MecSoft Customer Successes in 2020!

Introduction

At MecSoft Corporation, when we say that "We are Your CAM Partner" we mean exactly that! We strive to ensure that you experience resounding success using our CAM software. We're here for you from day one and on every CAM project. We are also very proud and excited to be able to showcase a small sample of our customer's success. These projects not only exemplify how craftsmanship and the right CAM software can merge to produce a beautiful product, they also exemplify each company's unique success story!

What's Inside

1. Read the real true story behind each company, the success they have achieved in their industry and see their projects coming together from start to finish.
2. Learn by example. Read about the CAM toolpath strategies used, the CAD geometry and techniques employed, what materials are cut and the machine tools used to cut them.
3. Here is the list of customer successes discussed:

- RhinoCAM at Designer Grains, Inc.
- RhinoCAM helps build ⅛" Scale Heisler Steam Locomotive!
- VisualCAD/CAM Rocks With Dingwall Guitars!
- RhinoCAM at McCafferty Dulcimers
- VisualCAD/CAM with the Hancock Central Bulldogs!
- VisualCAMc at West Penn Manufacturing Technologies!
- RhinoCAM Constructs Realities at Michael Blase Photography
- RhinoCAM and the 2019 United Nations Climate Action Summit!

So let us get started. As you read through each customer success story below, make sure to click on the links listed at the end to learn more.

MecSoft Corporation
Your CAM Partner

DESIGNER GRAINS, INC.
WHERE TRADITION MEETS TECHNOLOGY

RhinoCAM at Designer Grains!

Designer Grains Inc. (Watsonville, CA) is an established fine cabinetry and custom manufacturing business successfully operating in Santa Cruz County for over thirty years. Founded by Sean Sinnott in 1989, Designer Grains is known for providing clients with unique designs, excellent craftsmanship and personal attention. Sean's ability for creative problem-solving has garnered him an industry reputation of being the "Go-to-Guy" for demanding clients.

Sean's work has included many private estates and luxury residences throughout the greater San Francisco and Monterey Bay Areas. Commercial projects have been installed in numerous locations throughout the United States. His client list includes well-known Silicon Valley CEO's, famous Wall Street analysts, car dealers, Fortune 500 CEOs, Las Vegas casinos, and real estate billionaire developers!

The RhinoCAM Difference

Sean has been a dedicated RhinoCAM user since he purchased his first Multicam CNC machine back in 2005. He then added a second Multicam CNC machine in 2014 and just recently a third. Sean's goal was to streamline his CNC process so that anyone in his shop could run any g-code file on any of his CNC machines without pause. To help achieve this goal, Sean turned to MecSoft Corporation to customize a single post-processor that would seamlessly run any of his Multicam CNC machines! Here is some of what Sean had to say about RhinoCAM.

"RhinoCAM works so well for us and I'm very familiar with it. We have a working group of RhinoCAM colleagues around the world and share ideas and work as much as possible. MecSoft support also provided us with a customized Multicam post-processor. Now anyone on our team can take any g-code file and run it on any of our cnc machines without pause!"

Sean Sinnott,
Principal Designer Grains, Inc., Watsonville, CA

(Left) Curved powder room and vanity

(Right) island with curved elements

Read More

- RhinoCAM at Designer Grains Inc. (In Depth Case Study)
- Machining the 2-Sided Fleur-de-Lis Keystone (MecSoft Blog)
- Machining the 2-Sided Acanthus Crown Molding (MecSoft Blog)
- The Iconic Butterfly House (MecSoft Blog)

Next we continue on up the Pacific coast to Portland, OR and the home of Rex Smith retired Corporate Vice President of MSN® Operations at Microsoft and his passion for scale working model Heisler Steam Locomotives. Check out the link below to a cool video of a ⅛" scale Heisler Steam Locomotive running at Train Mountain Locomotive Museum in Chiloquin, OR.

RhinoCAM helps build ⅛” Scale Heisler Steam Locomotive!

Rex Smith (Portland, OR) was a Corporate Vice President of MSN® Operations at Microsoft until his retirement in 2002. Rex was also Chairman, COO of the first startup company to bring free email service over the world wide web. That company was Hotmail.com, co-founded by Rex’s son Jack Smith and Sabeer Bhatia in 1996 and later acquired by Microsoft in January of 1998. Prior to that Rex was a successful Electrical Engineer in computer, calculator and microchip design with Hewlett-Packard, and Apple Inc. Taking a side-trip from the development world, Rex also headed up manufacturing for Sun Microsystems in the late '80's.

The RhinoCAM Difference

Since his retirement Rex has assembled a well-equipped workshop in Portland where he currently provides *build-to-print* milling and turning services to local industries in his spare time. With no previous CAD or CAM experience Rex has successfully implemented Rhino from McNeel & Associates and RhinoCAM from MecSoft Corporation for the past 5 years. From his workshop Rex also spends time on his passion for scale model railroads where he is in the process of manufacturing a working ⅛ scale replica of the Heisler Steam Locomotive! Read more history of the Heisler below! Rex’s ⅛ scale Heisler is a three-truck engine with an undercarriage frame that is 6.56” wide x 91” long and stands 20” high. The width of the rails (wheel to wheel span) is 7.5”. Here is a video of a similar completed working model.

"I've been totally happy with RhinoCAM. When your software is working for you there is no need or desire to change. I really like the technical support. To have a problem and be able to send you guys an email with a copy of the file and get an answer back within an hour - that's just fantastic!"

Rex Smith
Corporate Vice President of MSN® Operations, Retired
Manufacturer & Steam Locomotive Enthusiast, Portland OR

(Left) The ⅛ scale Heisler V2 engine replica under construction in Rex's shop.

(Right) The Heisler engine #6 in action at the Cass Scenic Railroad, Elkins, WV.

Read More

- RhinoCAM helps build ⅛" Scale Heisler Steam Locomotive! (In Depth Case Study)
- Rex Smith, Vice President of MSN® Operations (Retired) uses RhinoCAM to build ⅛" Scale Heisler Steam Locomotive (MecSoft Blog)
- The Header Exhaust Ring in 2½ Axis (MecSoft Blog)
- The Coupler Pocket in 2½ & 3 Axis (MecSoft Blog)

If you enjoy music like we do this next stop will get you rockin as we continue even further north to visit Sheldon Dingwall and Dingwall Guitars in Saskatoon, SK, Canada. Sheldon is one of the best electric bass guitar designers and manufacturers in the world and he does it with MecSoft's own VisualCAD/CAM software!

VisualCAD/CAM Rocks With Dingwall Guitars!

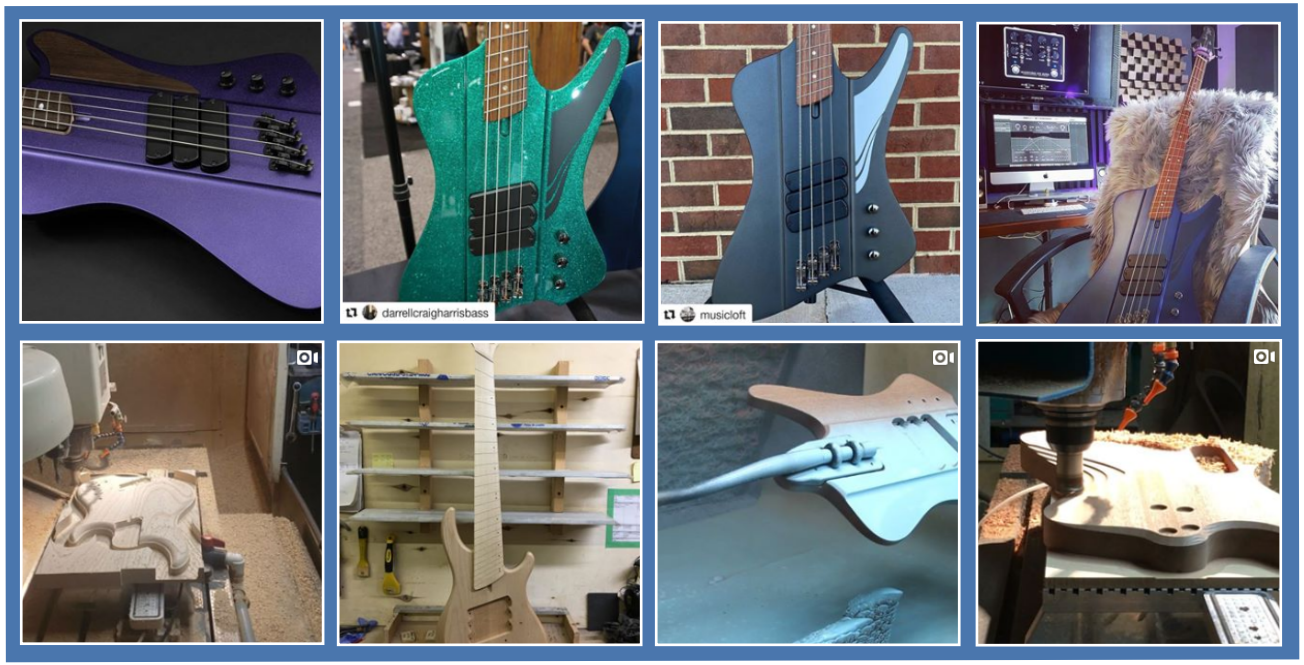
Sheldon Dingwall and Dingwall Guitars (Saskatoon, SK, Canada) is one of the pioneers in the development of today's multi-scale fan fret electric bass guitar. Sheldon was a player from a very young age, first learning the piano at age 5, drums and then guitar at age 12! But Sheldon didn't stop there. He decided to build his own guitar in his uncle's cabinet shop where he learned the critical woodworking skills from a master craftsman.

The VisualCAD/CAM Difference

Dingwall Guitars has been operating continuously for the past 32 years manufacturing thousands of their electric bass guitars from their 8,000 square foot facility. Sheldon learned early on the importance of digital manufacturing and has successfully implemented VisualCAD/CAM from MecSoft Corporation with their Fadal CNC milling center on thousands of components over the past twenty years. We recently sat down with Sheldon to learn more about the Dingwall brand and how VisualCAD/CAM fits into their manufacturing process.

"We started out using VectorCAM and then migrated to VisualCAM. The difference was night and day! VisualCAM is a much more robust and certainly a much better overall experience.

Sheldon Dingwall
Owner/Operator, Dingwall Guitars Inc.
Saskatoon, SK, Canada



Read More

- VisualCAD/CAM Rocks With Dingwall Guitars! (In Depth Case Study)
- VisualCAD/CAM Rocks With Dingwall Guitars! (MecSoft Blog)
- The D-ROC Bass Guitar, 3 Axis (MecSoft Blog)
- The D-ROC Bass Guitar, 2½ Axis (MecSoft Blog)
- MecSoft Customer Success: Dingwall Guitars (Success Video)

On that note, let's continue the tune as we sit back and travel south to McCafferty Dulcimers located in Brookshire, Texas. Terry McCafferty is a retired Product Design & Development Engineer with a hobby for making finely crafted *music boxes*, but not just any. Terry hand crafts beautiful Appalachian Dulcimers with the help of RhinoCAM CNC software. How's that for a hobby!

RhinoCAM at McCafferty Dulcimers

McCafferty Dulcimers located in Brookshire, Texas has been crafting fine Appalachian dulcimers since 1993. Owner and operator Terry McCafferty grew up around woodworking with a carpenter father and worked as a cabinet maker in his early years. He was later educated as an engineer and spent four decades involved in product design & development. Terry holds several patents related to large machinery that he has developed. We recently sat down with Terry in his studio to discuss the Appalachian dulcimer craft and his use of RhinoCAM from MecSoft Corporation.

What's an Appalachian Dulcimer?

The Appalachian dulcimer is an instrument that is typically played on your lap while sitting down. The instrument first appeared in the US in the early 19th century among Scotch-Irish immigrant communities in the Appalachian Mountains of the eastern United States. While the instrument has no known precedent in Ireland or Scotland, extensive research has traced the instrument's development through several distinct periods, and likely origins in several similar Swedish, Norwegian, German and French instruments as far back as 1700 to mid 1800s.

The RhinoCAM Difference

Terry's building methods are from two worlds. The traditional craft allows for personal touches, adapting to the material at hand, and evolving the art of dulcimer design. The modern world of CNC machines accommodates precision where needed and repeatable processes for predictable results. Many machining fixtures and detailed processes go into the making of each McCafferty dulcimer. *"Is there a better way"* is always running through Terry's mind as he crafts each instrument. Terry's studio is well appointed to accommodate the most effective approach for each task at hand.

"If I have a problem and I call MecSoft for technical support, I get it ... and they fix it! There are so many companies out there today that you cannot speak to a real person. You can send them a message and maybe they'll respond but MecSoft tech support to me is second to none!

Terry McCafferty, Owner/Operator
McCafferty Dulcimers, Brookshire, TX

Read More

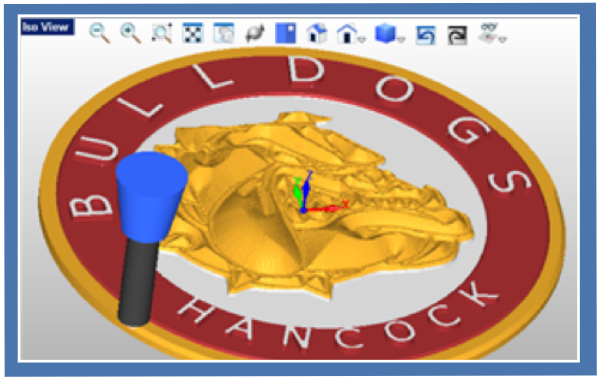
- RhinoCAM at McCafferty Dulcimers (In Depth Case Study)
- Using Z Levels in Parallel Finishing (MecSoft Blog)
- Machining Mother-of-Pearl Inlays (MecSoft Blog)
- RhinoCAM Testimonial: Terry McCafferty of McCafferty Instruments, LLC
- MecSoft Customer Success: McCafferty Dulcimers

Now let's travel north again to the Keweenaw Peninsula of upper Michigan, home of the Hancock Central High School Bulldogs! Doug McIntosh is a retired Surfcam user and toolmaker from Ford Motor Company with 30 years of experience in the trade. Today Doug is a volunteer instructor teaching kids about the power of g-code programming with the help of VisualCAD/CAM CNC software!

HANCOCK PUBLIC SCHOOL DISTRICT
HANCOCK MICHIGAN

VisualCAD/CAM with the Hancock Central Bulldogs!

Hancock Central High School (Hancock, MI) is located in Houghton County on the Keweenaw Peninsula of upper Michigan. The HCH Bulldog mascot represents the tenacity of the town's early immigrants who worked the deep shaft mines in the area. Today the high school offers students hands-on woodshop, metalworking, welding and drafting classes. More recently a CNC machining class was added for some of the more advanced junior and senior students.



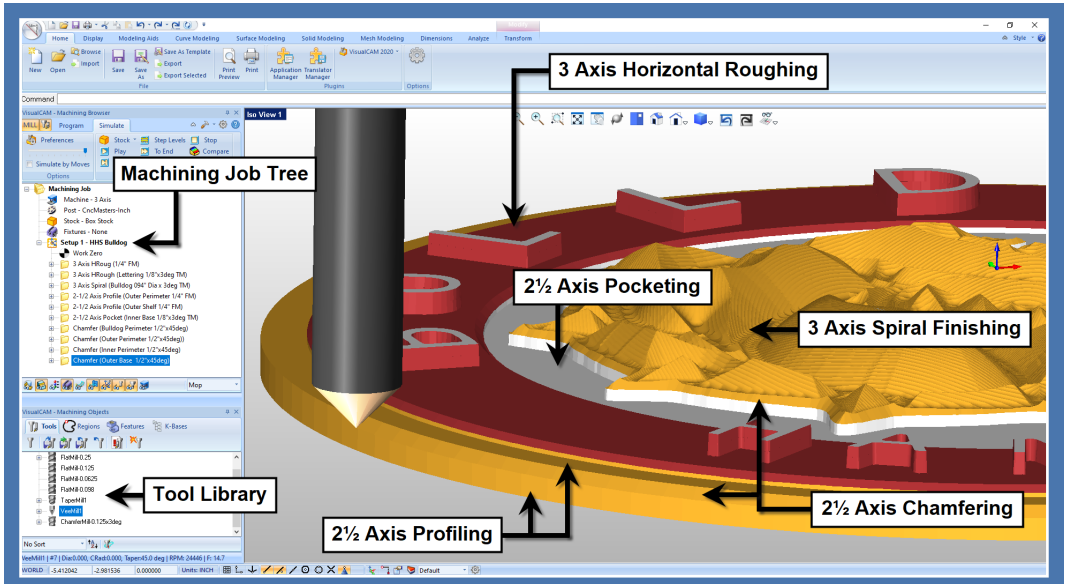
Doug McIntosh is a retired Surfcam user and toolmaker from Ford Motor Company with 30 years of experience in the trade. Today Doug works with Garry Mishica, the HCH Industrial Arts teacher as a volunteer instructor, introducing CNC machining and the fundamentals of g-code programming to small groups of dedicated HCH students. We recently sat down with Doug to discuss the HCH Bulldogs and to learn how VisualCAD/CAM from MecSoft Corporation is being integrated into the HCH curriculum.

The VisualCAD/CAM Difference

For the past two semesters Doug has been slowly integrating VisualCAD/CAM from MecSoft Corporation into his class curriculum. Students first learn the basics of programming g-code manually from simple VisualCAD drawings. In the school's upcoming semester Doug will be introducing the VisualCAD/CAM ART and MILL modules into the metal working class. The class boasts a complete foundry where students learn the basics of sand casting molten aluminum. Students can choose from many aluminum casting projects, the HCH Bulldog mascot plaque project and the Nashville Predators® mascot plaque project are illustrated here.

"When looking for a CAM program for Hancock Central School I started off using Fusion 360 but didn't like it at all. That's when I downloaded VisualCAD/CAM and really liked it! While at Ford Motor Company I used Surfcam exclusively. Today I find VisualCAD/CAM much easier to draw in and certainly much easier to program toolpaths in than Surfcam!"

Doug McIntosh, Volunteer Instructor
Hancock Central School, Hancock MI



The HCS Bulldog Emblem Cut Material Simulation in the VisualCAD/CAM-MILL module.

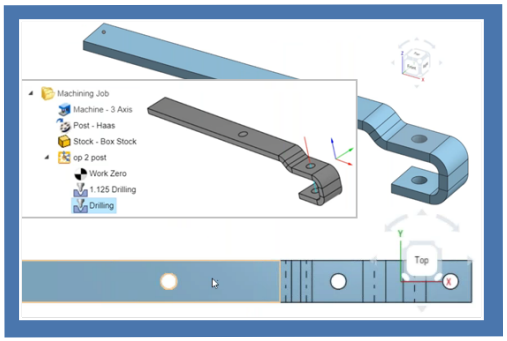
Read More

- VisualCAD/CAM with the Hancock Central Bulldogs! (In Depth Case Study)
- ART-MILL Tutorial Part 1: Raising the HCS Bulldog with VisualART! (MecSoft Blog)
- ART-MILL Workflow Part 2: Milling the HCS Bulldog! (MecSoft Blog)
- MecSoft Customer Success: Hancock Central School (Success Video)
- Hancock Central School, Predators(R) Emblem Cut Material Simulation (MecSoft Video)
- Hancock Central School, HCS Bulldog Cut Material Simulation (MecSoft Video)
- VisualCAD/CAM testimonial: Doug McIntosh, Hancock Central School

While we're up here let's take a side trip east to Cresson, Pennsylvania home of West Penn Manufacturing Technologies (WPMT). George Bohrer, Chief Operations Officer at WPMT has been in manufacturing for over 40 years with such powerhouses as Newport News Shipbuilding and BMI Defense Systems. Today George uses VisualCAMc for Onshape from MecSoft Corporation to assist in his build-to-print manufacturing facility!

VisualCAMc at West Penn Manufacturing Technologies

West Penn Manufacturing Technologies (WPMT) located in Cresson, PA is a 40,000 sq. ft. manufacturing and fabricating facility with 80+ years of combined manufacturing experience on site. Their services include a full range of metal and nonmetallic cutting from .005 thick to 6 inches thick using waterjet, LASER, HD Plasma, MIG and TIG welding, CNC bending and punching, and machining of metal, plastic and foam products.



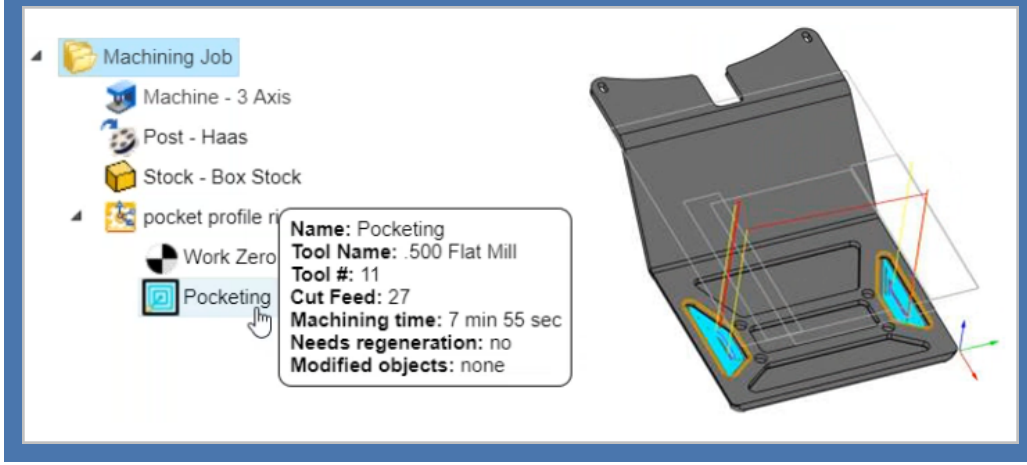
Established in 2018, West Penn Manufacturing Technologies was founded as a Metal Fabricating facility and has grown to offer new materials as well as engineering design and full product manufacturing. WPMT has quickly grown to service clients of all sectors including some of the country's largest rail car and heavy equipment manufacturers, aggregate and mining equipment manufacturers and the Department of Defense (DoD) and other military and defense related companies.

The VisualCAMc Difference

George Bohrer, Chief Operations Officer at WPMT has been in manufacturing for over 40 years with such powerhouses as Newport News Shipbuilding and BMI Defense Systems. For Computer-Aided Design (CAD) George has previously used SOLIDWORKS and ProE but has completed a 100% migration to Onshape Product Development Platform for the past 2 years. For Computer-Aided Manufacturing (CAM) George has previous experience with Mastercam and Gibbscam but has recently migrated to VisualCAMc for Onshape from MecSoft Corporation.

"We really like how VisualCAMc is nested right in with Onshape. As soon we're done drawing a part we can add VisualCAMc to the document and create the CAM file right there in Onshape. VisualCAMc saves us a lot of time, it's convenient, easy to use and the price is right!"

George Bohrer
Chief Operations Officer
WestPenn Manufacturing Technologies
Cresson, PA



In this formed sheet metal component, a 2½ Axis Pocketing toolpath operation is used. The tooltip popup dialog displays machining information at a glance including Tool, Cut Feed and Machining Time.

Read More

- VisualCAMc at West Penn Manufacturing Technologies! (In Depth Case Study)
- VisualCAMc at West Penn Manufacturing Technologies! (MecSoft Blog)
- George Bohrer, West Penn Manufacturing Technologies (Testimonial)

We could not end this road trip without visiting the Big Apple! That's right, New York, New York and home of Michael Blase of Blase Photography. Michael is a long time RhinoCAM user. While others in the advertising business rely more and more on CGI, Michael constructs awesome physical realities with stagecraft, real actors and RhinoCAM CNC software from MecSoft Corporation! Have a look below!

BLASE PHOTOGRAPHY

RhinoCAM Constructs Realities at Michael Blase Photography

Michael Blase has been in the photography business serving the theatrical advertising market from lower Manhattan since 1995. Today Blase Photography creates photographs of *constructed realities* for performers, directors, designers and event organizers. Here's the catch. Michael does not rely on CGI. He builds complete sets and props for the models, actors or performers to interact with. The sets become the canvas on which he places the actors and lighting for the perfect photo shoot!

Michael's photographs are so surreal that he often presents the actual source photographs to his clients to show that they are in fact CGI free! We just had to sit down with Michael to learn about his unique style and how he uses RhinoCAM from MecSoft Corporation to help manufacture his *constructed realities*!

The RhinoCAM Difference

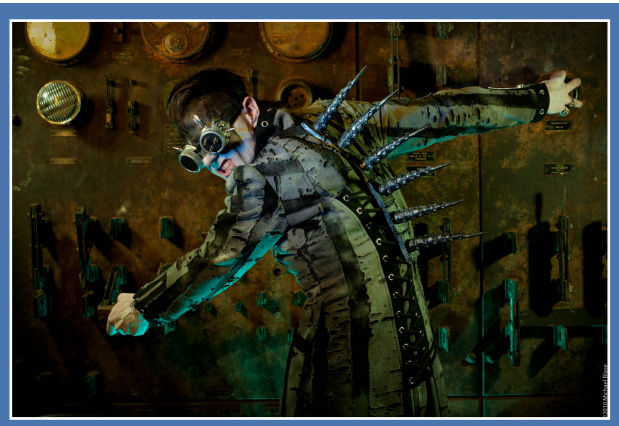
Michael started out doing composite photography but wanted something more realistic so he started constructing his own set designs. Michael is an avid user of Rhinoceros modeling tools from McNeel & Associates and is a big fan of parametric modeling and Grasshopper. He has extended Rhino with his own Python scripts and Grasshopper with his own C# scripts. He also utilizes other user shared scripts. This led to the need for CNC machining and in 2014 he purchased a ShopBot CNC router. The ShopBot shipped with VCarve but Michael quickly wanted a CAM program with a better workflow with Rhino.

"Having to export curves in one program, then open them in another and convert them to toolpaths was time consuming. Worse, if I had to make a small change in one part, I had to export all the curves again and convert them all into tool paths all over again. Also, the conversion from one program to another often introduces anomalies in the final result."

Here's more of what Michael had to say about RhinoCAM.

"I first started out using VCarve because it came with my ShopBot CNC router. However, because I design in Rhino, moving files between the two systems quickly became a burden. Also making design changes between the two systems took even more time. That's when I migrated to RhinoCAM."

Michael Blase,
Owner/Operator Blase Photography, New York, NY



Read More

- RhinoCAM Constructs Realities at Michael Blase Photography (In Depth Case Study)
- RhinoCAM Constructs Realities at Michael Blase Photography (MecSoft Blog)

While we're here let's step over to Brooklyn, New York and visit Max Allstadt. Max is an entrepreneur and independent CNC contractor with the help of RhinoCAM CNC software. Prior to starting his own shop Max was a carpenter and an administrative assistant to Israeli-Canadian architect, urban designer, educator, theorist, and author Moshe Safdie. Check out Max's own form of stagecraft below.

RhinoCAM and the 2019 United Nations Climate Action Summit!

We recently caught up with Max Allstadt, entrepreneur and independent CNC contractor out of Brooklyn, New York. Max is an avid Rhinoceros modeler and has been using RhinoCAM Professional with his ShopSaber CNC router since 2017. Prior to starting his own shop Max was a carpenter and an administrative assistant to Israeli-Canadian architect, urban designer, educator, theorist, and author Moshe Safdie. In just a short amount of time, Max has produced some very cool RhinoCAM projects like the stage for the United Nations 2019 Climate Action Summit in New York.

The RhinoCAM Difference

"I have found that your Annual Maintenance Subscription (AMS) is by far the best tech support in the industry! You guys answer the call 5 days a week and give me good advice unlike other CAM companies I have dealt with. If I can't get something working you guys help me quickly. You have never failed me!"

Max Allstadt,
CNC Contractor, Brooklyn, NY

Here you can see the in-process production picks for this project from Max Allstadt.

Read More

- RhinoCAM and the 2019 United Nations Climate Action Summit! (In Depth Case Study)
- RhinoCAM and the 2019 United Nations Climate Action Summit! (MecSoft Blog)
- Stock from Selection & 3 Axis Curve Machining (MecSoft Blog)

More Customer Success Videos

Advanced Robotic Technology

Christopher Dungey Cello Maker

Dubes Custom Street Machines

Sisters High School
Sisters, OR

- Keith Dube discusses MecSoft & VisualCAD/CAM (Audio Testimonial)
- RhinoCAM Testimonial: Al Grifka of Conley Manufacturing (Audio Testimonial)
- RhinoCAM Testimonial: Julie Pedalino of Pedalino Bicycles (Audio Testimonial)
- VisualCAM Testimonial: Oliver Moore of Moore Brothers (Audio Testimonial)
- MecSoft Testimonial: Dave Teeters of AirMotive Specialties (Audio Testimonial)
- MecSoft RhinoCAM Testimonial: Bernie Solo of WorksbySolo (Audio Testimonial)
- RhinoCAM Testimonial: Greg White of Advanced Robotic Technology (Audio Testimonial)
- MecSoft Testimonial: Dr. Casey Kerrigan, OESH shoes (Audio Testimonial)

We hope you enjoyed our 2020 installment of *MecSoft's Customer Success!* Stay with us as we continue to build the future, one CAM Partner at a time! This article was brought to you by MecSoft Corporation - Your CAM Partner!