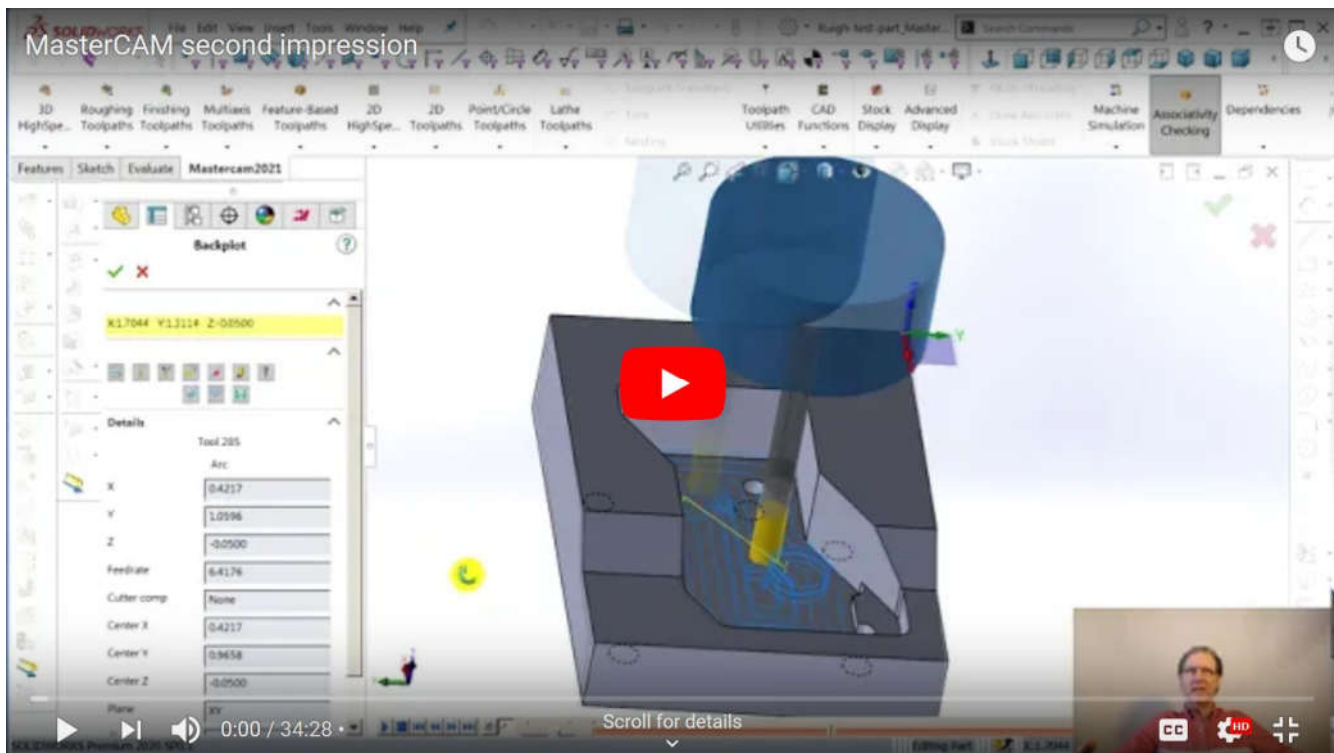




Rako Studios » Media » Suffering-with-software » MasterCAM third impression

MasterCAM third impression

Just when I think MasterCAM has excelled on cutting the sloped sections, I see that the toolpaths created a large gouge.



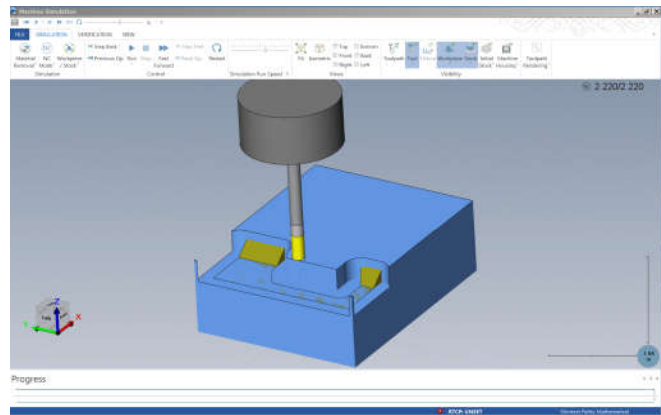
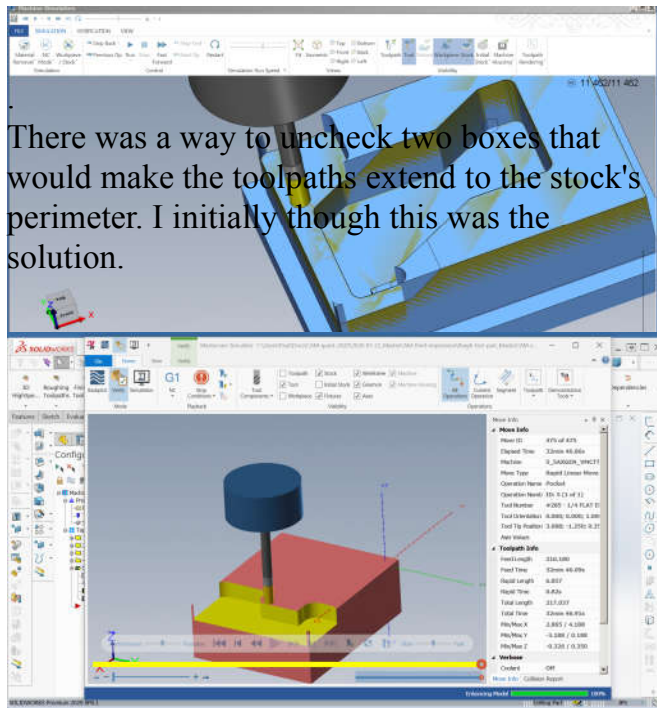
Beginning part file here.
Finish part file here.

In this third impression, I try to finish the top-side machining of the test part. I thought using the "open pocket" setting in the "Parameters" dialog box would let the program machine the flat portions next to the slopes. That did not work out, at least not with the ways I tried to do it.

Not shown in the video is where I just selected the two edges where the slopes meet the flat. This worked well, but then left stock material away from that edge. I tried a few more edges, but had no luck getting results.

There were a couple settings that looked like they could help me do the open pocket, but they did not seem to help. I can see if the program would just let me select the open edges, it would be able to make the toolpath.

In the end I did what I had to do in the other CAM programs, and draw a sketch that went past the open edges so the program would make toolpaths that did not leave little radius scallops in the corners, including two posts that stuck up in the far corners. These were not left over from the stock boundary, these were because the tool can't go past the boundary of a pocket.



After a simulation, it showed there would be posts left in the stock perimeter, but that perimeter would already be cut off by a previous operation, so I thought things were great.

This simulation popped up automatically and inexplicably in MasterCAM. So there are three simulators, the toolpath animation. The simulator above, which pops out unexpectedly, and the simulator you invoke from a button on the Command Manager ribbon bar. When I did that simulation, it was obvious the toolpath was carving up the part. I am astonished how all these programs will sail a tool through the solid model and not think anything is wrong.

Making a sketch bigger than the flat but adjoining the slopes solved the problem, similar to what I had to do in the other CAM programs.

For the slopes themselves, I thought MasterCAM was the first program to cut them correctly on the first try. Turns out, it did cut the surface accurately. Only in order to do that, it had to put two huge gouges in the flat area. Once again, these programs think nothing of carving up your solid model.

If I also defined the flat as the surface, then the gouges went away, but the program would be machining in air over the flat. At this point, I have been so frustrated by MasterCAM that I am not even trying to optimize machining time. This would be important if you are making 50 parts, but for my prototype work, I am not too concerned about it.

I have to believe there is a way to cut the flat as an open pocket, and I will keep investigating if I can do the slopes without wasting a lot of machine time.

Right now I am trying to make a bottom setup to finish the part, and like every other task, I am having to watch YouTube tutorials and ask my machinist buddy how to do basic things in MasterCAM, something I never had to do with SolidWorks CAM, VisualMill, or BobCAD.