Vectric Gadget Man Dovetail Maker Version 5.30

MAY 2020

Dovetail Gadget Agenda

- Job Setup
- Running the Dovetail Gadget
- Joint Setup
- Making the Toolpaths
- Testing the Fit

Please Note: This Gadget builds a Dovetail Joint by controlling the number of Tails and Pins equally over the size of material by entering the number of dovetails in the joint. The Bit selected plays a large role in the joint settings.

Revision History

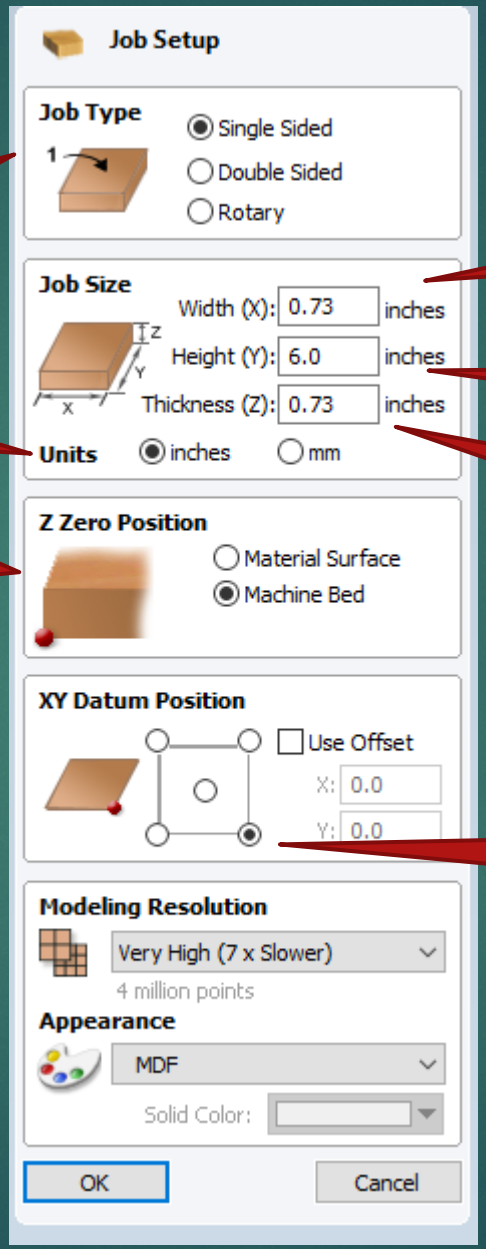
- Version 5.30
  - Moved Dovetail Tool database from “ini” file to the Registry
- Version 5.20
  - Backer board capability for the prevention of chip out when cutting side material with dovetail cutting it
  - Left and righthand orientation for cutting the front board pins
  - Front pin fit adjustment capabilities
  - Additional code clean up and error trapping
  - Updated documentation (Wiki and pdf)

Dovetail Gadget Job Setup

Job Type – Set to ‘Single Sided’
Milling operation is on the End of the material

Job Size – Units: Set to Your Units

Z Zero Position – Set to ‘Your Style of Milling’
I use ‘Machine Bed’



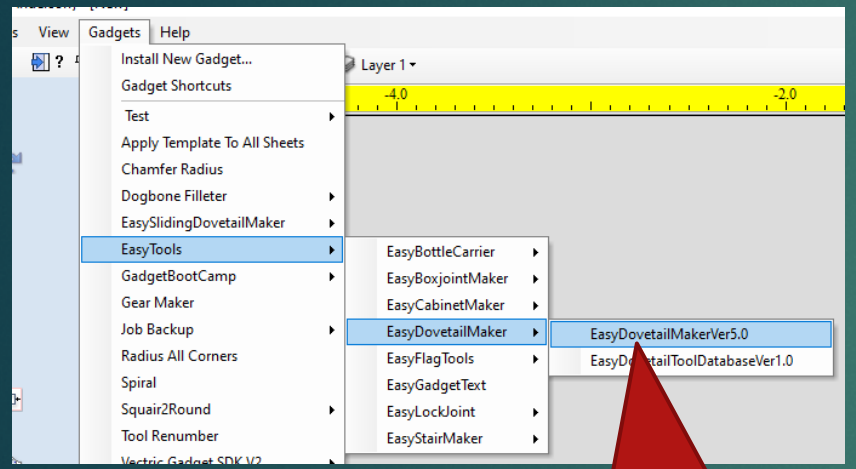
Job Size – Width: Set to your material thickness

Job Size – Height: Set to your material Width

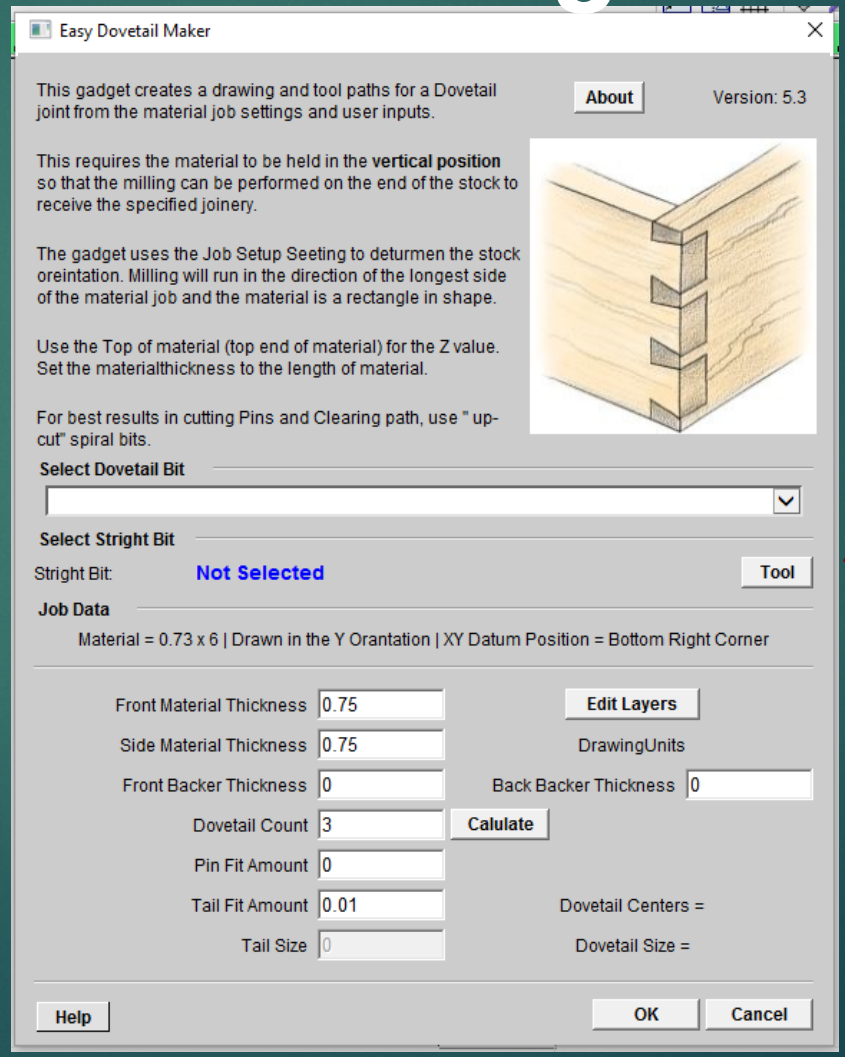
Job Size – Thickness: Set to your material thickness

XY Datum Position –Set to your Mill
I use the Lower Right on my Mill configuration

Dovetail Gadget
Running the Dovetail Gadget



Run Easy Dovetail Gadget

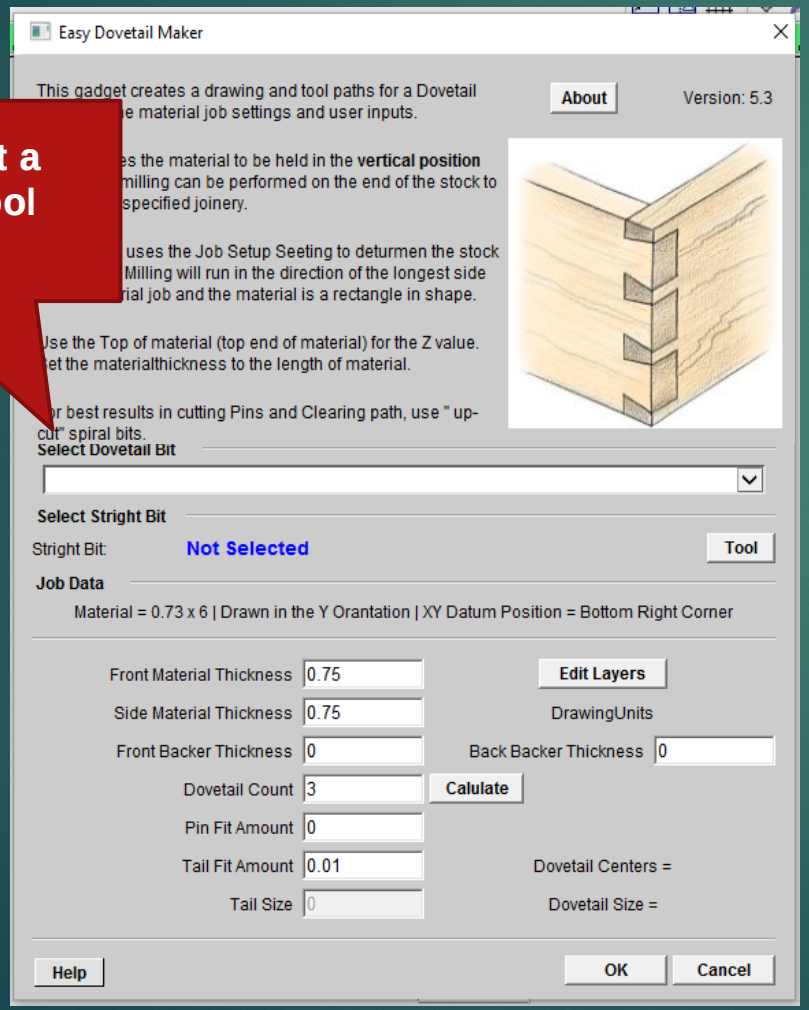


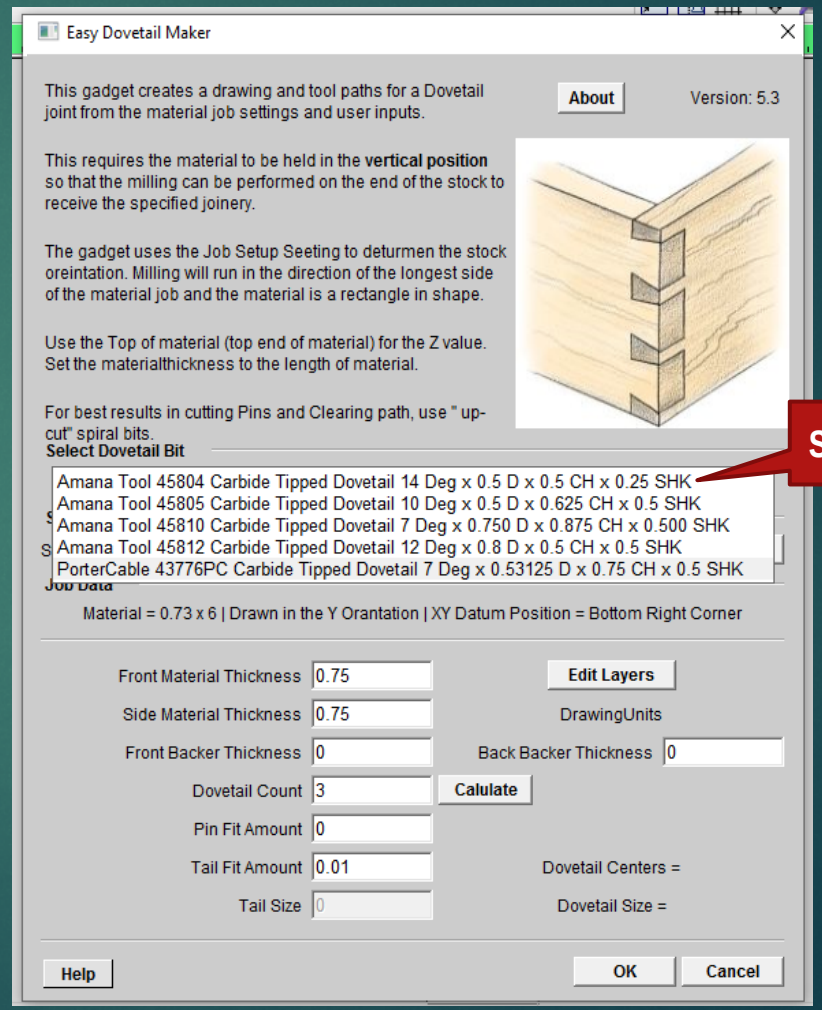
Version 10 or higher - Select Tool From The Tool Database

Version 9 or lower – Enter The Tool Diameter

Dovetail Gadget
Running the Dovetail Gadget

Drop the list to select a Dovetail From The Tool Dovetail Database

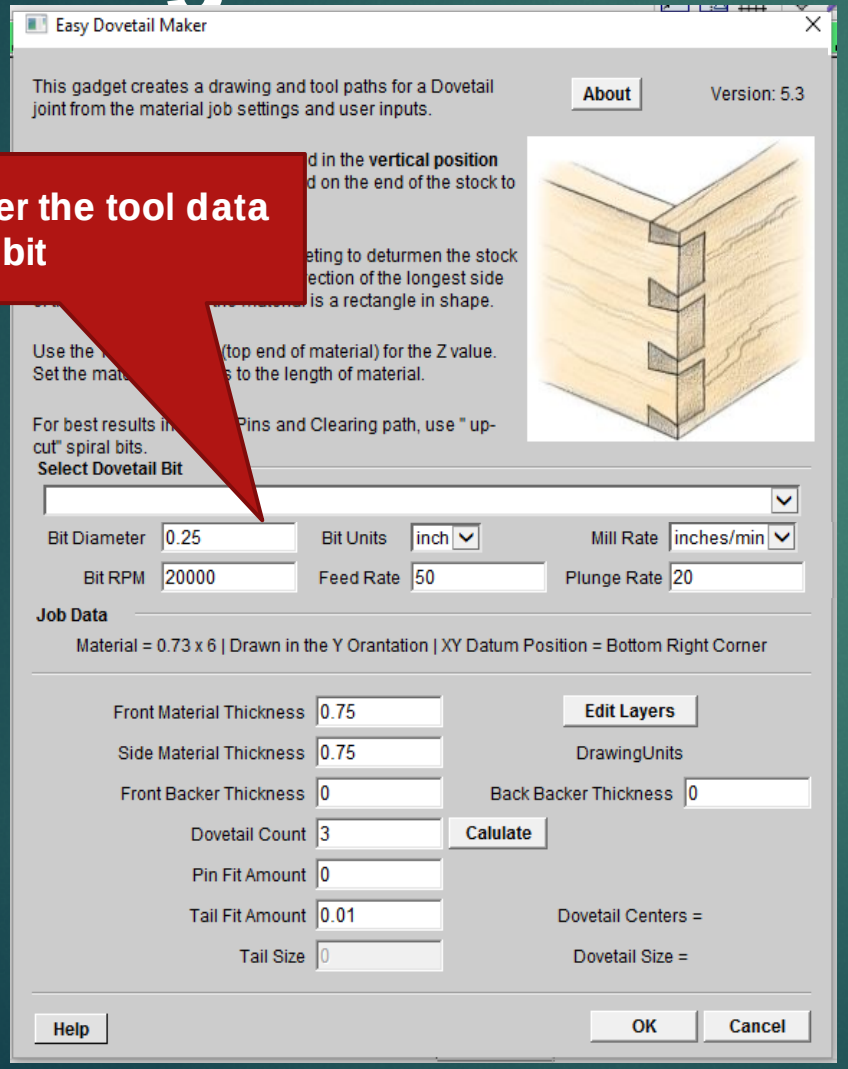




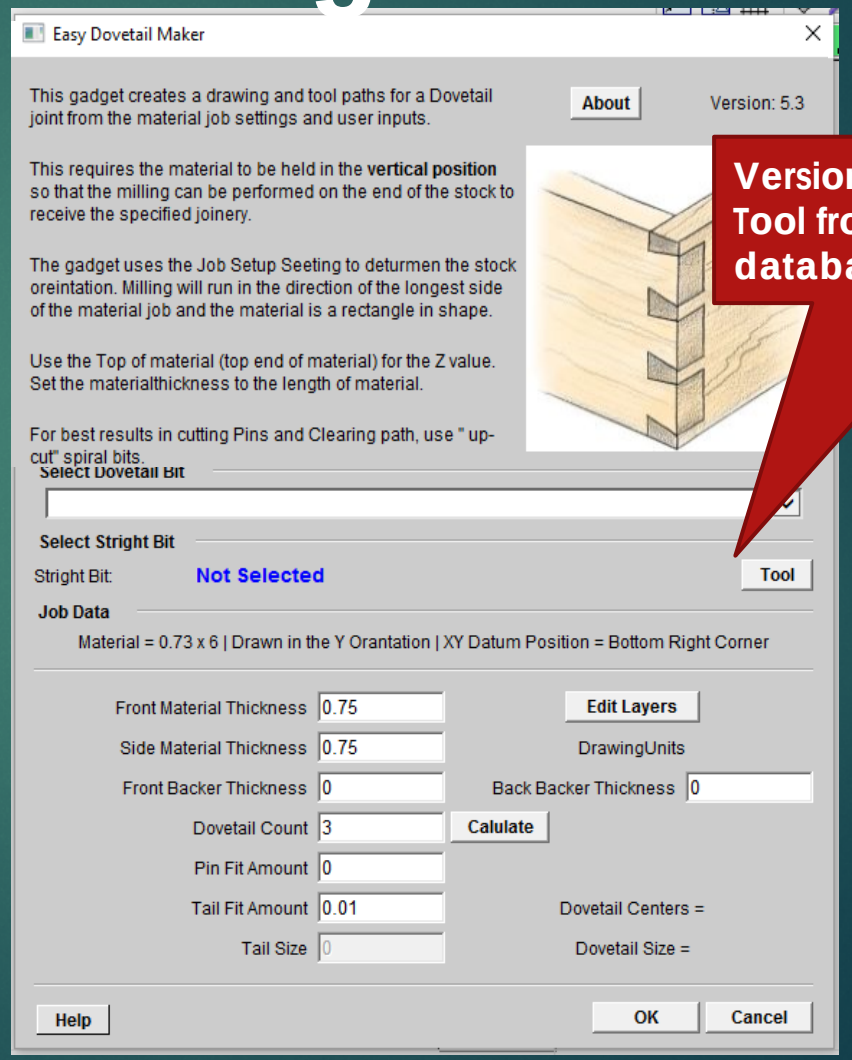
Select a Dovetail bit

Dovetail Gadget
Running the Dovetail Gadget

Version 9 – Enter the tool data for the straight bit

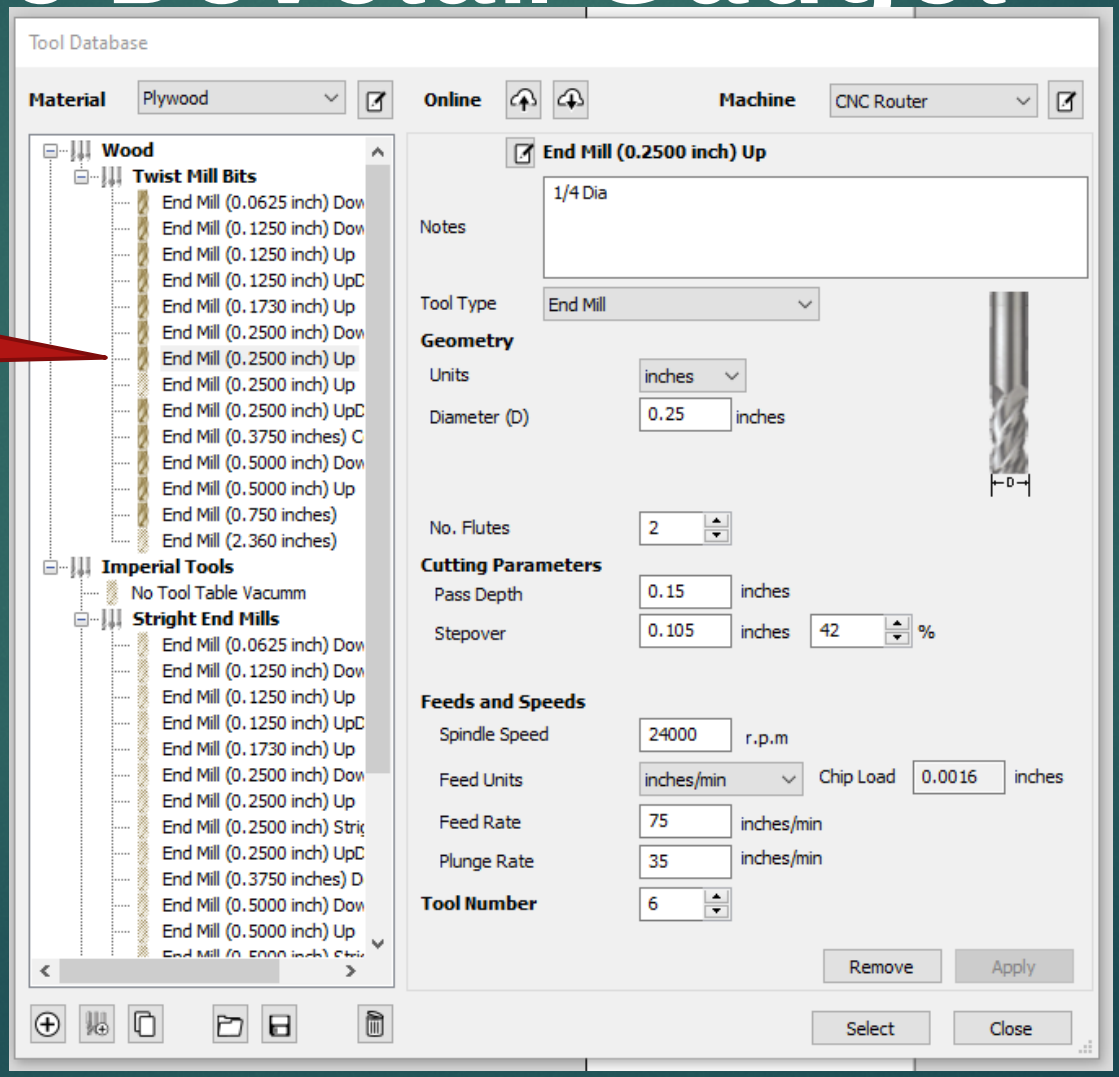


Version 10 - Select a straight Tool from the standard Tool database



Dovetail Gadget
Running the Dovetail Gadget

Select a Tool Diameter smaller or equal to the slot size. You may have to re-select if required



Dovetail Gadget
Running the Dovetail Gadget

Note: Job data is displays here

Note: Front and Side material thickness can be adjusted based your needs

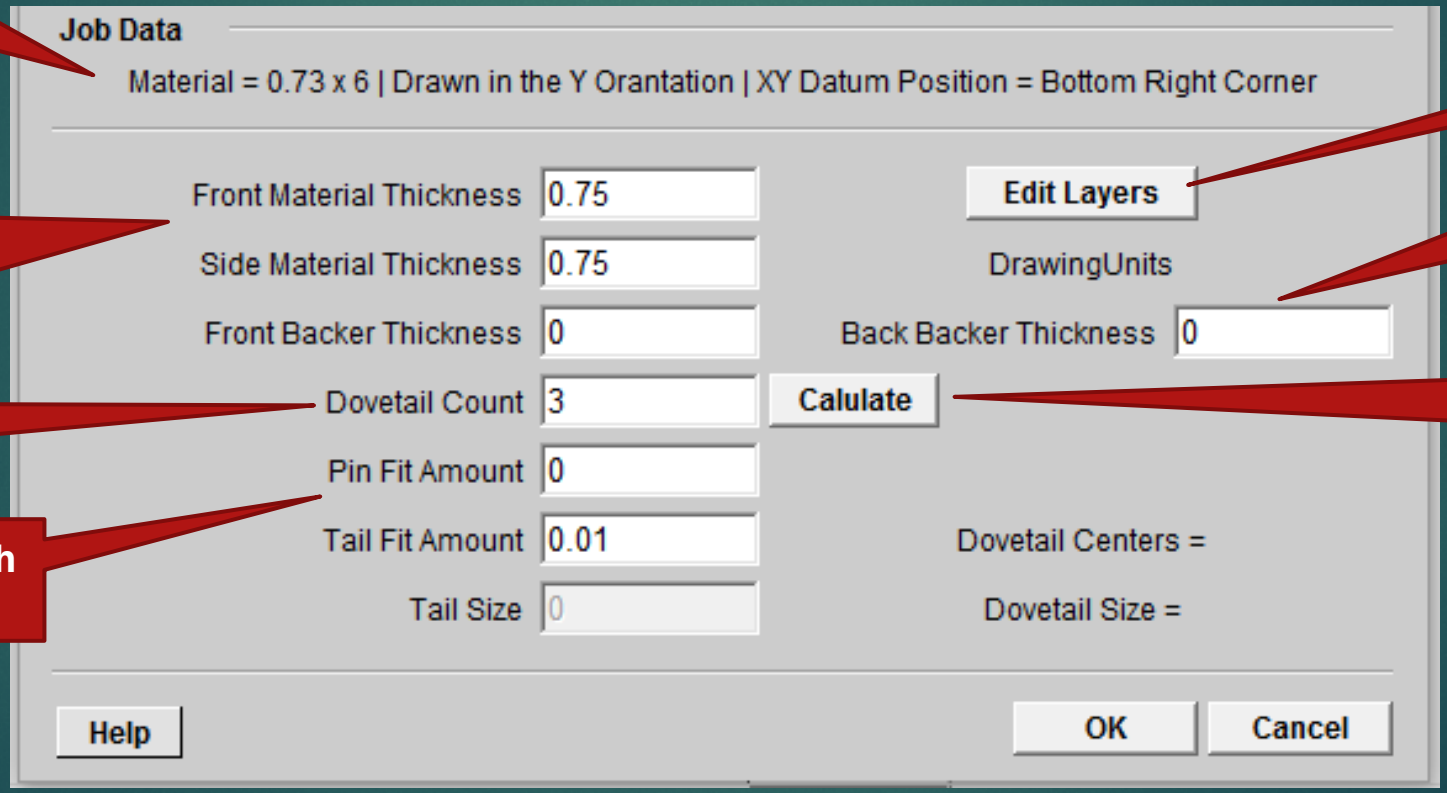
Enter the number of Dovetail for the joint

You can adjust the fit with entering a value here

Displays the Layer Editor

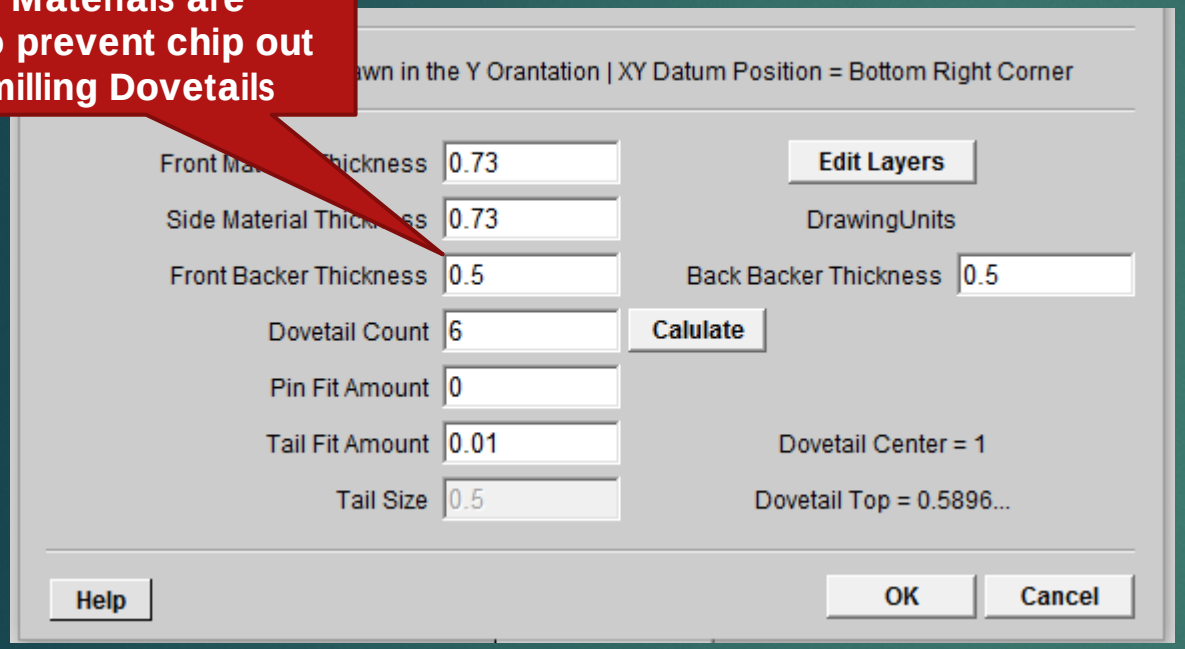
Backer Material Thickness for Side Dovetails Milling

Select the Calculate button to display the Joint data

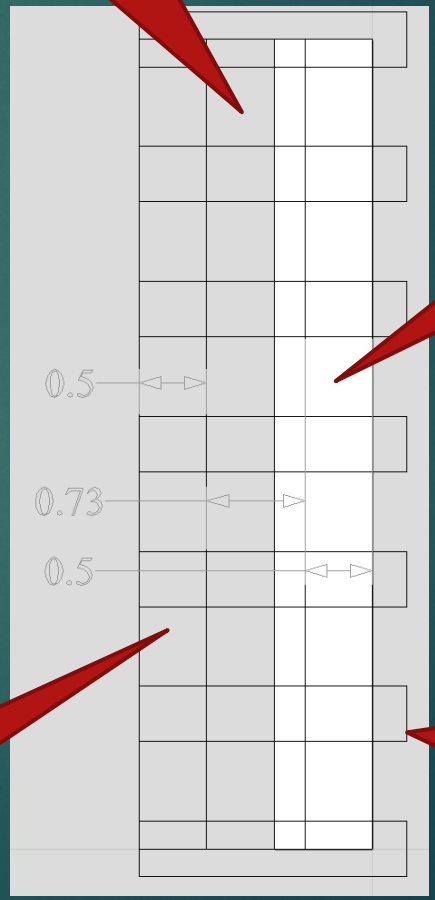


Dovetail Gadget
Running the Dovetail Gadget

Backer Materials are used to prevent chip out when milling Dovetails



0.73 Side Material

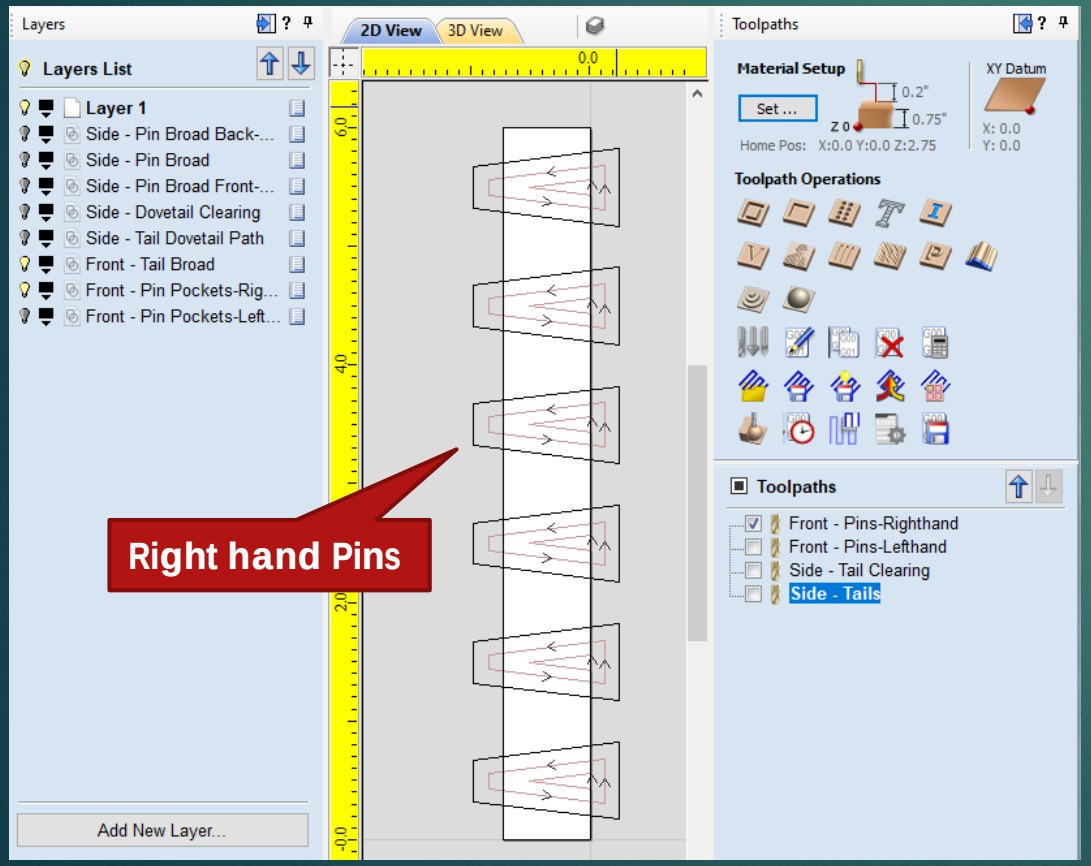


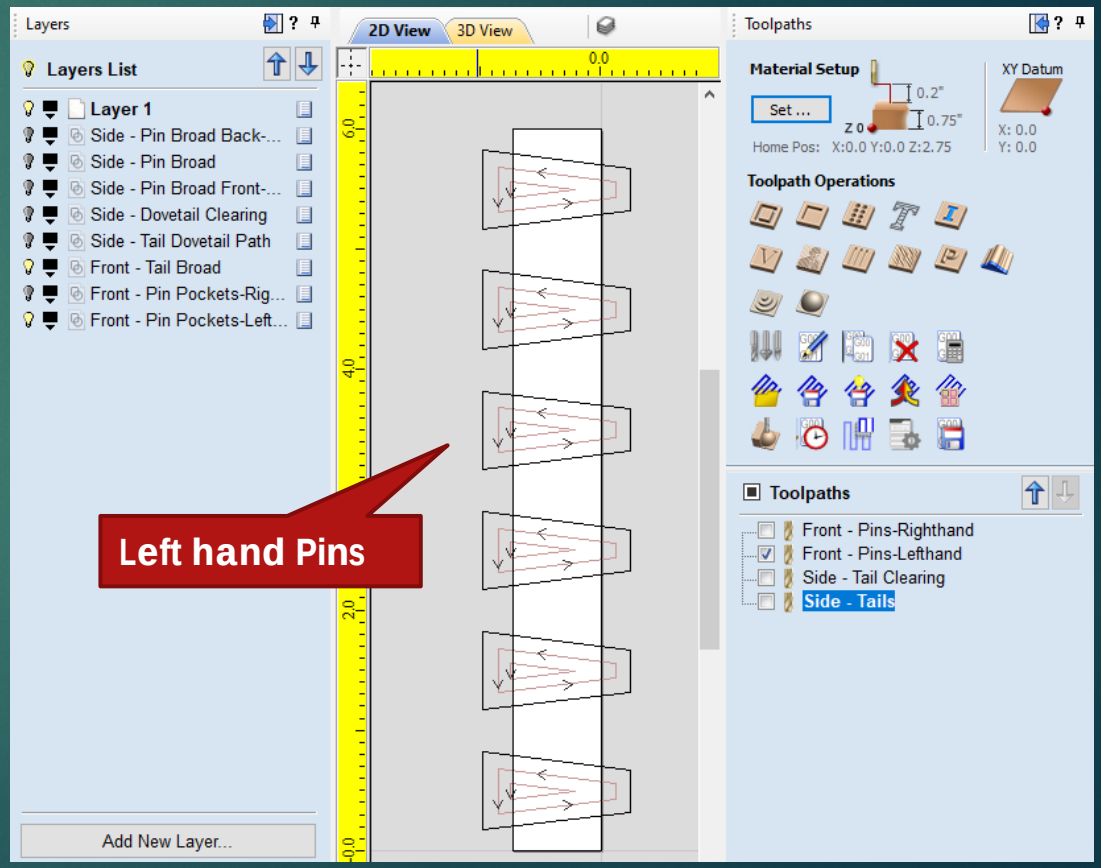
0.5 Back Backer Material

Dovetail Clearing Pockets

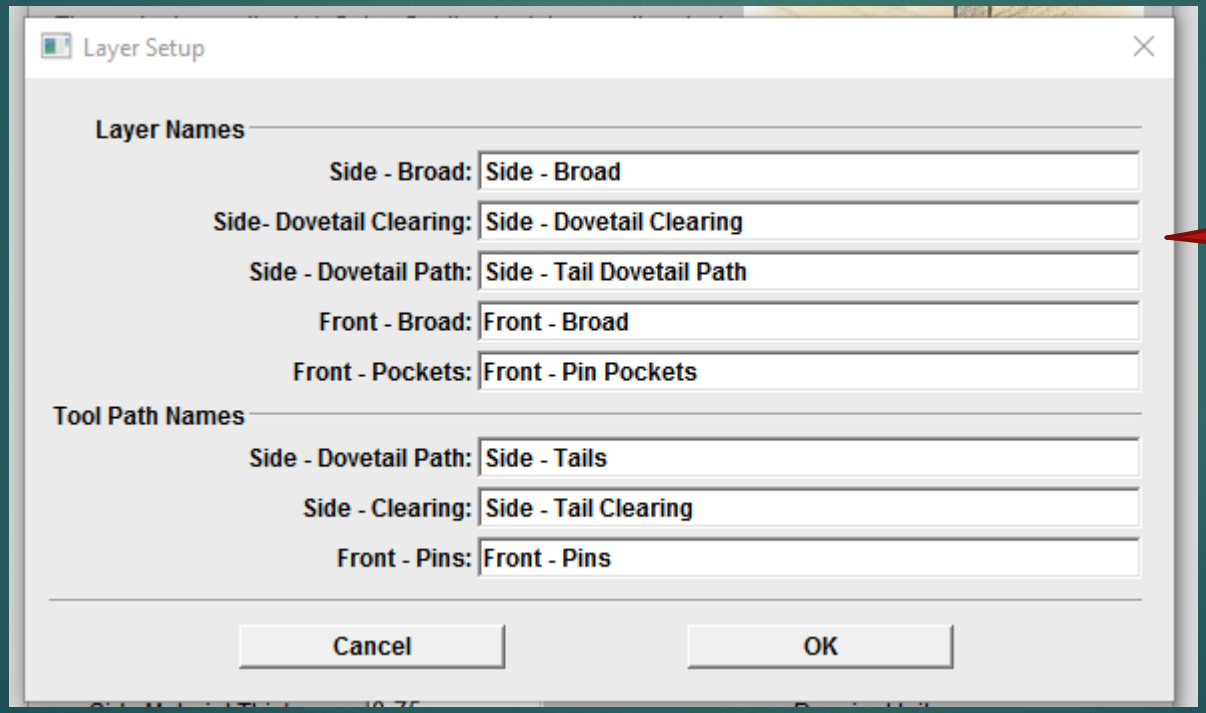
0.5 Front Backer Material

Dovetail Gadget
Running the Dovetail Gadget



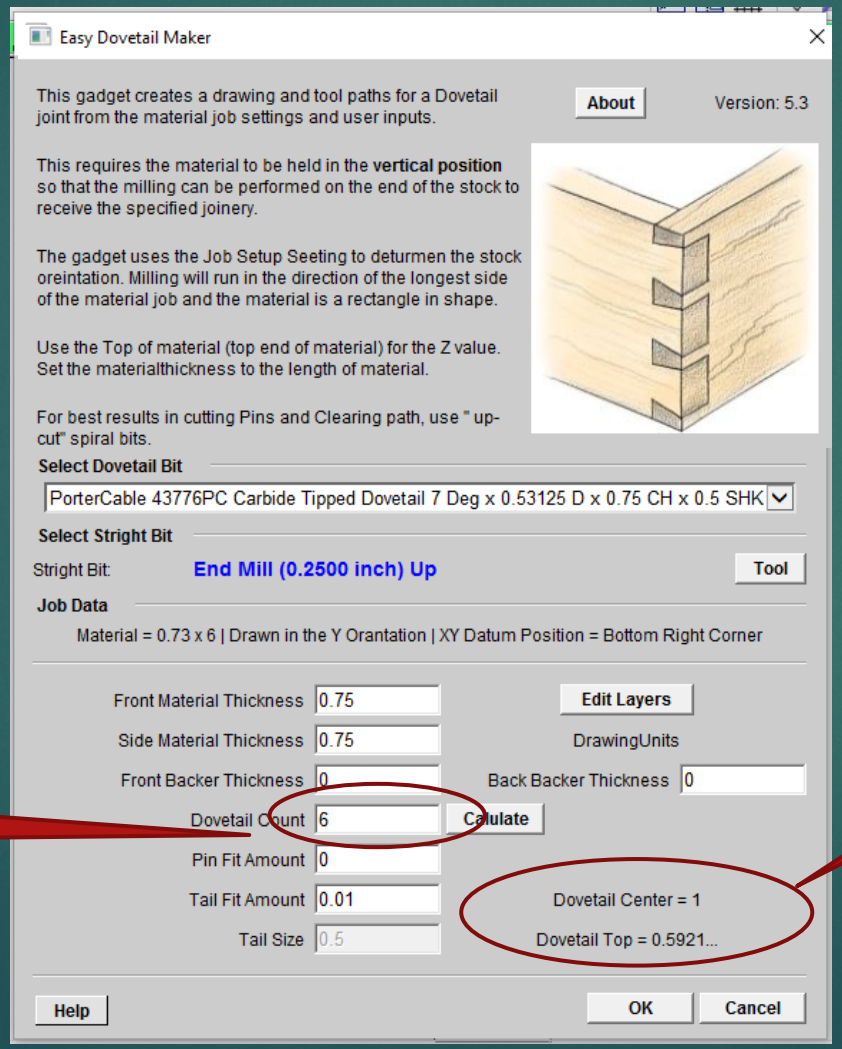


Dovetail Gadget
Running the Dovetail Gadget



Edit Layer and Tool-path names

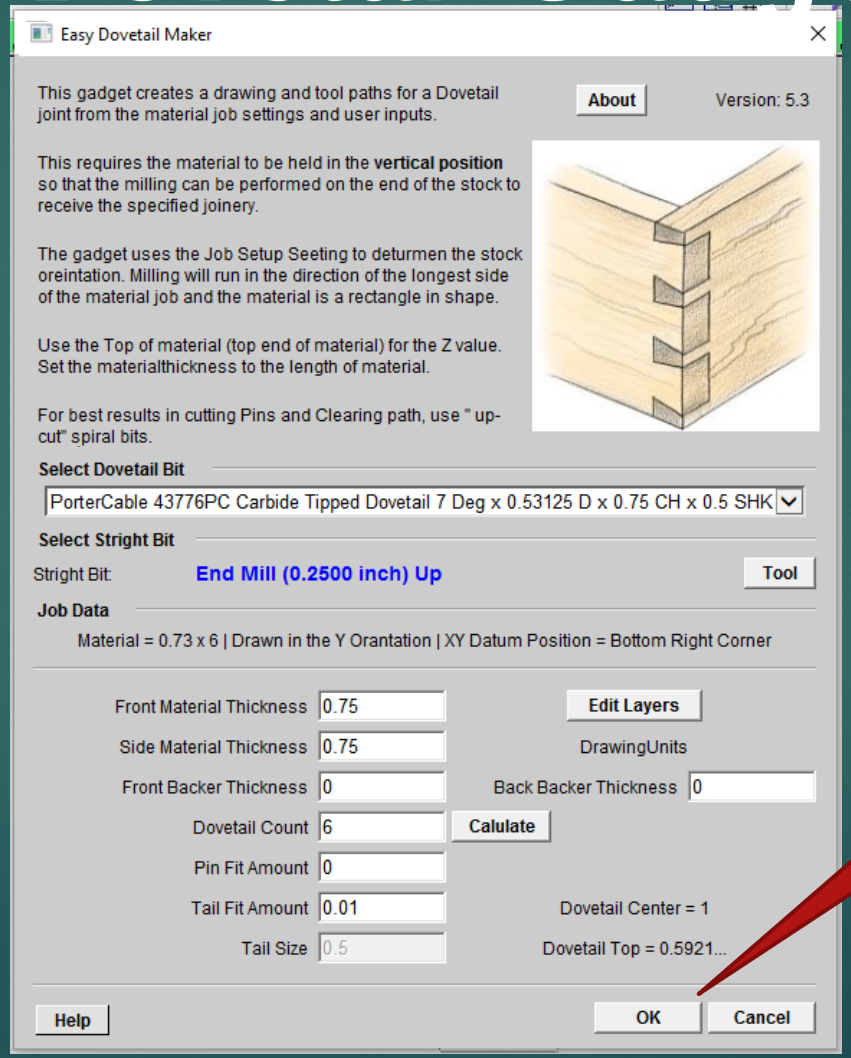
Dovetail Gadget
Running the Dovetail Gadget



Enter the number of Dovetail for the joint

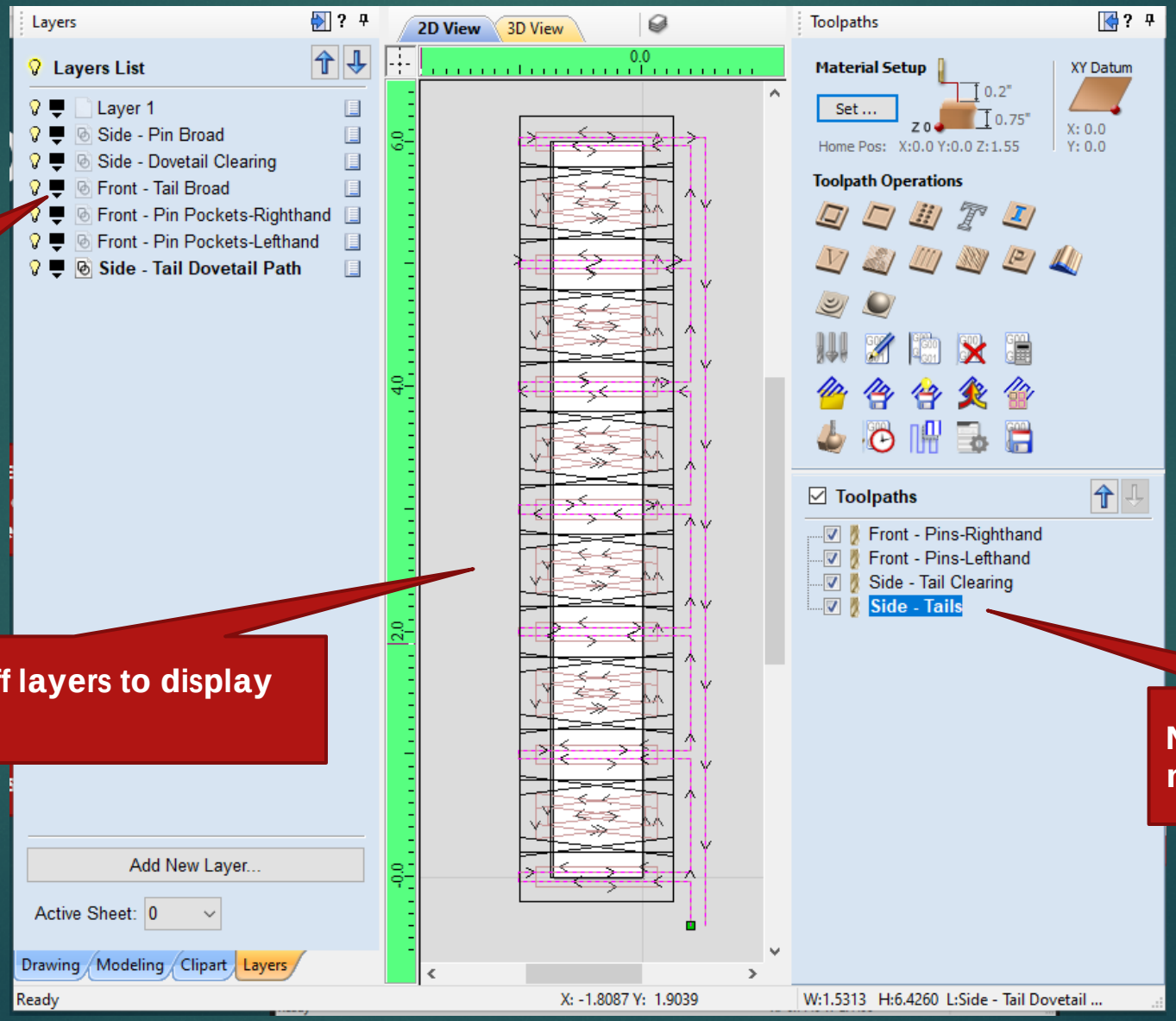
Select the Calculate button to display the Joint data

Dovetail Gadget
Running the Dovetail Gadget



Select the OK button to build the drawing and toolpaths

Dovetail Gadget

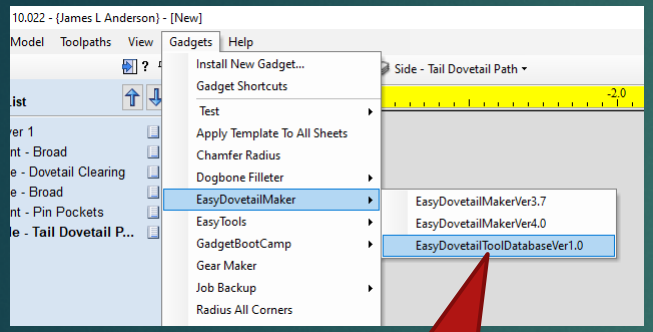


Note: The Layers are named so each milling of the Dovetail joint

Toggle on and off layers to display the Joint cuts

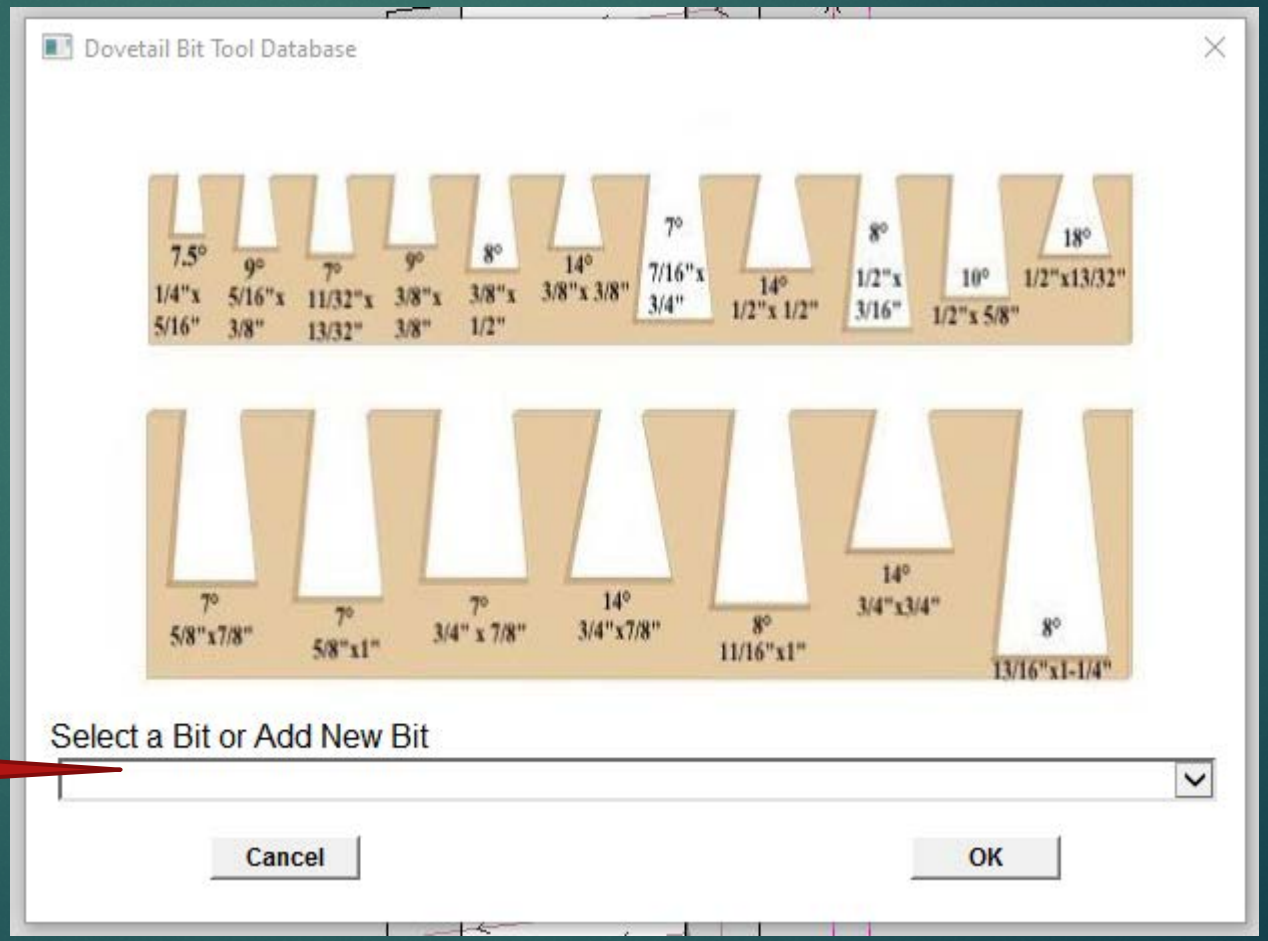
Note: The tool-paths for milling the dovetails

Dovetail Bit Gadget
Adding and Editing Dovetail Bits



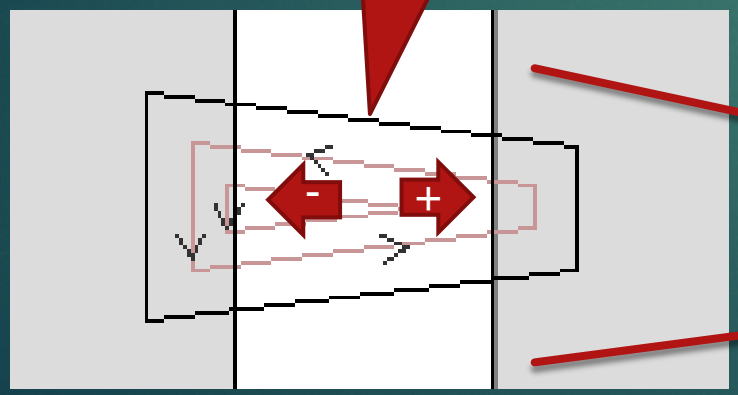
Open the Dovetail Tool Database Gadget

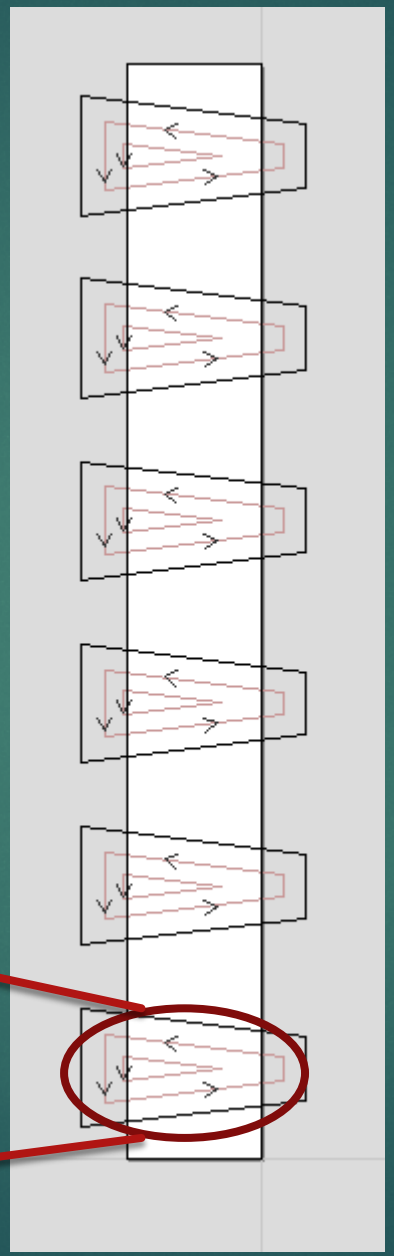
Select the Add New or Select a bit to edit

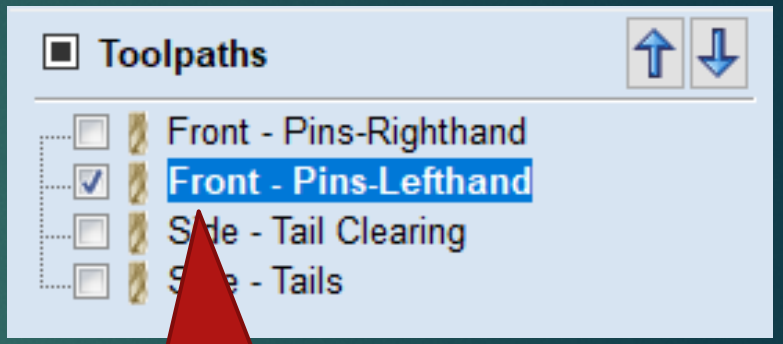


Dovetail Gadget Mill Setup

Note: The Pin Fit Amount (+/-) is integrated in the Front Pin geometry. Positive values will loosen the joint and negative values will tighten the joint

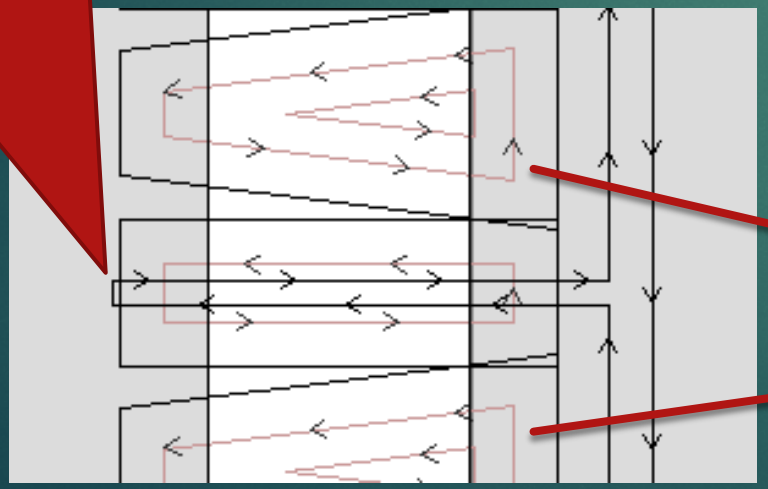


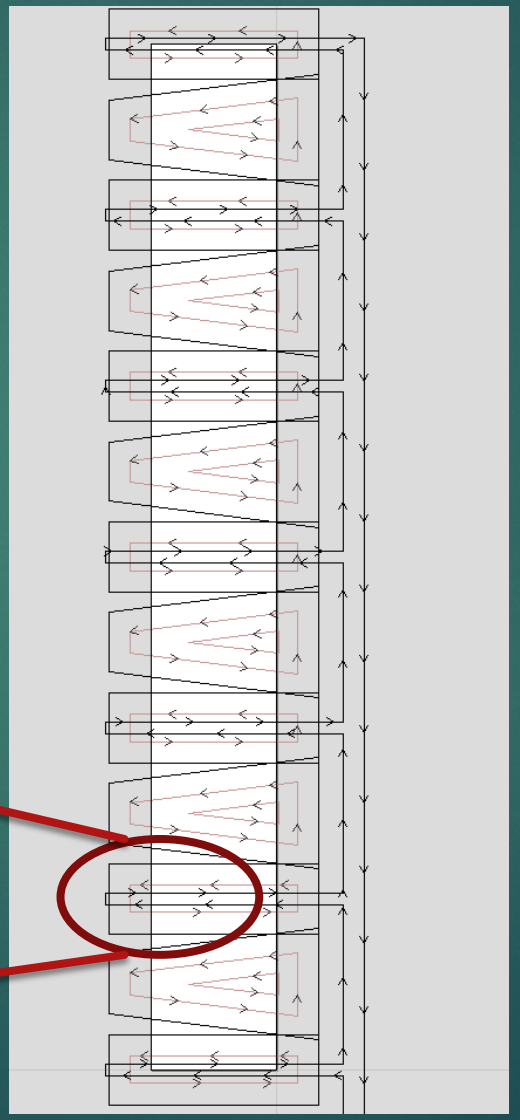




Note: The Milling is on the Front board

Dovetail Gadget Mill Setup





Toolpaths

- Front - Pins-Righthand
- Front - Pins-Lefthand
- Side - Tail Clearing
- Side - Tails

Note: The Tail Fit Amount is integrated in the Dovetail path geometry. The larger the Tail Fit Amount number the wider the Dovetail milling path

Note: Milling is on the Side boards

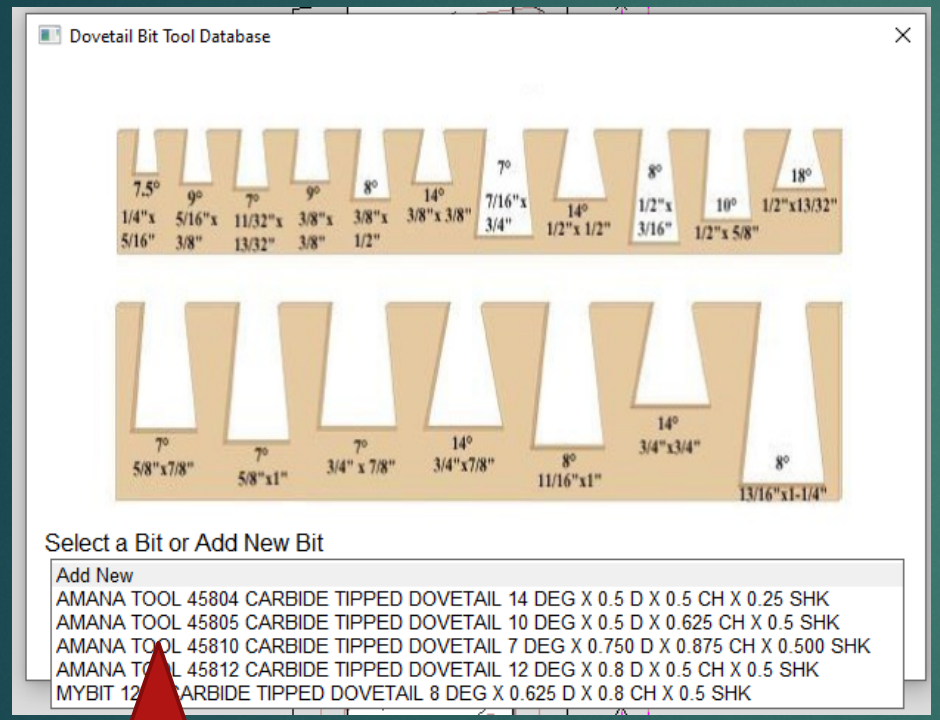
Dovetail Gadget
Running the parts

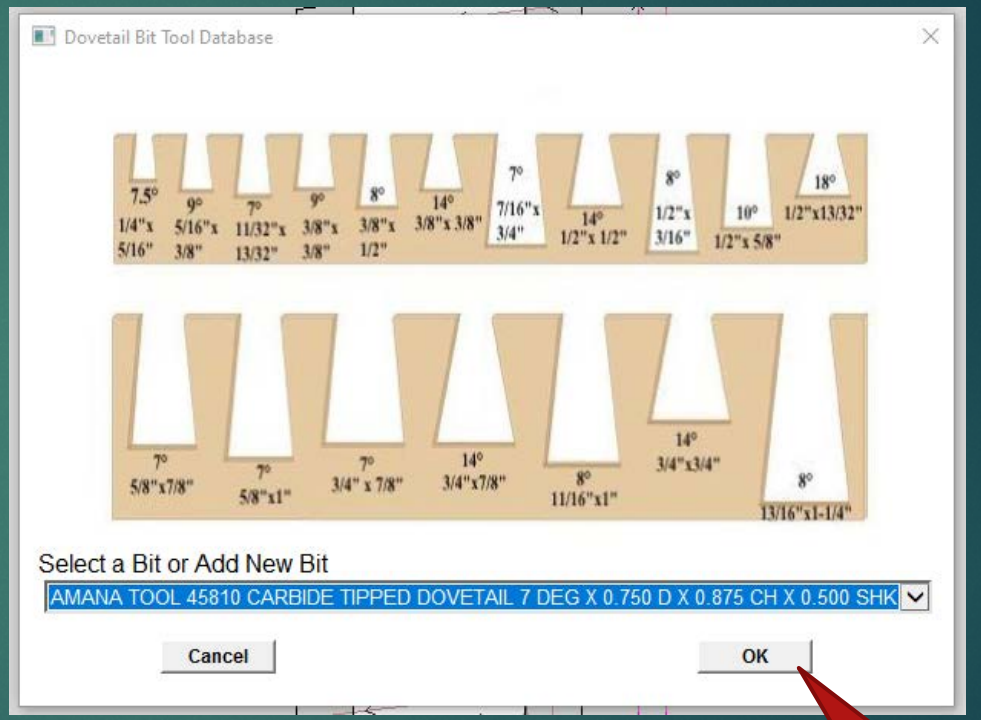
Note: Use material to flush the top so it is projected above the mill table.

Note: Material is clamped to the front of the mill and is projected the thickness of the material above the mill table.

Note: Use Backer Boards to prevent chip out.

Dovetail Bit Gadget
Adding and Editing Dovetail Bits

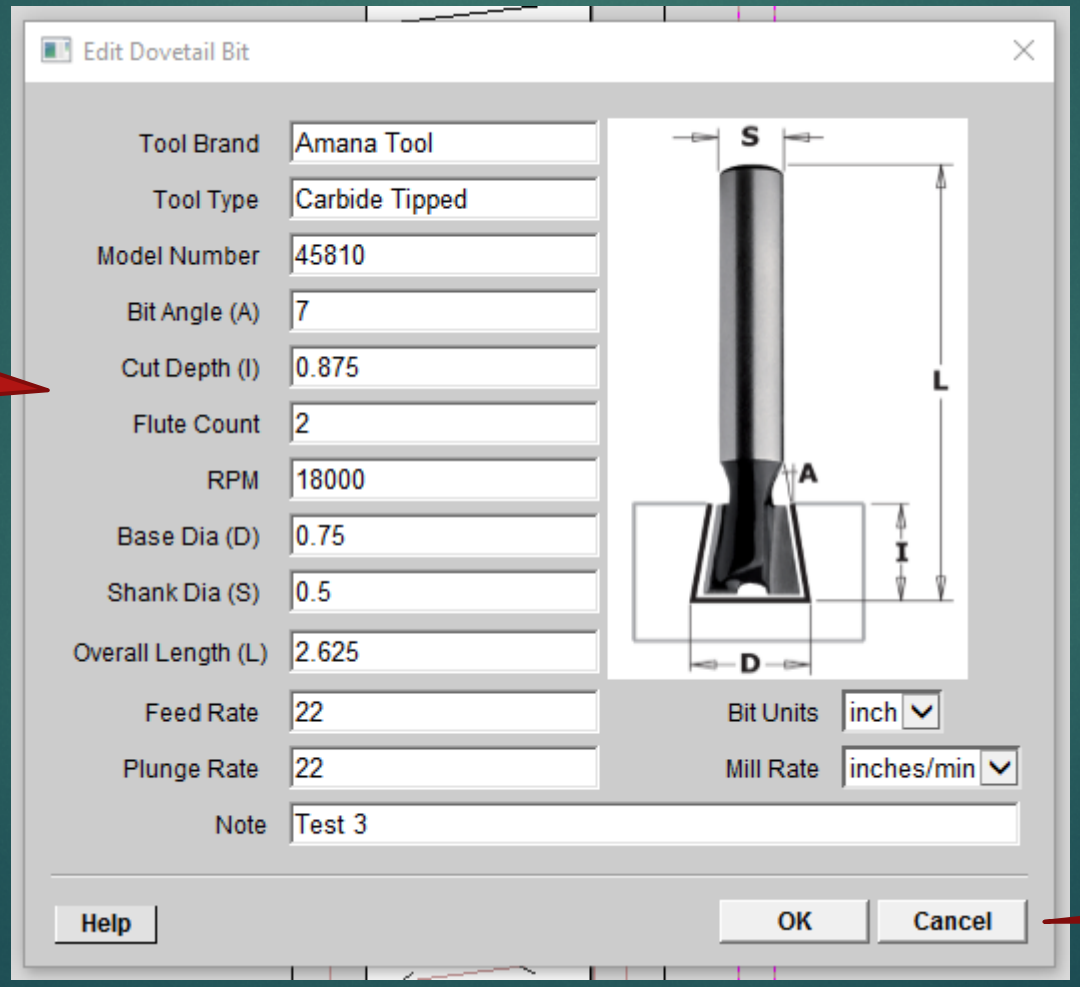




Select Add New or Select a bit to edit

Select the OK button to Open the

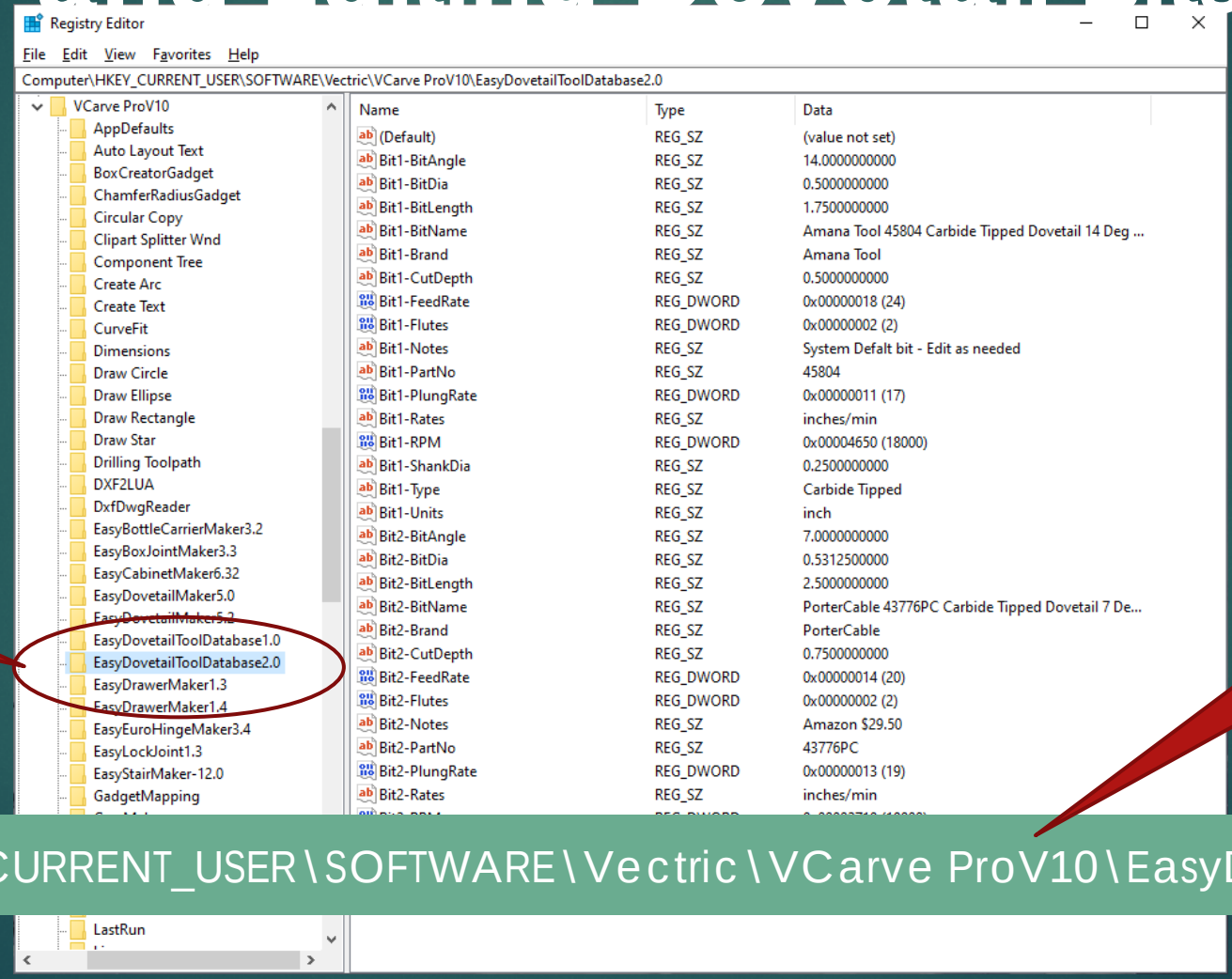
Dovetail Bit Gadget
Adding and Editing Dovetail Bits



Update the tool data as needed

Select the OK button to save your changes

Dovetail Bit Gadget
Adding and Editing Dovetail Bits



Note: If needed, You can edit the Dovetail bit database in the Registry Editor

Note: Your Application Name may be deferent

Computer\HKEY_CURRENT_USER\SOFTWARE\Vectric\VCarve ProV10\EasyDovetailToolDatabase2.0


Thank
You