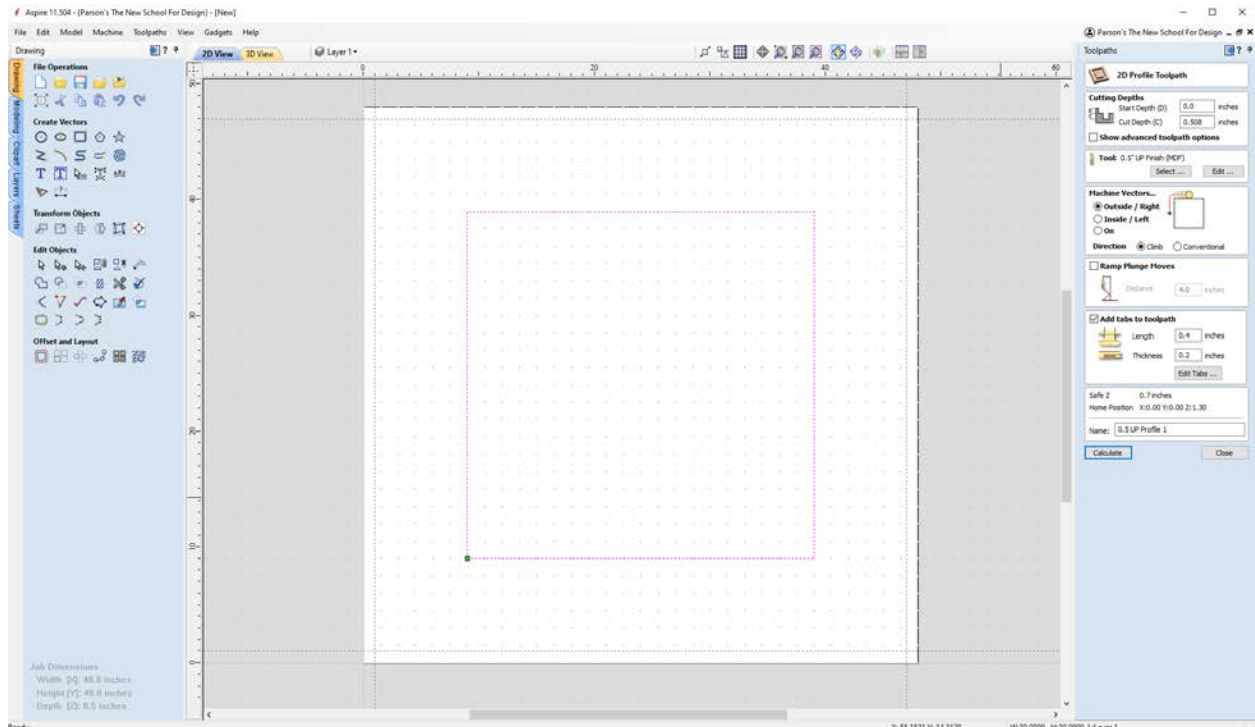# How to Profile

Removing material along a specified path at a fixed depth

STEP 1: Select Profile Toolpath Operation

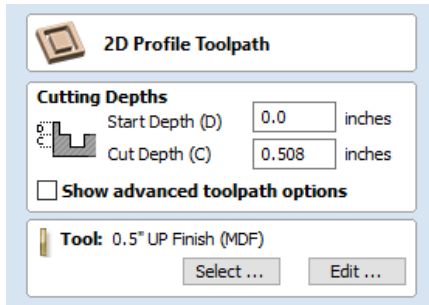On the right side of the screen, under Toolpath Operations, select the Profile Toolpath.

STEP 2: Select Vectors

Select the vectors you want to profile. They will turn pink when selected.

STEP 3: Configure Profile

Start Depth (D)

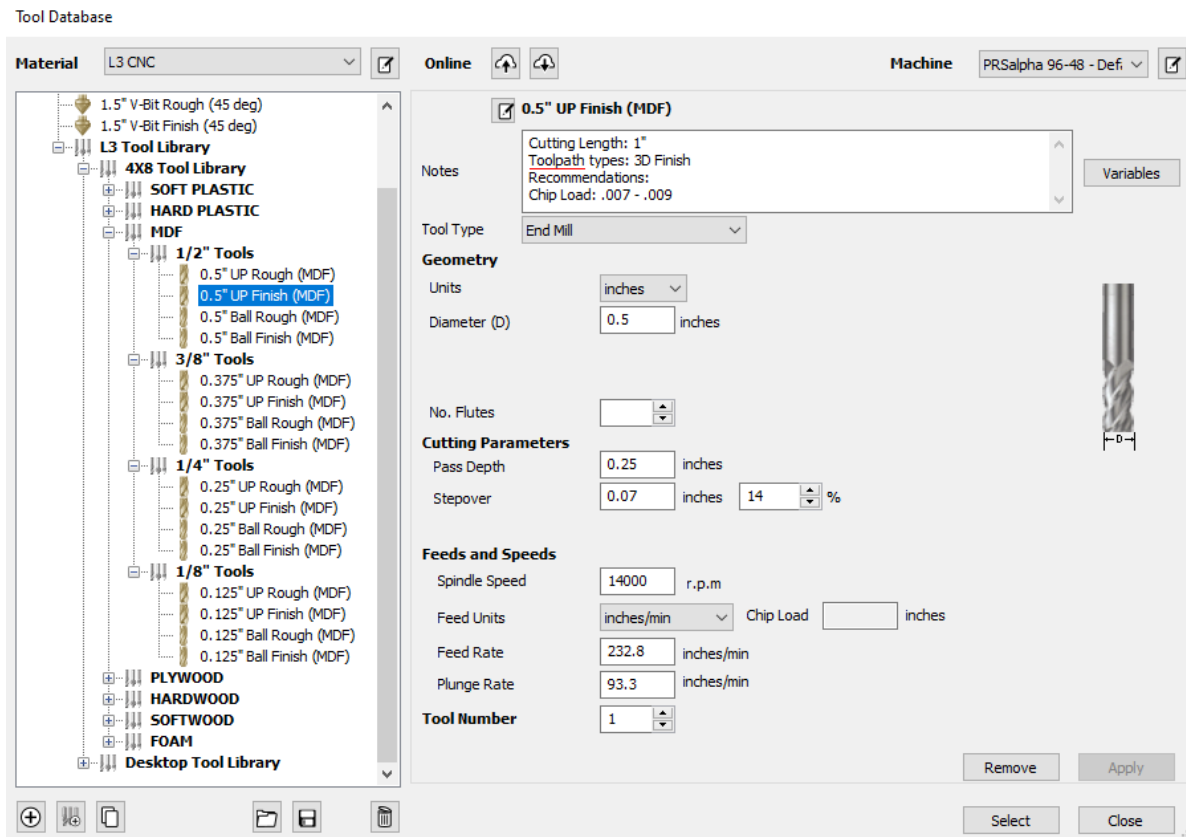The starting point of your cut, usually set to 0.0 inches.

Cut Depth (C)

How deep your profile will cut from the start depth.

Tool

Press "Select" to open up the Tool Database and choose the most appropriate tool.
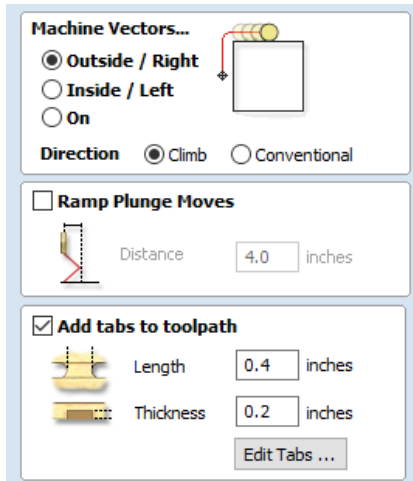
STEP 4: Select Tool

Look under the tool settings that correspond to your material. Use the largest tool possible, while still achieving your desired fidelity.

Up tools are generally used to cut profiles. Rough settings will cut faster, but finish settings will give a cleaner edge.

STEP 5: Configure Profile cont.
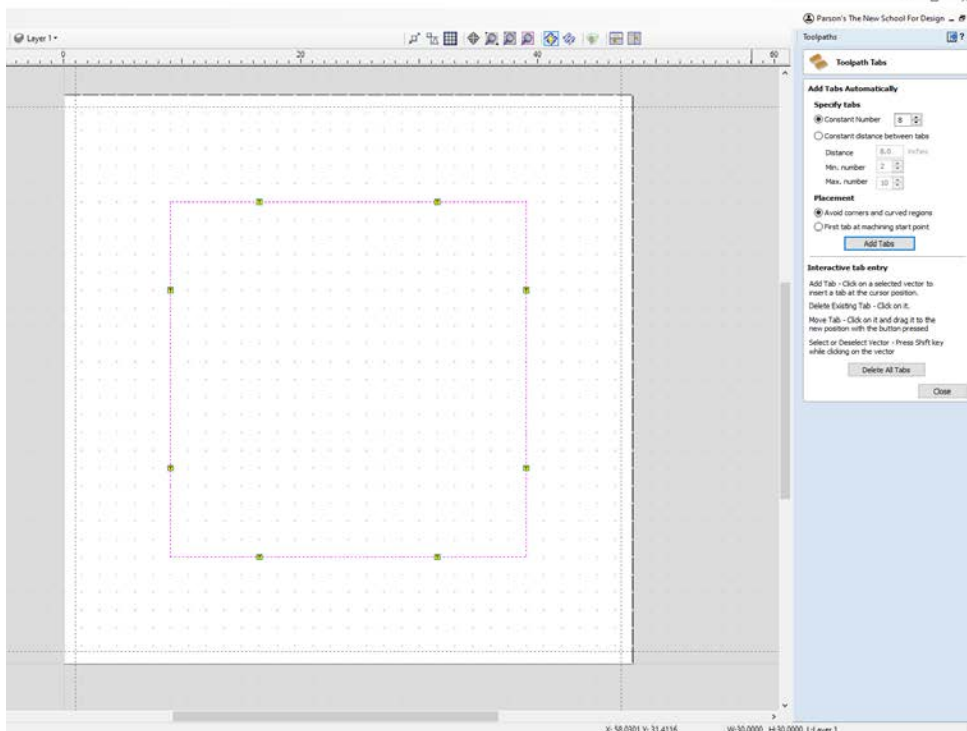

Machine Vectors

This defines how the machine will cut the selected vector.

Add Tabs to Toolpath

Tabs are used to secure your loose cut to the stock material, so it doesn't fly off the machine.

Check the box and click "Edit Tabs" to open up the Tabs menu.

STEP 6: Add Tabs

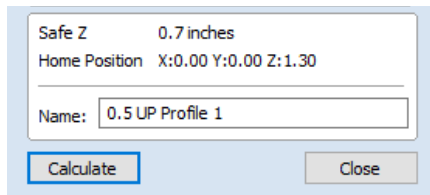You have the option of adding tabs automatically or manually.

To add them automatically, set the constant number to the number of tabs you want and click "Add Tabs". This only works well with basic geometry like rectangles and circles.

To add them manually, click on the vector where you want a tab to be. Click on the ▪️ to delete a tab or drag it to move the tab.

Avoid corners and internal curves as they're more difficult to clean up.

General rule of thumb: have a tab at every 12", but you may need more on **delicate** areas.
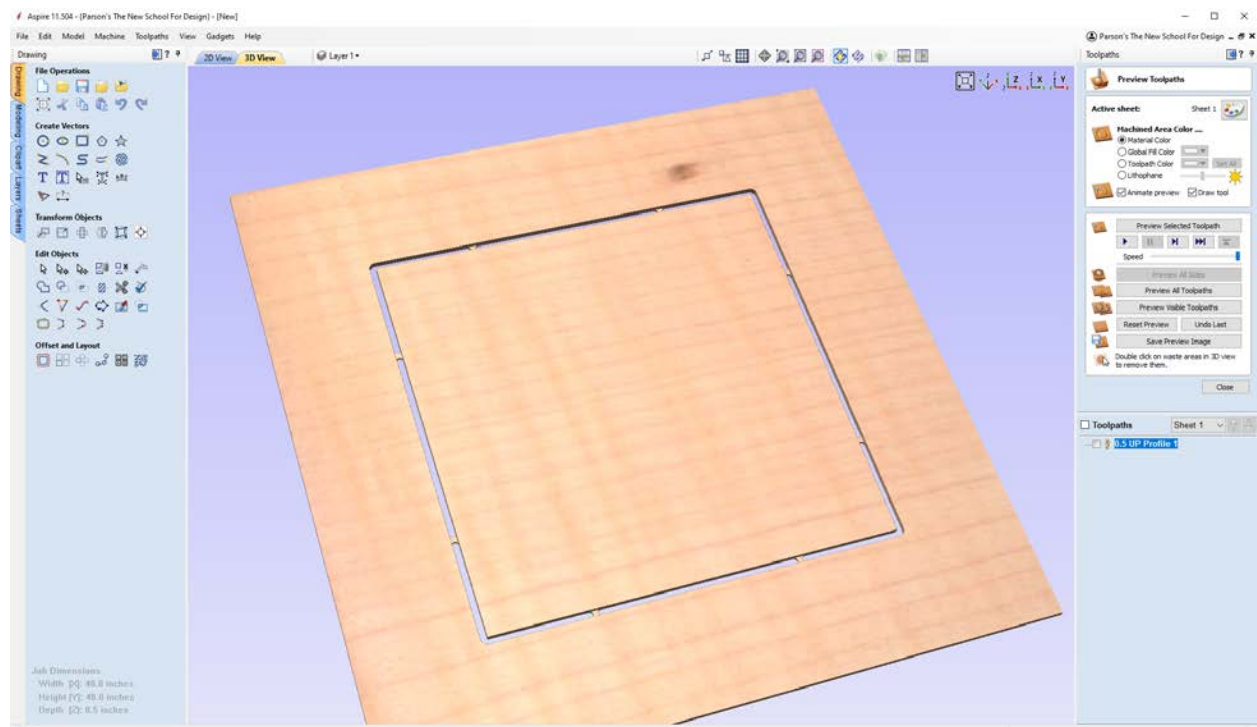
STEP 7: Rename + Calculate Toolpath

Rename your toolpath to follow the naming convention of "**[toolsize] [tooltype] [operation]**".

This will come in handy when optimizing your toolpath order.

Press "Calculate" to finish the operation.

STEP 8: Preview

Click "Preview All Toolpaths" to preview the results.

If you need to edit the toolpath, double click the name of the operation.

When finished, click "Close" to exit out of the preview and click "2D View" towards the top of the screen to continue writing your operations.