatic Parts

#### Video Description

Watch this full length training webinar on programming 2½ Axis Prismatic Parts using RhinoCAM and VisualCAD/CAM.

[Click here to watch the full video.](#)

VisualCAD/CAM



RhinoCAM



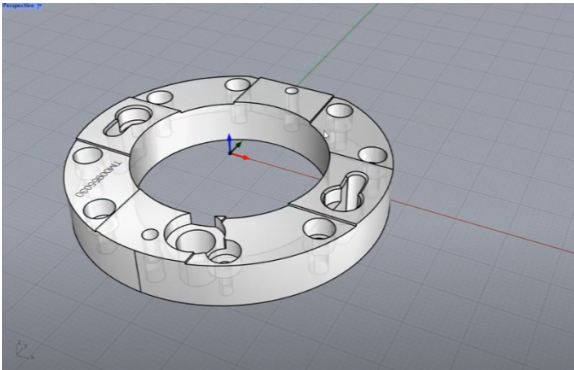
VC/SolidWorks



AlibreCAM



#### Parts Illustrated



<https://youtu.be/xhRHJStrqw4>

#### In-Video Topic Links

### 6.2 2½ Axis Support Issues

#### Video Description

Watch this MecSoft's AMS webinar series video. Learn about the most common 2½ Axis support issues and how to address them. This is an AMS only training webinar.

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM



RhinoCAM



VC/SolidWorks

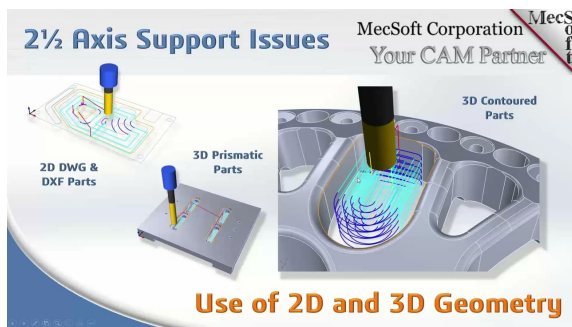


AlibreCAM



## Parts Illustrated

---



[https://youtu.be/DkPngVVza\\_o](https://youtu.be/DkPngVVza_o)

## 6.3 Advanced 4 Axis Machining

### Video Description

---

Watch this MecSoft's AMS webinar series video. Learn about the most common 2½ Axis support issues and how to address them. This is an AMS only training webinar.

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM



RhinoCAM



VC/SolidWorks

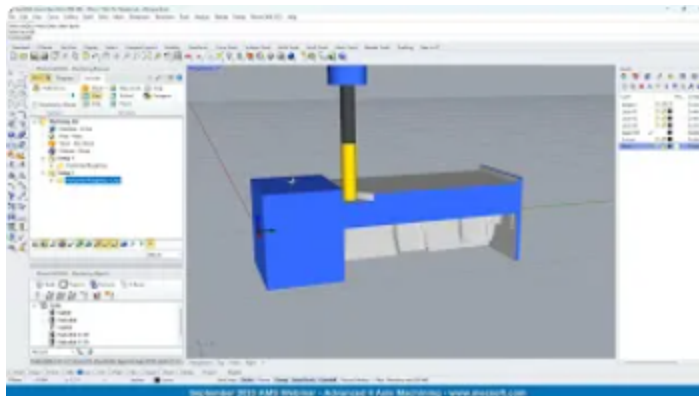


AlibreCAM



## Parts Illustrated

---



[Click here to watch the full video.](#)

## 6.4 Power Tips for MecSoft CAM

### Video Description

---

Watch this MecSoft's AMS webinar series video. Learn about the most common 2½ Axis support issues and how to address them. This is an AMS only training webinar.

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM



RhinoCAM



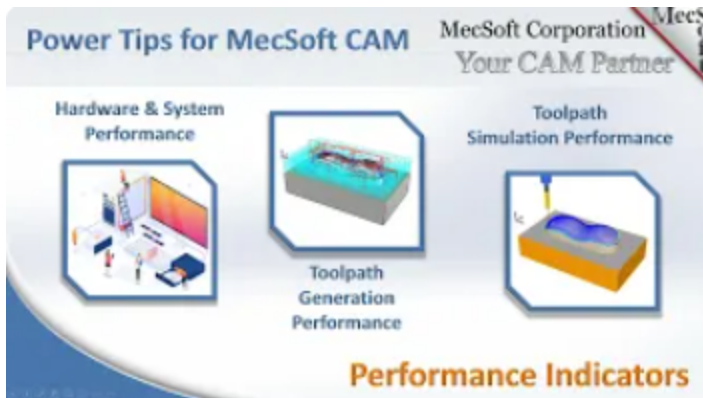
VC/SolidWorks



AlibreCAM



### Parts Illustrated



[Click here to watch the full video.](#)

## 6.5 Programming Real-World Parts

### Video Description

Watch this MecSoft's AMS webinar series video. Learn about the most common 2½ Axis support issues and how to address them. This is an AMS only training webinar.

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### Parts Illustrated



[Click here to watch the full video.](#)

## 6.6 Real World Guitar Body

### Video Description

Watch this MecSoft's AMS webinar series video. Learn about the most common 2½ Axis support issues and how to address them. This is an AMS only training webinar.

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM



RhinoCAM



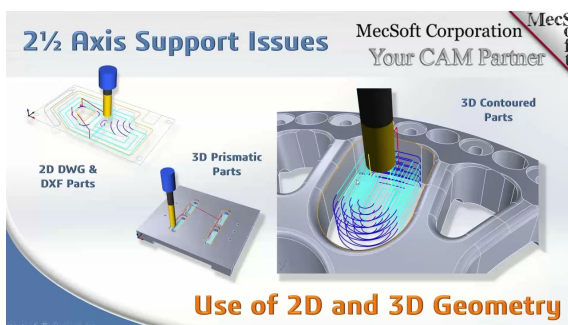
VC/SolidWorks



AlibreCAM



### Parts Illustrated



[Click here to watch the full video.](#)

## 6.7 Cabinet Automation

### Video Description

Watch this MecSoft's AMS webinar series video. Learn about the most common 2½ Axis support issues and how to address them. This is an AMS only training webinar.

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM



RhinoCAM



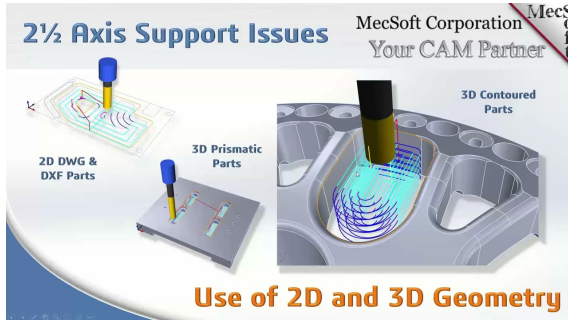
VC/SolidWorks



AlibreCAM



**Parts Illustrated**



[Click here to watch the full video.](#)

**6.8 Indexed Machining**

**Video Description**

Watch this video to learn about 3, 4 and 5 axis Indexed Machining and how it is done in RhinoCAM. This is an AMS only training webinar.

[Click here to watch the full video.](#)

Industry: Various

VisualCAD/CAM



RhinoCAM



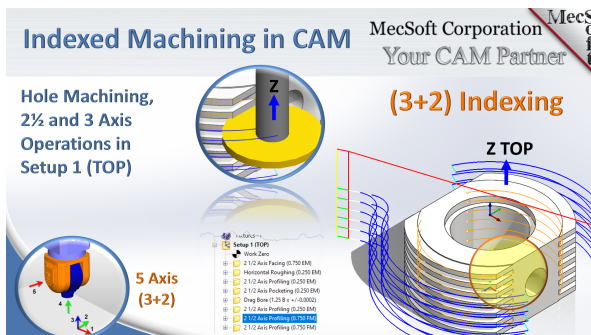
VC/SolidWorks



AlibreCAM



**Parts Illustrated**



[Click here to watch the full video.](#)

## New Videos (Short Form)

### 7.1 2½ Axis Videos

#### Video Description

---

Watch these videos to learn about performing 2½ Axis operations. VisualCAD/CAM  RhinoCAM   
Similar for both RhinoCAM and VisualCAD/CAM.

See video list below.

#### Video Topic Links

---

- #306: How to Rough Drill and Spot Drill: <https://youtu.be/hNVQkwpOmV8>
- #304: How to add Part Numbers using 2 Axis Engraving: <https://youtu.be/x25UrTsbw7Y>
- #301: How to CAM Program 2 Axis Multi Depth Pockets: <https://youtu.be/JTbxscjK7Y8>
- #300: How to CAM program 2 Axis Radial Slots: <https://youtu.be/sYMkpHSYx0A>
- #299: How to CAM Program 2 Axis Profiles with Offset Containmentment <https://youtu.be/4wbvQLFUqpQ>
- #298: How to CAM Program a 2 Axis Face with Inner Containments: [https://youtu.be/TGkcctuSB\\_c](https://youtu.be/TGkcctuSB_c)
- #297: How to CAM Program High Speed Spiral Pockets: <https://youtu.be/kk0XYaC213s>
- #296: How to Draw Geometry for 2 Axis CAM Operations: [https://youtu.be/v0T\\_cDnaHGM](https://youtu.be/v0T_cDnaHGM)
- #303: How to CAM program 2 Axis Chamfers: [https://youtu.be/NaOvX\\_hAono](https://youtu.be/NaOvX_hAono)
- #293: What's the Difference Between Profiling and Engraving?: <https://youtu.be/BJrn5shQx-Q>
- #292: How to Post to Your MultiDNC G Code Editor: <https://youtu.be/ztJ3yDDYPJg>
- #291: 2½ Axis Support Issues - Cut Side & Start Point in Profiling <https://youtu.be/2Jvu23GPOK8>
- #290: 2½ Axis Support Issues - Presentation: <https://youtu.be/-fo7ancz-Mg>
- #289: 2½ Axis Support Issues - Location of Cut Geometry <https://youtu.be/CDaLGIhFQgo>
- #288: 2½ Axis Support Issues - Cut Level Controls <https://youtu.be/dPxBAWWXC2E>
- #287: 2½ Axis Support - Handling Common Posting Issues: <https://youtu.be/jb64UeGwg6c>
- #286: 2½ Axis Support - Handling Common Machining Issues: [https://youtu.be/IT0tmdok\\_ws](https://youtu.be/IT0tmdok_ws)

- #398: Guitar Body 2½ Axis Facing: <https://youtu.be/0g24iVsV8mo>
- #399: Guitar Body 2½ Axis Pocketing: <https://youtu.be/YWoQd-dEafE>
- #400: Guitar Body 2½ Axis Profiling: <https://youtu.be/vJSLE31OxY0>
- #391: 2 Axis Profiling in Tight Places: <https://youtu.be/VgkXjaGrY-l>
- #380: 2½ Axis Face Top Enhancements in MecSoft CAM 2024: <https://youtu.be/8letqjGXyeA>
- #372: 2½ Axis Enhancements in MecSoft CAM 2024: <https://youtu.be/nt-DbUoWS78>
- #388: A Strategy for 2 Axis Pocketing: <https://youtu.be/JcZacrANZCE>
- #324: 2½ Axis Facing in RhinoCAM & VisualCAM: <https://youtu.be/H8EyHpmMghY>

## 7.2 3 Axis Videos

### Video Description

---

Watch these videos to learn about performing 3 Axis operations.  
Similar for both RhinoCAM and VisualCAD/CAM.

VisualCAD/CAM



RhinoCAM



See video list below.

### Video Topic Links

---

- #315: 3-Axis Horizontal Roughing a Mold Cavity Block: [https://youtu.be/mJvUMGYc\\_bl](https://youtu.be/mJvUMGYc_bl)
- #314: 3-Axis Mold Cavity Block Setup Training: <https://youtu.be/UrrYYaLe2HA>
- #313: 3-Axis Thermoform Mold Core Block Project Presentation: <https://youtu.be/OVOTkcm8k8w>
- #312: 3-Axis Mold Cavity Block Project Presentation: <https://youtu.be/V8TebyJU80>
- #325: 3 Axis Parallel Pre-Finishing: <https://youtu.be/z8dyd1sePjg>
- #327: 3 Axis Between 2 Curves Finishing: <https://youtu.be/b93H51Lms1o>
- #329: 3 Axis Pencil Trace and Valley Re Machining: <https://youtu.be/4HgbkaQXIXY>
- #320: Pencil Trace Flat Contours with 3 Axis Horizontal Finishing: <https://youtu.be/DF8f-KFSFBs>
- #319: Spiral and Radial Finishing: <https://youtu.be/HkvuQbS0HK4>
- #318: Horizontal Finishing a Mold Cavity: <https://youtu.be/Je94c6vn0XA>
- #387: 3 Axis Horizontal Roughing: <https://youtu.be/3Wjtb2DsxAQ>

- #406: Guitar Body 3 Axis 3D Offset Pocketing (PRO): <https://youtu.be/SpsqKd5nXS0>
- #407: Guitar Body 3 Axis 3D Offset Profiling (PRO): <https://youtu.be/hE--suCPeBM>
- #408: Guitar Body 3 Axis Horizontal Re-Roughing (PRO): <https://youtu.be/fl2hu7yGC1k>
- #409: Guitar Body 3 Axis Curve Machining (PRO): [https://youtu.be/L\\_Bmnxv1Nvl](https://youtu.be/L_Bmnxv1Nvl)
- #401: Guitar Body 3 Axis Horizontal Roughing: <https://youtu.be/VmxPOEBGN3E>
- #402: Guitar Body 3 Axis Parallel Finishing: <https://youtu.be/c82KHYFWhmU>
- #389: 3 Axis Horizontal Finishing vs Re-Roughing: <https://youtu.be/d2cFKYqtPNM>
- #392: 3 Axis Between 2 Curves Finishing: <https://youtu.be/Gsq3NSBjb9A>
- #379: 3 Axis Skim In Process Stock: <https://youtu.be/xh1eVkJvMc>
- #378: Cut Depth Enhancement: <https://youtu.be/xgvP6rCQIQU>
- #377: 3 Axis CONTACT Machining: <https://youtu.be/et8BdtHI3xg>
- #373: 3 Axis Enhancements: <https://youtu.be/XqQYn1XZIHw>
- #326: 3 Axis Curve Machining: <https://youtu.be/6L2OsPy-kyo>
- #322: Horizontal Roughing and Re-Roughing: <https://youtu.be/aR-lAzsfRzg>
- #324: Use of Masking Surfaces in 3 Axis Machining: <https://youtu.be/Ns63DrUvdHI>
- #331: Retract Motions in 3 Axis Horizontal Roughing: <https://youtu.be/p9WhlgUSoa8>
- #423: Indexed 3 Axis Flip Machining: <https://youtu.be/P6Gh0dO6o1E>
- #424: Indexed 3 Axis Polar Instancing: <https://youtu.be/wCZiy-71p7k>
- #425: Indexed 3 Axis Fixture Offset Machining: <https://youtu.be/j4LfozPFOBs>

## 7.3 4 Axis Videos

### Video Description

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Watch these videos to learn about performing 4 Axis operations.  
Similar for both RhinoCAM and VisualCAD/CAM.

VisualCAD/CAM



RhinoCAM



See video list below.

### Video Topic Links

---

- #307: Extruding Surfaces for 4 Axis Machining: <https://youtu.be/kTh1pQgLDmk>
- #334: 4 Axis Reference Geometry: [https://youtu.be/zYzDSAuU\\_dY](https://youtu.be/zYzDSAuU_dY)

- #333: 4 Axis Setups in RhinoCAM and VisualCAM: <https://youtu.be/NIMplBGaEHo>
- #341: 4 Axis Drive Surface Machining: <https://youtu.be/mKcq3gXVv88>
- #340: 4 Axis Profiling Operations: [https://youtu.be/WBYUObTn\\_Jk](https://youtu.be/WBYUObTn_Jk)
- #339: 4 Axis Engraving Operations: <https://youtu.be/kKhpMsgi93I>
- #338: 4 Axis Facing Operations: <https://youtu.be/PKY1Yh15vDk>
- #336: 4 Axis Rotate Table Setups: <https://youtu.be/gaBbQUlv8Us>
- #335: Indexed 4 Axis Roughing: <https://youtu.be/CjHIMmiBYiM>
- #343: 4 Axis Projection Pocketing: <https://youtu.be/vifWvH1FNqM>
- #374: 4 Axis Enhancements in MacSoft CAM 2024: <https://youtu.be/0HihnQqWMSw>
- #344: 4 Axis Options Dialog: <https://youtu.be/YM3orzrPafI>
- #337: Chamfering in Indexed 4 Axis Setups: <https://youtu.be/hHAHoRCRdFI>
- #342: Cutting Tool Orientation in 4 Axis Mach: <https://youtu.be/KSPLsgQRwQg>
- #430: Indexed 4 Axis (3+1) Machining: <https://youtu.be/9AzV6hbSjvk>
- #431: 4 Axis Radial Instance Machining: <https://youtu.be/cHqEBToXXRo>

## 7.4 5 Axs Videos

### Video Description

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Watch these videos to learn about performing 5 Axis operations.  
Similar for both RhinoCAM and VisualCAD/CAM.

VisualCAD/CAM



RhinoCAM



See video list below.

### Video Topic Links

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- #382: 5 Axis Enhancements: <https://youtu.be/jPaWeJmptl0>
- #376: 5 Axis Drilling: [https://youtu.be/\\_JCDZ9OQWko](https://youtu.be/_JCDZ9OQWko)
- #375: 5 axis Enhancements: <https://youtu.be/BYo2szgl8NI>
- #426: Indexed 5 Axis (3+2) Machining: <https://youtu.be/eWASO5tDgG4>
- #427: Indexed 5 Axis Machine Definition: [https://youtu.be/6N7hhkOX\\_Ms](https://youtu.be/6N7hhkOX_Ms)
- #429: Indexed 5 Axis Post-Processing: <https://youtu.be/p5gURTauJd8>

## 7.5 Stock Definition Videos

### Video Description

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Watch these videos to learn all about defining Stock material. Similar for both RhinoCAM and VisualCAD/CAM.

VisualCAD/CAM  RhinoCAM 

See video list below.

### Video Topic Links

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- #357: Using Align Stock: <https://youtu.be/qBboLxnbGhk>
- #358: Using Box Stock: <https://youtu.be/OzPpRGokLfM>
- #360: Using Part Box Stock: <https://youtu.be/FDHTI7c4vOE>
- #361: Using Copy Model Bounding Box: <https://youtu.be/wmvON21S088>
- #362: Using Align Set World CS: <https://youtu.be/L6CsQKgygmg>
- #363: Using Cylinder Stock: <https://youtu.be/r8xbrKrHt-Q>
- #364: Using Part Cylinder: <https://youtu.be/LlgVQMMJ7no>
- #365: Using Extrude Stock: <https://youtu.be/imcvQl34H8w>
- #366: Using Stock from Selection: <https://youtu.be/AcFJ5dTZ5-c>
- #405: Stock from Selection: <https://youtu.be/mUr7omTDO1Y>
- #367: Using Delete Stock: <https://youtu.be/x88OT1x9Sp4>
- #368: Using Export Stock as STL: <https://youtu.be/V0Zl1ne2RP8>
- #369: Remove Stock Simulations: <https://youtu.be/b-wLts9NJD8>

## 7.6 Automation Videos

### Video Description

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Watch these videos to learn about Automating the process of Toolpath generation. Similar for both RhinoCAM and VisualCAD/CAM.

VisualCAD/CAM  RhinoCAM 

See video list below.

### Video Topic Links

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- #414: Cabinet Machining Automation Presentation: <https://youtu.be/5-DWTb-IXeE>
- #415: Cabinet Machining Automation Flat Panel Layout: <https://youtu.be/r0G8K1V6o7I>
- #417: Cabinet Machining Automation Knowledge Bases: <https://youtu.be/UKy6E3P9uas>
- #418: Cabinet Machining Automation KB Selection Rules: <https://youtu.be/VF-3QYpvcBQ>
- #419: Cabinet Machining Automation Scripting: <https://youtu.be/-K8hJblHm2Y>
- #416: Cabinet Machining Automation Nesting: <https://youtu.be/YPWPylirO88>
- #420: Using a Template File for Knowledge Base Operations: [https://youtu.be/VjzZqnTfA\\_U](https://youtu.be/VjzZqnTfA_U)


## 7.7 Setup & Preparation Videos

### Video Description

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Watch these videos to learn about Setups and getting started with RhinoCAM and VisualCAD/CAM.

VisualCAD/CAM 

RhinoCAM 

See video list below.

### Video Topic Links

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- #397: Guitar Body Flip Machining Setup in Standard Config: <https://youtu.be/shTyDQnOUM0>
- #403: Guitar Body Repurpose Flip Machining MOps: <https://youtu.be/bx61vWqUqAw>
- #404: Guitar Body Benefits of PRO in Flip Machining: <https://youtu.be/tPC6ZTuUcxY>
- #395: First Steps in CAM Programming any Part: <https://youtu.be/OGHwHKcmqAA>
- #422: Indexed Machining in CAM Presentation: <https://youtu.be/0FLs4Ew132g>

## 7.8 Post-Processing Videos

### Video Description

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Watch these videos to learn about Post-Processing. Similar for both RhinoCAM and VisualCAD/CAM.

VisualCAD/CAM 

RhinoCAM 

See video list below.

### Video Topic Links

- #394: Posting by Tool Number: <https://youtu.be/kgbYShPiyHQ>
- #386: Post-Processing Basics: <https://youtu.be/m9uO2JwH7Cs>
- #353: MecSoft CAM Post-processing Tips: <https://youtu.be/KF7QMXXJ0Og>
- #385: How to Setup a Part for CAM programming: <https://youtu.be/G1Uio9oETfg>

## 7.9 Utilities & Performance Videos

### Video Description

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Watch these videos to learn about Utilities and Performance for both RhinoCAM and VisualCAD/CAM.

VisualCAD/CAM



RhinoCAM



See video list below.

### Video Topic Links

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- #410: Guitar Body Estimated Machining Time: <https://youtu.be/L1dzB-6GafA>
- #411: Guitar Body Repurposing Operations (PRO): <https://youtu.be/h9cM04zY-bs>
- #412: Guitar Body Arc Fitting (PRO): <https://youtu.be/vPMZ-8WXI1Q>
- #393: XY Instancing Rectangular Array: <https://youtu.be/caUd-wL0SRk>
- #352: CAM G Code Back-plotting: <https://youtu.be/a8K8NQrLDJl>
- #302: How to Cloning and Edit CAM Operations: [https://youtu.be/y\\_LSk41PNE8](https://youtu.be/y_LSk41PNE8)
- #351: MecSoft CAM Operation Properties: <https://youtu.be/N3enfO6JEsk>
- #323: Adjust Toolpath Visibility in RhinoCAM & VisualCAM: <https://youtu.be/5PMEpB1pW9o>
- #317: Viewing Tool Motions in RhinoCAM and VisualCAD/CAM: <https://youtu.be/CulakG4tNVl>
- #350: CAM Programming Performance: <https://youtu.be/nvXDY4Siv-8>
- #349: CAM Programming Accuracy: <https://youtu.be/fit3TXMFKA0>
- #308: Repairing Control Geometry in VisualCAD/CAM: <https://youtu.be/W6OftTjnLvq>
- #316: Revolving a CAM Masking Surface in RhinoCAM: <https://youtu.be/Bb667KhINzA>

## 7.10 Licensing Videos

### Video Description

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Watch these videos to learn about Licensing for both RhinoCAM and VisualCAD/CAM.

VisualCAD/CAM

RhinoCAM

See video list below.

### Video Topic Links

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- #383: Licensing Enhancements in 2024: <https://youtu.be/6C4S5Xo4XrM>
- #354: Overview of Licensing Options: <https://youtu.be/5Auhz0u2DUQ>

## What's New in 2023

### 8.1 What's New: VisualCAD/CAM 2023

#### Video Description

In this video learn about all of the new features in VisualCAD/CAM 2023. Refer to the topic video links listed below.

[Click here to watch the full video.](#)

[Read the VisualCAD/CAM What's New Document Here!](#)

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



#### In-Video Topic Links

Presentations:	Demonstrations:	<a href="#">4 Axis Drill Along Curves</a> 50:19
<a href="#">VisualCAD Enhancements</a> 03:00	<a href="#">VisualCAD Enhancements</a> 23:36	<a href="#">5 Axis Angle Output</a> 54:20
<a href="#">Usability Enhancements</a> 07:07	<a href="#">Options</a> 23:47	TURN Enhancements:
<a href="#">2 Axis Enhancements</a> 09:28	<a href="#">Rectangles</a> 25:13	<a href="#">Auto Part Extension</a> 51:49
<a href="#">Drilling Along a Curve</a> 11:10	<a href="#">Curve Editing</a> 26:25	<a href="#">Finish Retracts</a> 52:51
<a href="#">Profiling Clustering</a> 13:00	<a href="#">Split Curves</a> 26:37	Posting Enhancements:
<a href="#">Profile Gouge Checking</a> 13:27	<a href="#">Close Curves</a> 29:28	<a href="#">Post Cut Motions Start/End</a> 56:25
<a href="#">3 Axis Enhancements</a> 13:52	<a href="#">Auto-close Merged Curves</a> 30:23	<a href="#">New Post Variables</a> 57:21
<a href="#">Curve End Conditions</a> 15:08	<a href="#">Ellipses</a> 33:00	<a href="#">Post Cycle Z for Drill Cycles</a> 57:54
<a href="#">Spiral Offset Cut Pattern in Projection Pocketing</a> 15:51	2 Axis Enhancements:	<a href="#">Post Vars within Brackets</a> 58:00
<a href="#">Horizontal Roughing Entries</a> 16:00	<a href="#">Drill Along Curves</a> 33:47	<a href="#">Programmable Post, Write to File and MOp Info</a> 58:45
<a href="#">4 Axis Enhancements</a> 16:18	<a href="#">Profile Clustering</a> 36:28	<a href="#">Licensing Enhancements</a> 60:00
<a href="#">5 Axis Enhancements</a> 16:49	<a href="#">Profile Gouge Checking</a> 37:31	<a href="#">Test Connection</a> 60:24
<a href="#">TURN Enhancements</a> 18:52	<a href="#">Saw Machining</a> 40:12	<a href="#">License Service Setup</a> 61:19
<a href="#">Posting Enhancements</a> 20:51	3 Axis Enhancements	<a href="#">Lic Service Diagnostics</a> 61:25
<a href="#">Licensing Enhancements</a> 22:00	<a href="#">Curve End Conditions</a> 44:34	<a href="#">TCPIP Firewall Rules</a> 61:54
	<a href="#">Drill Along Curves</a> 46:12	<a href="#">Write .reg Files to Clients</a> 50:19
	<a href="#">Horizontal Roughing Entries</a> 47:55	

## 8.2 What's New: RhinoCAM 2023

### Video Description

In this video learn about all of the new features in RhinoCAM 2023. Refer to the topic video links listed below. Note that VisualCAM enhancements are the same as RhinoCAM.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



[Click here to watch the full video.](#)

[Read the RhinoCAM What's New Document Here!](#)

### In-Video Topic Links

#### Presentations:

[Usability Enhancements](#) 07:07

[2 Axis Enhancements](#) 09:28

[Drilling Along a Curve](#) 11:10

[Profiling Clustering](#) 13:00

[Profile Gouge Checking](#) 13:27

[3 Axis Enhancements](#) 13:52

[Curve End Conditions](#) 15:08

[Spiral Offset Cut Pattern in Projection Pocketing](#) 15:51

[Horizontal Roughing Entries](#) 16:00

[4 Axis Enhancements](#) 16:18

[5 Axis Enhancements](#) 16:49

[TURN Enhancements](#) 18:52

[Posting Enhancements](#) 20:51

[Licensing Enhancements](#) 22:00

#### Demonstrations:

2 Axis Enhancements:

[Drill Along Curves](#) 33:47

[Profile Clustering](#) 36:28

[Profile Gouge Checking](#) 37:31

[Saw Machining](#) 40:12

3 Axis Enhancements

[Curve End Conditions](#) 44:34

[Drill Along Curves](#) 46:12

[Horizontal Roughing Entries](#) 47:55

[4 Axis Drill Along Curves](#) 50:19

[5 Axis Angle Output](#) 54:20

TURN Enhancements:

[Auto Part Extension](#) 51:49

[Finish Retracts](#) 52:51

#### Posting Enhancements:

[Post Cut Motions Start/End](#) 56:25

[New Post Variables](#) 57:21

[Post Cycle Z for Drill Cycles](#) 57:54

[Post Vars within Brackets](#) 58:00

[Programmable Post, Write to File and MOp Info](#) 58:45

[Licensing Enhancements](#) 60:00

[Test Connection](#) 60:24

[License Service Setup](#) 61:19

[Lic Service Diagnostics](#) 61:25

[TCPIP Firewall Rules](#) 61:54

[Write .reg Files to Clients 4 Axis Drill Along Curves](#) 50:19

#### Posting Enhancements:

[Post Cut Motions Start/End](#) 56:25

[New Post Variables](#) 57:21

[Post Cycle Z for Drill Cycles](#) 57:54

[Post Vars within Brackets](#)

58:00

[Programmable Post, Write to  
File and MOp Info](#) 58:45

## New Videos (v2023)

### 9.1 2 Axis prismatic Parts

#### Video Description

Watch this video for an introduction to 2 Axis machining from a 3D prismatic part. Includes 2 Axis Facing, Pocketing, Engraving and Profiling. Illustrated with VisualCAD/CAM and RhinoCAM. Companion Guides Available.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM

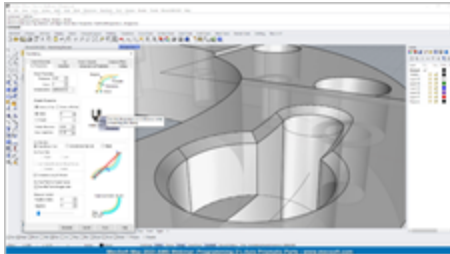


[Click here to watch the full video.](#)

Industry: Metal Working

#### Parts Illustrated

The following 2D part is illustrated in this video. [Download the source files with CAM Mops here.](#)



#### In-Video Topic Links

[Presentation](#) 01:39

[Adding 2D Geometry for Machining](#) 08:11

[Drill Roughing](#) 11:06

[Create a Drill Tool](#) 11:50

[Spot Drilling using Partial Diameters](#) 12:40

[2½ Axis High Speed Pocketing](#) 21:10

[2½ Axis Facing](#) 25:04

[2½ Axis Profiling with Steppers](#) 28:53

[2½ Axis Radial Slotting](#) 35:47

[2½ Axis Pocketing Multiple Depths](#) 42:20

[Cloning and Editing Operations](#) 48:00

[2½ Axis Chamfering](#) 51:56

[2½ Axis Engraving](#) 57:32

[2½ Axis Profiling the Outer Perimeter](#) 57:32

### 9.2 2 Axis Bootcamp

#### Video Description

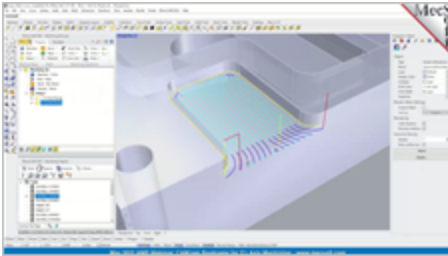
Watch this in-depth webinar to understand some of the more advanced 2½ Axis Machining techniques in MecSoft's CAM plugins.

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM	RhinoCAM
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
VC/SolidWorks	AlibreCAM
<input type="checkbox"/>	<input type="checkbox"/>

### Parts Illustrated



### In-Video Topic Links

[Presentation](#) 02:46

[Arc Fitting](#) 37:03

[2 Axis Hole Pocketing](#) 48:30

[2 Axis Facing](#) 30:32

[2 Axis Profiling](#) 40:56

[2 Axis profiling \(Outer Perimeter\)](#) 50:24

[2 Axis facing open Pockets](#) 31:59

[2 Axis Slotting](#) 44:14

[Stepped Pocketing](#) 35:03

[2 Axis Chamfering](#) 46:51

[Cut material Simulation](#) 52:03

## 9.3 3 Axis Basics

### Video Description

Watch this video for an introduction to 3 Axis machining basics including discussions on Part Setup, Roughing, and Finishing Orientations.

[Click here to watch the full video.](#)

Industry: Mold Machining

VisualCAD/CAM	RhinoCAM
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
VC/SolidWorks	AlibreCAM
<input type="checkbox"/>	<input type="checkbox"/>

### Parts Illustrated

The following 2D part is illustrated in this video. [Download the source files with CAM Mops here.](#)



### In-Video Topic Links

- |  |   |   |
|--|---|---|
| <a href="#">3 Axis Machining a Mold Cavity</a> 02:57 | <a href="#">Creating Tools</a> 17:11              | <a href="#">Horizontal Finishing Optimized Machining</a> 40:53                    |
| <a href="#">3 Axis Machining a Core Block</a> 07:36  | <a href="#">3 Axis Horizontal Roughing</a> 19:07  | <a href="#">Spiral &amp; Radial Finishing</a> 42:43                               |
| <a href="#">Stock Definition</a> 07:36               | <a href="#">Revolving a Masking Surface</a> 23:17 | <a href="#">Cloning Operations</a> 52:01  |
| <a href="#">Part/Stock Alignment</a> 07:36           | <a href="#">Viewing Tool Motions</a> 34:28        | <a href="#">Pencil Trace Flat Contours with 3 Axis Horizontal Finishing</a> 53:02 |
| <a href="#">Set World CS</a> 07:36                   | <a href="#">Horizontal Finishing</a> 37:03        |   |
| <a href="#">Work Zero</a> 07:36                      |   |   |

## 9.4 Cut Tubular Intersections using VisualCAD/CAM

### Video Description

In this video we discuss how to generate a section curve between two pipes in VisualCAD and then create a 2 axis profiling operation to cut the intersection.

[Click here to watch the full video.](#)

Industry: Orthotics Foot ware

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### Parts Illustrated



### In-Video Topic Links

<a href="#">C-Plane to a Face</a> 00:51	<a href="#">Subtract Meshes</a> 03:50	<a href="#">2 Axis Profiling</a> 06:00
<a href="#">Extrude Mesh</a> 01:35	<a href="#">Create Silhouette Curve</a> 04:29	<a href="#">Edit a Setup (PRO Required)</a> 06:39
<a href="#">Create layers</a> 02:06	<a href="#">Explode and Edit Curves</a> 05:11	<a href="#">Merge Curves</a> 07:34
<a href="#">C-Plane to Ortho View</a> 03:05		

## 9.5 2 Axis Support Common Issues

### Video Description

Watch this video to learn about the most common 2½ Axis support issues and how to address them.

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM



RhinoCAM



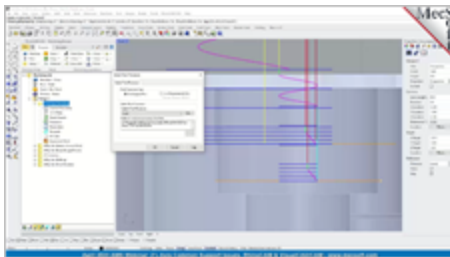
VC/SolidWorks



AlibreCAM



### Parts Illustrated



### In-Video Topic Links

<a href="#">Presentation</a> 01:59	<a href="#">Location of Cut Geometry</a> 49:27
<a href="#">Geometry Types</a> 40:49	<a href="#">Common Posting issues</a> 59:30
<a href="#">Stock/Part Alignment</a> 41:21	<a href="#">Machining Issues</a> 68:30
<a href="#">Work Zeros</a> 44:58	

## 9.6 CAM Automation

### Video Description

Watch this training video to learn how to Automate your CAM processes using RhinoCAM and VisualCAD/CAM.

VisualCAD/CAM



RhinoCAM



[Click here to watch the full video.](#)

Industry: Metal Working

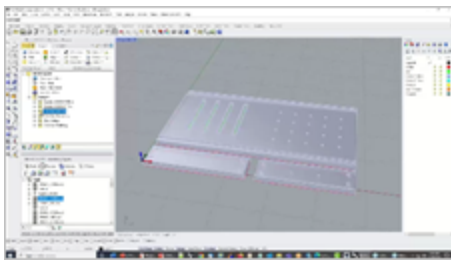
VC/SolidWorks



AlibreCAM



## Parts Illustrated



## In-Video Topic Links

[Presentation](#) 00:27

[Using template Files](#) 17:09

[Tool Libraries](#) 18:10

[Tools Tab Functions](#) 20:21

[3 Axis Knowledge Bases](#) 21:57

[Default Parameters](#) 23:25

[Drag and Drop From a Knowledge Base](#) 31:32

[2 Axis Knowledge Bases](#) 32:57

[Auto-select Geometry from Knowledge Bases](#) 38:35

[RhinoCAM SDK](#) 44:14

[Rhino Grasshopper](#) 58:09

## 9.7 Post-processing Common Issues

### Video Description

This full-length training video will cover all aspects of Post-Processing using MecSoft CAM plugins. Many topics are covered including Cutter Compensation, Tool Change Points, Arc/Circle Formats, Programmable Post and more!

[Click here to watch the full video.](#)

Industry: Various

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



## Parts Illustrated



### In-Video Topic Links

<a href="#">Introduction</a>	<a href="#">Programmable Post demo</a> 62:45	<a href="#">How to Add a Tool Change Point</a> 54:20
<a href="#">How to Post Toolpaths</a> 04:43	<a href="#">Posting Drill Cycles as Linear Motions</a> 40:52	<a href="#">Setup for Cutter Compensation</a> 56:43
<a href="#">Common Posting issues</a> 07:05	<a href="#">Using the Programmable Post</a> 42:35	<a href="#">Understanding Arc/Circle Post Formats (G02/G03)</a> 59:43
<a href="#">How to Edit your Post</a> 22:36	<a href="#">Help resources</a> 48:37	<a href="#">Posting Drill Cycles as Linear Motions</a> 61:18
<a href="#">How to Add a Tool Change Point</a> 23:36	<a href="#">Posting Demo</a> 49:00	
<a href="#">Setup for Cutter Compensation</a> 26:47	<a href="#">How to Install a Custom Post</a> 52:51	
<a href="#">Understanding Arc/Circle Post Formats (G02/G03)</a> 33:10		

## 9.8 Profile-NEST Tutorial

### Video Description

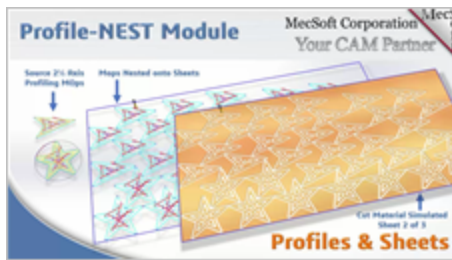
This full-length training video will cover all aspects of Profile-NEST including geometry definition, profiling operations, sheet definition, nesting parameters, editing your nest and performing cut material simulations on your nested sheets.

[Click here to watch the full video.](#)

Industry: Various

VisualCAD/CAM	<input checked="" type="checkbox"/>	RhinoCAM	<input checked="" type="checkbox"/>
VC/SolidWorks	<input checked="" type="checkbox"/>	AlibreCAM	<input checked="" type="checkbox"/>

### Parts Illustrated



### In-Video Topic Links

<a href="#">Presentation</a> 02:40	<a href="#">Define a Work Zero</a> 23:18	<a href="#">Review the Nested Profiles</a> 37:41
<a href="#">Load the profile-NEST Module</a> 16:48	<a href="#">Define Nesting Parameters</a> 24:00	<a href="#">Simulate the Nested Sheets</a> 38:38
<a href="#">Define the Nested Sheets</a> 18:59	<a href="#">Create the Source 2 Axis profiling Operations</a> 26:05	<a href="#">Edit a Nested profiling operation</a> 40:46
<a href="#">Define the Stock Sheet</a> 20:38	<a href="#">Estimate the Sheets Required</a> 37:00	<a href="#">Edit the Source Profiling Operations</a> 42:04
<a href="#">Align the Stock</a> 22:00	<a href="#">Execute the Nest</a> 37:08	<a href="#">Posting the Nested Sheets</a> 47:14
<a href="#">Define the Stock Material</a> 22:24		

## 9.9 User Tips in MecSoft CAM

### Video Description

Watch full hour training video to learn some useful 2, 3, 4, and 5 axis tips for being productive in MecSoft CAM!

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM



RhinoCAM



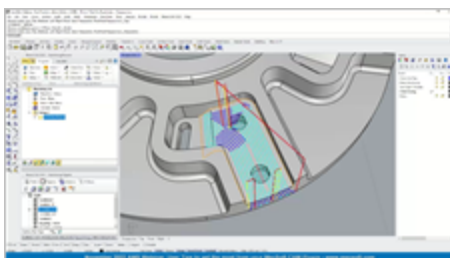
VC/SolidWorks



AlibreCAM



### Parts Illustrated



### In-Video Topic Links

[2 Axis from 2D Drawings](#) 03:51    [2 Axis Open Pocket facing](#) 27:39    [5 Axis Tool Positioning](#) 48:00  
[2 Axis Cut Levels](#) 18:12    [3 Axis Tool Positioning](#) 32:19    [Cloud Licensing](#) 55:31  
[2 Axis Tool Positioning](#) 20:24    [4 Axis Tool Change Points](#) 36:00    [The programmable](#) Post 60:13

## 9.10 Learning MecSoft TURN

### Video Description

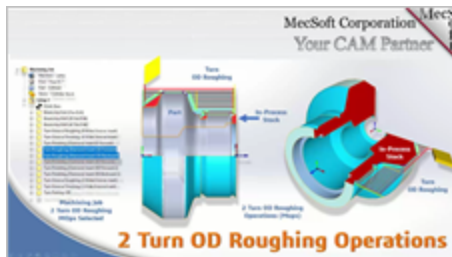
Watch this in-depth training video on using MecSoft's 2½ Axis TURN module. Turn Drilling, Inside diameter turn roughing and finishing, Turn Groove roughing and finishing, Turn Inside and Outside Diameter roughing and finishing as well as Turn Parting Off operations.

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM	RhinoCAM
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
VC/SolidWorks	AlibreCAM
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

### Parts Illustrated



### In-Video Topic Links

[Presentation](#) 01:41    [Containing TURN Roughing MOps](#) 37:19    [TURN Groove MOps](#) 48:40  
[TURN Demonstration](#) 19:00    [Editing TURN Roughing MOps](#) 38:29    [TURN ID Finishing MOps](#) 48:53  
[Define the TURN Part](#) 20:32    [TURN Finishing MOps](#) 39:17    [TURN OD Rough, OD Backward Inserts](#) 53:07  
[Define the TURN Stock](#) 21:54    [Containing TURN Finishing MOps](#) 40:27    [TURN OD Finish Front Facing](#)  
[Define the TURN Setup and Work Zero](#) 22:59    [Posting TURN G-Code](#) 42:49    [TURN OD Finish Back Facing Inserts](#) 53:59  
[TURN Drilling](#) 25:41    [TURN Setup Review](#) 44:00    [TURN Groove OD MOps](#) 56:27  
[TURN OD Roughing](#) 32:24    [OD Forward and OD Backward TURN Inserts](#) 45:00    [TURN Parting-Off MOps](#) 58:05  
[Defining TURN Tool Inserts](#) 32:44  
[Editing Stock Dimensions](#) 36:56

[TURN Drilling Review](#) 46:36

[TURN Groove Review](#) 48:18

## 9.11 2-Sided Flip Machining

### Video Description

Watch this exclusive training video on 2-sided flip machining using MecSoft CAM milling plugin. Three common 2-sided machining strategies are covered for basic 2 axis, basic 3 axis and advanced 3 axis machining.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



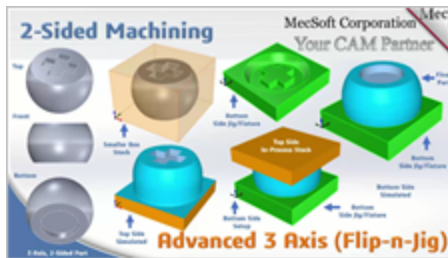
AlibreCAM



[Click here to watch the full video.](#)

Industry: Metal Working

### Parts Illustrated



### In-Video Topic Links

[2-Sided Machining Defined](#)

03:44

[3x Advanced Flip-n-Jig](#) 18:25

[Demo 2 Axis Basic STD](#) 30:00

[Bridge n Flip Stock/Part Not Centered](#) 44:58

[2-Sided Mach in PRO vs STD](#)

05:37

[2 Axis Basic PRO](#) 37:0

[Box n Flip Production](#) 49:49

[Basic 2 Axis Bridge-in-Flip](#) 07:40

[3 Axis Advanced Flip n Jig Demo](#) 51:45

[3 Axis Box-n-Flip](#) 11:09

## 9.12 Geometry Tolerances in VisualCAD (#234)

### Video Description

Watch this short video to learn how to adjust your geometry tolerances in MecSoft's VisualCAD.

VisualCAD/CAM



RhinoCAM



[Click here to watch the full video.](#)

Industry: Metal Working

VC/SolidWorks



AlibreCAM



## 9.13 Cloning Pre-Defined Regions (#233)

### Video Description

Watch this short video to learn how to Clone Pre-Defined regions in MecSoft CAM. This video can save you a lot of time defining your geometry for machining.

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



## 9.14 Tool Positioning in 5 Axis Machining (#257)

### Video Description

Watch this CAMJam Short video tutorial to learn how to control tool positions between 5 Axis setups in MecSoft's CAM plugins RhinoCAM and VisualCAD/CAM.

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



## 9.15 Tool Change Points in 4 Axis (#256)

### Video Description

Watch this CAMJam short tutorial to learn how to define a Tool Change Point in 4 Axis machining.

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



## 9.16 TURN Module Tutorial (#255)

### Video Description

---

Watch this CAMJam Short tutorial video to learn how to use the 2½ TURN module in MecSoft's CAM plugins RhinoCAM and VisualCAD/CAM.

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



## 9.17 2½ Axis Saw Machining (#285)

### Video Description

---

Watch the training video to learn about 2½ Axis Saw Machining in RhinoCAM. The feature operates the same in VisualCAD/CAM.

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



## 9.18 Post to MultiDNC G Code Editor (#292)

### Video Description

---

Watch this video to learn how to post G-Code to your MultiDNC editor application or any other editor of your choice.

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



## 9.19 Masking Surfaces in VisualCAD/CAM (#295)

### Video Description

---

Watch this video to learn how to model revolved surfaces in VisualCAD/CAM to served to mask pocket features during 3 Axis Roughing and Finishing toolpath operations.

The following VisualCAD commands are demonstrated:

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



- \* Create and Manage Layers
- \* Create Section Curves
- \* Create Lines and Curves
- \* Trim Curves
- \* Merge Curves
- \* Create Revolved Surface
- \* Create Surface from Planar Curves

[Click here to watch the full video.](#)

Industry: Metal Working

## 9.20 Repair Control Geometry in VisualCAD/CAM (#308)

### Video Description

---

In this video you will learn one method of repairing control geometry for use in 3 Axis toolpath methods.

The following VisualCAD commands are demonstrated:

- \* The "Open Loops Found" Error
- \* Create a New layer
- \* Extract Curve from face Edge
- \* Create Boundary from selected Flat Area
- \* Hide/Show Geometry
- \* Delete Unwanted Curves
- \* Create Line from 2 Points
- \* Explode Joined Curves
- \* Merge Joined Curves

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



## 9.21 Drill at 25 Degrees in a 5 Axis Indexed Setup

### Video Description

---

Watch this video to learn how to setup an indexed 5 axis machining job and then drill holes are 25 degrees. You will learn:

- \* How to setup a 5 axis machine
- \* How to draw a section curve thru a 25 degree hole.
- \* How to define a 5 axis setup normal to the holes.
- \* How to create an indexed drilling operation

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



## Must Watch Bonus Videos

### 10.1 CAM Performance Bonus Videos (#217-#219)

#### Video Description

Watch this in-depth video to learn about tips and techniques for fine-turning system performance while running MecSoft CAM plug-ins!

[Click here to watch the full video.](#)

Industry: Various

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



#### Parts Illustrated

The following archive files are illustrated in this video.

#### In-Video Topic Links



[CAMJam Short #219: CAM Toolpath Simulation Performance Tips](#)

[CAMJam Short #217: CAM System Hardware Performance Tips](#)

[CAMJam Short #218: CAM Toolpath Generation Performance](#)

### 10.2 Using Selections in Machining (#101)

#### Video Description

In this video we discuss all of the selection techniques for defining Control Geometry in 2 and 3 axis machining. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Various

VisualCAD/CAM



RhinoCAM



VC/SolidWorks

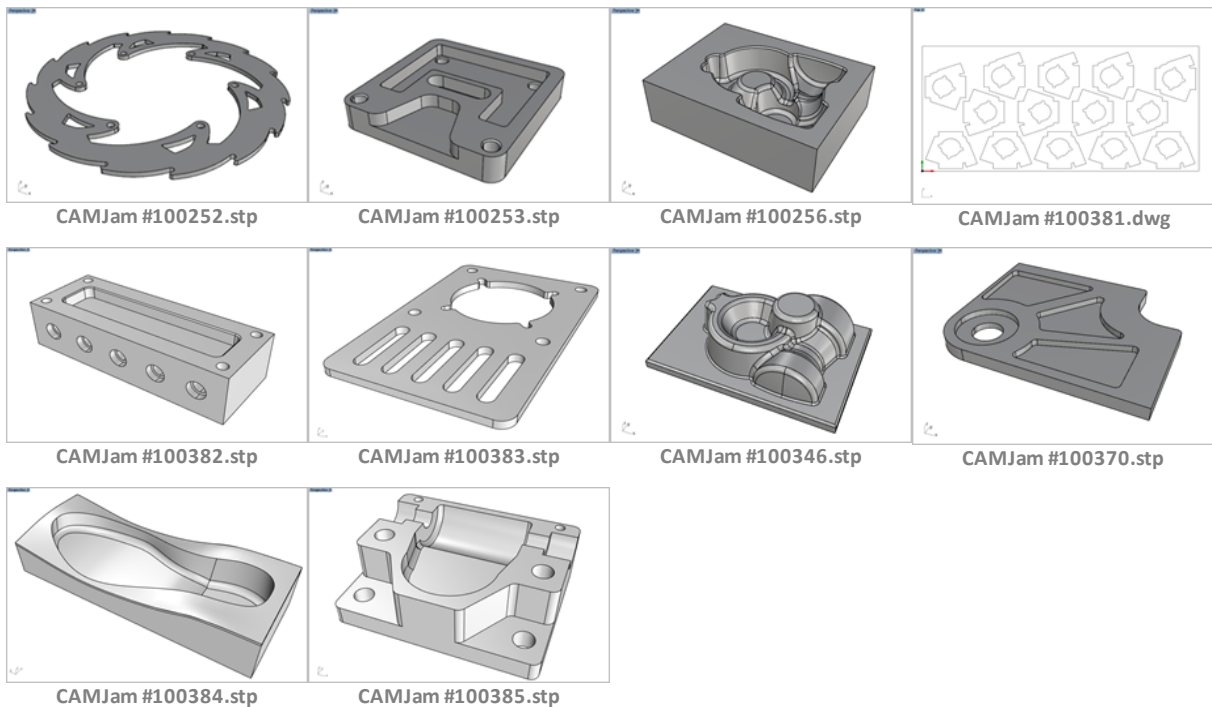


AlibreCAM



#### Parts Illustrated

The following archive files are illustrated in this video. [See files archive](#)<sup>148</sup>.



### In-Video Topic Links

[Selecting Regions for Machining](#) [How to Deselect](#)

[Definition of regions](#)

[Curve Extraction Tools in VisualCAM](#)

[Extracting Flat Area Regions](#)

[Selecting Control Geometry](#)

[Extracting Curves from a Model in Rhino](#)

[Extracting Curves in SOLIDWORKS](#)

[Extracting Face Edges in VisualCAM](#)

[Selecting a Chain of Edges in VisualCAM](#)

[Chain select edges in Rhino](#)

[Selecting Start Points](#)

[Deselect a chain element](#)

[Selecting Avoid Regions](#)

[Controlling cut start points in profiling](#)

[Changing the Start Point in Rhino](#)

[Changing the start point in VisualCAM](#)

[Select Surface Boundaries in VisualCAM](#)

[Selecting Surface Edge Regions in RhinoCAM](#)

[Flat Area Regions](#)

[Silhouette Curve Selection in SOLIDWORKS](#)

[Tips for using Predefined Regions](#)

[Using Bridges & Tabs](#)

[Cloning Predefined Regions](#)

[Regions from Feature Detection](#)

[Surface Regions in 3 Axis Machining](#)

[Surface Boundaries in 3 Axis](#)

[Curve Regions in 3 Axis](#)

## 10.3 Best Practices in 2½ Axis (#035)

### Video Description

In this video we discuss the Best Practices to use in 3 Axis machining. CAD geometry and file types are explored as well as other machining practices. Refer to the topic links listed below.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM

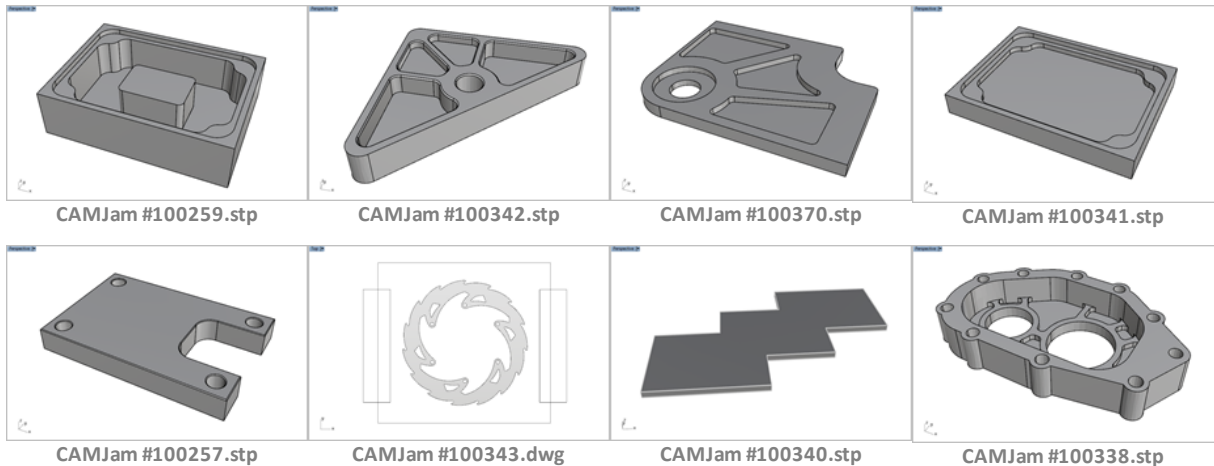


[Click here to watch the full video.](#)

Industry: Various

### Parts Illustrated

The following archive files are illustrated in this video. [See files archive](#)<sup>D148</sup>.



### In-Video Topic Links

[CAD Geometry Types](#)

[CAD File Formats](#)

[Machining Tolerances](#)

[Stock to Leave](#)

[Cut Levels & Machining Regions](#)

[Machining Islands](#)

[Use 3D Model to Detect Depth](#)

[Location of Cut Geometry, 3D, At Top/Bottom](#)

[Location of Cut Geometry, 3D,](#)

[Using Pick Top](#)

[Location of Cut Geometry, in 2D](#)

[Tool Geometry Compensation](#)

[Pocketing with Tapered Tools](#)

[Machining Regions](#)

[Avoid Regions](#)

[Displaying the Toolpath Editor & Toolpath in Levels](#)

[Using Feedrate Optimization](#)

[To Avoid Plunging between Cut Levels](#)

[Reduce Feedrate at Sharp Corners](#)

[Using 2x Facing](#)

[Using 2x Pocketing](#)

[Using 2x Profiling](#)

[Using Bridges & Tabs](#)

## 10.4 Best Practices in 3 Axis (#036)

### Video Description

In this video we discuss the Best Practices to use in 3 Axis machining. CAD geometry and file types are explored as well as other machining practices. Refer to the topic links listed below.

VisualCAM/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM

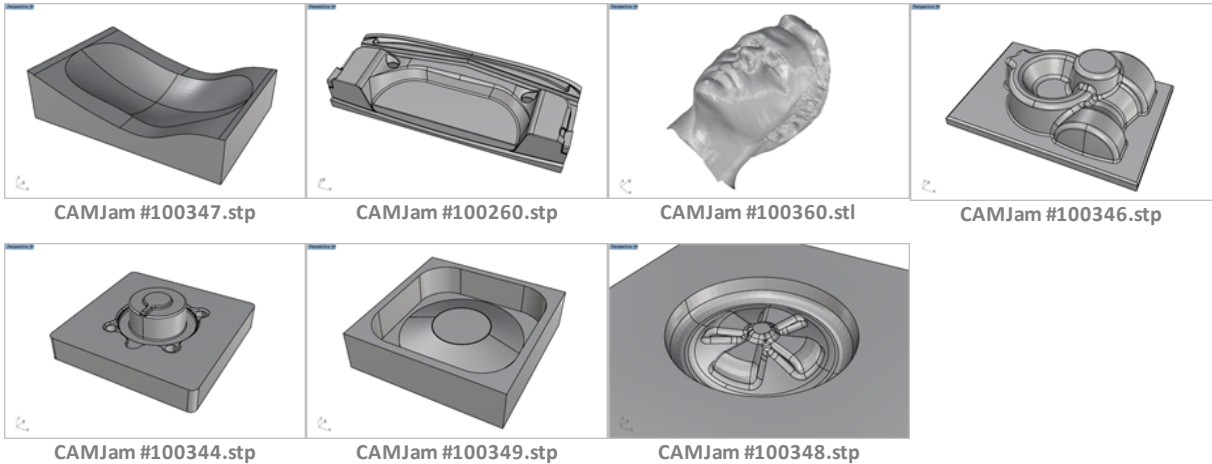


[Click here to watch the full video.](#)

Industry: Various

### Parts Illustrated

The following archive files are illustrated in this video. [See files archive](#)<sup>D148</sup>.



### In-Video Topic Links

[CAD Geometry Types](#)

[The Role of Stock to Leave](#)

[Finishing Areas that are near Horizontal](#)

[CAD File Formats](#)

[Controlling Surface Finish](#)

[Finishing Areas that are near Vertical](#)

[Geometry Types & CAD Formats Demonstrated](#)

[General Machining Strategies](#)

[Finishing Areas that are Radial](#)

[The Effects of Machining Tolerances](#)

[Using Roughing Operations](#)

## 10.5 Effective Use of Control Geometry (#232)

### Video Description

In this video we discuss how to utilizing Control Geometry to both contain and direct your toolpath strategies.

[Click here to watch the full video.](#)

Industry: Misc.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



### In-Video Topic Links

---

[Agenda](#)

[Stock in 3 Axis](#)

[Control Geometry Benefits](#)

[Examples: Product Design](#)

[Control Geometry Types](#)

[Examples: Guitar Bodies](#)

[Tool Compensation](#)

[Examples: Castings](#)

[Stock in 2 Axis](#)

[Examples: Mold Inserts](#)

## 10.6 CAM Coordinate Systems (#027)

### Video Description

---

In this short video we discuss the definition of CAM Coordinate Systems.

[Click here to watch the full video.](#)

Industry: Metal Fab

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

---

[CAM Coordinate Systems Defined](#)

[MILL Coordinate Systems \(RhinoCAM\)](#)

## 10.7 All about Cutting Tools (#077)

### Video Description

---

In this video we discuss almost everything you would want to know about using Cutting Tools in MecSoft CAM.

Standard tools, custom tools, tool libraries, tool-related FAQs and more! Refer to the topic links listed below.

[Click here to watch the full video.](#)

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



Industry: Metal Fab

### In-Video Topic Links

---

[How to Create Standard Tools](#)

[Tool Related FAQs](#)

[How to Add Tool Comments to your posted G-Code](#)

[All about Tool Libraries](#)

[How to Print a Tool List?](#)

[How to Add Operation Comments to your posted G-Code](#)

[How to show hidden system files & folders](#)

[How to List Tools in G-Code File?](#)

[My Feedrates are too high/low](#)

[How to List my Tools](#)

[Tapping Feedrates](#)

[How to Add a Tool Change Point](#)

[How to Create Custom Tools](#)

[How to Optimize Machining Time Estimates](#)

[How to enable Cutter Compensation \(CUTCOM\)](#)

## 10.8 Feeds & Speeds (#076)

### Video Description

---

In this video we discuss how to utilizing Feeds & Speeds effectively in MecSoft CAM during machining. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Metal Fab

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

---

[Feeds & Speeds Associations](#)

[Feeds & Speeds Formulas](#)

[Feeds & Speeds in Tool Libraries](#)

[Feeds & Speeds in 4/5 Axis Machining](#)

[Feeds & Speeds in Knowledge Bases](#)

[The MecSoft Blog](#)

[The Feeds & Speeds Calculator](#)

## 10.9 PRO vs STD (#089)

### Video Description

---

In this video we discuss extra functionality you get when upgrading from the Standard (STD) to the Professional (PRO) configuration. These enhancements apply to all plug-in platforms. Refer to the topic links listed below.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



[Click here to watch the full video.](#)

Industry: Metal Fab, Tool & Die

### In-Video Topic Links

---

[2 Axis Re-Machining](#)

[Drawing in VisualCAD](#)

[Using Command Recall](#)

[Trimming](#)

[Merging Curves](#)

[2 Axis Pocketing](#)

[Stock from Extrusion](#)

[Curve Offset](#)

[2 Axis Re-Machining](#)

[Assigning Simulation Colors to Toolpaths](#)

[Engrave a Point](#)

[T-Slotting a Hole](#)

[Profiling a T-Slot](#)

[2-Sided Machining](#)

[3 Axis Roughing](#)

[3 Axis Re-Roughing](#)

[Machine Tool Simulation](#)

[3 Axis 3D Offset Pocketing](#)

[3 Axis Between 2 Curves Machining](#)

[Toolpath Editor](#)

## 10.10 Assemblies in SOLIDWORKS (#095)

### Video Description

---

In this video we explore machining assemblies in VisualCAM for SOLIDWORKS. Machining in SOLIDWORKS part mode is also included. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Various

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

---

[VisualCAM in Assembly Mode](#)

[Machine Coordinate System](#)

[Post Definition](#)

[Define Component Parts to Machine](#)

[Part Box Stock](#)

[Stock from Selection](#)

[Add a Work Zero \(G54/G55\)](#)

[2 Axis Slotting](#)

[Tool Length Discussion](#)

[2 Axis Profiling](#)

[3 Axis Parallel Finishing](#)

[Machining Regions](#)

[Define Bridge Points](#)

[2 Axis Profiling with Bridges](#)

[Defining Avoid Areas](#)

[Posting Toolpaths](#)

[Group Toolpaths into Sets](#)

[Saving Toolpaths](#)

[Save a Knowledge Base](#)

[Feature Detection Machining](#)

[CAM Configurations](#)

[Machining Multiple Setups](#)

[Machine Tool Simulation](#)

[3 Axis Machining](#)

[Machining Time](#)

[Setup Sheets](#)

## 10.11 Mold Parting Line Machining (#099)

### Video Description

Watch this very informative video to learn the techniques to machine mold cavity inserts using MecSoft's CAM plug-ins! RhinoCAM is used as the example platform. Techniques for accurately machining 3 Axis parting lines and parting surfaces is covered extensively.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



[Click here to watch the full video.](#)

Industry: Tool & Die

### In-Video Topic Links

Mold Machining Techniques

[Roughing Strategies](#)

[Cavity Pre-Finishing](#)

[Machining Parting Lines](#)

[Pre-Finishing Strategies](#)

[Cavity Finishing](#)

[Using Guide Surfaces](#)

[Cavity Roughing](#)

[Mold Strategy Knowledge](#)

[Using Surface Boundary Conditions](#)

[Mold Parting Surface Finishing](#)

[Base](#)

## 10.12 Multi-Sided Parts, 3+2 (#103)

### Video Description

In this full-length video we discuss the machining of multi-sided parts using setups. This is sometimes referred to as 3+2 machining. This is a must-watch video for multi-sided parts.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



[Click here to watch the full video.](#)

Industry: Prototype, Production

### In-Video Topic Links

[3+2 Machining Explained](#)

[Setups in CAM](#)

[General Multi-Sided Parts](#)

[Coordinates Systems in CAM](#)

[Double Sided Parts Machining](#)

[Machining](#)

[Post-Process Considerations](#)

## 10.13 Programming Turned Parts (#115)

### Video Description

This is a full-length and in-depth video tutorial on how to program turn parts using the MecSoft TURN Module! The procedures are explained using VisualCAD/CAM, RhinoCAM and VisualCAM for SOLIDWORKS! These procedures can also be applied to AlibreCAM. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Tool & Die, Production

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

[About Part Geometry](#)

[Then Turn the Selection  
Geometry OFF](#)

[Set Tool to OD Backward for Back  
Facing and Turning](#)

[The Turn Coordinate System](#)

[Other Stock Examples](#)

[ID Turning \(Inside Diameter\)](#)

[Part Orientation \(1st. Quadrant\)](#)

[Creating Turn Tools](#)

[Pre-Drilling ID Holes](#)

[Define Part from 2D Curves  
\(VisualCAD/CAM\)](#)

[Set the Program Work Zero](#)

[ID Roughing with Tool set to ID  
Forward](#)

[Define Part from 3D Surfaces  
\(RhinoCAM\)](#)

[Turn Roughing, Front Facing](#)

[ID Finishing](#)

[Define Part from 3D Solids  
\(VisualCAM for SW\)](#)

[Containing the Toolpath](#)

[Groove Roughing](#)

[Defining a Cylinder Stock \(with  
OD & ID\)](#)

[Turn Finishing](#)  
[Containing the Toolpath  
\(Finishing verses Roughing\)](#)

[Groove Finishing](#)

[Set Simulation Display Mode for  
Turning](#)

[Defining the Cut Direction](#)  
[More examples in RhinoCAM](#)

[Turn Machining Information](#)

[Defining a Part Cylinder Stock  
\(with OD\)](#)

[Defining Avoid Regions](#)  
[Honoring the Tool's Relief Angle](#)

[Set Output to Diameter Mode &  
Post](#)

[Define Stock from Selection](#)

[Post Diameter Mode](#)

[Work flow in VisualCAM for SW](#)

## 10.14 Post-Processing Toolpaths (#116)

### Video Description

This is a full-length and in-depth video tutorial on how to post-process your toolpaths to G-Code files. It also includes

VisualCAD/CAM



RhinoCAM



a discussion on each section of the Post-Processor Generator (PPG) and how to customize your G-Code output. This tutorial applies to all MecSoft desktop CAM plug-ins. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Misc.

VC/SolidWorks



AlibreCAM



### In-Video Topic Links

---

[Post-Processing Work flow](#)

[Set Post-Processor Options](#)

[Post just a Setup](#)

[The Post & Save As Dialog](#)

[Add a Part # to the G-Code File](#)

[Post the Machining Job](#)

[Post one or more Operations](#)

[Post Naming Conventions](#)

[Send G-Code to a Program](#)

[Post Multi-Axis Operations](#)

[The Post-Processor Generator \(PPG\)](#)

[How to Display the PPG](#)

[PPG Overview of Sections](#)

[PPG General Section](#)

[PPG Start/End Section](#)

[PPG Tool Change Section](#)

[PPG Setup Section](#)

[PPG Spindle Section](#)

[PPG Feed Rate Section](#)

[Converting to Unites per Second](#)

[Inverse Time Feed Rates](#)

[PPG Motion Section](#)

[PPG Circle Section](#)

[Arc Output Preferences](#)

[PPG Helical/Spiral Section](#)

[PPG Multi-Axis Section](#)

[PPG Cutter Compensation Section](#)

[PPG Cut Motion Start/End Section](#)

[PPG Cycles Section](#)

[Output Drill Cycles as Linear Motions](#)

[PPG Misc Section](#)

[Using Post Variables](#)

[Post Stock Dimensions as Comments](#)

[Post Saving Recommendations](#)

[Using Algebraic Expressions](#)

[Posting Tips](#)

[Posting Coolant Codes](#)

[Optimizing Cycle Codes](#)

[Posting Machine Cycle Codes](#)

[Using Cut Motion Start/End Codes](#)

## VisualCAD

### 11.1 VisualCAD Mash-up

#### Video Description

This is a mash up of VisualCAD features demonstrated in multiple CAMJam videos. Use the Video Topic Licks section below for a list of VisualCAD features demonstrated.

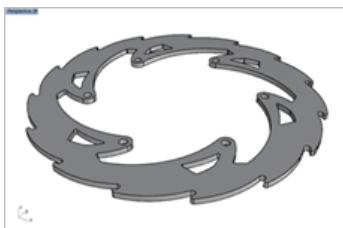
[Click here to watch the full video.](#)

VisualCAD/CAM

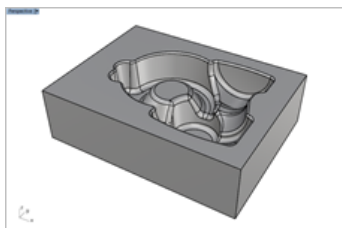


#### Parts Illustrated

The following archive files are illustrated in this video. [See files archive](#)<sup>D<sup>148</sup></sup>.



CAMJam #100252.stp



CAMJam #100256.stp



#### In-Video Topic Links

[Change Part Units](#)

[Transform Scale Geometry](#)

[Orient Part Geometry](#)

[Draw Containment Boundaries](#)

[Hide/Show WCS](#)

[Using the Graphic Manipulator](#)

[Chain Selecting](#)

[Pre-selection Highlights](#)

[Ghosted Display](#)

[Curve Extraction Tools](#)

[Extracting Face Edges](#)

[How to Deselect](#)

[Deselect a chain element](#)

[Changing a Curve Start Point](#)

[Drawing in VisualCAD](#)

[Using Command Recall](#)

[Trimming](#)

[Merging Curves](#)

[Curve Offset](#)

[Importing from SOLIDWORKS](#)

[VisualCAD Interface](#)

[Display Controls](#)

[Show/Hide Geometry](#)

[The CAM Interface](#)

[Analyzing Geometry](#)

[Moving Geometry \(Graphical Manipulator\)](#)

[File Formats Supported](#)

[Loading an STL file](#)

[Analyze Part Information](#)

[Changing Part Units](#)

[Display Controls and Preferences for Mesh Data](#)

[Scaling & Transforming Geometry](#)

## 11.2 Cut Tubular Intersections using VisualCAD/CAM

### Video Description

In this video we discuss how to generate a section curve between two pipes in VisualCAD and then create a 2 axis profiling operation to cut the intersection.

[Click here to watch the full video.](#)

Industry: Orthotics Foot ware

VisualCAD/CAM



RhinoCAM



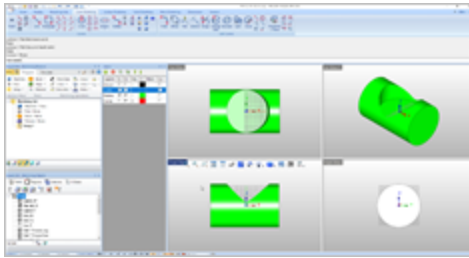
VC/SolidWorks



AlibreCAM



### Parts Illustrated



### In-Video Topic Links

[C-Plane to a Face](#) 00:51

[Subtract Meshes](#) 03:50

[2 Axis Profiling](#) 06:00

[Extrude Mesh](#) 01:35

[Create Silhouette Curve](#) 04:29

[Edit a Setup \(PRO Required\)](#)  
06:39

[Create layers](#) 02:06

[Explode and Edit Curves](#) 05:11

[Merge Curves](#) 07:34

[C-Plane to Ortho View](#) 03:05

## 11.3 Scanned Orthotics in VisualCAD/CAM (#136)

### Video Description

In this video we discuss 3 Axis techniques for machining STL 3D scanned orthotics mesh data in VisualCAD/CAM. Part orientation and transformations are discussed in detail. Also, 3 Axis Parallel Finishing and knowledge bases are discussed. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Orthotics Foot ware

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

---

[About the VisualCAD Menus](#)[Mirror Geometry](#)[3 Axis Parallel Finishing](#)[About VisualCAM](#)[Using the Graphical Manipulator](#) [Post Processing](#)[Open File Formats](#)[Using Layers](#)[Knowledge Bases](#)[Opening the STL file](#)[Machine Definition](#)[Set Knowledge Base Rules](#)[Startup Checklist](#)[Stock Definition](#)[Another Example](#)[Transform Scale Part](#)[Workpiece Origin](#)[Mesh Repair Modeling](#)[Orient Part for Machining](#)[Supported Tool Types](#)

## MILL Module

### 12.1 Fundamentals

#### 12.1.1 Understanding 2½ Axis (#227)

##### Video Description

---

Get a quick understanding of how 2½ Axis toolpaths are defined in MecSoft CAM plug-ins.

[Click here to watch the full video.](#)

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



##### Video Topics

---

[2½ Axis Basic Training Slide Show](#)

[Work Flow](#)

[3 Axis Basic Training Slide Show](#)

[2½ Axis Basic Demonstration](#)

[Machine & Setup Basics](#)

[3 Axis Basic Demonstration](#)

[Control Geometry 2 Axis](#)

[Geometry Types Supported](#)

[Control Geometry 3 Axis](#)

[Cut Side & Start Points in 2 Axis](#)

[Cut Motion Basics](#)

[3 Axis Cut Levels](#)

[Cut Levels in 2 Axis](#)

[Post Processing Basics](#)

[3 Axis Stock Allowance](#)

[Stock Allowance in 2 Axis](#)

[Tips & Suggestions](#)

#### 12.1.2 Understanding 3 Axis (#228)

##### Video Description

---

Get a quick understanding of how 2½ Axis toolpaths are defined in MecSoft CAM plug-ins.

[Click here to watch the full video.](#)

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



##### Video Topics

---

[2½ Axis Basic Training Slide Show](#)

[Work Flow](#)

[3 Axis Basic Training Slide Show](#)

[2½ Axis Basic Demonstration](#)

[Machine & Setup Basics](#)

[3 Axis Basic Demonstration](#)

[Geometry Types Supported](#)

[Control Geometry 2 Axis](#)[Cut Motion Basics](#)[Control Geometry 3 Axis](#)[Cut Side & Start Points in 2 Axis](#)[Post Processing Basics](#)[3 Axis Cut Levels](#)[Cut Levels in 2 Axis](#)[Tips & Suggestions](#)[3 Axis Stock Allowance](#)[Stock Allowance in 2 Axis](#)

### 12.1.3 Mill Quick Start

#### Video Description

---

Get a quick start with the MILL Module by watching this video. You will learn how to setup a part for machine as well as 2-1/2 Profiling, Creating a setup sheet and posting G-Code. See the video links below!

Industry: Woodworking

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



#### Parts Illustrated

---

The following archive files are illustrated in this video. [See files archive](#)<sup>148</sup>.



CAMJam #100262.stp

#### In-Video Topic Links

---

[VisualCAD/CAM-MILL Quick Start](#)[RhinoCAM 2022: Milling Quick Start Guide](#)[VisualCAM MILL 2022 for SOLIDWORKS Quick Start](#)[AlibreCAM MILL Quick Start](#)

### 12.1.4 Default Parameters (#019)

#### Video Description

---

In this short video we discuss default parameters and how to reuse them.

[Click here to watch the full video.](#)

Industry: Metal Fab

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



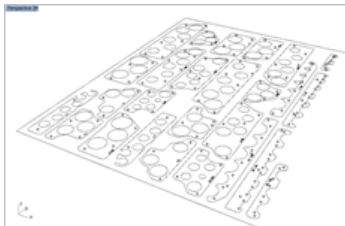
AlibreCAM



## Parts Illustrated

---

The following archive files are illustrated in this video. [See files archive](#)<sup>D148</sup>.



CAMJam #100286.dwg

## In-Video Topic Links

---

[Click here to watch the full video](#)

## 12.1.5 Using Knowledge Bases

### 12.1.5.1 Knowledge Bases & 2D (#018)

#### Video Description

---

In this short video we discuss default parameters and how to reuse them.

[Click here to watch the full video.](#)

Industry: Metal Fab

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



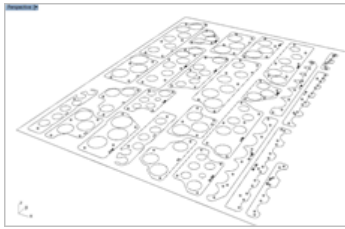
AlibreCAM



## Parts Illustrated

---

The following archive files are illustrated in this video. [See files archive](#)<sup>D148</sup>.



CAMJam #100286.dwg

### In-Video Topic Links

---

[Click here to watch the full video](#)

#### 12.1.5.2 Using KBs in Profiling (#125)

##### Video Description

---

Watch this video for an introduction to 2 Axis machining including knowledge bases from a 2D drawing including Curve Editing in Rhino as well as the NEST module.

[Click here to watch the full video.](#)

Industry: Marine

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

---

[Review 2D Drawing](#)

[Stock Definition](#)

[Sorting Options](#)

[Part Setup](#)

[2 Axis Profiling](#)

[Estimate Machining Time](#)

[Tools & Tool Libraries](#)

[Select by Color](#)

[Save to Knowledge Base](#)

[Machine Setup](#)

[2 Axis Engraving](#)

[Nesting](#)

[Single Stroke Text](#)

[Change Curve Start Point in Rhino](#)

## 12.2 Feature Detection Machining

### 12.2.1 AFD Basics using RhinoCAM (#038)

##### Video Description

---

In this video we discuss Automatic Feature Detection (ADF) basics using RhinoCAM as the example CAD system. This functionality is similar for all platforms.

VisualCAD/CAM



RhinoCAM



[Click here to watch the full video.](#)

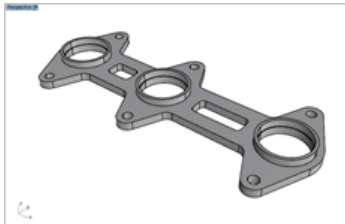
Industry: Metal Fab

VC/SolidWorks



### Parts Illustrated

The following archive files are illustrated in this video. [See files archive](#)<sup>D148</sup>.



CAMJam #100319.stp

### In-Video Topic Links

---

[Click here to watch the full video.](#)

## 12.2.2 Quick Start

### Video Description

---

Watch this in-depth tutorial on the Automated Feature Machining (AFM) capabilities in MecSoft CAM. You will be performing AFM the very first day using its default pre-installed AFM Knowledge Base! See the video links below!

Industry: Metal Fab

VisualCAD/CAM



RhinoCAM



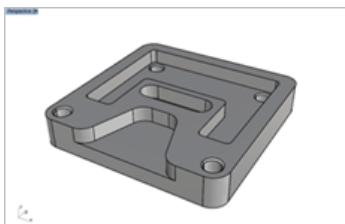
VC/SolidWorks



### Parts Illustrated

---

The following archive files are illustrated in this video. [See files archive](#)<sup>D148</sup>.



CAMJam #100253.stp

### In-Video Topic Links

---

[VisualCAD/CAM 2022 Automatic Feature Machining \(AFM\) Quick Start](#)

[RhinoCAM 2022 Automatic Feature Machining \(AFM\) Quick Start](#)

[VisualCAM 2022 for SOLIDWORKS-MILL AFM Quick Start](#)

### 12.2.3 Mechanical (#039)

#### Video Description

In this video we discuss Automatic Feature Detection (ADF) basics using VisualCAD/CAM as the example CAD system. This functionality is similar for all platforms.

[Click here to watch the full video.](#)

Industry: Metal Fab

VisualCAD/CAM



RhinoCAM

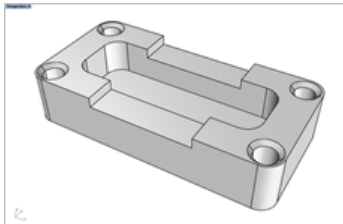


VC/SolidWorks



#### Parts Illustrated

The following archive files are illustrated in this video. [See files archive](#)<sup>148</sup>.



CAMJam #100319.stp

#### In-Video Topic Links

[Click here to watch the full video.](#)

### 12.2.4 Mechanical (#037)

#### Video Description

In this video we discuss Automatic Feature Detection (ADF) and Automatic Feature Machining (AFM) for hole machining using VisualCAD/CAM as the example CAD system. This functionality is similar for all platforms.

[Click here to watch the full video.](#)

Industry: Metal Fab

VisualCAD/CAM



RhinoCAM



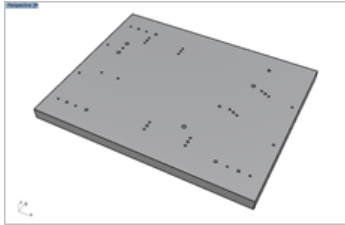
VC/SolidWorks



## Parts Illustrated

---

The following archive files are illustrated in this video. [See files archive](#)<sup>148</sup>.



CAMJam #100365.stp

## In-Video Topic Links

---

[Click here to watch the full video.](#)

### 12.2.5 AFD Feature Types (#040)

#### Video Description

---

In this quick video we review the feature types supported by Automatic Feature Detection (AFD). This functionality is similar for all platforms.

[Click here to watch the full video.](#)

Industry: ALL

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



## In-Video Topic Links

---

[Click here to watch the full video.](#)

### 12.2.6 Mechanical (#063)

#### Video Description

---

In this video we discuss Automatic Feature Machining (AFM) in great detail. This also includes AFD (Automatic Feature Detection), IFD (Interactive Feature Detection) and IFM (Interactive Feature Machining). Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Metal Fab

VisualCAD/CAM



RhinoCAM



VC/SolidWorks

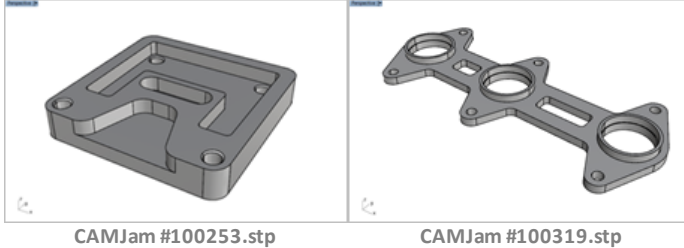


AlibreCAM



## Parts Illustrated

The following archive files are illustrated in this video. [See files archive](#)<sup>148</sup>.



CAMJam #100253.stp

CAMJam #100319.stp

## In-Video Topic Links

[AFD \(Automatic Feature Detection\)](#)

[Basics in VisualCAD/CAM](#)

[Feature Types Supported for Hole Features](#)

[Basics in RhinoCAM](#)

[AFM \(Automatic Feature Machining\)](#)

[Basics in VisualCAD/CAM](#)

[Knowledge Bases for Milling](#)

[Knowledge Bases for Drilling](#)

[Customizing Knowledge Bases](#)

[for Hole Features](#)

[Basics in RhinoCAM](#)

[IFD \(Interactive Feature Detection\)](#)

[IFM \(Interactive Feature Machining\)](#)

Feature Machining

[Automatic Feature Detection \(AFD\)](#)

[Automatic Feature Machining \(AFM\)](#)

[Feature Types Supported](#)

Knowledge Bases

[for Automatic Feature Machining \(AFM\)](#)

## 12.3 Hole Machining

### 12.3.1 Hole Machining (#118)

#### Video Description

In this video we discuss all things Hole Machining in both 2 Axis and 3 Axis. Hole selections, cycle parameters, milling parameters and post processing. Also, this video has a companion guide! It is listed below.

[Click here to watch the full video.](#)

Industry: Metal Fab

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



#### In-Video Topic Links

[Hole Selections](#)

[Select from Hole Features](#)

[AFD Automatic Feature Detection](#)

[2D Selections](#)[Select Drill Points or Circles](#)[VisualCAD Selection Filters](#)[Using the Diameter Range Filter](#)[Surface Selections](#)[Select Holes on a Flat Area](#)[Selecting Face Edges](#)[Select from Predefined Regions](#)[Hole Cycle Parameters](#)[Hole Sorting](#)[Using MopSets](#)[Save to a KB](#)[Hole Milling Operations](#)[Hole Profiling](#)[Hole Pocketing](#)[Hole Feature Detection & Machining](#)[IFM Interactive Feature Machining](#)[Create Hole Feature Machining KB](#)[Applying Selection Rules](#)[Project Drill Pts to 3D Geometry](#)[Output Control & Post](#)[Optimized Hole Cycle Output](#)[Tap Feedrate Options](#)[Hole Pocketing & Profiling Options](#)

## 12.4 2 Axis Machining

### 12.4.1 Introduction

#### Video Description

Get an introduction to 2½ Axis Machining by watching this video. See the video links below!

Industry: Metal Fab

VisualCAD/CAM



RhinoCAM



VC/SolidWorks

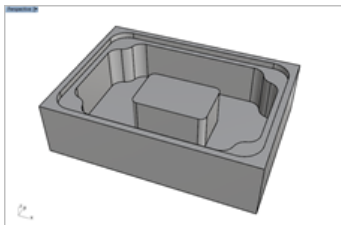


AlibreCAM



#### Parts Illustrated

The following archive files are illustrated in this video. [See files archive](#)<sup>148</sup>.



CAMJam #100259.stp

#### In-Video Topic Links

[VisualCAD/CAM 2022: Introduction to 2½ Machining](#)

[RhinoCAM 2022: Introduction to 2½ Machining](#)

[VisualCAM 2022 for SOLIDWORKS, 2½ Axis Introduction](#)

[AlibreCAM 2020 2½ Axis Introduction](#)

## 12.4.2 2 Axis Basics (#173)

### Video Description

Watch this video for an introduction to 2 Axis machining from a 3D prismatic part. Includes 2 Axis Facing, Pocketing, Engraving and Profiling. Illustrated with VisualCAD/CAM and RhinoCAM. Companion Guides Available.



VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



Guide

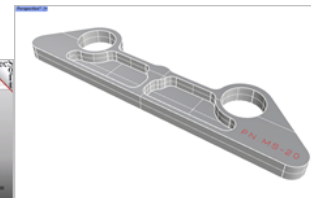
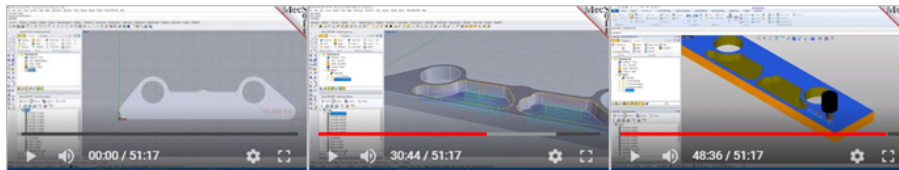
Guide

[Click here to watch the full video.](#)

Industry: Metal Working

### Parts Illustrated

The following 2D part is illustrated in this video. [Download the source files with CAM Mops here.](#)



CAMJam #100443.stp

### In-Video Topic Links

[What is 2-1/2 Axis Milling](#)

[Align the Stock](#)

[What is 2 Axis Profiling?](#)

[Part Orientation & Setup](#)

[Define the Work Zero](#)

[Machining Information](#)

[Align Set WCS](#)

[What is 2 Axis Facing?](#)

[Setup Sheets](#)

[Machine & Post Processor](#)

[What is 2 Axis Pocketing?](#)

[Post Processing](#)

[Define a Box Stock](#)

[Copy/Paste Operations](#)

[How it's done in VisualCAD/CAM](#)

[Define a Part Box Stock](#)

[What is 2 Axis Engraving?](#)

## 12.4.3 2 Axis Support Common Issues

### Video Description

Watch this video to learn about the most common 2½ Axis support issues and how to address them.

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM



RhinoCAM



VC/SolidWorks

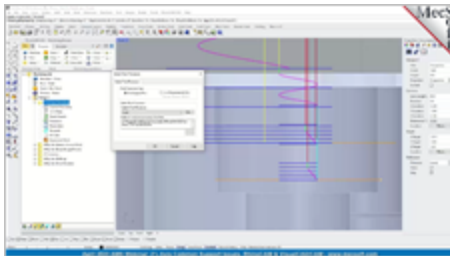


AlibreCAM



## Parts Illustrated

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## In-Video Topic Links

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[Presentation](#) 01:59

[Location of Cut Geometry](#) 49:27

[Geometry Types](#) 40:49

[Common Posting issues](#) 59:30

[Stock/Part Alignment](#) 41:21

[Machining Issues](#) 68:30

[Work Zeros](#) 44:58

## 12.4.4 2 Axis prismatic Parts

### Video Description

---

Watch this video for an introduction to 2 Axis machining from a 3D prismatic part. Includes 2 Axis Facing, Pocketing, Engraving and Profiling. Illustrated with VisualCAD/CAM and RhinoCAM. Companion Guides Available.

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



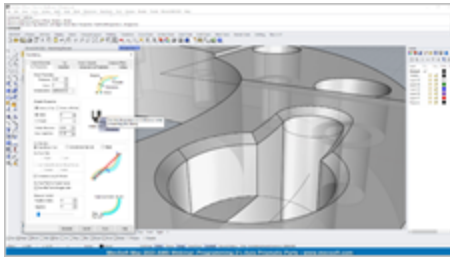
AlibreCAM



## Parts Illustrated

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The following 2D part is illustrated in this video. [Download the source files with CAM Mops here.](#)



### In-Video Topic Links

---

[Presentation](#) 01:39

[Adding 2D Geometry for Machining](#) 08:11

[Drill Roughing](#) 11:06

[Create a Drill Tool](#) 11:50

[Spot Drilling using Partial Diameters](#) 12:40

[2½ Axis High Speed Pocketing](#) 21:10

[2½ Axis Facing](#) 25:04

[2½ Axis Profiling with Steppers](#) 28:53

[2½ Axis Radial Slotting](#) 35:47

[2½ Axis Pocketing Multiple Depths](#) 42:20

[Cloning and Editing Operations](#) 48:00

[2½ Axis Chamfering](#) 51:56

[2½ Axis Engraving](#) 57:32

[2½ Axis Profiling the Outer Perimeter](#) 57:32

## 12.4.5 2 Axis Advanced (#174)

### Video Description

---

Watch this video for an advanced introduction to 2 Axis machining from a 3D prismatic part. Includes 2 Axis Facing, Stepped Pocketing, Open Pocket Facing, Slot Machining, Hole Machining, Chamfering and more!  
Companion Guides Available (at right).

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

---

[2 Axis Facing](#)

[2 Axis Stepped Pocketing](#)

[2 Axis Open Pocket Facing](#)

[2 Axis Slot Machining](#)

[2 Axis Hole Pocketing](#)

[2 Axis Hole Profiling](#)

[2 Axis Profiling](#)

[2 Axis Chamfering](#)

[2 Axis Profiling](#)

[Machining Information](#)

[Setup Sheet](#)

[Drilling with an End Mill](#)

[Linearized Drilling](#)

[Calculate Depth from 3D Model](#)

## 12.4.6 2 Axis Power User Topics (#175)

### Video Description

Watch this video for an understanding of some of the more advanced 2 Axis topics including Tolerances, Stock Allowance, Cutter Compensation, Start Points, Bridge Points and more! Companion Guides Available (at right).

[Click here to watch the full video.](#)

Industry: Metal Working

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

[Tolerances & Stock Parameters](#)

[Using Stock Allowances](#)

[The use of Start Points](#)

[Arc Fitting Tolerances](#)

[Using a Negative Stock Allowance](#)

[All about Entries & Exits](#)

[Tolerance Stacking](#)

[Understanding your Work Zero](#)

[All about Bridges & Tabs](#)

[Affect of Tighter Tolerances](#)

[Using Cutter Compensation](#)

[What about Form Tools? \(User Defined\)](#)

[Stock Parameters](#)

[Engraving Applications](#)

[Fixture Offset Programming](#)

## 12.4.7 Cloning Pre-Defined Regions (#233)

### Video Description

Learn how to clone your pre-defined regions. Cloned regions can then be used in ANY toolpath operations as Control Geometry.

[Click here to watch the full video.](#)

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



## 12.4.8 Basic 2 and 3 Axis Milling (#170)

### Video Description

Watch this video for an introduction to 2 and 3 Axis machining from a 3D prismatic part. Includes 2 Axis Top Facing, 2 Axis Open Pocket Facing, 2 Axis Chamfering and 3 Axis Adaptive Roughing. With user questions!

VisualCAD/CAM



RhinoCAM



[Click here to watch the full video.](#)

Industry: Music

VC/SolidWorks



AlibreCAM



### In-Video Topic Links

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[About VisualCAD](#)

[Orient Part for Machining](#)

[2 Axis Open Pocket Facing](#)

[Load a Part File](#)

[Machine](#)

[Adaptive Roughing](#)

[The Milling Browser](#)

[Post Processor: HeidenHain](#)

[Using a 3D-Mouse](#)

[The Machining Objects Browser](#)

[Stock](#)

[Chamfering](#)

[The Tool Library Formats](#)

[Work Zero](#)

[Double Chamfer Insert Tools](#)

[Check Part Information](#)

[2 Axis Top Facing](#)

## 12.4.9 from a 2D DXF File (#124)

### Video Description

---

Watch this video for an introduction to 2 Axis machining from a 2D DXF drawing including Curve Editing in Rhino, Pocketing, Profiling, Bridges & Tabs, Drilling, 2-Sided Machining and some 3 Axis toolpaths. With user questions!

[Click here to watch the full video.](#)

Industry: Music

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

---

[Open the DXF File](#)

[2 Axis Pocketing](#)

[3 Axis Horizontal Roughing](#)

[Review the 2D Drawing](#)

[Drilling](#)

[3 Axis Parallel Finishing](#)

[Orient the Drawing](#)

[More 2 Axis Pocketing](#)

[2 Axis Profiling](#)

[Machine Setup](#)

[Copy/Paste/Edit Operations](#)

[Add Bridge Points to a Pre-Defined Regions](#)

[Stock Definition & Alignment](#)

[Curve Editing](#)

[Use Bridge Points in 2 Axis Profiling](#)

[Create Cutting Tools](#)

[Curve/Surface Modeling](#)

[2-Sided Machining](#)

## 12.4.10 Profiling & Pocketing (#123)

### Video Description

Watch this video for an introduction to 2 Axis Pocketing & Profiling of the part shown below. This video includes how to define and use a custom profile cutter (i.e., defined as a custom tool).

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



[Click here to watch the full video.](#)

Industry: Industrial

### In-Video Topic Links

[VisualCAD Ribbon Bar](#)

[2 Axis Profile a Slot](#)

[Same Part from 2D DXF file](#)

[Part Orientation](#)

[2 Axis Pocketing \(Interior  
Cutouts\)](#)

[using a Custom Profile Cutting  
Tool](#)

[Part Setup](#)

[2 Axis Profiling the Perimeter](#)

[Drilling](#)

[What Toolpath Strategies are  
Needed?](#)

[Estimated Machining Time](#)

## 12.4.11 2 Axis Profiling & Nesting (#134)

### Video Description

Watch this video for an introduction to 2 Axis Profiling and nesting in RhinoCAM (similar in VisualCAD/CAM).

VisualCAD/CAM



RhinoCAM



[Click here to watch the full video.](#)

Industry: Industrial

### In-Video Topic Links

[Part Orientation](#)

[2 Axis Profiling - Outer  
Perimeter](#)

[Select Parts to Nest](#)

[Define the Stock](#)

[Post Process](#)

[Choose Nesting Parameters](#)

[Stock Alignment](#)

[Customize Post Processor](#)

[Commit the Nest](#)

[Set World Coordinate System](#)

[Add a Work Zero \(G54\)](#)

[2 Axis Profile Nested Sheet](#)

[Set Stock Material](#)

[Nest Multiple Parts into a Sheet](#)

[Automate Work flow using  
Knowledge Bases](#)

[2 Axis Profiling - Inner  
Perimeter](#)

[Load the Nest Module](#)

[Review](#)

[Bridges & Tabs](#)

[Define the Sheet Size](#)

## 12.4.12 Tool & Die / Mechanical (#106)

### Video Description

In this video we discuss how to use 2 Axis methods to machine a Tool & Die Mechanical part in VisualCAM for **SOLIDWORKS**.

[Click here to watch the full video.](#)

Industry: Metal Fab

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

[User Interface](#)

[2 Axis Slot Machining](#)

[Tool Change Point](#)

[Coordinate System Setup](#)

[2 Axis Pocketing](#)

[3+2 Machining \(PRO\)](#)

[Machine Axes Setup](#)

[2 Axis Profiling](#)

[2 Axis Roughing](#)

[Post Definition](#)

[Drilling](#)

[2 Axis Hole Pocketing](#)

[Define the Stock](#)

[Tapping](#)

[Feature Detection Machining](#)

[Stock/Part Alignment](#)

[Machining Time](#)

[Pre-Defined Regions](#)

[Work Coordinate Origin](#)

[Post](#)

[Toolpath Instancing](#)

[2 Axis Facing](#)

[Posting an OpStop for Tool Changes](#)

## 12.4.13 Guitar Body, 2/3 Axis (#130)

### Video Description

In this video we discuss 2½ Axis & 3 Axis Machining techniques using a guitar body design as an example. How to setup the part as well as 2½ Axis Pocketing are explored in detail. 3 Axis Horizontal Roughing and 3 Axis Parallel Finishing is also covered. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Woodworking

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

[Part Setup for Side A](#)

[3 Axis Parallel Finishing](#)

[3 Axis 3D Offset Pocketing](#)

[Cutting Tools](#)[2 Axis Pocketing](#)[2 Axis Profiling](#)[3 Axis Roughing](#)[Indexed Setup for Side B](#)[Bridges & Tabs](#)[Containment Geometry](#)

## 12.4.14 Cabinet Assembly (#131)

### Video Description

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In this video we discuss 2½ Axis machining techniques using a Cabinet Assembly in Rhino. The Explode Cabinet Design utility in the MILL Module is used as well as the NEST Module. The nested components are then machined using the MILL Module. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Woodworking

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

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[Explode Cabinet Design Utility](#)[Define Parts to Nest](#)[2 Axis Profiling](#)[Nest into a Sheet](#)[Choose Nesting Parameters](#)[Estimate Machining Time](#)[True Shape Nest](#)[Milling the Sheet](#)[Post Process](#)[Define the Sheets](#)[Part Sheet Setup](#)

## 12.4.15 Cabinet Design (#139)

### Video Description

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Here is another great tutorial on machining a cabinet design in RhinoCAM. The following steps are: Load the cabinet design assembly, run the Explode Cabinet Design utility, Run RhinoCAM-NEST to create the nest sheets, run RhinoCAM-MILL to generate the g-code.

[Click here to watch the full video.](#)

Industry: Woodworking

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

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[Explode Cabinet Design Utility](#)

[RhinoCAM-NEST](#)

[RhinoCAM-MILL](#)

## 12.4.16 Special 2 Axis Topics (#220-#224)

### Video Description

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Refer to each CAMJam Short video listed below for special 2 axis topics.

[Click here to watch the full video.](#)

Industry: Woodworking

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

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[CAMJam 220: 2 Axis Aggregate Head Machining](#) [CAMJam 223: 2 Axis Knife Machining](#)

[CAMJam 221: 2 Axis Aggregate Disk Machining](#) [CAMJam 224: Machine Control Cycles](#)

[CAMJam 222: Multi-Drill Head \(Drill Block\) Machining](#)

## 12.5 3 Axis Machining

### 12.5.1 Introduction

#### Video Description

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Watch this video for an introduction to 3 Axis Machining. You will learn how to use the 3 Axis tool paths Horizontal Roughing, Parallel Finishing and Radial Machining, and much more. See the video links below!

Industry: Tool & Die

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



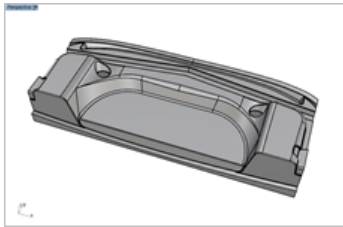
AlibreCAM



#### Parts Illustrated

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The following [archive files](#) <sup>148</sup> are illustrated in this video.



CAMJam #100260.stp

### In-Video Topic Links

[VisualCAD/CAM 2022: Introduction to 3 Axis Machining](#)

[RhinoCAM 2022: Introduction to 3 Axis Machining](#)

[VisualCAM 2022 for SOLIDWORKS, 3 Axis Quick Start](#)

[AlibreCAM 3 Axis Introduction](#)

## 12.5.2 3 Axis Basics (#176)

### Video Description

Watch this video for an introduction to 3 Axis machining basics including discussions on Part Orientation, 3 Axis Part Models, Basic 3 Axis Methods, Feedrates and more. Companion Guides Available.

[Click here to watch the full video.](#)

Industry: Mold Design

VisualCAD/CAM



RhinoCAM



VC/SolidWorks

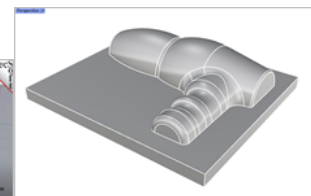
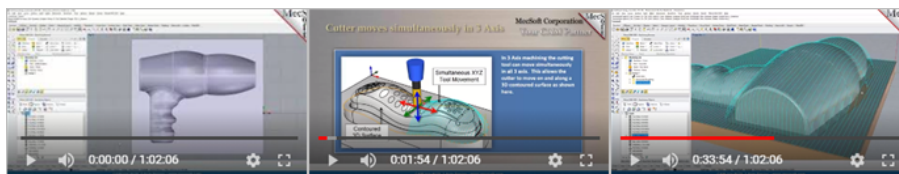


AlibreCAM



### Parts Illustrated

The following 2D part is illustrated in this video. [Download the source files with CAM Mops here.](#)



CAMJam #100449.stp

### In-Video Topic Links

[What is 3 Axis Machining](#)

[What is 3 Axis Roughing](#)

[Feeds & Speeds](#)

[Part Orientation](#)

[3 Axis Pre-Finishing](#)

[Post selection](#)

[The 3 Axis Setup](#)

[Using Machining Regions](#)

[Feedrate Reduction Factors](#)

[3 Axis Machining Work flow](#)

[What is Horizontal Finishing](#)

[The G-Code Editor](#)

[3 Axis Part Models](#)

[Post Processing](#)

### 12.5.3 3 Axis Basics

#### Video Description

Watch this video for an introduction to 3 Axis machining basics including discussions on Part Setup, Roughing, and Finishing Orientations.

[Click here to watch the full video.](#)

Industry: Mold Machining

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



#### Parts Illustrated

The following 2D part is illustrated in this video. [Download the source files with CAM Mops here.](#)



#### In-Video Topic Links

[3 Axis Machining a Mold Cavity](#) 02:57

[Creating Tools](#) 17:11

[Horizontal Finishing Optimized Machining](#) 40:53

[3 Axis Machining a Core Block](#) 07:36

[3 Axis Horizontal Roughing](#) 19:07

[Spiral & Radial Finishing](#) 42:43

[Stock Definition](#) 07:36

[Revolving a Masking Surface](#) 23:17

[Cloning Operations](#) 52:01

[Part/Stock Alignment](#) 07:36

[Viewing Tool Motions](#) 34:28

[Pencil Trace Flat Contours with 3 Axis Horizontal Finishing](#) 53:02

[Set World CS](#) 07:36

[Horizontal Finishing](#) 37:03

[Work Zero](#) 07:36

### 12.5.4 3 Axis Advanced (#177)





#### Video Description

Watch this video for an advanced course on 3 Axis machining. Many of the advanced methods are discussed in detail such as Constant Scallop Machining, Pencil Tracing, Flats and Plateau Machining and more.

Companion Guide Available.

[Click here to watch the full video.](#)

Industry: Mold & Die

VisualCAD/CAM	RhinoCAM
	
VC/SolidWorks	AlibreCAM
	

### In-Video Topic Links

[What is 3 Axis Horizontal Re-Roughing?](#)

[What is 3 Axis Clear Flats Machining?](#)

[Review Basic 3 Axis Finishing Methods](#)

[What is 3 Axis Radial Machining?](#)

[What is Spiral Machining?](#)

[Constant Scallop Machining](#)

[Constant 3D Stepper Pocketing](#)

[What is 3D Offset Pocket?](#)

[What is Pencil Tracing](#)

[What is Valley Re-machining?](#)

[3 Axis Mold Examples](#)

[Machining Bi-Tangent Fillets](#)

[When to use 3 Axis Curve Machining](#)

[Cut Material Simulation Video](#)

[What is Between Curves Machining?](#)

[Set Curve Direction and Start Point](#)

[More Examples](#)

[Using Masking Surfaces](#)

[What is Flat Plateau Machining?](#)

[Using Surface Extent Conditions](#)





## 12.5.5 3 Axis Power User Topics (#178)

### Video Description

Watch this video to learn more advanced 3 Axis machining tasks for the power user! Tolerances are covered in greater detail as well as Contain Strategies, Optimized strategies, Step Minimization, Using Default Parameters & Knowledge Bases and much more!

[Click here to watch the full video.](#)

Industry: Woodworking, Mold & Die

VisualCAD/CAM	RhinoCAM
	
VC/SolidWorks	AlibreCAM
	

### In-Video Topic Links

[The Role of Tolerances in Machining](#)

[3 Axis Containment Strategies](#)

[Advanced Stock Creation Methods](#)

[Step Minimization Continued](#)

[Using Start Points in H Roughing](#)

[Using Default Parameters](#)

[Tolerances in Horizontal Roughing](#)

[Arc Fitting Preferences](#)

[The effect of steep and flat areas](#)

[Step Minimization in Horizontal Roughing](#) [Using the Toolpath Editor](#)

[Optimized XY Machining in HFinishing](#)

## 12.5.6 Parallel Finishing (#122)

### Video Description

Watch this video for an introduction to 3 Axis Parallel Finishing an irregular contoured surface. You will learn how to use curve, edge and surface containment.

[Click here to watch the full video.](#)

Industry: Industrial

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

[Analyzing & Positioning the Part Tops Only](#)

[3 Axis Horizontal Roughing](#)

[3 Axis Parallel Finishing](#)

[Angle of Cuts](#)

[Curve/Edge Containment](#)

[Surface Boundary Containment](#)

[3 Axis Cavity Machining](#)

## 12.5.7 Scanned Emblem (#137)

### Video Description

In this video we discuss 3 Axis techniques for machining a 3D scanned emblem in RhinoCAM. Part setup, 2 Axis Facing, 3 Axis Roughing and Finishing including Parallel, Radial and 3D Offset Pocketing. Bonus section on RhinoART!

[Click here to watch the full video.](#)

Industry: Prototyping

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

[Opening a Mesh Model](#)

[Verifying Part Dimensions](#)

[Part Setup Work flow](#)

[Offset the Curve for Containment](#)

[Revised the Horizontal Roughing Operation](#)

[3 Axis Horizontal Finishing](#)

[RhinoART](#)

[Project Setup](#)

[2 Axis Facing](#)[Another Facing Operation](#)[3D Relief Operation](#)[3 Axis Horizontal Roughing](#)[3 Axis Parallel Finishing](#)[Mill the RhinoART Mesh](#)[Create a Silhouette Curve](#)[3 Axis Radial Machining](#)[Raster to Vector Conversion](#)[3 Axis 3D Offset Pocketing](#)

## 12.5.8 Scanned Orthotics (#136)

### Video Description

In this video we discuss 3 Axis techniques for machining STL 3D scanned orthotics mesh data in VisualCAD/CAM. Part orientation and transformations are discussed in detail. Also, 3 Axis Parallel Finishing and knowledge bases are discussed. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Orthotics Foot ware

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

[About the VisualCAD Menus](#)[Mirror Geometry](#)[3 Axis Parallel Finishing](#)[About VisualCAM](#)[Using the Graphical Manipulator Post Processing](#)[Open File Formats](#)[Using Layers](#)[Knowledge Bases](#)[Opening the STL file](#)[Machine Definition](#)[Set Knowledge Base Rules](#)[Startup Checklist](#)[Stock Definition](#)[Another Example](#)[Transform Scale Part](#)[Workpiece Origin](#)[Mesh Repair Modeling](#)[Orient Part for Machining](#)[Supported Tool Types](#)

## 12.5.9 Scanned Orthotics (#172)

### Video Description

In this video we discuss 3 Axis techniques for machining STL 3D scanned orthotics mesh data in RhinoCAM. Part orientation, 3 Axis Parallel Finishing and knowledge bases are discussed. Includes User Questions.

Refer to the topic links listed below.

[Click here to watch the full video.](#)

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



Industry: Orthotics Foot ware

### In-Video Topic Links

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<a href="#">Typical Work flow</a>	<a href="#">3 Axis Parallel Finishing</a>	<a href="#">RhinoCAM-MESH Module</a>
<a href="#">Box Stock</a>	<a href="#">Advanced 3 Axis Methods</a>	<a href="#">Split Mesh</a>
<a href="#">Work Zero</a>	<a href="#">Save to Knowledge Base</a>	<a href="#">Load Knowledge Base</a>
<a href="#">Cutting Tools</a>	<a href="#">3 Axis Projection Pocketing</a>	<a href="#">Estimate Machining Time</a>
<a href="#">Containment Geometry</a>	<a href="#">Positive Foot Scan</a>	<a href="#">Split Mesh in Rhino</a>
<a href="#">3 Axis Roughing</a>	<a href="#">Orient Part</a>	

## 12.5.10 Mesh Geometry (#096)

### Video Description

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In this video we discuss all things MESH! Using the MESH Module, editing meshes, and machining mesh geometry in 2, 3, 4 and 5 Axis. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Various

VisualCAD/CAM  


RhinoCAM  


### In-Video Topic Links

---

<a href="#">About Mesh Geometry</a>	<a href="#">Reduce (Decimate ) a Mesh</a>	<a href="#">2-1/2 Axis Mesh Machining</a>
<a href="#">3D Mesh Applications</a>	<a href="#">Using Remesh</a>	<a href="#">Changing The Part Units</a>
<a href="#">Mesh File Formats</a>	<a href="#">Using Smooth on a Mesh</a>	<a href="#">Orient Part for Machining</a>
<a href="#">Create a Mesh from Point Data</a>	<a href="#">Editing an Area of the Mesh</a>	<a href="#">Creating Curve Boundaries</a>
<a href="#">Mesh Editing</a>	<a href="#">Mesh Reduction in Rhino verses MESH</a>	<a href="#">Pocketing</a>
<a href="#">Diagnose Mesh Geometry</a>	<a href="#">How to Offset a Mesh</a>	<a href="#">3 Axis Machining Meshes</a>
<a href="#">Using AutoFix</a>	<a href="#">Using Mesh Boolean Operations</a>	<a href="#">4 Axis Machining a Mesh</a>
		<a href="#">5 Axis Machining a Mesh</a>

## 12.5.11 Sheet Machining (#117)

### Video Description

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In this video we discuss contour sheet machining using 3 Axis Horizontal Roughing, Parallel Finishing and 2 Axis Profiling. Refer to the topic links listed below.

VisualCAD/CAM



RhinoCAM



[Click here to watch the full video.](#)

Industry: Industrial

### In-Video Topic Links

---

[User Interface](#)

[Creating a 1" Ball Mill](#)

[Drilling](#)

[Using a Default Tool Library](#)

[Overview of Toolpath Methods](#)

[Using the Diameter Range Filter](#)

[Masking Holes from being Machined](#)

[3 Axis Horizontal Roughing](#)

[Difference between Deep Drill & Chip break](#)

[3 Axis Parallel Finishing](#)

[Machine Tool Definition](#)

[Estimate Machining Time](#)

[Create a Setup Sheet](#)

[Define the Post-Processor](#)

[Simulation Colors](#)

[Automatic Bridges & Tabs](#)

[Stock Definition](#)

[2 Axis Pocketing different depths with one Operation](#)

[Manual Bridges & Tabs using Regions](#)

[Discussing the Machine Origin](#)

[Post Processing](#)

[Define Stock Material](#)

## 12.5.12 Mold Machining (#211-#216)

### Video Description

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In these video presentations you will learn how MecSoft CAM plugins are used in various mold and die applications.

VisualCAD/CAM



RhinoCAM



Industry: Mold & Die

VC/SolidWorks



[Watch the full 1-hour video here.](#)

### In-Video Topic Links

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[CAMJam Short #216: MecSoft CAM Tips & Techniques for Mold Inserts](#)

[CAMJam Short #213: Short Discussion on Thermoform Molds](#)

[CAMJam Short #215: Discussion on Injection Mold Inserts with MecSoft CAM Plugins](#)

[CAMJam Short #212: Short Mold Machining Presentation](#)

[CAMJam Short #214: Machining Cast Molds with MecSoft CAM Plugins](#)

[CAMJam Short #211: Advanced 3 Axis Methods for Mold Cores & Cavities](#)

## 12.6 4 Axis Machining

### 12.6.1 Introduction

#### Video Description

Watch this video for an introduction to 4 Axis Machining. You will learn how to setup a part for a 4 Axis machine tool, how to use Rotate Table Setups, perform indexed 4 Axis operations as well as continuous 4 Axis Parallel Finishing. See the video links below!

Industry: Prototyping

VisualCAD/CAM



RhinoCAM



VC/SolidWorks

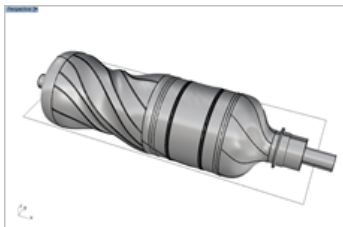


AlibreCAM



#### Parts Illustrated

The following [archive files](#)<sup>D<sup>148</sup></sup> are illustrated in this video.



CAMJam #100261.stp

#### In-Video Topic Links

[VisualCAD/CAM 2022: Introduction to 4 Axis Machining](#)

[RhinoCAM 2022: Introduction to 4 Axis Machining](#)

[VisualCAM 2022 for SOLIDWORKS, 4 Axis Introduction](#)

[AlibreCAM 2020 4 Axis Introduction](#)

### 12.6.2 Introduction (#179)

#### Video Description

Watch this jam packed tutorial to learn about machining in 4 Axis with MecSoft CAM. 4 Axis Indexed machining and basic 4 Axis continuous machining methods are covered in detail. This is a very good video!

[Click here to watch the full video.](#)

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



Industry: Woodworking, Tool & Die

### In-Video Topic Links

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<a href="#">What is 4 Axis Machining?</a>	<a href="#">Drilling at Rotation 180</a>	<a href="#">What is 4 Axis Pocketing</a>
<a href="#">Part Orientation in 4 Axis</a>	<a href="#">Hole Profiling at 180</a>	<a href="#">What is 4 Axis Profiling</a>
<a href="#">The 4 Axis Machine Definition</a>	<a href="#">Rotate Table to Setup to 270</a>	<a href="#">Post Processing</a>
<a href="#">Set the Axis of Rotation</a>	<a href="#">Post Processing</a>	<a href="#">Continuous 4 Axis Projection Methods</a>
<a href="#">4 Axis Post Definition</a>	<a href="#">3 Axis Mops with Indexed 4 Axis</a>	<a href="#">What is 4 Axis Parallel Finishing</a>
<a href="#">The 4 Axis Work flow</a>	<a href="#">Work Flow</a>	<a href="#">Rotate Table back to 0</a>
<a href="#">Indexed 4 Axis Machining</a>	<a href="#">3 Axis H Roughing at Rotation 0</a>	<a href="#">Post Processing</a>
<a href="#">2 Axis Mops at Index Zero</a>	<a href="#">Rotate Table Setup to 180</a>	<a href="#">Strategy Tips</a>
<a href="#">Rotate Table Setup to 90 Degrees</a>	<a href="#">Copy/Paste to Rotation 180</a>	<a href="#">What is 4 Axis Engraving</a>
<a href="#">Drilling at Rotation 90</a>	<a href="#">Continuous 4 Axis Methods</a>	<a href="#">Post Processing</a>
<a href="#">2 Axis Hole Profiling at Rotation 90</a>	<a href="#">Continuous 4 Axis Wrap Methods</a>	<a href="#">What is Axial Containment?</a>
<a href="#">Rotate Table Setup to 180</a>	<a href="#">What is 4 Axis Facing</a>	

### 12.6.3 Advanced (#180)

#### Video Description

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Watch this extended video to learn all about the advanced features of 4 Axis Machining included in the EXP (Expert) configuration. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Prototyping

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



#### In-Video Topic Links

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<a href="#">Topic Discussions</a>	<a href="#">4 Axis Rotary Instancing</a>	<a href="#">4 Axis R-Level Finishing</a>
<a href="#">3+1 Indexed Machining</a>	<a href="#">4 Axis Drive Surface Machining</a>	<a href="#">Feedrate Options in 4 Axis</a>
<a href="#">Using Rotate Table Setups</a>	<a href="#">4 Axis Machine Tool Simulation</a>	<a href="#">4 Axis Options</a>
<a href="#">Parallel Roughing &amp; Finishing</a>	<a href="#">Machining below the Rotation Center</a>	

## 12.6.4 Rotational Head (#113)

### Video Description

In this video we discuss 4 Axis index machining when the CNC machine has a Rotational Head configuration. The video shows you how to setup the machine definition and program 2, 3 and even 5 Axis toolpaths to cut this part. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Tool & Die

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

[Define the Machine Tool](#)

[3 Axis Horizontal Re-Roughing](#)

[2 Axis Profiling](#)

[Select the Post Processor](#)

[3 Axis Horizontal Finishing](#)

[Copy/Paste 2 Axis Facing](#)

[Define the Workpiece](#)

[3 Axis Between 2 Curves](#)

[2 Axis Pocketing](#)

[Workpiece Origin](#)

[Machining](#)

[Drilling](#)

[Define the Cutting Tools](#)

[Add a New Setup](#)

[Select Holes on Flat Area](#)

[3 Axis Roughing](#)

[2 Axis Facing](#)

[Reviewing the Posted G-Code](#)

[Mask Features from being Machined](#)

[3 Axis Between 2 Curves Machining](#)

[Using a Gage Length Offset](#)

[Cut Material Simulation](#)

[3 Axis Parallel Finishing](#)

[Review of Configurations](#)

[Adjust for Tool Holder Collision](#)

[Add a New Setup](#)

[5 Axis Surface Normal Machining](#)

[Add a New Setup](#)

[3 Axis Horizontal Finishing](#)

## 12.6.5 Woodworking (#105)

### Video Description

In this video we machine two table legs, one from surface geometry and the other from mesh geometry. Note that #105-1 (shown below) falls below the axis of rotation requiring 4 Axis Drive Surface Machining methods.

[Click here to watch the full video.](#)

See also: [4 Axis Machining a Table Leg \(#072\)](#)<sup>132</sup>

Industry: Woodworking, Furniture

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



## In-Video Topic Links

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<a href="#">Check Part Dimensions</a>	<a href="#">Add Containment</a>	<a href="#">Draw Containment Boundary</a>
<a href="#">4 Axis Machine Setup</a>	<a href="#">Rotate Table 180 Degrees</a>	<a href="#">4 Axis Drive Surface Machining</a>
<a href="#">Set World Coordinate System</a>	<a href="#">Copy/Paste Operations</a>	<a href="#">AMS Training Options</a>
<a href="#">When Part is below the Rotation Center</a>	<a href="#">Rotate Table to 90 Degrees</a>	<a href="#">RhinoCAM-MESH</a>
<a href="#">Define the Stock</a>	<a href="#">EXP Verses PRO</a>	<a href="#">Suppress Operations</a>
<a href="#">Model Stock Extensions</a>	<a href="#">Rotate Table Back to Zero</a>	<a href="#">Review the 4 Axis G-Code</a>
<a href="#">Indexed 3 Axis Roughing</a>	<a href="#">4 Axis Parallel Finishing</a>	<a href="#">Load Knowledge Base</a>
<a href="#">Detecting Tool Holder Collisions</a>		

## 12.6.6 Mesh Machining (#096)

### Video Description

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In this video we discuss all things MESH! Using the MESH Module, editing meshes, and machining mesh geometry in 2, 3, 4 and 5 Axis. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Various

VisualCAD/CAM



RhinoCAM



### In-Video Topic Links

---

<a href="#">About Mesh Geometry</a>	<a href="#">Reduce (Decimate ) a Mesh</a>	<a href="#">2-1/2 Axis Mesh Machining</a>
<a href="#">3D Mesh Applications</a>	<a href="#">Using Remesh</a>	<a href="#">Changing The Part Units</a>
<a href="#">Mesh File Formats</a>	<a href="#">Using Smooth on a Mesh</a>	<a href="#">Orient Part for Machining</a>
<a href="#">Create a Mesh from Point Data</a>	<a href="#">Editing an Area of the Mesh</a>	<a href="#">Creating Curve Boundaries</a>
<a href="#">Mesh Editing</a>	<a href="#">Mesh Reduction in Rhino verses MESH</a>	<a href="#">Pocketing</a>
<a href="#">Diagnose Mesh Geometry</a>	<a href="#">How to Offset a Mesh</a>	<a href="#">3 Axis Machining Meshes</a>
<a href="#">Using AutoFix</a>	<a href="#">Using Mesh Boolean Operations</a>	<a href="#">4 Axis Machining a Mesh</a>
		<a href="#">5 Axis Machining a Mesh</a>

## 12.6.7 Indexed 4 Axis, Scan Data (#110)

### Video Description

In this video we machine 3D scan data of a human foot using VisualCAD/CAM 4 Axis indexed and continuous machining methods. Refer to the topic links listed below.

VisualCAD/CAM



RhinoCAM



[Click here to watch the full video.](#)

Industry: Various

### In-Video Topic Links

<a href="#">Change Part Units</a>	<a href="#">Addressing Tool Holder Collisions</a>	<a href="#">Adjust Feeds &amp; Speeds</a>
<a href="#">Transform Scale Geometry</a>	<a href="#">Rotate Table Setup</a>	<a href="#">Adjust Toolpath Cutting Parameters</a>
<a href="#">Orient Part Geometry</a>	<a href="#">Hide/Show WCS</a>	<a href="#">Using the Graphic Manipulator</a>
<a href="#">4 Axis Machine Setup</a>	<a href="#">Copy/Paste H Roughing (Side 2)</a>	<a href="#">Rotate Table Setup</a>
<a href="#">Cylindrical Stock &amp; Alignment</a>	<a href="#">3 Axis Parallel Finishing (Side 1)</a>	<a href="#">4 Axis Parallel Finishing</a>
<a href="#">Create Cutting Tools</a>	<a href="#">Rotate Table Setup</a>	<a href="#">Post &amp; Save As</a>
<a href="#">Draw Containment Boundaries</a>	<a href="#">Copy/Paste P Finishing (Side 2)</a>	<a href="#">Save Knowledge Base</a>
<a href="#">3 Axis Horizontal Roughing (Side 1)</a>	<a href="#">Machining Information</a>	<a href="#">Load Knowledge Base (New Part)</a>

## 12.6.8 Gun Stock Mesh in 4 Axis (#129)

### Video Description

In this video we machine 3D scan data of a gun stock using RhinoCAM 4 Axis indexed and continuous machining methods. Refer to the topic links listed below.

VisualCAD/CAM



RhinoCAM



[Click here to watch the full video.](#)

Industry: Prototyping

### In-Video Topic Links

<a href="#">Part Orientation</a>	<a href="#">Parallel Finish Side A</a>	<a href="#">Table Rotation for Side C</a>
<a href="#">Part Setup</a>	<a href="#">Model Part Outline Curves</a>	<a href="#">Parallel Finish Side C</a>
<a href="#">Modeling Stock Tabs</a>	<a href="#">Model Containment Boundary</a>	<a href="#">Index and Machining Side D</a>

[3 Axis Horizontal Roughing Side A](#)    [Rotate Table Setup](#)    [Estimate Machining Time](#)  
[Add a Rotate Table Setup](#)    [Rough & Finish Side B](#)    [Post Process](#)  
[Copy/Paste Operation](#)    [Draw Containment for Side C](#)    [4 Axis Parallel Finishing](#)

## 12.7 5 Axis Machining

### 12.7.1 Fundamentals (#107)

#### Video Description

In this video we teach you the fundamentals of machining in 5 Axis. Machine tool configurations, setup parameters, programming basics, 5 Axis toolpath methods and much more. This is another must-watch video if you have the Premium configuration of any MecSoft CAM product. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Tool & Die, Woodworking, Prototyping

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



#### In-Video Topic Links

[5 Axis Machine Tool Configurations](#)

[Clearance Definitions in 5 Axis](#)

[5 Axis Curve Projection Machining](#)

[Understanding Machine Setup Parameters](#)

[5 Axis Cutting Parameters](#)

[5 Axis Between 2 Curves Machining](#)

[5 Axis Programming Basics](#)

[5 Axis Gouge Checking](#)

[5 Axis Machine Tool Simulation](#)

[5 Axis Surface Normal Machining](#)

[5 Axis Swarf Machining](#)

[Machining Meshes in 5 Axis](#)

[Understanding Drive Surfaces & Tool Orientation](#)

[5 Axis Flow Curve Machining](#)

[Post-Processor Setup for 5 Axis](#)

### 12.7.2 Mesh, Scan Data (#096)

#### Video Description

In this video we discuss all things MESH! Using the MESH Module, editing meshes, and machining mesh geometry in 2, 3, 4 and 5 Axis. Refer to the topic links listed below.

[Click here to watch the full video.](#)

VisualCAD/CAM



RhinoCAM



Industry: Various

### In-Video Topic Links

---

<a href="#">About Mesh Geometry</a>	<a href="#">Reduce (Decimate ) a Mesh</a>	<a href="#">2-1/2 Axis Mesh Machining</a>
<a href="#">3D Mesh Applications</a>	<a href="#">Using Remesh</a>	<a href="#">Changing The Part Units</a>
<a href="#">Mesh File Formats</a>	<a href="#">Using Smooth on a Mesh</a>	<a href="#">Orient Part for Machining</a>
<a href="#">Create a Mesh from Point Data</a>	<a href="#">Editing an Area of the Mesh</a>	<a href="#">Creating Curve Boundaries</a>
<a href="#">Mesh Editing</a>	<a href="#">Mesh Reduction in Rhino versus MESH</a>	<a href="#">Pocketing</a>
<a href="#">Diagnose Mesh Geometry</a>	<a href="#">How to Offset a Mesh</a>	<a href="#">3 Axis Machining Meshes</a>
<a href="#">Using AutoFix</a>	<a href="#">Using Mesh Boolean Operations</a>	<a href="#">4 Axis Machining a Mesh</a>
		<a href="#">5 Axis Machining a Mesh</a>

## 12.7.3 Multi-Axis Machining

### Video Description

---

In these video presentations you will learn how MecSoft CAM plugins are used in various mold and die applications.

Industry: Mold & Die

[Watch the full 1-hour video here.](#)

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



### In-Video Topic Links

---

<a href="#">Multi-Axis Benefits</a>	<a href="#">Demo: Machine Tool Definition</a>
<a href="#">Multi-Axis Coordinate Systems</a>	<a href="#">Demo: 5 Axis Between 2 Curves Machining</a>
<a href="#">Multi-Axis Machining using Indexed Setups</a>	<a href="#">Demo: 4 Axis in 5 Axis Mode</a>
<a href="#">5 Axis Continuous Methods</a>	<a href="#">Demo: 5 Axis Continuous: Mold Cores</a>
<a href="#">Rotary Instancing in 5 Axis</a>	<a href="#">Demo: 5 Axis with Rotary Instancing</a>
<a href="#">Mesh Machining in 5 Axis</a>	<a href="#">Demo: 5 Axis Table - Head Example</a>
<a href="#">Machine Tool Simulation in 5 Axis</a>	<a href="#">Demo: 5 Axis Mesh Machining</a>
<a href="#">About the PREM Configuration</a>	<a href="#">Demo: Machine Tool Simulation in 5 Axis</a>
<a href="#">Demo: Coordinate Systems in 5 Axis</a>	

## 12.7.4 3+2 Multi-Sided Parts

### Video Description

In this video we discuss 3+2 machining using indexed 5 Axis machining methods to machine these parts. 3+2 machining is explained in details as well as how to create and work with multiple setups.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



[Click here to watch the full video.](#)

Industry: Various

### In-Video Topic Links

[3+2 Machining Explained](#)

[Multi-Setups in CAM](#)

[General Multi-Sided Parts Machining](#)

[Coordinates Systems in CAM](#)

[Double Sided Parts Machining](#)

[Post-Process Considerations](#)

## 12.7.5 3+2 Indexed 5 Axis, Mesh (#114)

### Video Description

In this video we discuss using indexed 5 Axis machining methods to machine this mesh. Multiple setup orientations are used to rough, re-rough and finishing. Refer to the topic links listed below.

VisualCAD/CAM



RhinoCAM



[Click here to watch the full video.](#)

Industry: Various

### In-Video Topic Links

[Machine Setup](#)

[Create Cutting Tools](#)

[3 Axis Parallel Finishing \(Pre Finish\)](#)

[Setup Post Processor](#)

[3 Axis Horizontal Roughing](#)

[Display Machining Information](#)

[Stock Definition](#)

[3 Axis Horizontal Re-Roughing \(Side 2\)](#)

[Post All Operations](#)

[Change Model Units](#)

[Adding Containment Boundaries](#)  
[Add Clearance Before Head Rotates](#)

[Orienting the Mesh \(Set WCS\)](#)

[Flagging Tool Holder Collisions](#)

[Reviewing the G-Code](#)

[Reducing the Mesh Density \(RhinoCAM-MESH\)](#)

[Copy/Paste H Re-Roughing \(Side 3\)](#)

[Discussing 5 Axis with Meshes](#)

## 12.7.6 3+2 Indexed & Continuous (#133)

### Video Description

In this video we discuss using indexed & continuous 5 Axis machining methods on the parts shown below. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Various

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

[Review Part Requirements](#)

[Another Index 5 Axis Setup](#)

[Index 5 Axis Setup](#)

[Machine Tool Definition](#)

[Define a Face Mill \(i.e., Saw Blade\)](#)

[2 Axis Engraving](#)

[Index 5 Axis Setup](#)

[2 Axis Engraving](#)

[5 Axis Curve Projection Machining](#)

[2 Axis Pocketing](#)

[Indexed 5 Axis Drilling @ 7.5 Degrees](#)

[More about 5 Axis Machine Tool Simulation](#)

## 12.7.7 Swarf Machining (#132)

### Video Description

In this video we discuss using 5 Axis Swarf machining and other methods. 5 Axis Machine Setup is discussed in detail. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Industrial

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

[Overview of 5 Axis Menus](#)

[Tool Selection](#)

[Swarf Multiple Surfaces](#)

[5 Axis Machine Setup \(Head-Head\)](#)

[5 Axis Clearance](#)

[Transition between Toolpaths](#)

[About Gage Length Compensation](#)

[Machine Tool Setup, Load Definition](#)

[Copy/Paste Operations](#)

[5 Axis Primary & Secondary Axis](#)

[Swarf Cutting Parameters](#)

[Graphical Toolpath Editing](#)

[Rotary Axis Limits](#)

[Surface Corrections in Rhino](#)

[Indexed 5 Axis \(3+2\) Machining](#)

[Toolpath Edits](#)

[Detecting Limits Violations](#)

[Other 5 Axis Strategies](#)

[Selecting a Post Processor](#)      [5 Axis Tool Motion Simulation](#)      [KB Selection Rules](#)  
[Stock Definition](#)      [Viewing Tool Coordinates](#)      [Post Customizations](#)  
[5 Axis Swarf Machining](#)      [Post Process](#)  
[Control Geometry - Wall/Floor Surfaces](#)

## 12.7.8 5 Axis in SOLIDWORKS (#135)

### Video Description

In this video we discuss using 5 Axis indexed and continuous machining and other methods, plus 5 Axis Machine Setup, Tool Tip Compensation, Axial Offsets and more. Refer to the topic links listed below.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



[Click here to watch the full video.](#)

Industry: Industrial

### In-Video Topic Links

[Adjusting the MCS Origin](#)      [3 Axis Re-Roughing](#)      [In VisualCAD/CAM](#)  
[5 Axis Machine Setup](#)      [Review 5 Axis Output](#)      [Back to SOLIDWORKS](#)  
[5 Axis Post Processor](#)      [5 Axis Surface Normal Machining Using Axial Offsets](#)  
[Stock from Extrusion](#)      [5 Axis Between 2 Curves Machining](#)      [Knowledge Bases](#)  
[3 Axis Horizontal Roughing](#)      [Tool Tip Compensation](#)      [Mirroring 3 Axis Toolpaths](#)  
[Tool Definition](#)      [Reviewing Machine Head Rotations](#)      [Materials Feeds & Speeds Data](#)  
[Adjust for Tool Shank Collisions](#)      [Indexed 3 Axis Parallel Finishing](#)      [Toolpath Edits](#)  
[Machine Tool Simulation](#)      [5 Axis Curve Projection Machining](#)

## 12.8 Robot Machining

### 12.8.1 with IRBCAM (#078)

#### Video Description

In this video we discuss Robot Machining using IRBCAM from APT code produced by RhinoCAM. All of MecSoft's CAM plug-ins will post to APT-CLS code. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Prototyping

VisualCAD/CAM



VC/SolidWorks



RhinoCAM



AlibreCAM



## Parts Illustrated

The following [archive files](#)<sup>D148</sup> are illustrated in this video.



CAMJam #100350.stl

## In-Video Topic Links

[IRBCAM Work flow](#)

[Continuous 5 Axis Machining](#)

[IRBCAM at Savsu Technologies](#)

[Collision Detection in IRBCAM](#)

[IRBCAM with RhinoCAM](#)

[IRBCAM Live Demonstration](#)

[Continuous 4 Axis Machining](#)

## 12.8.2 with RoboDK (#127)

### Video Description

In this video we discuss Robot Machining using RoboDK from APT code produced by RhinoCAM. All of MecSoft's CAM plug-ins will post to APT-CLS code. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Prototyping

VisualCAD/CAM



VC/SolidWorks



RhinoCAM



AlibreCAM



## In-Video Topic Links

[3 Axis Setup for Robot Programming](#)

[3 Axis Horizontal Roughing](#)

[3 Axis Parallel Finishing](#)

[Re-Machining](#)

[3 Axis Pencil Tracing](#)

[Post to APT CLS IJK File](#)

[Review Setup for RoboDK](#)

[Default RoboDK Settings](#)

[Simulating Robot Motions](#)

[Post Initial Robot Program](#)

[Changing Robot Orientation](#)

[Robot Learning](#)

[Changing Robot Post Processors](#)

[Rhino Plug-in to RoboDK](#)

[Work flow](#)

[5 Axis Programming](#)

[Posting to RoboDK](#)

[Creating a New RoboDK Project](#)

[Save your Robot Station](#)

[Indexed 5 Axis Machining](#)

## Post-Processing

Enter topic text here.

### 13.1 Legacy Post-Processing (#116)

#### Video Description

This is a full-length and in-depth video tutorial on how to post-process your toolpaths to G-Code files. It also includes a discussion on each section of the Post-Processor Generator (PPG) and how to customize your G-Code output. This tutorial applies to all MecSoft desktop CAM plug-ins. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Misc.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



#### In-Video Topic Links

[Post-Processing Work flow](#)

[PPG Start/End Section](#)

[PPG Cut Motion Start/End Section](#)

[Set Post-Processor Options](#)

[PPG Tool Change Section](#)

[PPG Cycles Section](#)

[Post just a Setup](#)

[PPG Setup Section](#)

[Output Drill Cycles as Linear Motions](#)

[The Post & Save As Dialog](#)

[PPG Spindle Section](#)

[PPG Misc Section](#)

[Add a Part # to the G-Code File](#)

[PPG Feed Rate Section](#)

[Using Post Variables](#)

[Post the Machining Job](#)

[Converting to Unites per Second](#)

[Post Stock Dimensions as Comments](#)

[Post one or more Operations](#)

[Inverse Time Feed Rates](#)

[Post Saving Recommendations](#)

[Post Naming Conventions](#)

[PPG Motion Section](#)

[Using Algebraic Expressions](#)

[Send G-Code to a Program](#)

[PPG Circle Section](#)

[Posting Tips](#)

[Post Multi-Axis Operations](#)

[Arc Output Preferences](#)

[Posting Coolant Codes](#)

[The Post-Processor Generator \(PPG\)](#)

[PPG Helical/Spiral Section](#)

[Optimizing Cycle Codes](#)

[How to Display the PPG](#)

[PPG Multi-Axis Section](#)

[Posting Machine Cycle Codes](#)

[PPG Overview of Sections](#)

[PPG Cutter Compensation Section](#)

[Using Cut Motion Start/End Codes](#)

[PPG General Section](#)

## 13.2 Programmable Post (#235)

### Video Description

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Learn fundamentals of the Programmable Post

[Click here to watch the full video.](#)

Industry: Misc.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



## TURN Module

### 14.1 TURN Quick Start

#### Video Description

Get a quick start with the TURN Module by watching this video. Learn how to setup a part for turning, perform TURN Roughing and TURN Finishing operations, create a setup sheet and post G-Code. See the video links below!

Industry: Metal Fab

VisualCAD/CAM



RhinoCAM



VC/SolidWorks

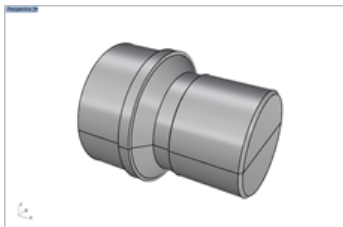


AlibreCAM



#### Parts Illustrated

The following [archive files](#)<sup>148</sup> are illustrated in this video.



CAMJam #100263.stp

#### In-Video Topic Links

[VisualCAD/CAM 2022 TURN Quick Start](#)

[RhinoCAM 2022 TURN Quick Start](#)

[VisualCAM-TURN 2022 FOR SOLIDWORKS Quick Start](#)

[AlibreCAM TURN Quick Start](#)

### 14.2 Overview (#081)

#### Video Description

In this short video we discuss the 2 Axis TURN Module. All the basics are covered from Machining/Part/Stock Setup to a review of the TURN methods available to the post processing g-code. This functionality is similar for all platforms. With user questions.

[Click here to watch the full video.](#)

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



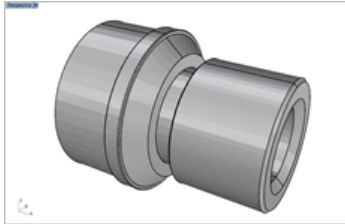
AlibreCAM



Industry: Metal Fab

### Parts Illustrated

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CAMJam #100355.stp

### In-Video Topic Links

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[To Switch from Mill to TURN](#)

[Define Lathe Machine Coordinate System](#)

[Define the Part](#)

[Define the Stock, Alignment & Work Zero](#)

[Review of TURN Methods](#)

[TURN Roughing](#)

[Simulate TURN Rough, Finish, Groove, Drill & Thread](#)

[Review of Post Processors Available](#)

## 14.3 Coordinate Systems (#028)

### Video Description

---

In this short video we discuss the definition of CAM Coordinate Systems.

[Click here to watch the full video.](#)

Industry: Metal Fab

VisualCAD/CAM



RhinoCAM



VC/SolidWorks

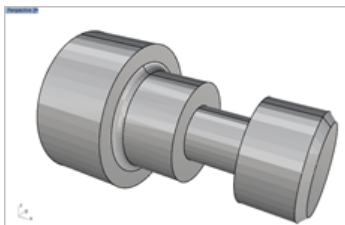


AlibreCAM



### Parts Illustrated

---



CAMJam #100356.stp

### In-Video Topic Links

---

[TURN Coordinate Systems \(RhinoCAM\)](#)

[TURN Coordinate Systems \(VisualCAM for SolidWorks\)](#)

## 14.4 Machining Techniques (#066)

### Video Description

---

In this video we discuss the TURN Module. You will learn how to load the TURN Module, define you Setup, Part, Stock and Work Zero. TURN Roughing and TURN Finishing toolpath methods are covered, both OD and ID as well as Posting G-Code. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Woodworking, Jewelry, Mold & Die

VisualCAD/CAM



VC/SolidWorks



RhinoCAM



AlibreCAM



### Parts Illustrated

---



CAMJam #100378.stp

### In-Video Topic Links

---

[Turning Ring Blanks](#)

[Loading the TURN Module](#)

[TURN Setup](#)

[Turn Coordinate System](#)

[Define TURN Part](#)

[Define TURN Stock](#)

[TURN Simulation Preferences](#)

[TURN Work Zero](#)

[TURN Roughing](#)

[TURN Cutting Tools](#)

[TURN OD Roughing](#)

[TURN OD Finishing](#)

[TURN ID Roughing](#)

[TURN ID Finishing](#)

[TURN Posting](#)

## 14.5 Programming Turned Parts (#115)

### Video Description

---

This is a full-length and in-depth video tutorial on how to program turn parts using the MecSoft TURN Module! The procedures are explained using VisualCAD/CAM, RhinoCAM and VisualCAM for SOLIDWORKS! These procedures can also be applied to AlibreCAM. Refer to the topic links listed below.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



[Click here to watch the full video.](#)

Industry: Tool & Die, Production

### In-Video Topic Links

[About Part Geometry](#)

[The Turn Coordinate System](#)

[Part Orientation \(1st. Quadrant\)](#)

[Define Part from 2D Curves  
\(VisualCAD/CAM\)](#)

[Define Part from 3D Surfaces  
\(RhinoCAM\)](#)

[Define Part from 3D Solids  
\(VisualCAM for SW\)](#)

[Defining a Cylinder Stock \(with  
OD & ID\)](#)

[Set Simulation Display Mode for  
Turning](#)

[Defining a Part Cylinder Stock  
\(with OD\)](#)

[Define Stock from Selection](#)

[Then Turn the Selection  
Geometry OFF](#)

[Other Stock Examples](#)

[Creating Turn Tools](#)

[Set the Program Work Zero](#)

[Turn Roughing, Front Facing](#)

[Containing the Toolpath](#)

[Turn Finishing](#)

[Containing the Toolpath  
\(Finishing verses Roughing\)](#)

[Defining the Cut Direction](#)

[More examples in RhinoCAM](#)

[Defining Avoid Regions](#)

[Honoring the Tool's Relief Angle](#)

[Set Tool to OD Backward for Back  
Facing and Turning](#)

[ID Turning \(Inside Diameter\)](#)

[Pre-Drilling ID Holes](#)

[ID Roughing with Tool set to ID  
Forward](#)

[ID Finishing](#)

[Groove Roughing](#)

[Groove Finishing](#)

[Turn Machining Information](#)

[Set Output to Diameter Mode &  
Post](#)

[Post Diameter Mode](#)

[Work flow in VisualCAM for SW](#)

## MESH Module

### 15.1 MESH Quick Start

#### Video Description

---

Get a quick start with the TURN Module by watching this video. Learn how to setup a part for turning, perform TURN Roughing and TURN Finishing operations, create a setup sheet and post G-Code. See the video links below!

Industry: Prototyping

VisualCAD/CAM

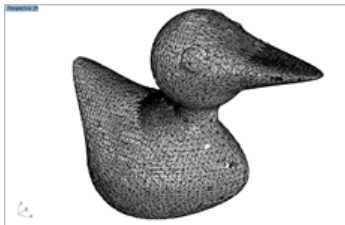


RhinoCAM



#### Parts Illustrated

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CAMJam #100334.stl

#### In-Video Topic Links

---

[VisualCAD/CAM 2022 MESH Module Quick Start](#)

[RhinoCAM 2022 MESH Module Quick Start](#)

### 15.2 Mesh Modeling (#126)

#### Video Description

---

In this short video we discuss the MESH Module user interface as well as using the AutoFix and Diagnose commands. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Prototyping

VisualCAD/CAM



RhinoCAM



#### In-Video Topic Links

---

[Load the MESH Module](#)

[Delete Faces & Auto Fix](#)

[Smooth Locally](#)

[Review the Mesh Model](#)[Undo/Redo](#)[Mesh Modeling Commands](#)[Mesh Objectives](#)[Remesh for Uniformity](#)[Manual Hole Fix](#)[Analyze the Mesh](#)[Offset/Sheet the mesh](#)[3D Printer Controls](#)[Inspect & Modify Tab](#)[Manipulate Mesh](#)[Support Generation](#)[Smooth Mesh at Location  
\(Localized\)](#)[Model NURBs in Rhino and  
Merge with the MESH](#)

## 15.3 Machining Mesh Geometry (#096)

### Video Description

---

In this video we discuss all things MESH! Using the MESH Module, editing meshes, and machining mesh geometry in 2, 3, 4 and 5 Axis. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Various

VisualCAD/CAM



RhinoCAM



### In-Video Topic Links

---

About Mesh Geometry

[Reduce \(Decimate \) a Mesh](#)[2-1/2 Axis Mesh Machining](#)[3D Mesh Applications](#)[Using Remesh](#)[Changing The Part Units](#)[Mesh File Formats](#)[Using Smooth on a Mesh](#)[Orient Part for Machining](#)[Create a Mesh from Point Data](#)[Editing an Area of the Mesh](#)[Creating Curve Boundaries](#)

Mesh Editing

[Mesh Reduction in Rhino  
verses MESH](#)[Pocketing](#)[Diagnose Mesh Geometry](#)[3 Axis Machining Meshes](#)[Using AutoFix](#)[How to Offset a Mesh](#)[4 Axis Machining a Mesh](#)[Using Mesh Boolean](#)[5 Axis Machining a Mesh](#)[Operations](#)

## 15.4 Using RhinoCAM Mesh (#111)

### Video Description

---

In this video we discuss the RhinoCAM MESH module using various tools in both Rhino and RhinoCAM MESH to work with meshes. Refer to the topic links listed below.

[Click here to watch the full video.](#)

VisualCAD/CAM



RhinoCAM



Industry: Various

### **In-Video Topic Links**

---

[The MESH Module Interface](#)

[MILL Module, Align Set WCS](#)

[Convert Solid to Mesh](#)

[Changing the Units](#)

[Split Mesh on Plane](#)

[Slice Mesh Non-Planar](#)

[Import another Mesh](#)

[Union Separate Meshes](#)

[Cap an Open Mesh](#)

[Position Inserts](#)

[Subtract Meshes](#)

## NEST Module

### 16.1 True Shape Nesting Quick Start

#### Video Description

---

Get a quick start with the NEST Module by watching this video. You will learn how to perform True Shape Nesting. See the video links below!

Industry: Metal Fab

VisualCAD/CAM



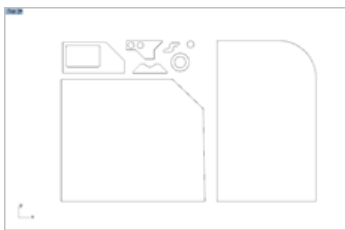
RhinoCAM



#### Parts Illustrated

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The following [archive files](#)<sup>148</sup> are illustrated in this video.



CAMJam #100357.dwg

#### In-Video Topic Links

---

[VisualCAD/CAM 2022 True Shape Nesting Quick Start](#)

[RhinoCAM 2022 True Shape Nesting Quick Start](#)

### 16.2 Rectangular Nesting Quick Start

#### Video Description

---

Get a quick start with the NEST Module by watching this video. You will learn how to perform Rectangular Nesting. See the video links below!

Industry: Metal Fab

VisualCAD/CAM



RhinoCAM



#### In-Video Topic Links

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[VisualCAD/CAM 2022 Rectangular Nesting Quick Start](#)

[RhinoCAM 2022 Rectangular Nesting Quick Start](#)

## 16.3 2 Axis Machining & Nesting (#084)

### Video Description

In this video we discuss 2½ Axis machining techniques using a Rhino assembly. Part setup, Drilling and Profiling are covered as well as Nesting, Explode Cabinet Design, and Milling from nested components. Refer to the topic links listed below.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



[Click here to watch the full video.](#)

Industry: Woodworking

### In-Video Topic Links

[Organizing Machining Geometry Drilling](#)

[Work Flow](#)

[User Interface](#)

[Setup](#)

[Machine Definition](#)

[Post Definition](#)

[Post-Processor Generator](#)

[Geometry Orientation](#)

[Stock Definition](#)

[Stock Alignment](#)

[Optional Work Zero](#)

[Drilling Parameters](#)

[Simulate](#)

[Profiling](#)

[Adding more Drill Points](#)

[Profiling from Copy](#)

[Saving CAM Data](#)

[Posting G-Code](#)

[Geometry Changes](#)

[Post Editing](#)

[Save to KB](#)

[NEST](#)

[MILL Nested Parts](#)

[Load KB](#)

[Set KB Rules](#)

[Save KB](#)

[Load KB](#)

[Regenerate Tool Paths](#)

[Changing Tools](#)

[Explode Cabinet Design](#)

[Nest Cabinet Components](#)

## 16.4 2 Axis Machining & Nesting (#085)

### Video Description

In this video we discuss 2½ Axis machining techniques using a SketchUp Cabinet Assembly (\*.skp). The Explode Cabinet Design utility in the MILL Module is used as well as the NEST Module. The nested components are then machined using the MILL Module. Refer to the topic links listed below.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



[Click here to watch the full video.](#)

Industry: Woodworking

### In-Video Topic Links

---

<a href="#">User Defined Tools</a>	<a href="#">MILL Nested Sheets</a>	<a href="#">Reordering Operations</a>
<a href="#">Explode Cabinet Design</a>	<a href="#">Machine Setup</a>	<a href="#">Post G-Code</a>
<a href="#">Rectangular Nest Cabinet Layout</a>	<a href="#">Stock Definition</a>	<a href="#">Save KB</a>
<a href="#">Define your Stock Sheet</a>	<a href="#">2 Axis Pocketing</a>	<a href="#">Align Set WCS</a>
<a href="#">Define the Parts to Nest</a>	<a href="#">Drilling</a>	<a href="#">Load KB</a>
<a href="#">Define Nesting Parameters</a>	<a href="#">Profiling the Dados</a>	<a href="#">Assign Control Geometry</a>
<a href="#">Estimate Number of Sheets Needed</a>	<a href="#">Profile Part Perimeters</a>	<a href="#">Define KB Rules</a>
<a href="#">Execute &amp; Preview the Nest</a>	<a href="#">Verification</a>	<a href="#">Save KB with Rules</a>
<a href="#">Commit the Nest</a>	<a href="#">Tooling Information</a>	<a href="#">Load Sheet 3</a>
		<a href="#">Generate Toolpaths</a>

## 16.5 Nesting & Machining in RhinoCAM (#128)

### Video Description

---

In this video we discuss preparing geometry for nesting, using the RhinoCAM-NEST module to create nested sheets and then also performing 2½ Axis machining operations on the nested sheets. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Woodworking

VisualCAD/CAM	<input type="checkbox"/>	RhinoCAM	<input checked="" type="checkbox"/>
VC/SolidWorks	<input type="checkbox"/>	AlibreCAM	<input type="checkbox"/>

### In-Video Topic Links

---

<a href="#">Prep for Nesting</a>	<a href="#">Execute Nest</a>	<a href="#">Estimate Machining Time</a>
<a href="#">Draw Sheet Rectangle</a>	<a href="#">Commit Nest</a>	<a href="#">Post Process</a>
<a href="#">True Shape Nesting</a>	<a href="#">Switch to the MILL Module</a>	<a href="#">Save as Knowledge Base</a>
<a href="#">Select Sheets</a>	<a href="#">Create a Tool</a>	<a href="#">Open Sheet 2</a>
<a href="#">Parts to be Nested</a>	<a href="#">2 Axis Profiling</a>	<a href="#">Load Knowledge Base</a>
<a href="#">Use for Sign Making &amp; Engraving</a>	<a href="#">Cut Material Simulation</a>	<a href="#">CAM Sheet 3</a>

[Specify Nesting Parameters](#)[2 Axis Engraving](#)[CAM all Sheets in one File](#)[Estimate # of Sheets](#)[Cut Material Simulation](#)

## ART Module

### 17.1 ART Quick Start

#### Video Description

---

Get a quick start with the ART Module by watching this video. You will learn how to setup a project workspace, create 3D reliefs from bitmap image files. See the video links below!

Industry: Woodworking

VisualCAD/CAM



RhinoCAM



#### Parts Illustrated

---

The following [archive files](#)<sup>D148</sup> are illustrated in this video.



CAMJam #100336.dwg



CAMJam #100359.jpg

#### In-Video Topic Links

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[RhinoCAM-ART Module 2022 Quick Start](#)

[VisualCAD/CAM 2022 ART Module Quick Start](#)

### 17.2 Using the ART Module (#075)

#### Video Description

---

In this video we discuss 4 Axis machining operations including part setup, machine setup, stock from selection, various 4 Axis toolpath strategies as well as using inverse-time feedrates. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Custom Fab

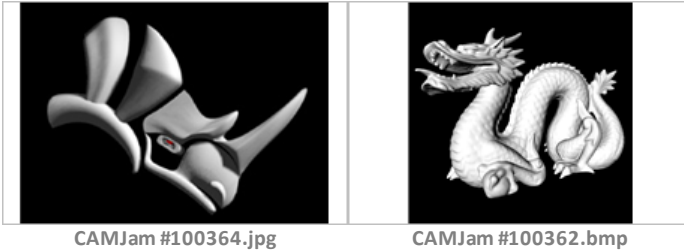
VisualCAD/CAM



RhinoCAM



#### Parts Illustrated



CAMJam #100364.jpg

CAMJam #100362.bmp

### In-Video Topic Links

[Loading the ART Module](#)

[Create a Text Relief](#)

[Mirror the Relief Mesh](#)

[The ART Module Interface](#)

[Export Reliefs to CAD](#)

[Apply a Texture to the Relief](#)

[Converting Raster to Vector](#)

[Machine Reliefs in the MILL Module](#)

[Raster to Vector Hand Sketches](#)

[Create Curves from Image](#)

[Module](#)

[Export to CAD](#)

[The Vector Operation Dialog](#)

[Relief a Bitmap Image](#)

[Using NURBS Curve to Clean up the Vectors](#)

[Export Curve Vectors to CAD](#)

[Define your Project Work Space](#)

[The Layer Manager](#)

[Creating Relief Operations](#)

[Create the Relief](#)

[Machine the Vectors in the MILL Module](#)

[Define your Project Canvas](#)

[3D Relief Dialog](#)

[Create a Puff Volume](#)

[Export the Relief to CAD](#)

## 17.3 RhinoART 3D Relief (#137)

### Video Description

In this video we discuss 3 Axis techniques for machining a 3D scanned emblem in RhinoCAM. Part setup, 2 Axis Facing, 3 Axis Roughing and Finishing including Parallel, Radial and 3D Offset Pocketing. Bonus section on RhinoART!

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



[Click here to watch the full video.](#)

Industry: Prototyping

### In-Video Topic Links

[Opening a Mesh Model](#)

[Offset the Curve for Containment](#)

[3 Axis Horizontal Finishing](#)

[Verifying Part Dimensions](#)

[RhinoART](#)

[Part Setup Work flow](#)

[Revised the Horizontal Roughing Operation](#)

[Project Setup](#)

---

[2 Axis Facing](#)

[3 Axis Horizontal Roughing](#)

[Create a Silhouette Curve](#)

[Another Facing Operation](#)

[3 Axis Parallel Finishing](#)

[3 Axis Radial Machining](#)

[3 Axis 3D Offset Pocketing](#)

[3D Relief Operation](#)

[Mill the RhinoART Mesh](#)

[Raster to Vector Conversion](#)

## G-Code Editor Module

### 18.1 G-Code Editor Quick Start

#### Video Description

Watch this in-depth video tutorial on getting started using the new G-CODE Editor module included free to all annual maintenance subscribers! G-Code Editing, Tool Motion Simulation, In-Process Cut Material Simulation and more!

Industry: Misc.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



#### In-Video Topic Links

See full video links below:



[VisualCAD/CAM 2022: G-CODE Editor Quick Start](#)



[RhinoCAM 2022: G-CODE Editor](#)



[VisualCAM 2022 for SOLIDWORKS: G-CODE Editor Quick Start for AlibreCAM 2020](#)



[G-Code Editor Quick](#)

### 18.2 Fundamentals (#120)

#### Video Description

In this video we discuss the fundamentals of using the G-Code Editor module. This video applies to all platforms. Refer to the in-video links listed below.

[Click here to watch the full video.](#)

Industries: ALL

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



#### In-Video Topic Links

[What's a G-Code Editor?](#)

[Defining a Tool Crib](#)

[G-Code Editing](#)

[Typical Work flow](#)

[Simulated Tool Motions from the G-Code](#)

[XY Instancing](#)

[What the G-Code Editor Does](#)

[Analyzing the G-Code](#)

[Editing 3 Axis G-Code](#)

[Loading a G-Code File](#)

[Output the G-Code](#)

[Searching the G-Code](#)

[Define a Stock](#)

[Editing Multiple G-Code Files](#)

[Z Instancing G-Code](#)

[Tool Changes](#)

[Merging G-Code Files](#)

[G-Code Editor Preferences](#)

[Loading a Tool Library](#)

[Current 2020 Limitations](#)

## Profile-NEST Module

### 19.1 Profile-NEST Quick Start

#### Video Description

---

Watch this full length tutorial to learn how to get a quick start using the NEW Profile-NEST module included with AlibreCAM 2020! Part & Sheet Setup, 2-1/2 Axis Profiling, Nested Sheet Parameters, Posting Nesting Sheets and More!

Industry: Misc.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



#### In-Video Topic Links

---

See full video links below:

[VisualCAD/CAM 2022 Profile-NEST Quick Start](#)

[RhinoCAM 2022 Profile-NEST Quick Start](#)

[Profile-NEST Quick Start for VisualCAM 2022 for SOLIDWORKS AlibreCAM 2020](#)

[G-Code Editor Quick Start for](#)

### 19.2 Fundamentals (#121)

#### Video Description

---

In this video we discuss the fundamentals of using the Profile-NEST module. This video applies to all platforms. Refer to the in-video links listed below.

[Click here to watch the full video.](#)

Industries: ALL

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



#### In-Video Topic Links

---

[What is Parts-Nesting](#)

[Feeds & Speeds](#)

[Post Processing](#)

[What is Profile-Nesting](#)

[Clearance Plane](#)

[Nesting Reports](#)

[User Interface](#)

[Cutting parameters](#)

[More Revisions](#)

[Typical Work flow](#)

[Cut Levels](#)

[More Profiling Options](#)

[Define your Sheet](#)

[Entry/Exit](#)

[Using Different Tools](#)

[Define your Stock](#)

[Nesting Parameters](#)

[in VisualCAM for SOLIDWORKS](#)

[Define a Work Zero](#)

[Copy/Paste Operations](#)

[Sort Nest by Operations](#)

[Create Profiling Operations](#)

[Define Nesting Parameters](#)

[Priority for Nesting](#)

[Control Geometry](#)

[Review Nested Sheet](#)

[Part Grain Direction](#)

[Define a Tool](#)

[Making Revisions](#)

## Industries

Enter topic text here.

### 20.1 Mold & Die

#### 20.1.1 Introduction

##### Video Description

---

Watch this video for an introduction to 3 Axis Machining. You will learn how to use the 3 Axis tool paths Horizontal Roughing, Parallel Finishing and Radial Machining, and much more. See the video links below!

Industry: Tool & Die

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



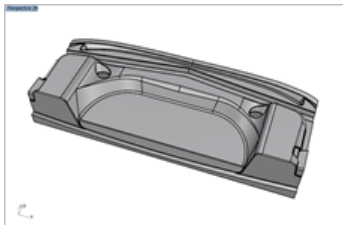
AlibreCAM



##### Parts Illustrated

---

The following [archive files](#)<sup>148</sup> are illustrated in this video.



CAMJam #100260.stp

##### In-Video Topic Links

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[VisualCAD/CAM 2022: Introduction to 3 Axis Machining](#)

[RhinoCAM 2022: Introduction to 3 Axis Machining](#)

[VisualCAM 2022 for SOLIDWORKS, 3 Axis Quick Start](#)

[AlibreCAM 3 Axis Introduction](#)

#### 20.1.2 3 Axis Basics (#176)

##### Video Description

---

Watch this video for an introduction to 3 Axis machining basics including discussions on Part Orientation, 3 Axis Part Models, Basic

VisualCAD/CAM



RhinoCAM



3 Axis Methods, Feedrates and more.  
Companion Guides Available.

VC/SolidWorks



AlibreCAM

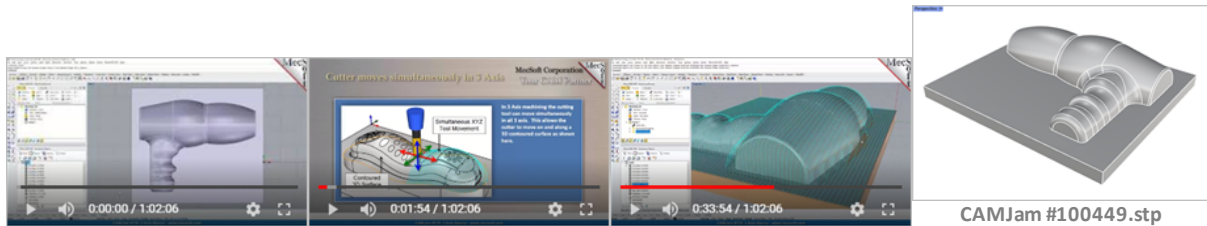


[Click here to watch the full video.](#)

Industry: Mold Design

## Parts Illustrated

The following 2D part is illustrated in this video. [Download the source files with CAM Mops here.](#)



## In-Video Topic Links

[What is 3 Axis Machining](#)

[What is 3 Axis Roughing](#)

[Feeds & Speeds](#)

[Part Orientation](#)

[3 Axis Pre-Finishing](#)

[Post selection](#)

[The 3 Axis Setup](#)

[Using Machining Regions](#)

[Feedrate Reduction Factors](#)

[3 Axis Machining Work flow](#)

[What is Horizontal Finishing](#)

[The G-Code Editor](#)

[3 Axis Part Models](#)

[Post Processing](#)

## 20.1.3 3 Axis Advanced (#177)

### Video Description

Watch this video for an advanced course on 3 Axis machining. Many of the advanced methods are discussed in detail such as Constant Scallop Machining, Pencil Tracing, Flats and Plateau Machining and more.

Companion Guide Available.

[Click here to watch the full video.](#)

Industry: Mold & Die

Visual CAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



## In-Video Topic Links

[What is 3 Axis Horizontal Re-Roughing?](#)

[What is 3 Axis Clear Flats Machining?](#)

[Review Basic 3 Axis Finishing Methods](#)

[What is 3 Axis Radial Machining?](#)

[What is Spiral Machining?](#)

[Constant Scallop Machining](#)

[Constant 3D Stepmover Pocketing](#)

[What is 3D Offset Pocket?](#)

[What is Pencil Tracing](#)

[What is Valley Re-machining?](#)

[3 Axis Mold Examples](#)

[Machining Bi-Tangent Fillets](#)

[When to use 3 Axis Curve Machining](#)

[Cut Material Simulation Video](#)

[What is Between Curves Machining?](#)

[Set Curve Direction and Start Point](#)

[More Examples](#)

[Using Masking Surfaces](#)

[What is Flat Plateau Machining?](#)

[Using Surface Extent Conditions](#)

## 20.1.4 3 Axis Power User Topics (#178)

### Video Description

Watch this video to learn more advanced 3 Axis machining tasks for the power user! Tolerances are covered in greater detail as well as Contain Strategies, Optimized strategies, Step Minimization, Using Default Parameters & Knowledge Bases and much more!

[Click here to watch the full video.](#)

Industry: Woodworking, Mold & Die

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

[The Role of Tolerances in Machining](#)

[Tolerances in Horizontal Roughing](#)

[Arc Fitting Preferences](#)

[The effect of steep and flat areas](#)

[3 Axis Containment Strategies](#)

[Advanced Stock Creation Methods](#)

[Step Minimization in Horizontal Roughing](#)

[Optimized XY Machining in HFinishing](#)

[Step Minimization Continued](#)

[Using Start Points in H Roughing](#)

[Using Default Parameters](#)

[Using the Toolpath Editor](#)

## 20.1.5 Mold Machining (#211-#216)

### Video Description

In these video presentations you will learn how MecSoft

VisualCAD/CAM

RhinoCAM

CAM plugins are used in various mold and die applications.

Industry: Mold & Die

[Watch the full 1-hour video here.](#)



### In-Video Topic Links

[CAMJam Short #216: MecSoft CAM Tips & Techniques for Mold Inserts](#)

[CAMJam Short #213: Short Discussion on Thermoform Molds](#)

[CAMJam Short #215: Discussion on Injection Mold Inserts with MecSoft CAM Plugins](#)

[CAMJam Short #212: Short Mold Machining Presentation](#)

[CAMJam Short #214: Machining Cast Molds with MecSoft CAM Plugins](#)

[CAMJam Short #211: Advanced 3 Axis Methods for Mold Cores & Cavities](#)

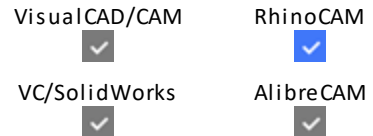
## 20.1.6 Mold Parting Line Machining (#099)

### Video Description

Watch this very informative video to learn the techniques to machine mold cavity inserts using MecSoft's CAM plug-ins! RhinoCAM is used as the example platform. Techniques for accurately machining 3 Axis parting lines and parting surfaces is covered extensively.

[Click here to watch the full video.](#)

Industry: Tool & Die



### In-Video Topic Links

Mold Machining Techniques

[Roughing Strategies](#)

[Cavity Pre-Finishing](#)

[Machining Parting Lines](#)

[Pre-Finishing Strategies](#)

[Cavity Finishing](#)

[Using Guide Surfaces](#)

[Cavity Roughing](#)

[Mold Strategy Knowledge](#)

[Using Surface Boundary Conditions](#)

[Mold Parting Surface Finishing](#)

[Base](#)

## 20.2 Musical Instruments

### 20.2.1 2 Axis Machining from a 2D DXF File

#### Video Description

Watch this video for an introduction to 2 Axis machining from a 2D DXF drawing including Curve Editing in Rhino, Pocketing, Profiling, Bridges & Tabs, Drilling, 2-Sided Machining and some 3 Axis toolpaths. With user questions!

[Click here to watch the full video.](#)

Industry: Music

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

---

[Open the DXF File](#)

[2 Axis Pocketing](#)

[3 Axis Horizontal Roughing](#)

[Review the 2D Drawing](#)

[Drilling](#)

[3 Axis Parallel Finishing](#)

[Orient the Drawing](#)

[More 2 Axis Pocketing](#)

[2 Axis Profiling](#)

[Machine Setup](#)

[Copy/Paste/Edit Operations](#)

[Add Bridge Points to a Pre-Defined Regions](#)

[Stock Definition & Alignment](#)

[Curve Editing](#)

[Use Bridge Points in 2 Axis Profiling](#)

[Create Cutting Tools](#)

[Curve/Surface Modeling](#)

[2-Sided Machining](#)

## 20.2.2 3 Axis Power User Topics (#178)

### Video Description

---

Watch this video to learn more advanced 3 Axis machining tasks for the power user! Tolerances are covered in greater detail as well as Contain Strategies, Optimized strategies, Step Minimization, Using Default Parameters & Knowledge Bases and much more!

[Click here to watch the full video.](#)

Industry: Woodworking, Mold & Die

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

---

[The Role of Tolerances in Machining](#)

[3 Axis Containment Strategies](#)

[Step Minimization Continued](#)

[Tolerances in Horizontal Roughing](#)

[Advanced Stock Creation Methods](#)

[Using Start Points in H Roughing](#)

[Arc Fitting Preferences](#)

[Step Minimization in Horizontal Roughing](#)

[Using Default Parameters](#)

[Using the Toolpath Editor](#)

[The effect of steep and flat areas](#)

[Optimized XY Machining in HFinishing](#)

### 20.2.3 Musical, 2/3 Axis (#071)

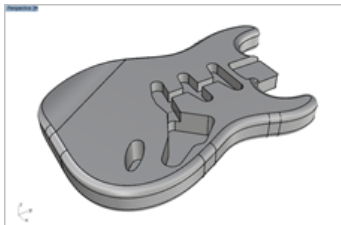
#### Video Description

In this video we discuss 2½ Axis & 3 Axis Machining techniques using a guitar body design as an example. How to setup the part as well as 2½ Axis Pocketing are explored in detail. 3 Axis Horizontal Roughing and 3 Axis Parallel Finishing is also covered. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Woodworking

The following [archive files](#)<sup>D148</sup> are illustrated in this video.



CAMJam #100270.stp

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



#### In-Video Topic Links

[Machine Definition](#)

[2 Axis Pocketing](#)

[Using Fractions in Dialogs](#)

[Post Definition](#)

[Pocketing Cut Parameters](#)

[3 Axis Horizontal Roughing](#)

[Align Stock with Part](#)

[Pocketing Cut Levels](#)

[3 Axis Parallel Finishing](#)

[Create a Work Zero](#)

[Pocketing Entry/Exit](#)

[Posting Toolpaths](#)

[Set Material Definition](#)

[Z Level Display Dialog](#)

### 20.2.4 Musical, 2/3 Axis (#130)

#### Video Description

In this video we discuss 2½ Axis & 3 Axis Machining techniques using a guitar body design as an example. How to setup the part as well as 2½ Axis Pocketing are explored in

VisualCAD/CAM



RhinoCAM



detail. 3 Axis Horizontal Roughing and 3 Axis Parallel Finishing is also covered. Refer to the topic links listed below.

VC/SolidWorks



AlibreCAM



[Click here to watch the full video.](#)

Industry: Woodworking

### In-Video Topic Links

---

[Part Setup for Side A](#)

[3 Axis Parallel Finishing](#)

[3 Axis 3D Offset Pocketing](#)

[Cutting Tools](#)

[2 Axis Pocketing](#)

[2 Axis Profiling](#)

[3 Axis Roughing](#)

[Indexed Setup for Side B](#)

[Bridges & Tabs](#)

[Containment Geometry](#)

## 20.2.5 Instrumental Presentations

### Video Description

---

In these video presentations you will learn how MecSoft CAM plugins are used in various music instrument applications.

VisualCAD/CAM



RhinoCAM



Industry: Music Instruments

VC/SolidWorks



## 20.3 Cabinetry

### 20.3.1 Cabinet Assembly Machining (#131)

#### Video Description

---

In this video we discuss 2½ Axis machining techniques using a Cabinet Assembly in Rhino. The Explode Cabinet Design utility in the MILL Module is used as well as the NEST Module. The nested components are then machined using the MILL Module. Refer to the topic links listed below.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



[Click here to watch the full video.](#)

Industry: Woodworking

### In-Video Topic Links

---

<a href="#">Explode Cabinet Design Utility</a>	<a href="#">Define Parts to Nest</a>	<a href="#">2 Axis Profiling</a>
<a href="#">Nest into a Sheet</a>	<a href="#">Choose Nesting Parameters</a>	<a href="#">Estimate Machining Time</a>
<a href="#">True Shape Nest</a>	<a href="#">Milling the Sheet</a>	<a href="#">Post Process</a>
<a href="#">Define the Sheets</a>	<a href="#">Part Sheet Setup</a>	

## 20.3.2 Woodworking & Nesting (#084)

### Video Description

---

In this video we discuss 2½ Axis machining techniques using a Rhino assembly. Part setup, Drilling and Profiling are covered as well as Nesting, Explode Cabinet Design, and Milling from nested components. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Woodworking

VisualCAD/CAM



VC/SolidWorks



RhinoCAM



AlibreCAM



### In-Video Topic Links

---

<a href="#">Organizing Machining Geometry</a>	<a href="#">Drilling</a>	<a href="#">NEST</a>
<a href="#">Work Flow</a>	<a href="#">Drilling Parameters</a>	<a href="#">MILL Nested Parts</a>
<a href="#">User Interface</a>	<a href="#">Simulate</a>	<a href="#">Load KB</a>
<a href="#">Setup</a>	<a href="#">Profiling</a>	<a href="#">Set KB Rules</a>
<a href="#">Machine Definition</a>	<a href="#">Adding more Drill Points</a>	<a href="#">Save KB</a>
<a href="#">Post Definition</a>	<a href="#">Profiling from Copy</a>	<a href="#">Load KB</a>
<a href="#">Post-Processor Generator</a>	<a href="#">Saving CAM Data</a>	<a href="#">Regenerate Tool Paths</a>
<a href="#">Geometry Orientation</a>	<a href="#">Posting G-Code</a>	<a href="#">Changing Tools</a>
<a href="#">Stock Definition</a>	<a href="#">Geometry Changes</a>	<a href="#">Explode Cabinet Design</a>
<a href="#">Stock Alignment</a>	<a href="#">Post Editing</a>	<a href="#">Nest Cabinet Components</a>
<a href="#">Optional Work Zero</a>	<a href="#">Save to KB</a>	

## 20.3.3 Woodworking (#086)

### Video Description

---

In this video we discuss Indexed 5 Axis Machining using a 90 degree Aggregate Head. The 5 Axis Machining Definition is explored as well as the Setup work flow and indexed Pocketing. Refer to the topic links listed below.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



[Click here to watch the full video.](#)

Industry: Woodworking

### In-Video Topic Links

---

[90 Degree Aggregate Head](#)

[Work Flow](#)

[Pocketing](#)

[Indexed 5 Axis Machine Definition](#)

[Define a New Setup](#)

[Post w/C Axis Output](#)

## 20.3.4 Explode/Nest/Mill Cabinet Design (#139)

### Video Description

---

Here is another great tutorial on machining a cabinet design in RhinoCAM. The following steps are: Load the cabinet design assembly, run the Explode Cabinet Design utility, Run RhinoCAM-NEST to create the nest sheets, run RhinoCAM-MILL to generate the g-code.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



[Click here to watch the full video.](#)

Industry: Woodworking

### In-Video Topic Links

---

[Explode Cabinet Design Utility](#)

[RhinoCAM-NEST](#)

[RhinoCAM-MILL](#)

## 20.3.5 Multi-Sheet Machining (#098)

### Video Description

---

In this video we discuss all things MESH! Using the MESH Module, editing meshes, and machining mesh geometry in 2, 3, 4 and 5 Axis. Refer to the topic links listed below.

VisualCAD/CAM



RhinoCAM



[Click here to watch the full video.](#)

Industry: Various

### In-Video Topic Links

---

[Program 1st Sheet](#)

[Posting a Sheet](#)

[Add a Work Zero for each Sheet](#)

[Suppressing a Sheet](#)

[2 Axis Profiling](#)

[Using Knowledge Bases](#)

[Program 2nd Sheet](#)

[Assigning KB Rules](#)

## 20.3.6 Nesting & Machining in RhinoCAM (#128)

### Video Description

---

In this video we discuss preparing geometry for nesting, using the RhinoCAM-NEST module to create nested sheets and then also performing 2½ Axis machining operations on the nested sheets. Refer to the topic links listed below.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



[Click here to watch the full video.](#)

Industry: Woodworking

### In-Video Topic Links

---

[Prep for Nesting](#)

[Execute Nest](#)

[Estimate Machining Time](#)

[Draw Sheet Rectangle](#)

[Commit Nest](#)

[Post Process](#)

[True Shape Nesting](#)

[Switch to the MILL Module](#)

[Save as Knowledge Base](#)

[Select Sheets](#)

[Create a Tool](#)

[Open Sheet 2](#)

[Parts to be Nested](#)

[2 Axis Profiling](#)

[Load Knowledge Base](#)

[Use for Sign Making & Engraving](#)

[Cut Material Simulation](#)

[CAM Sheet 3](#)

[Specify Nesting Parameters](#)

[2 Axis Engraving](#)

[CAM all Sheets in one File](#)

[Estimate # of Sheets](#)

[Cut Material Simulation](#)

## 20.4 Marine

Enter topic text here.

## 20.4.1 Marine Presentations

### Video Description

---

In these video presentations you will learn how MecSoft CAM plugins are used in various marine applications.

Industry: Marine

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



## More Learning Options

### 21.1 MecSoft Tech Blog

Here is a list of tutorial blog posts from the MecSoft Tech Blog:

- [MecSoft's Advanced 3 Axis Methods for Mold Cores & Cavities](#)
- [Machining Mother-of-Pearl Inlays](#)
- [Tutorial: Using MecSoft's G-Code Editor \(Part 2\)](#)
- [Tutorial: Using MecSoft's Profile-NEST](#)
- [Tutorial: Using MecSoft's G-Code Editor \(Part 1\)](#)
- [Tutorial: How to Automate Onshape Configurations using VisualCAMc](#)
- [Machining the 6-Sided Elevator Bearing Block](#)
- [Knowledge Base Automation in VisualCAMc for Onshape](#)
- [Cutting Thermoform Molds with RhinoCAM](#)
- [Hole Machining in 2 & 3 Axis CAM Part 4: Output Control](#)
- [Hole Machining in 2 & 3 Axis CAM Part 3: Automation](#)
- [Hole Machining in 2 & 3 Axis CAM Part 2: Cutting Parameters](#)
- [Hole Machining in 2 & 3 Axis CAM Part 1: Geometry Selections](#)
- [How to Control the Cut Side and Start Point?](#)
- [Machining a Thermoplastic Heater Block in 2½ Axis using VisualMILL](#)
- [Machining a Mold's Parting Lines](#)
- [XY Instancing of Toolpaths in AlibreCAM](#)
- [Machining Accuracy with AlibreCAM at Granberg International](#)
- [How to Detect & Correct Tool Holder Collisions in MecSoft CAM!](#)
- [Thermoformed Packaging Molds at The Warren Group](#)
- [Automatic Feature-Machining \(AFM\) Walk Through](#)
- [Automatic Feature Detection \(AFD\) Walk-Through](#)
- [Best Practices in 2½ Axis Machining](#)
- [Part Region Heights in 2-1/2 Axis Machining](#)
- [Best Practices in 3 Axis Machining](#)
- [Understanding Climb vs. Conventional Milling](#)
- [Understanding Cut Levels in 2½ Axis Machining](#)
- [How to Customize Materials Data for Feeds & Speeds Computation](#)
- [The Milling Feeds & Speeds Calculator](#)
- [2-Sided \(Flip\) Machining Explored](#)
- [Bridges & Tabs Explored](#)
- [Techniques for Machining Ring Jewelry](#)
- [Techniques for Machining Simple Pendant Jewelry](#)
- [CAM Coordinate Systems Explored](#)
- [Optimize Machining Time Estimates!](#)
- [How to Increase Tool Path Accuracy](#)
- [Using RhinoCAM's Explode Cabinet Utility at Insight Exhibits, LLC](#)
- [What is Surface Feature Machining?](#)
- [The Trinket Box by Bernie Solo. Base – Part 2 of 2](#)
- [What is Feature Detection Machining](#)

- [How to Edit Your Onshape Parts Associatively With VisualCAMc](#)
- [The Trinket Box by Bernie Solo. Lid – Part 1 of 2](#)
- [Feed Rates Explained – Extend the Life of Your CNC Tools and Machines](#)
- [The Anatomy of a RhinoCAM Part](#)

## 21.2 Customer Success Videos

Learn how other users are being successful with their MecSoft CAM plug-ins. These are short 10 minute videos ([Full list is located here](#)) that are tutorial in nature by taking a project and explaining its approach and machining strategies in detail. These MecSoft CAM users are so happy with their software they have agreed to share their success stories with you! Want to be on this list? [Contact us today!](#)

## 21.3 Case Study Learning

Learn by example! Visit <https://mecsoft.com/casestudies/> and read how other users are achieving success with their MecSoft CAM plug-in. These case studies are tutorial in nature by taking a project and explaining the approach and machining strategies in detail that make this these successful!

Want to be on this list? [Contact us today!](#)

## 21.4 CAMJam Video Shorts

Here is a list of short CAMJam videos (under 15-20 minutes each).

- [CAMJam Short #183: Coordinate Systems in Indexed Machining](#)
- [CAMJam Short #185: Short Primer on 3 Axis Fixture Offset Programming](#)
- [CAMJam Short #186: Primer on 4 Axis Indexed \(Flip\) Machining](#)
- [CAMJam Short #187: Primer on 4 Axis Rotary Instance Machining](#)
- [CAMJam Short #189: Primer on 5 Axis Indexed \(Tombstone\) Machining](#)
- [CAMJam Short #195: Primer on 5 Axis Gouge Checking](#)
- [CAMJam Short #191: 5 Axis Machining Presentation](#)
- [CAMJam Short #192: Primer on 5 Axis Machine Coordinates](#)
- [CAMJam Short #194: Primer on 5 Axis Control Geometry](#)
- [CAMJam Short #197: How to Load a Machine Tool Definition in MecSoft CAM](#)
- [CAMJam Short 198: Primer: 5 Axis Mesh Machining with MecSoft CAM](#)
- [CAMJam Short #202: How to Model Masking Surfaces in VisualCAD/CAM](#)
- [CAMJam Short #203: Inclined radial slots with James Thompson Marine Carpentry](#)

- [CAMJam Short #206: Counter Sunk Holes using Only an Endmill with RhinoCAM at JTMC](#)
- [CAMJam Short #210: How to Orient a Part in VisualCADCAM](#)
- [CAMJam Short #211: Advanced 3 Axis Methods for Mold Cores & Cavities](#)
- [CAMJam Short #212: Short Mold Machining Presentation](#)
- [CAMJam Short #213: Short Discussion on Thermoform Molds](#)
- [CAMJam Short #214: Machining Cast Molds with MecSoft CAM Plugins](#)
- [CAMJam Short #215: Discussion on Injection Mold Inserts with MecSoft CAM Plugins](#)
- [CAMJam Short #216: MecSoft CAM Tips & Techniques for Mold Inserts](#)
- [CAMJam Short #217: CAM System Hardware Performance Tips](#)
- [CAMJam Short #218: CAM Toolpath Generation Performance](#)
- [CAMJam Short #219: CAM Toolpath Simulation Performance Tips](#)
- [CAMJam Short #220: 2 Axis Aggregate Head Machining](#)
- [CAMJam Short #221: 2 Axis Aggregate Disk Machining](#)
- [CAMJam Short #222: Multi-Drill Head \(Drill Block\) Machining](#)
- [CAMJam Short #223: 2 Axis Knife Machining](#)
- [CAMJam Short #224: Using Machine Control Cycles](#)
- [CAMJam Short #225: Using the Programmable Post](#)

## Learn from Prior Versions

### 22.1 VisualCAD/CAM (#064)

#### Video Description

In this video we discuss all of the new features in VisualCAD/CAM 2018 and RhinoCAM 2018. Refer to the topic links listed below.

[Click here to watch the full video.](#)

VisualCAD/CAM



RhinoCAM



VC/SolidWorks

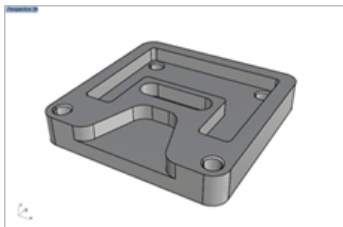


AlibreCAM

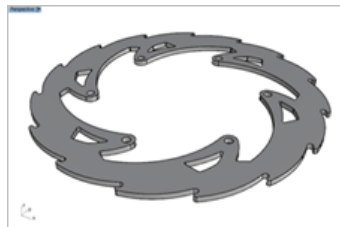


#### Parts Illustrated

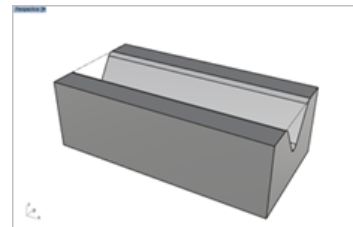
The following [archive files](#)<sup>D148</sup> are illustrated in this video.



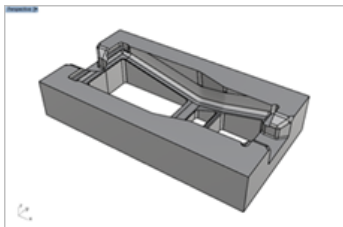
CAMJam #100253.stp



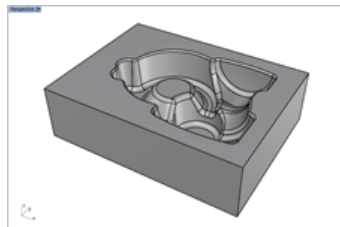
CAMJam #100252.stp



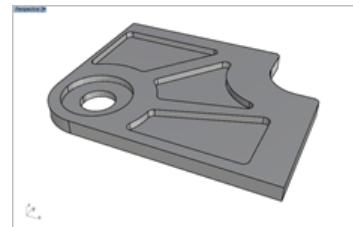
CAMJam #100251.stp



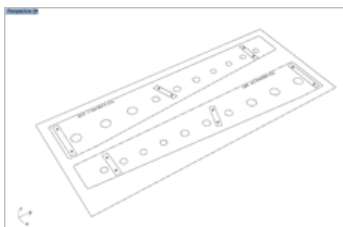
CAMJam #100255.stp



CAMJam #100256.stp



CAMJam #100370.stp



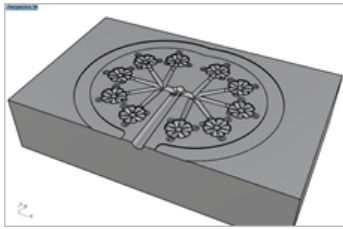
CAMJam #100285.dwg



CAMJam #100267.stp



CAMJam #100334.dwg



CAMJam #100266.stp

## In-Video Topic Links

<a href="#">Feature Based Machining</a>	<a href="#">Toggle Hidden Toolpath Display</a>	<a href="#">4 Axis Enhancements</a>
<a href="#">Automatic Feature Detection (AFD)</a>	<a href="#">2 Axis Enhancements</a>	<a href="#">4 Axis Round Machining</a>
<a href="#">Automatic Feature Machining (AFM)</a>	<a href="#">Enhancements to Chamfering</a>	<a href="#">4 Axis Helical Cut Patterns</a>
<a href="#">Interactive Feature Machining (IFM)</a>	<a href="#">Enhancements to High Speed Machining</a>	<a href="#">5 Axis Enhancements</a>
<a href="#">VisualCAD</a>	<a href="#">Enhancements to Engraving</a>	<a href="#">Lock 5 Axis to 4 Axis</a>
<a href="#">Feature Types Supported</a>	<a href="#">Enhancements to Bridges &amp; Tabs</a>	<a href="#">Tool Holder Collision Detection</a>
<a href="#">VisualCAD, Pre-selection Highlights</a>	<a href="#">Fillet Machining</a>	<a href="#">Feeds &amp; Speeds Enhancements</a>
<a href="#">VisualCAD, Ghosted Display</a>	<a href="#">3 Axis Enhancements</a>	<a href="#">Peck Tapping</a>
<a href="#">General CAM Enhancements</a>	<a href="#">Enhancements to Horizontal Roughing</a>	<a href="#">About the Mesh Module</a>
<a href="#">Surface Selection from Solids</a>	<a href="#">Enhancements to Steep Z Finishing</a>	<a href="#">Using AutoFix Mesh</a>
<a href="#">Suppress/Unsuppress Toolpath Mops</a>	<a href="#">Region Sorting</a>	<a href="#">Mesh Machining</a>

## 22.3 Music, 2/3 Axis (#071)

### Video Description

In this video we discuss 2½ Axis & 3 Axis Machining techniques using a guitar body design as an example. How to setup the part as well as 2½ Axis Pocketing are explored in detail. 3 Axis Horizontal Roughing and 3 Axis Parallel Finishing is also covered. Refer to the topic links listed below.

[Click here to watch the full video.](#)

VisualCAD/CAM



RhinoCAM



VC/SolidWorks

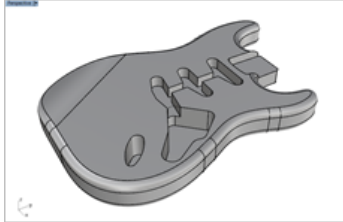


AlibreCAM



Industry: Woodworking

The following [archive files](#)<sup>D148</sup> are illustrated in this video.



CAMJam #100270.stp

### In-Video Topic Links

---

[Machine Definition](#)

[2 Axis Pocketing](#)

[Using Fractions in Dialogs](#)

[Post Definition](#)

[Pocketing Cut Parameters](#)

[3 Axis Horizontal Roughing](#)

[Align Stock with Part](#)

[Pocketing Cut Levels](#)

[3 Axis Parallel Finishing](#)

[Create a Work Zero](#)

[Pocketing Entry/Exit](#)

[Posting Toolpaths](#)

[Set Material Definition](#)

[Z Level Display Dialog](#)

## 22.4 Sheet Machining (#097)

### Video Description

---

In this video we discuss contour sheet machining using 3 Axis Horizontal Roughing, Parallel Finishing and 2 Axis Profiling. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Industrial

VisualCAD/CAM



RhinoCAM



### In-Video Topic Links

---

[RhinoCAM for Rhino 6](#)

[Create a Box Stock](#)

[Parallel Finishing](#)

[64-Bit Version](#)

[Align the Stock with the Part](#)

[2 Axis Facing](#)

[Loading the Plug-in](#)

[Locate the XYZ Zero](#)

[Knowledge Bases](#)

[The RhinoCAM Interface](#)

[Set the Material](#)

[Profiling with Bridges & Tabs](#)

[Orient the Part](#)

[Cutting Tools](#)

[Post](#)

[Analyze Part Size](#)

[3 Axis Roughing](#)

[Automate the Work flow](#)

## 22.5 Mechanical (#094)

### Video Description

In this video we explore 5 Axis machining. This video covers 5 Axis machine setup and 5 Axis posting in extended detail. This is a must-watch video if you have the Premium configuration of MecSoft CAM. Refer to the topic links listed below.

VisualCAM/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM

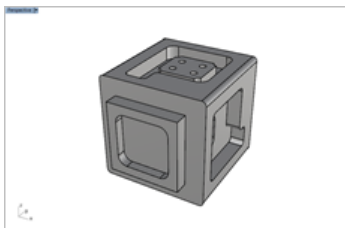


[Click here to watch the full video.](#)

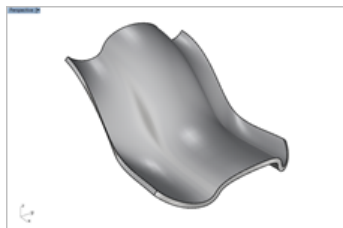
Industry: Various

### Parts Illustrated

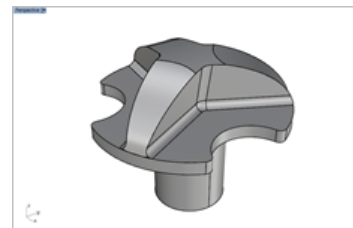
The following archive files are illustrated in this video. [See files archive](#)<sup>148</sup>.



CAMJam #100282.stp



CAMJam #100298.stp



CAMJam #100304.stp

### In-Video Topic Links

[VisualCAM Interface](#)

[3 Axis Roughing](#)

[Simultaneous 5 Axis Machining](#)

[Indexed 5 Axis Machining](#)

[Horizontal Finishing](#)

[Machine Tool Definition](#)

[Index 5 Axis Work flow](#)

[Drilling](#)

[Surface Normal Machining](#)

[Machine Tool Setup Dialog](#)

[Canned Drill Cycles as Linear Motions](#)

[5 Axis Clearance Definitions](#)

[Machine Tool Coordinate System](#)

[Add a New Setup 2 Orientation](#)

[Cut Parameters](#)

[Work Zero Dialog](#)

[Add Setup 3](#)

[Gouge Checking](#)

[Machine Tool Definition](#)

[Posting in Indexed 5 Axis](#)

[Posting in Simultaneous 5 Axis](#)

[Stock Definition](#)

## 22.6 Woodworking (#086)

### Video Description

In this video we discuss Indexed 5 Axis Machining using a 90 degree Aggregate Head. The 5 Axis Machining Definition is explored as well as the Setup work flow and indexed Pocketing. Refer to the topic links listed below.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



[Click here to watch the full video.](#)

Industry: Woodworking

### In-Video Topic Links

---

[90 Degree Aggregate Head](#)

[Work Flow](#)

[Pocketing](#)

[Indexed 5 Axis Machine Definition](#)

[Define a New Setup](#)

[Post w/C Axis Output](#)

## 22.7 Woodworking (#072)

### Video Description

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In this video we machine a table leg using a combination of both indexed 4 Axis and continuous 4 Axis toolpath strategies. Extra time is spent on part orientation and setup for 4 Axis Machining. Refer to the topic links listed below.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



[Click here to watch the full video.](#)

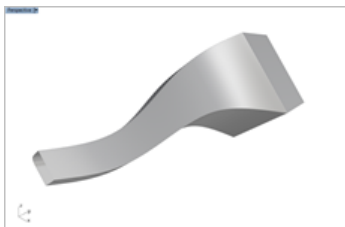
See also: [4 Axis Machining Furniture \(#105\)](#)<sup>84</sup>

Industry: Woodworking, Furniture

### Parts Illustrated

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The following [archive files](#)<sup>148</sup> are illustrated in this video.



CAMJam #100361.stl

### In-Video Topic Links

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<a href="#">4 Axis Machine Tool Definition</a>	<a href="#">Establishing the Rotary Center</a>	<a href="#">Using Axial Containment</a>
<a href="#">Select the Post Processor</a>	<a href="#">Indexed 4 Axis Operations</a>	<a href="#">Step Down Controls</a>
<a href="#">Set Post Processor for 4 Axis Output</a>	<a href="#">3 Axis Horizontal Roughing</a>	<a href="#">Machining BELOW the Rotation Center</a>
<a href="#">Orient Part for 4 Axis</a>	<a href="#">Rotate 4 Axis Table 180 Degrees</a>	<a href="#">Review Posted G-Code for 4 Axis Parallel Finishing</a>
<a href="#">Locating and using the Graphic Manipulator</a>	<a href="#">Copy/Paste Toolpath for Indexed 3 Axis Roughing</a>	<a href="#">Other 4 Axis Toolpath Methods</a>
<a href="#">Setup Orient Part Command</a>	<a href="#">Reviewing 4 Axis Rotation G-Codes</a>	<a href="#">4 Axis Drive Surface Machining</a>
<a href="#">If the Part is BELOW the Rotation Center</a>	<a href="#">Rotate 4 Axis Table Back to Zero Degrees</a>	<a href="#">4 Axis Radial Instance Machining</a>
<a href="#">Define the Stock</a>	<a href="#">4 Axis Parallel Finishing</a>	<a href="#">4 Axis Facing, Pocketing &amp; Profiling</a>
<a href="#">Transform Uniform Scale</a>	<a href="#">4 Axis Clearance Definition</a>	<a href="#">4 Axis Projection Pocketing</a>
	<a href="#">Cutting Parameters</a>	<a href="#">Other 4 Axis Toolpath Methods</a>

## 22.8 Product Design 2/3 Axis (#087)

### Video Description

In this video we program two different parts using 2½ Axis and 3 Axis Machining. Drilling, Horizontal Roughing, Horizontal Finishing and Parallel Finishing are used. There is also a discussion on Tool Libraries and the Stock Materials database. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Ship Building

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

#### Part 1, Side 1

[Orient Part](#)

[Define the Setup](#)

[Define a Box Stock](#)

[Align the Stock](#)

[Set World Coordinate System](#)

[Drilling](#)

[Tool Collisions During Simulation](#)

[Tool Collisions in the Toolpath Viewer](#)

[Containing the Toolpath](#)

[Tool Libraries](#)

[Horizontal Finishing](#)

[Post G-Code](#)

#### Part 2

[Load the Default Tool Library](#)

[Orient Part](#)

[Part Setup](#)

[Load KB](#)

[Re-use Drill Toolpath](#)

[Horizontal Finishing](#)

[Profiling](#)

[Automatically select drill points from flat area](#)

[Define a Drill Tool](#)

[Using the Feeds & Speeds Calculator](#)

[Drill Parameters](#)

[Horizontal Roughing](#)

[Roughing Parameters](#)

[Side 2 STD](#)

[Side 2 PRO](#)

[Define a Work Zero](#)

[Copy/Re-use Horizontal Roughing](#)

[Parallel Finishing](#)

[Spiral Machining](#)

[Save KB](#)

[Customize Stock Material Definitions](#)

[Re-use Horizontal Finishing](#)

## 22.9 Knowledge Bases (#020)

### Video Description

In this short video we discuss Knowledge Bases and how to apply them in 3 Axis machining.

[Click here to watch the full video.](#)

Industry: Tool & Die

VisualCAD/CAM



RhinoCAM



VC/SolidWorks

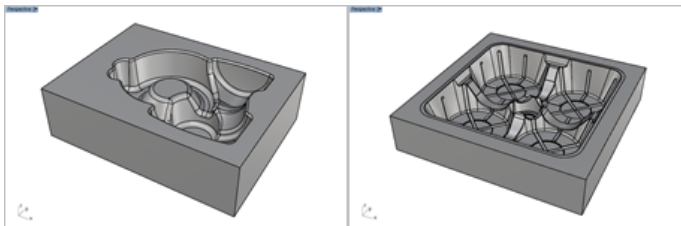


AlibreCAM



### Parts Illustrated

The following [archive files](#)<sup>D148</sup> are illustrated in this video.



CAMJam #100256.stp

CAMJam #100268.stp

### In-Video Topic Links

[Click here to watch the full video](#)

## 22.10 Knowledge Bases (#021)

### Video Description

In this short video we discuss Knowledge Bases and how to apply them in 2½ Axis machining

[Click here to watch the full video.](#)

Industry: Metal Fab

VisualCAD/CAM



RhinoCAM



VC/SolidWorks

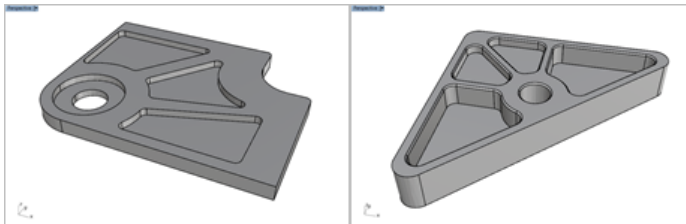


AlibreCAM



## Parts Illustrated

The following archive files are illustrated in this video. [See files archive](#)<sup>148</sup>.



CAMJam #100370.stp

CAMJam #100342.stp

## In-Video Topic Links

[Click here to watch the full video](#)

## 22.11 Mechanical (#082)

### Video Description

In this video we discuss 2½ Axis Machining including part setup, an overview of 2½ Axis Machining methods, Pocketing, Profiling, machine tool simulation as well as Automatic Feature Detection & Machining. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Metal Fab

VisualCAD/CAM



RhinoCAM



VC/SolidWorks

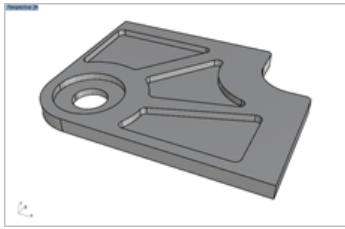


AlibreCAM

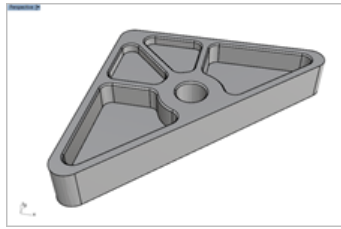


## Parts Illustrated

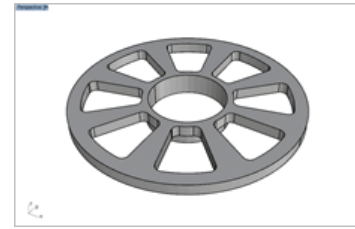
The following [archive files](#)<sup>148</sup> are illustrated in this video.



CAMJam #100370.stp



CAMJam #100342.stp



CAMJam #100354.stp

## In-Video Topic Links

<a href="#">The VisualCAM Plug-in Interface</a>	<a href="#">Create a Cutting Tool List</a>	<a href="#">Machining Time Estimate Sheet</a>
<a href="#">The Machining Browser</a>	<a href="#">2 Axis Pocketing</a>	<a href="#">Post G-Code</a>
<a href="#">Machine Tool Definition</a>	<a href="#">Cut Material Simulation</a>	<a href="#">Save Toolpaths to Knowledge Bases</a>
<a href="#">Define your Post Processor</a>	<a href="#">2 Axis Profiling</a>	<a href="#">Automate Machine Programming by Applying a Knowledge Base to Machine a Part</a>
<a href="#">Define your Stock</a>	<a href="#">Cut Material Simulation</a>	<a href="#">CAM Data Saved in SolidWorks Part File</a>
<a href="#">Part/Stock Alignment</a>	<a href="#">Handling Pockets of different depths</a>	<a href="#">Automatic Feature Machining</a>
<a href="#">Set Stock Material</a>	<a href="#">Example Part with varying Pocket Depths</a>	<a href="#">Interactive Feature Detection (IFD)</a>
<a href="#">Create a Cutting Tool</a>	<a href="#">Similar for Pocketing, Profiling, Hole Pocketing and Chamfering</a>	<a href="#">Interactive Feature Machining (IFM)</a>
<a href="#">Load Tool Library</a>	<a href="#">Simulation Colors by Mops</a>	<a href="#">Review of Features Identified in a Part</a>
<a href="#">Define the Work Zero</a>	<a href="#">Machine Tool Simulation (EXP)</a>	<a href="#">Machine Tool Simulation</a>
<a href="#">Overview of 2-1/2 Axis Methods</a>	<a href="#">Does VisualCAM create Setup Sheets?</a>	
<a href="#">How does VisualCAM work with Automatic Tool Changers</a>		

## 22.12 Mechanical (#083)

### Video Description

In this video we discuss 2½ Axis Machining including part setup, an overview of 2½ Axis Machining methods, Pocketing, Profiling, machine tool simulation as well as Automatic Feature Detection & Machining. Refer to the topic links listed below.

[Click here to watch the full video.](#)

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



Industry: Metal Fab

### In-Video Topic Links

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<a href="#">File Formats Supported</a>	<a href="#">Interactive Feature Detection</a>	<a href="#">Copy/Paste 2 Axis Profiling</a>
<a href="#">The Machining Browser</a>	<a href="#">Interactive Feature Machining</a>	<a href="#">Drill &amp; Tap</a>
<a href="#">Machine Setup</a>	<a href="#">Hole Feature Machining</a>	<a href="#">Estimate Machining Time</a>
<a href="#">Define Post Processor</a>	<a href="#">Standard Drilling</a>	<a href="#">Post G-Code</a>
<a href="#">Define a Box Stock</a>	<a href="#">Curve Modeling</a>	<a href="#">2 Axis Facing</a>
<a href="#">Align Part &amp; Stock</a>	<a href="#">2 Axis Pocketing</a>	<a href="#">Machine Multiple Sides (PRO Configuration)</a>
<a href="#">Set World CS</a>	<a href="#">2 Axis Profiling</a>	<a href="#">Machine Multiple Sides (STD Configuration)</a>

## 22.13 Sign-Making (#093)

### Video Description

---

In this video we perform basic sign-making using 2½ Axis Pocketing, V-Carve Roughing and V-Carve Finishing. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Ship Building

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

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<a href="#">About VisualCAD</a>	<a href="#">Post Selection</a>	<a href="#">Cut Parameters</a>
<a href="#">File Formats Supported</a>	<a href="#">Stock Definition</a>	<a href="#">2 Axis V-Carve Roughing</a>
<a href="#">Loading an STL file</a>	<a href="#">Align the Stock</a>	<a href="#">2 Axis V-Carving</a>
<a href="#">Analyze Part Information</a>	<a href="#">Part Box Stock</a>	<a href="#">Estimate Machining Time</a>
<a href="#">Changing Part Units</a>	<a href="#">Defining Cutting Tools</a>	<a href="#">Suppressing Operations</a>
<a href="#">Mill Overview</a>	<a href="#">Joining Curves</a>	<a href="#">Posting G-Code</a>
<a href="#">Check Part Orientation</a>	<a href="#">2 Axis Pocketing</a>	<a href="#">Shop Documentation</a>
<a href="#">Machine Definition</a>	<a href="#">Selecting Machining Regions</a>	<a href="#">Save a Knowledge Base</a>

## 22.14 Metal Fab & Woodworking (#073)

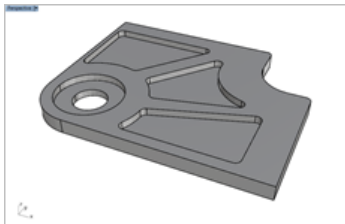
### Video Description

In this video we discuss 2½ Axis machining techniques using a simple prismatic bracket. 2½ Axis Pocketing is covered in detail as well as Hole Profiling. Both Geometry driven and Feature driven toolpath generation are covered as well as Machine Tool Simulation and saving CAM knowledge. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Metal Fab

The following [archive files](#)<sup>148</sup> are illustrated in this video.



CAMJam #100370.stp

VisualCAM/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

[User Interface](#)

[2 Axis Pocketing](#)

[Feature Detection](#)

[2 Axis Bracket](#)

[Selecting Control Geometry](#)

[Machining Detected Features](#)

[2 Axis Machine Tool Definition](#)

[Selecting a Tool](#)

[Estimating Machining Time](#)

[Post Processor Selection](#)

[Setting the Clearance Plane](#)

[Color Properties in Simulation](#)

[Stock Definition](#)

[Pocketing Cut Parameters](#)

[Posting G-Code](#)

[Part & Stock Alignment](#)

[Pocketing Cut Levels](#)

[Machine Tool Simulation](#)

[Defining the Work Zero](#)

[Review Toolpath in Levels](#)

[Creating a Setup Sheet](#)

[Review of 2 Axis Toolpaths](#)

[2 Axis Hole Profiling](#)

[Saving CAM Data in SolidWorks](#)

[2 Axis Profiling](#)

[Save Toolpath Knowledge](#)

## 22.15 Jewelry (#004)

### Video Description

In this video we discuss 2½ Axis Machining using a pendant jewelry design as an example. How to setup the part as well as Facing, Pocketing and Profiling are shown. Refer to the topic links listed below.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM

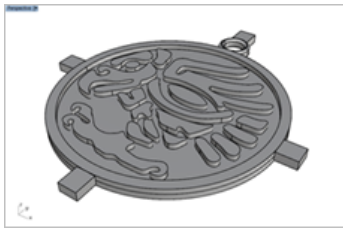


[Click here to watch the full video.](#)

Industry: Tool & Die, Jewelry

### Parts Illustrated

The following [archive files](#)<sup>148</sup> are illustrated in this video.



CAMJam #100254.stp

### In-Video Topic Links

[2 Axis Part Setup](#)

[2-1/2 Axis Pocketing](#)

[Bridges & Tabs](#)

[Machine a 2 Axis Pendant](#)

[2-1/2 Axis Profiling](#)

[Manual Bridge Points](#)

[2 Axis Facing](#)

[Tapered Tools](#)

## 22.16 Woodworking & Nesting (#085)

### Video Description

In this video we discuss 2½ Axis machining techniques using a SketchUp Cabinet Assembly (\*.skp). The Explode Cabinet Design utility in the MILL Module is used as well as the NEST Module. The nested components are then machined using the MILL Module. Refer to the topic links listed below.

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



[Click here to watch the full video.](#)

Industry: Woodworking

### In-Video Topic Links

[User Defined Tools](#)

[MILL Nested Sheets](#)

[Reordering Operations](#)

<a href="#">Explode Cabinet Design</a>	<a href="#">Machine Setup</a>	<a href="#">Post G-Code</a>
<a href="#">Rectangular Nest Cabinet Layout</a>	<a href="#">Stock Definition</a>	<a href="#">Save KB</a>
<a href="#">Define your Stock Sheet</a>	<a href="#">2 Axis Pocketing</a>	<a href="#">Align Set WCS</a>
<a href="#">Define the Parts to Nest</a>	<a href="#">Drilling</a>	<a href="#">Load KB</a>
<a href="#">Define Nesting Parameters</a>	<a href="#">Profiling the Dados</a>	<a href="#">Assign Control Geometry</a>
<a href="#">Estimate Number of Sheets Needed</a>	<a href="#">Profile Part Perimeters</a>	<a href="#">Define KB Rules</a>
<a href="#">Execute &amp; Preview the Nest</a>	<a href="#">Verification</a>	<a href="#">Save KB with Rules</a>
<a href="#">Commit the Nest</a>	<a href="#">Tooling Information</a>	<a href="#">Load Sheet 3</a>
		<a href="#">Generate Toolpaths</a>

## 22.17 Woodworking & Nesting (#084)

### Video Description

In this video we discuss 2½ Axis machining techniques using a Rhino assembly. Part setup, Drilling and Profiling are covered as well as Nesting, Explode Cabinet Design, and Milling from nested components. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Woodworking

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

<a href="#">Organizing Machining Geometry</a>	<a href="#">Drilling</a>	<a href="#">NEST</a>
<a href="#">Work Flow</a>	<a href="#">Drilling Parameters</a>	<a href="#">MILL Nested Parts</a>
<a href="#">User Interface</a>	<a href="#">Simulate</a>	<a href="#">Load KB</a>
<a href="#">Setup</a>	<a href="#">Profiling</a>	<a href="#">Set KB Rules</a>
<a href="#">Machine Definition</a>	<a href="#">Adding more Drill Points</a>	<a href="#">Save KB</a>
<a href="#">Post Definition</a>	<a href="#">Profiling from Copy</a>	<a href="#">Load KB</a>
<a href="#">Post-Processor Generator</a>	<a href="#">Saving CAM Data</a>	<a href="#">Regenerate Tool Paths</a>
<a href="#">Geometry Orientation</a>	<a href="#">Posting G-Code</a>	<a href="#">Changing Tools</a>
<a href="#">Stock Definition</a>	<a href="#">Geometry Changes</a>	<a href="#">Explode Cabinet Design</a>
<a href="#">Stock Alignment</a>	<a href="#">Post Editing</a>	<a href="#">Nest Cabinet Components</a>
<a href="#">Optional Work Zero</a>	<a href="#">Save to KB</a>	

## 22.18 Mechanical 2/3 Axis (#090)

### Video Description

In this video we program multiple parts using 2½ Axis, 3 Axis and Hole Machining using the Standard (STD) configuration of VisualCAM for SOLIDWORKS. Refer to the topic links listed below.

VisualCAD/CAM



VC/SolidWorks



RhinoCAM



AlibreCAM

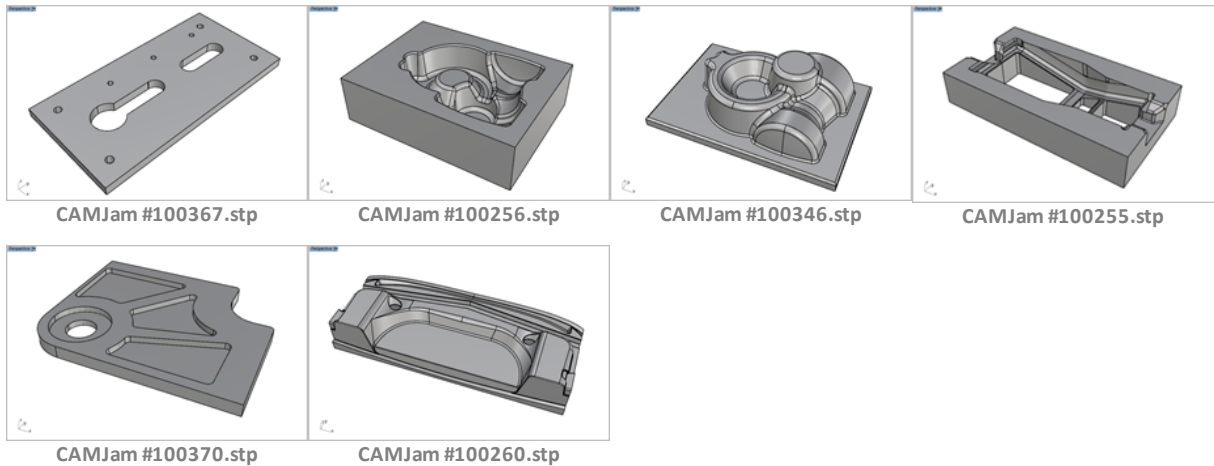


[Click here to watch the full video.](#)

Industry: Metal Fab, Tool & Die

### Parts Illustrated

The following [archive files](#)<sup>148</sup> are illustrated in this video.



### In-Video Topic Links

[Part Orientation](#)

[Machine Tool Setup](#)

[Post Select](#)

[Define a Box Stock](#)

[Define the Work Zero](#)

[Interactive Feature Detection \(IFD\)](#)

[Interactive Feature Machining \(IFM\)](#)

[2 Axis Facing](#)

[Create a Tap Tool](#)

[Post G-Code](#)

[Saving CAM Data](#)

[2 Axis Pocketing](#)

[Deleting Operations](#)

[Save to KB](#)

[Machining a 2D Sketch](#)

[Drawing Cleanup](#)

[Part Setup](#)

[Horizontal Roughing](#)

[3 Axis Parallel Finishing](#)

[3 Axis Radial Machining](#)

[3 Axis Spiral Machining](#)

[Save to KB](#)

[3 Axis Core Block](#)

[Part Setup](#)

[Load KB](#)

[Regenerate Horizontal Finishing](#)

[2 Axis Slotting](#)[2 Axis Slotting](#)[Regenerate Parallel Finishing Operation](#)[2 Axis Pocketing](#)[2 Axis Pocketing](#)[Applying a Negative Stock](#)[2 Axis Profiling](#)[Drilling](#)[Apply KB to different Part](#)[Drilling & Tapping](#)[3 Axis Cavity Block](#)[Tap Operation](#)

## 22.19 Musical, 2/3 Axis (#071)

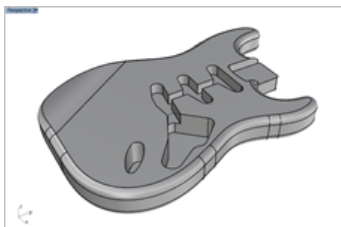
### Video Description

In this video we discuss 2½ Axis & 3 Axis Machining techniques using a guitar body design as an example. How to setup the part as well a 2½ Axis Pocketing are explored in detail. 3 Axis Horizontal Roughing and 3 Axis Parallel Finishing is also covered. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Woodworking

The following [archive files](#)<sup>D<sup>148</sup></sup> are illustrated in this video.



CAMJam #100270.stp

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

[Machine Definition](#)[2 Axis Pocketing](#)[Using Fractions in Dialogs](#)[Post Definition](#)[Pocketing Cut Parameters](#)[3 Axis Horizontal Roughing](#)[Align Stock with Part](#)[Pocketing Cut Levels](#)[3 Axis Parallel Finishing](#)[Create a Work Zero](#)[Pocketing Entry/Exit](#)[Posting Toolpaths](#)[Set Material Definition](#)[Z Level Display Dialog](#)

## 22.20 Mesh 2,3,4,5 Axis Machining (#096)

### Video Description

In this video we discuss all things MESH! Using the MESH Module, editing meshes, and machining mesh geometry in 2, 3, 4 and 5 Axis. Refer to the topic links listed below.

VisualCAD/CAM



RhinoCAM



[Click here to watch the full video.](#)

Industry: Various

### In-Video Topic Links

About Mesh Geometry

[3D Mesh Applications](#)

[Mesh File Formats](#)

[Create a Mesh from Point Data](#)

Mesh Editing

[Diagnose Mesh Geometry](#)

[Using AutoFix](#)

[Reduce \(Decimate \) a Mesh](#)

[Using Remesh](#)

[Using Smooth on a Mesh](#)

[Editing an Area of the Mesh](#)

[Mesh Reduction in Rhino versus MESH](#)

[How to Offset a Mesh](#)

[Using Mesh Boolean Operations](#)

[2-1/2 Axis Mesh Machining](#)

[Changing The Part Units](#)

[Orient Part for Machining](#)

[Creating Curve Boundaries](#)

[Pocketing](#)

[3 Axis Machining Meshes](#)

[4 Axis Machining a Mesh](#)

[5 Axis Machining a Mesh](#)

## 22.21 Multi-Sheet Machining (#098)

### Video Description

In this video we discuss all things MESH! Using the MESH Module, editing meshes, and machining mesh geometry in 2, 3, 4 and 5 Axis. Refer to the topic links listed below.

VisualCAD/CAM



RhinoCAM



[Click here to watch the full video.](#)

Industry: Various

### In-Video Topic Links

[Program 1st Sheet](#)

[Add a Work Zero for each Sheet](#)

[2 Axis Profiling](#)

[Posting a Sheet](#)

[Suppressing a Sheet](#)

[Using Knowledge Bases](#)

[Program 2nd Sheet](#)[Assigning KB Rules](#)

## 22.22 Mold 3 Axis PRO (#080)

### Video Description

In this short video we discuss the 3 Axis PRO configuration and the advanced 3 Axis Methods is provides. This functionality is similar for all platforms.

[Click here to watch the full video.](#)

Industry: Tool & Die

VisualCAD/CAM



RhinoCAM



VC/SolidWorks

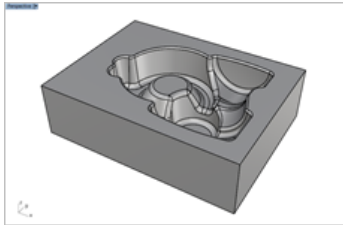


AlibreCAM



### Parts Illustrated

The following [archive files](#)<sup>148</sup> are illustrated in this video.



CAMJam #100256.stp

### In-Video Topic Links

[Geometry Review](#)[Define the Work Zero](#)[3 Axis Horizontal Finishing](#)[3 Axis Work Flow](#)[Review of 3 Axis Methods \(PRO\)](#)[3 Axis 3D Offset Pocketing](#)[Define the Machine Tool](#)[3 Axis Horizontal Roughing](#)[Surface Boundary Machining](#)[Define the Post Processor](#)[3 Axis Horizontal Re-Roughing](#)[Estimated Machining Time](#)[Define the Stock](#)[3 Axis Parallel Finishing](#)[Post G-Code](#)

## 22.23 Product Design (PRO) (#069)

### Video Description

In this video we discuss 3 Axis techniques for machining a flipped sided part. Various Stock definitions are explored. Multiple Pro Configuration toolpaths defined including Horizontal Hill Machining, 3 D Offset Pocketing and 3 Axis

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



Curve Machining to name a few. Posting and use of Knowledge Bases are also discussed. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Tool & Die

### In-Video Topic Links

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<a href="#">The Part</a>	<a href="#">Clearance Plane Definition</a>	<a href="#">Save Work flow to a Knowledge Base</a>
<a href="#">3 Axis Setup</a>	<a href="#">Cutting Parameters</a>	<a href="#">System Information</a>
<a href="#">Startup Checklist</a>	<a href="#">Cut Levels</a>	<a href="#">3 Axis 3D Offset Pocketing</a>
<a href="#">Stock Definition</a>	<a href="#">Generate the toolpath</a>	<a href="#">3 Axis Curve Machining</a>
<a href="#">Stock by Extrusion</a>	<a href="#">3 Axis Horizontal Re-roughing</a>	<a href="#">3 Axis 3D Offset Profiling</a>
<a href="#">Stock by Selection</a>	<a href="#">Z Level Finishing</a>	<a href="#">Rhino Integration</a>
<a href="#">Work Zero Definition</a>	<a href="#">Horizontal Hill Machining</a>	<a href="#">Setup 2 - Coord System for Flipped Machining</a>
<a href="#">3 Axis Horizontal Roughing</a>	<a href="#">3 Axis Parallel Finishing</a>	<a href="#">Copy/Paste Parallel Finishing for the Bottom Side B</a>
<a href="#">Define the Cutting Tool</a>	<a href="#">Suppress a Toolpath</a>	
<a href="#">Feeds &amp; Speeds</a>	<a href="#">Posting G-Code</a>	

## 22.24 STL Scan Data (#068)

### Video Description

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In this video we discuss 3 Axis techniques for machining STL Mesh data. Preferences and transformation controls in VisualCAD are used. 3 Axis Parallel Finishing, 3 Axis Curve Machining and 2 Axis Engraving are covered in detail. Posting and use of Knowledge Bases are also discussed. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Tool & Die

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

---

[About VisualCAD/CAM](#)

[Stock Definition](#)

[File Import Formats](#)

[Stock Alignment](#)

[Open an STL File](#)[3 Axis Parallel Finishing](#)[Display Controls and Preferences for Mesh Data](#)[2 Axis Engraving](#)[Scaling & Transforming Geometry](#)[3 Axis Curve Machining](#)[3 Axis Horizontal Roughing](#)[Posting](#)[3 Axis Setup](#)[Knowledge Bases](#)

## 22.25 5 Axis 3+2 & Continuous (#070)

### Video Description

In this video we discuss 5 Axis machining operations including 5 Axis part setup, 5 Axis Between 2 Curves Machining, Indexed 5 Axis Setup and many 3 Axis Advanced operations as well as posting and reviewing 5 Axis G-Code. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Tool & Die

VisualCAD/CAM



RhinoCAM



VC/SolidWorks



AlibreCAM



### In-Video Topic Links

[Part Setup](#)[Cut Levels](#)[Indexed 5 Axis Setup & Machining](#)[RhinoCAM Interface](#)[Simulation](#)[Define the 5 Axis Machine](#)[3 Axis Parallel Finishing](#)[3 Axis Between 2 Curves Machining](#)[Save to Knowledge Base](#)[Z Level Containment](#)[Cut Parameters](#)[Select The Post Processor](#)[3 Axis Projection Pocketing](#)[Adjusting the Rotary Axis Limits of the Machining](#)[Part Orientation](#)[Revise the 3 Axis Parallel Finishing Operation](#)[Simultaneous 5 Axis Output \(PRE\)](#)[Work Zero](#)[5 Axis Between 2 Curves Machining](#)[PRO Configuration](#)[Stock by Extrusion](#)[Control Geometry](#)[Add New Coordinate System Setup](#)[3 Axis Horizontal Roughing](#)[Define a New Tool](#)[Cut Parameters](#)[Cut Parameters](#)[Simulation](#)[Copy/Paste/Edit Toolpaths](#)[Posting 5 Axis Toolpaths](#)[Learning Resources Available](#)

## 22.26 Using the MESH Module (#061)

### Video Description

---

In this short video we discuss the MESH Module user interface as well as using the AutoFix and Diagnose commands. Refer to the topic links listed below.

[Click here to watch the full video.](#)

Industry: Prototyping

VisualCAD/CAM



RhinoCAM



### Parts Illustrated

---

The following [archive files](#)<sup>148</sup> are illustrated in this video.



CAMJam #100366.stl

### In-Video Topic Links

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[Loading the MESH Module](#)

[The MESH Browser](#)

[The Create Tab](#)

[The Model Tab](#)

[The Inspect & Modify Tab](#)

[The Repair Tab](#)

[Using Auto Fix](#)

[Using Diagnose](#)

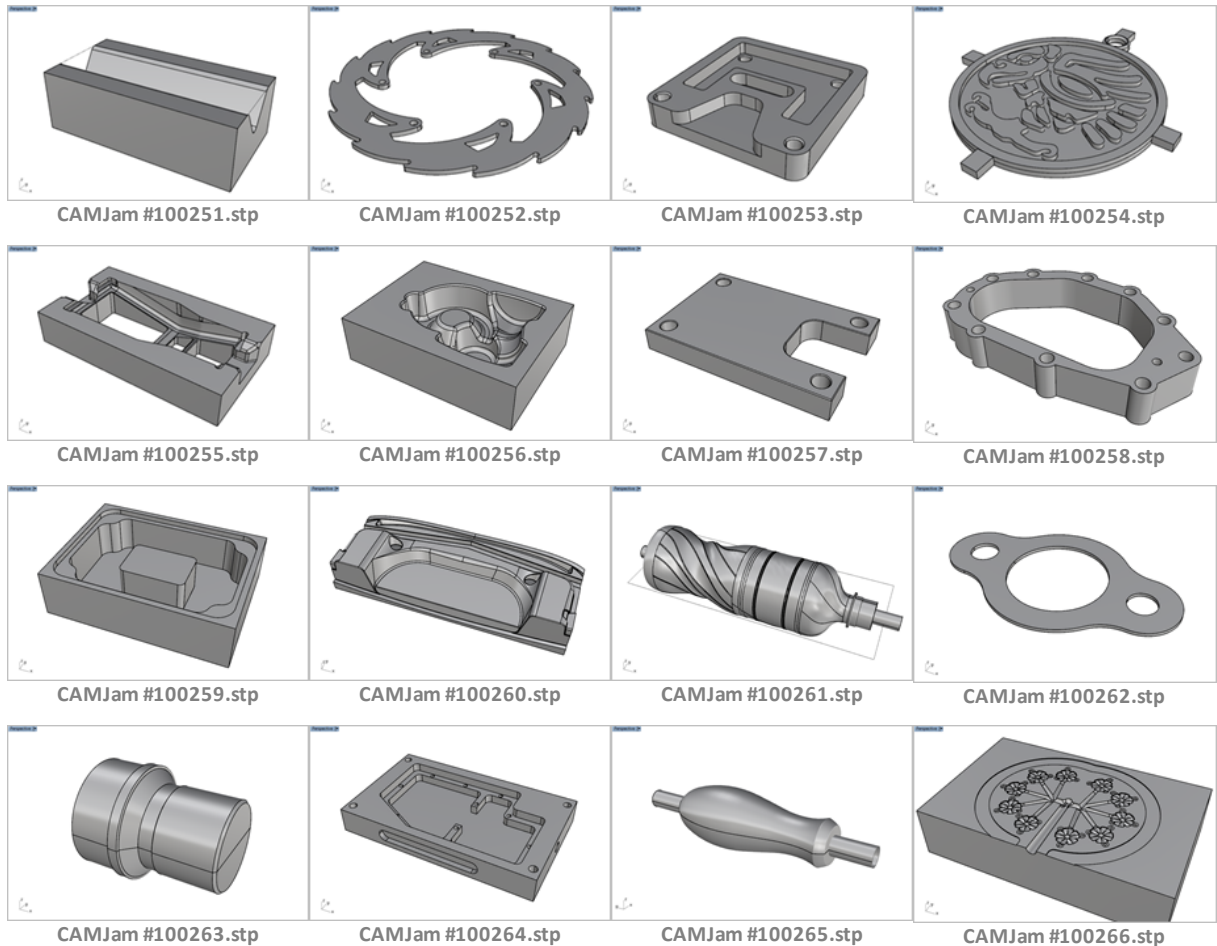
## Part File Archive

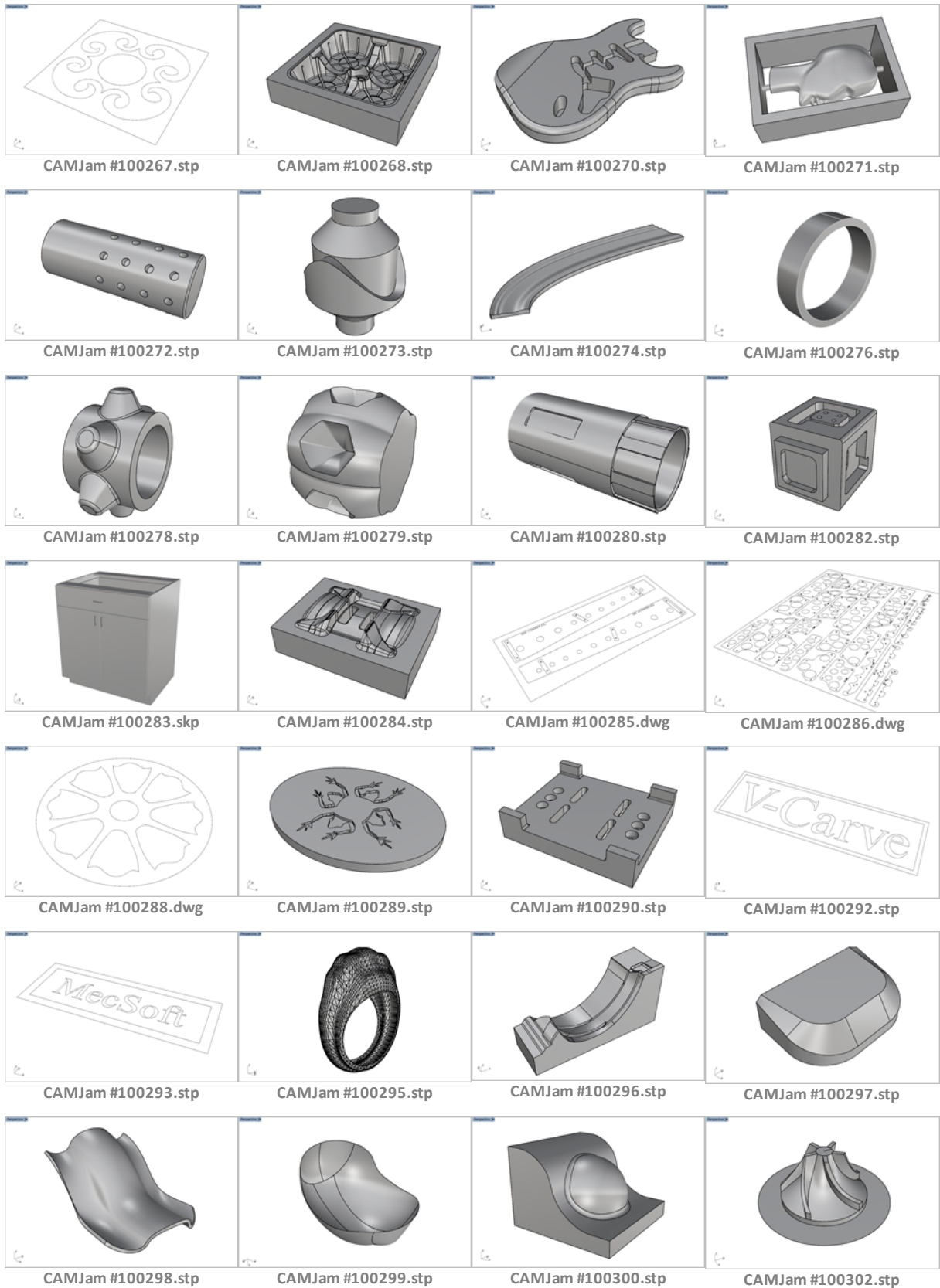
The following files are used as examples in the [CAMJam](#) video archive. The files are available in the following CAD neutral formats. They can be opened in any version of each of the CAD platforms supported by the MecSoft CAM plug-in ([VisualCAD/CAM](#), [Rhino3D](#), [SolidWorks](#) and [Alibre Design](#)). Additional practice files are also included in the archive.

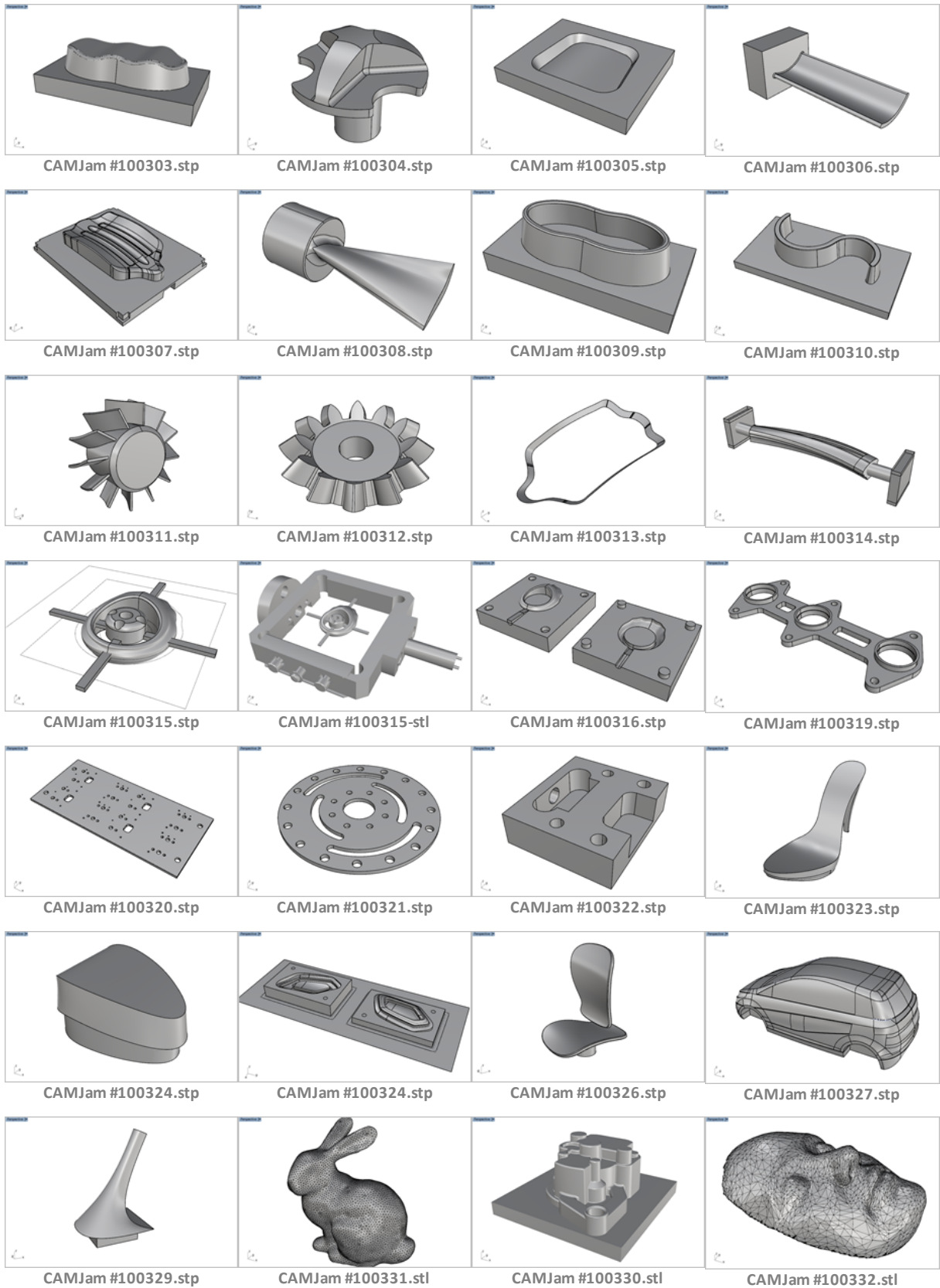
### File Formats

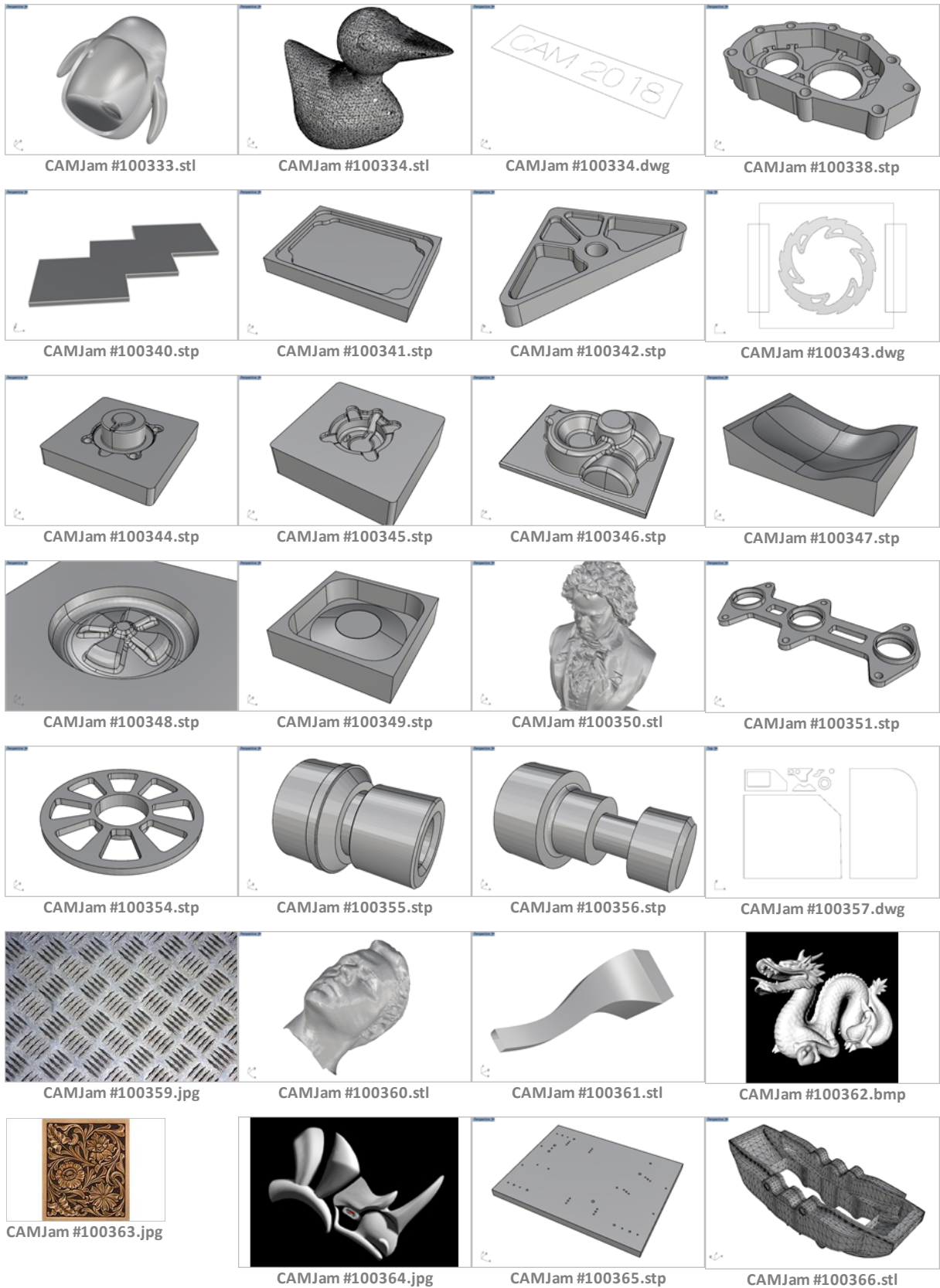
- \*.STP (3D Solid Models)
- \*.IGS (3D Surface Models)
- \*.STL (3D Mesh Models)
- \*.DWG (2D Drawings)

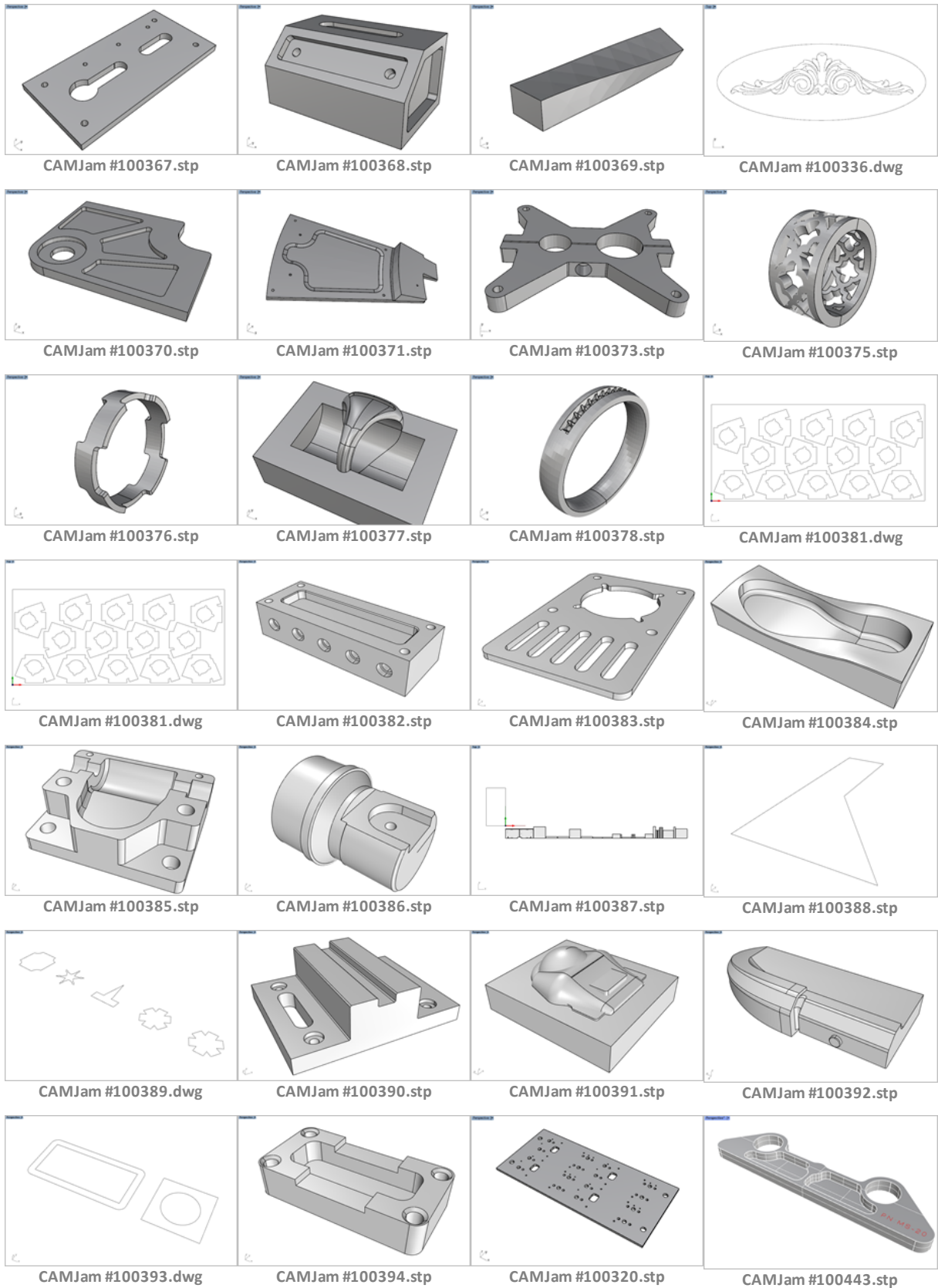
### File Archive Contents

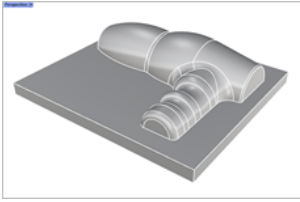












CAMJam #100449.stp



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