Case Study: VisualCAM at Moore Brothers Co.

[Moore Brothers Company](#) of Warren, RI is a small but growing startup owned and operated by brothers Oliver and Samuel Moore. The pair have combined their engineering backgrounds, experience in ship building, fiberglass, composites, and CNC machining with their love of the great outdoors! We recently sat down with Moore Brothers to discuss their use of [VisualCAM from MecSoft Corporation](#).

Why VisualCAM?

Oliver and Samuel Moore felt they had some unique ideas about how to better employ CNC machining in the field of boat building and composites design. To this end, the company purchased 3 axis and 5 axis [ShopBot CNC machining centers](#) and chose MecSoft's [VisualCAM for SOLIDWORKS](#) software to run them!

VisualCAM for SOLIDWORKS provides Moore Brothers Company with a full range of 2½ through 5 axis continuous and indexed machining strategies. VisualCAM is used to drive the company's ShopBot CNC machining centers with customizable ShopBot post processors included with the software.
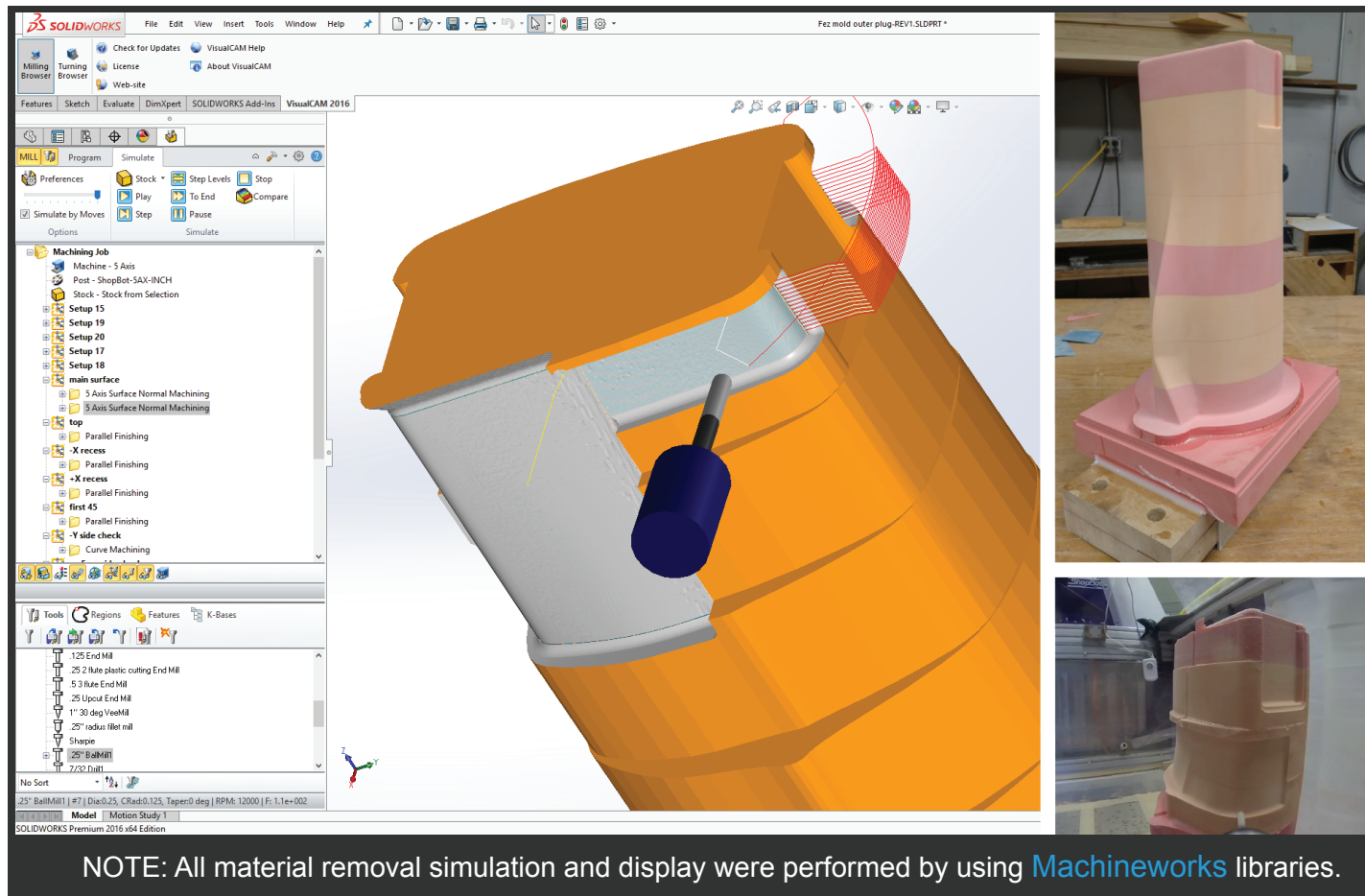
Composite Mold Core

Boat Building

Moore Brothers Company designs and manufactures composite molds and uses them to produce both fiberglass and carbon fiber boat components for its customers. In the core half of this mold shown in the images above and below, indexed 5 Axis setups are used to produce 2½ and 3 Axis roughing operations while continuous 5 Axis Surface Normal machining is used for finishing the main surfaces.

In continuous 5 Axis Surface Normal machining the cutter always remains "normal" (i.e., perpendicular) to the selected drive surface while the cut pattern is "driven" by selectable drive surfaces. This strategy allows the entire component to be machined without having to reposition it in the CNC machining center, saving time and increasing accuracy.

> *We chose VisualCAM to run our CNC machining centers because it runs as a plugin to SOLIDWORKS and supports both indexed and continuous 2½ through 5 axis machining strategies. We also found VisualCAM to be very cost competitive with other CAM software with similar features!"*

- Oliver Moore, Moore Brothers Co.

NOTE: All material removal simulation and display were performed by using Machineworks libraries.

VisualCAM for SOLIDWORKS is shown simulating a continuous 5 Axis Surface Normal machining operation. The VisualCAM Machining Browser is shown on the left as an additional tab in the SOLIDWORKS Feature Manager. In continuous 5 Axis Surface Normal machining the cutter always remains "normal" (i.e., perpendicular) to the selected drive surface while the cut pattern is "driven" by selected drive surfaces. VisualCAM outputs the multi-axis motions needed to achieve continuous 5 Axis surface machining. (Inset Top) The final part is shown is shown the work bench. (Inset Bottom) The in-process stock is shown on the table of ShopBot 5 Axis CNC center.

> *I like the symbiosis between the VisualCAM plugin and SOLIDWORKS. The updating process is dead nuts simple and works. You guys deserve huge credit for the quality and speed of your customer service. All in all; two thumbs up.*
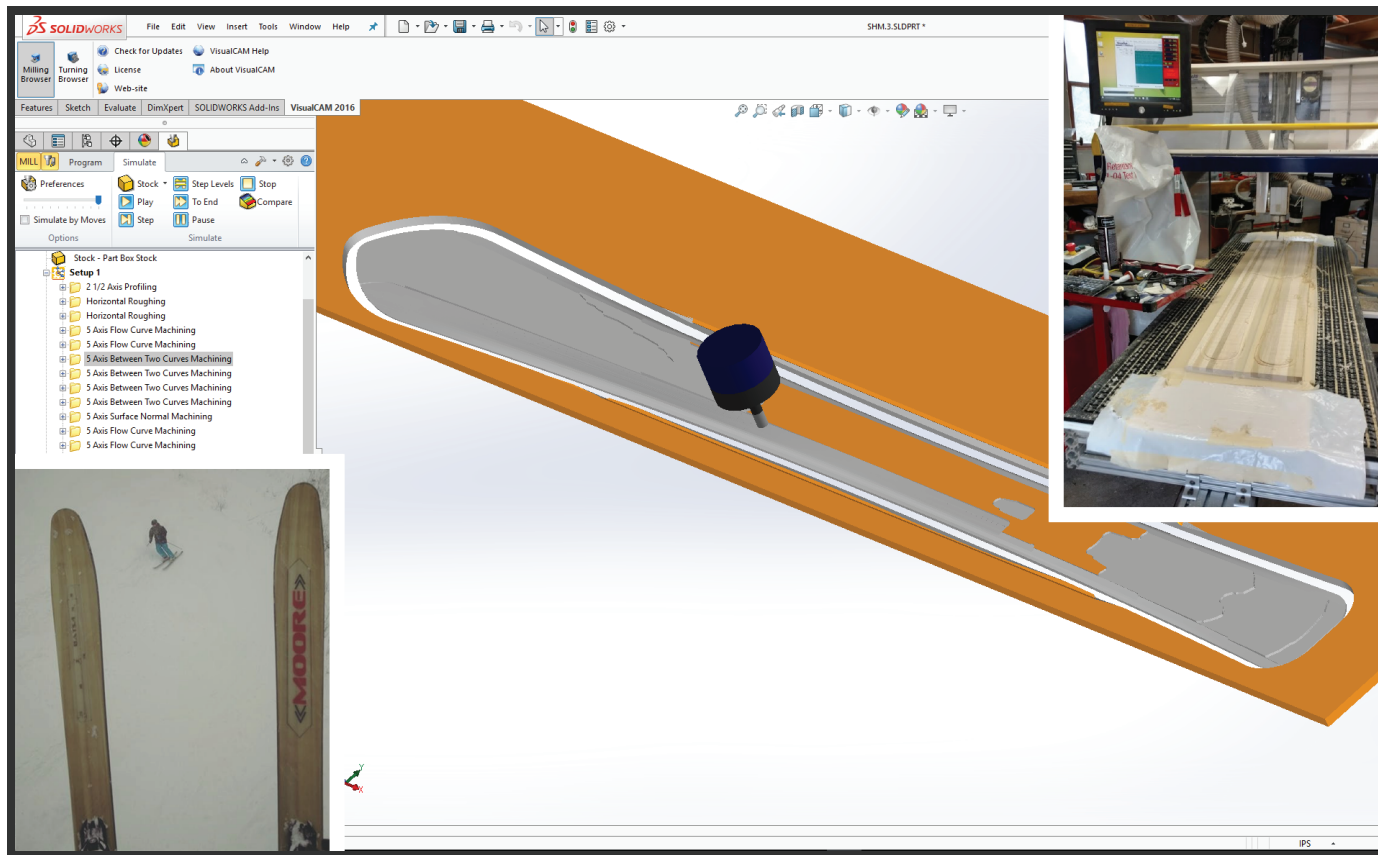
- Samuel Moore, Moore Brothers Co.

Spindle cam video of 5 Axis Surface Normal Machining at Moore Brothers Company.

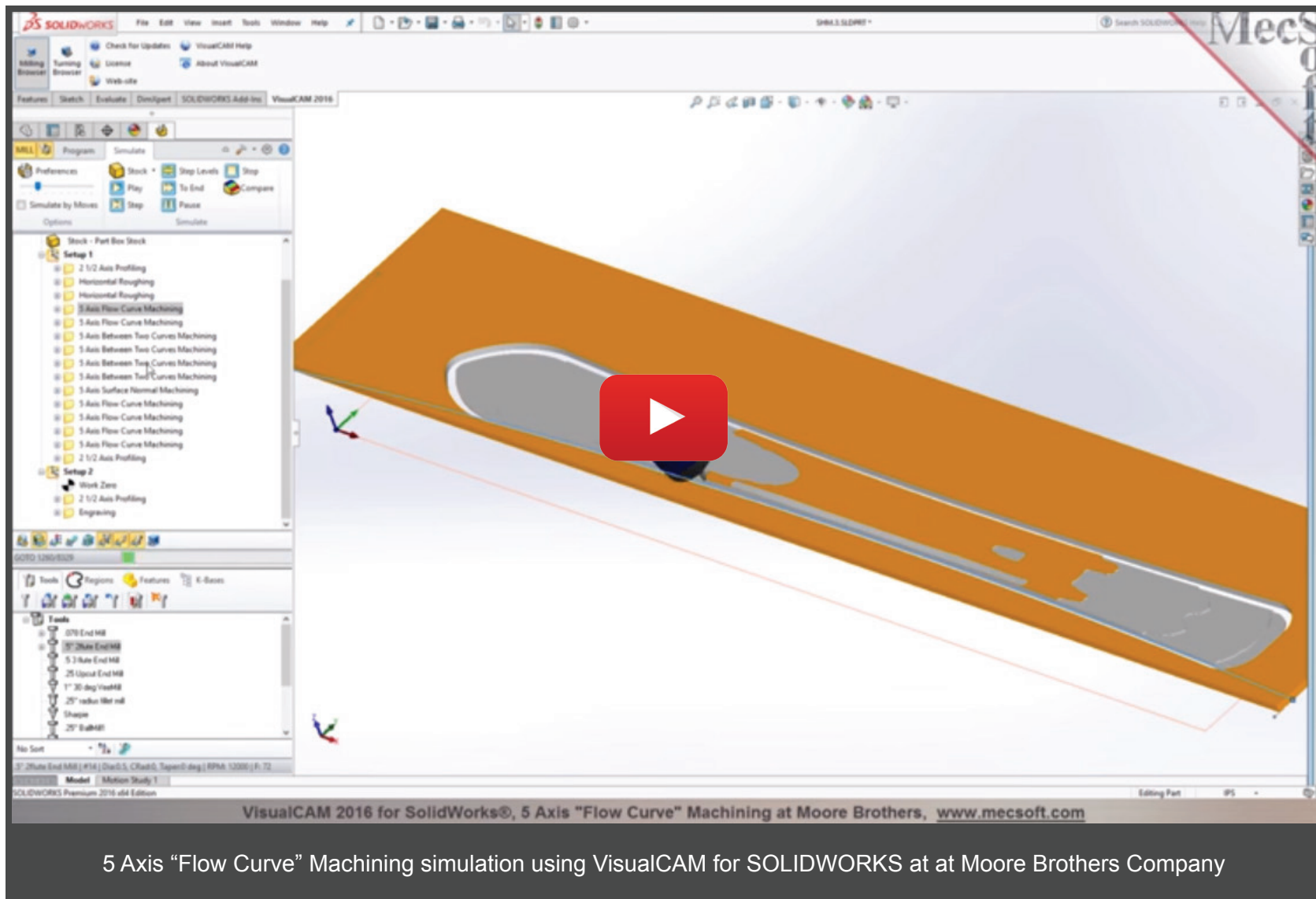Want to see how **VisualCAM** for SOLIDWORKS can help you? [Click Here](#) to download a demo.

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Tailored Downhill Skis

Being situated in Warren RI, Moore Brothers Company is carving out a niche market for tailored "made-to-order" downhill skis. As shown in the image below, ski cores are machined from poplar wood blanks using 2½, 3 & 5 Axis toolpath strategies in VisualCAM for SOLIDWORKS.

VisualCAM for SOLIDWORKS is shown simulating a continuous 5 Axis "Between 2 Curves" machining operation. (Inset Top Right) The ski cores are being machines on the ShopBot CNC machining center. (Inset Bottom Left) The the final product is being tested at Sugarbush Ski Resort in Warren Vermont - the fun part!!

NOTE: All material removal simulation and display were performed by using Machineworks libraries.

Want to see how **VisualCAM** for SOLIDWORKS can help you? Click Here to download a demo.

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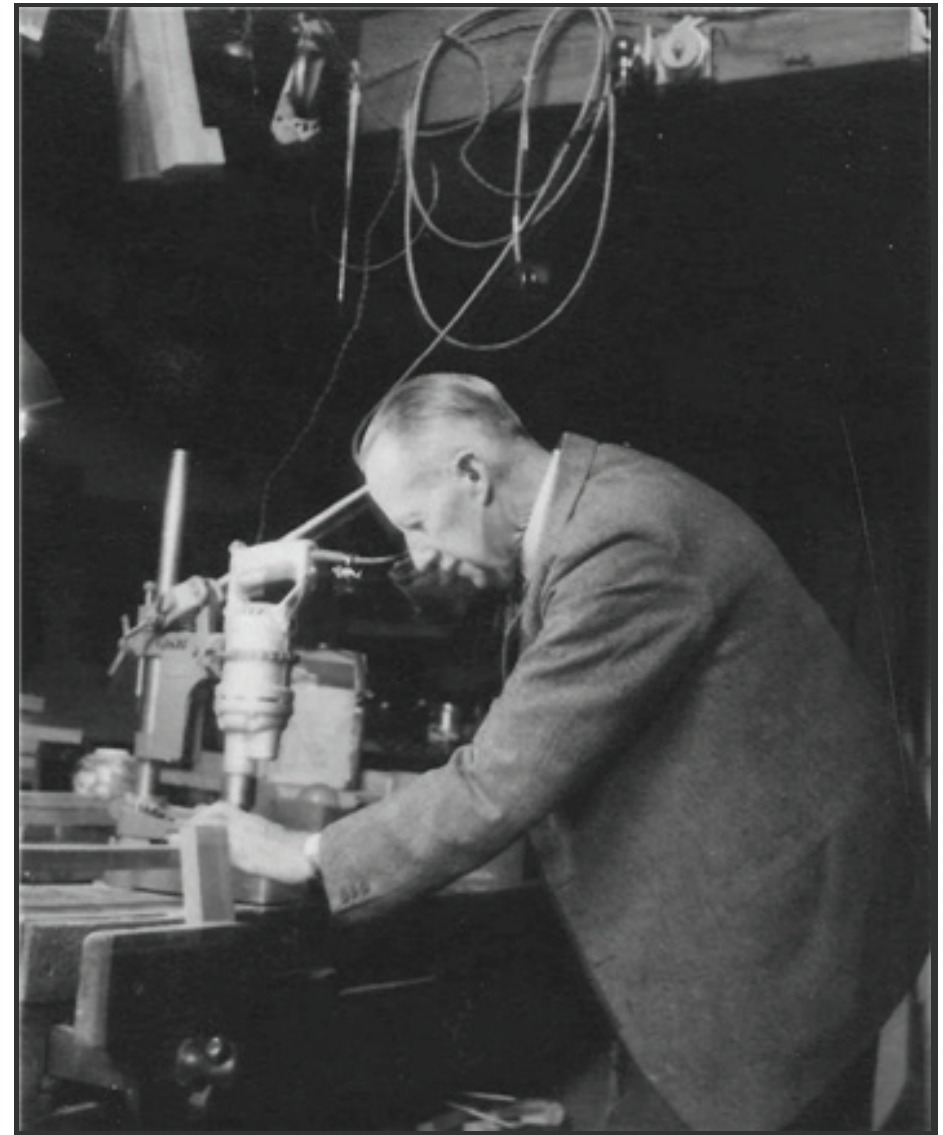5 Axis "Flow Curve" Machining simulation using VisualCAM for SOLIDWORKS at at Moore Brothers Company

Quality, Craftsmanship - a Moore Family Tradition

Quality and Craftsmanship are more than just end results at Moore Brothers Company - they are family traditions. Pictured here is Alfred William Moore, Oliver and Samuel's great grandfather working in his St. Albans UK shop in the late 1940s!

With Oliver and Samuel's talent and VisualCAM for SOLIDWORKS at their side, we expect to see Moore Brothers Company continue the Moore family tradition. And for each and every project, MecSoft Corporation will continue to be their CAM partner!

Want to see how **VisualCAM** for SOLIDWORKS can help you? Click Here to download a demo.

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Oliver and Samuel Moore of Moore Brothers Company

For more information about brothers Oliver and Samuel Moore and Moore Brothers Company, we recommend you visit them on their Facebook page.

Additional Images (Moore Brothers Company):

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