

Mastercam Training Video Series

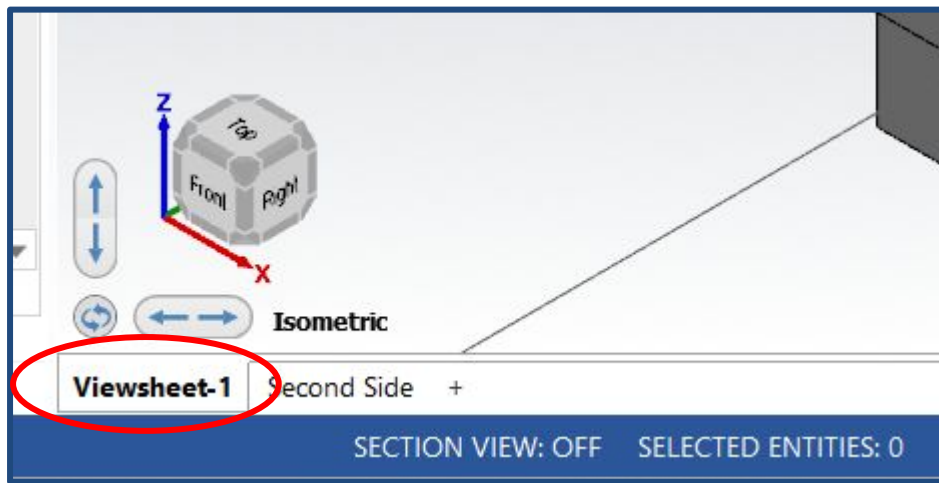
Video 7 Simulation and Generating Code

[Video Link](#)



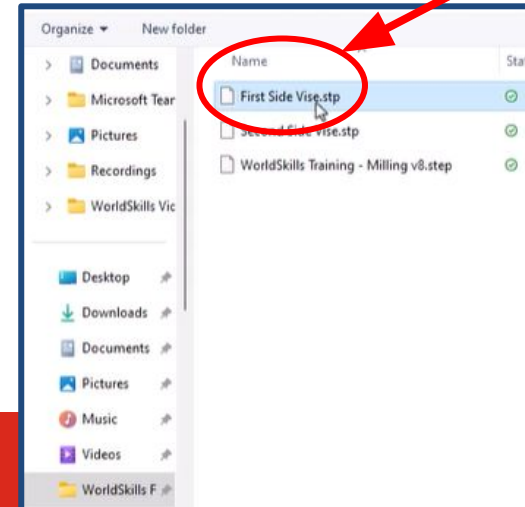
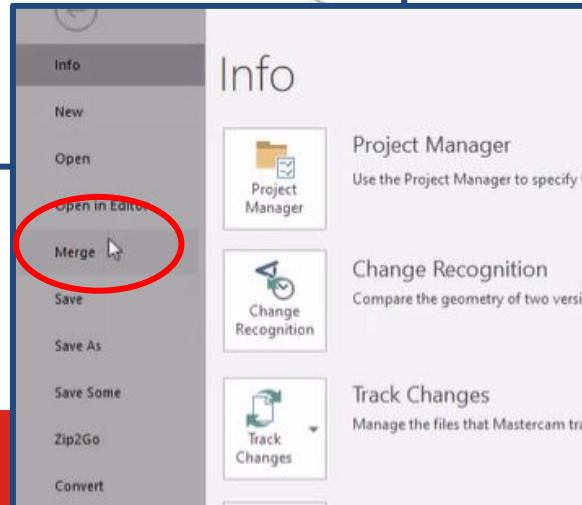
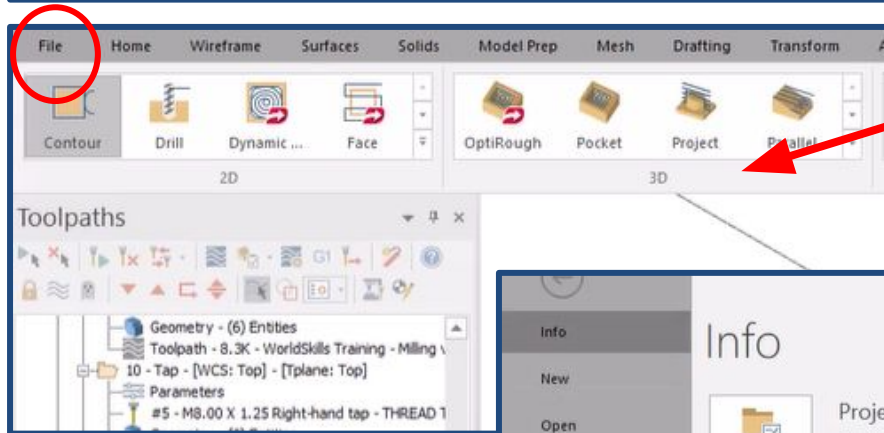
We will now prepare for simulation by importing fixtures.

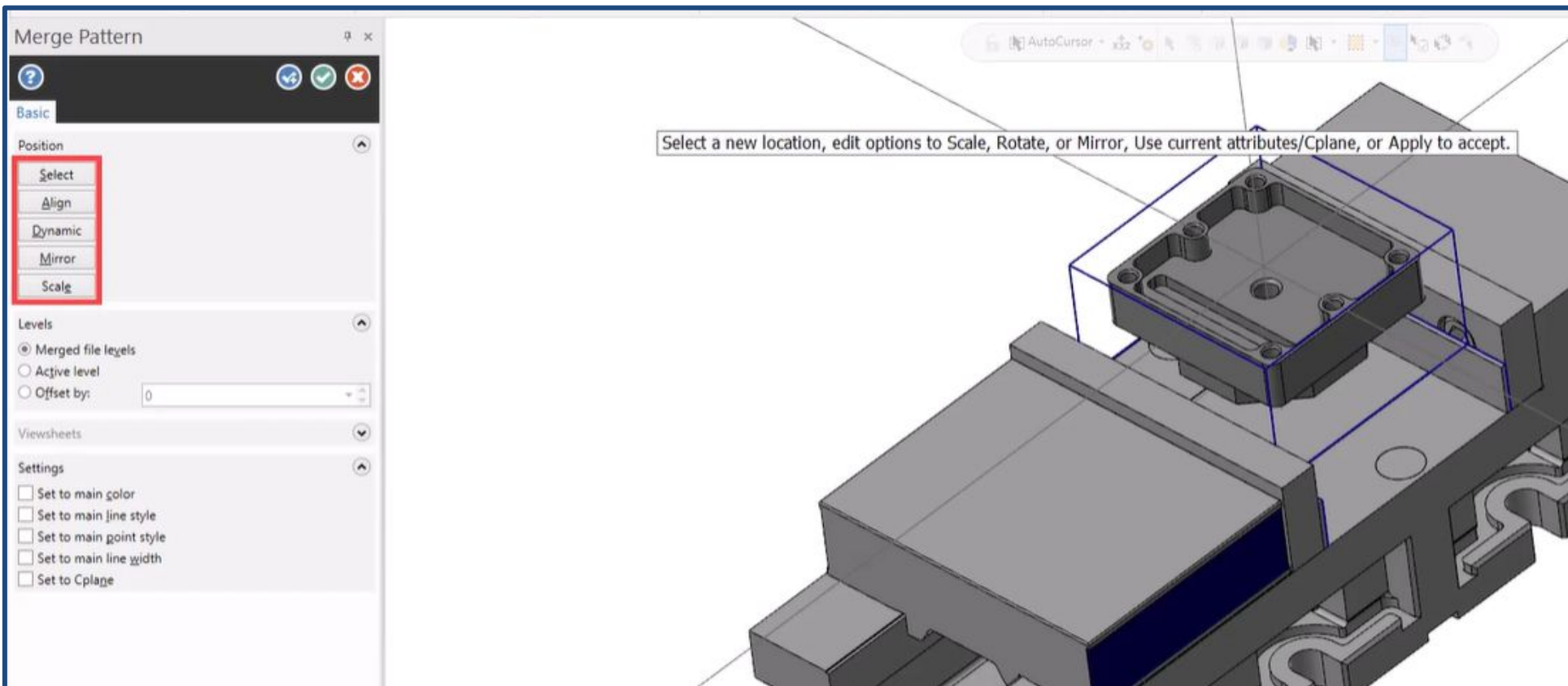
To begin, ensure viewsheet-1 is selected



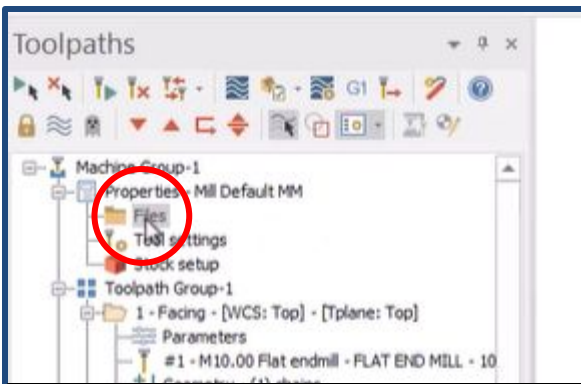
Navigate to the 'File' menu and select 'Merge' command

When the 'File Open' dialogue box appears, navigate to the downloaded file which contains the First Side Vice .step file

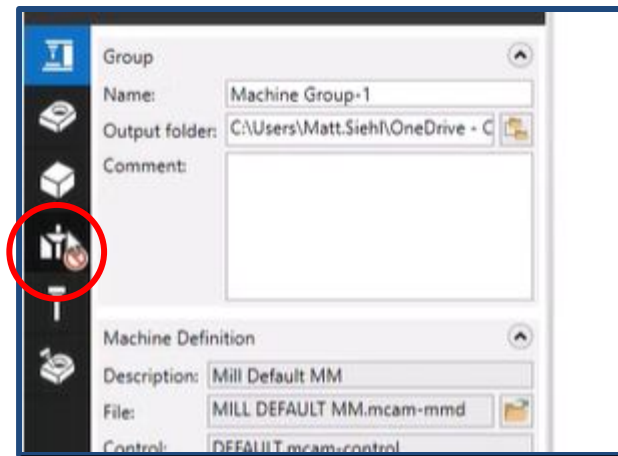




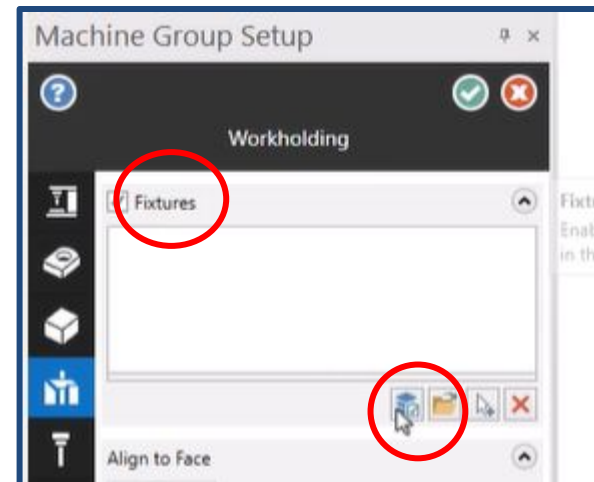
- Ensure the bounding box, representing the part stock, sits correctly on the parallels as shown.
- If required, use the 'Position' options to locate the vice model correctly.
- Green Tick to accept.



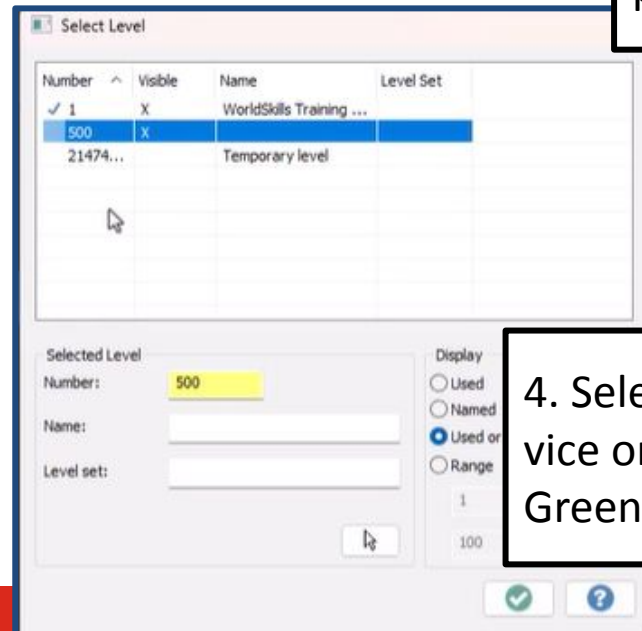
1, Under properties in machine Group-1, Select 'Files'



2. Go to the workholding page by clicking the icon

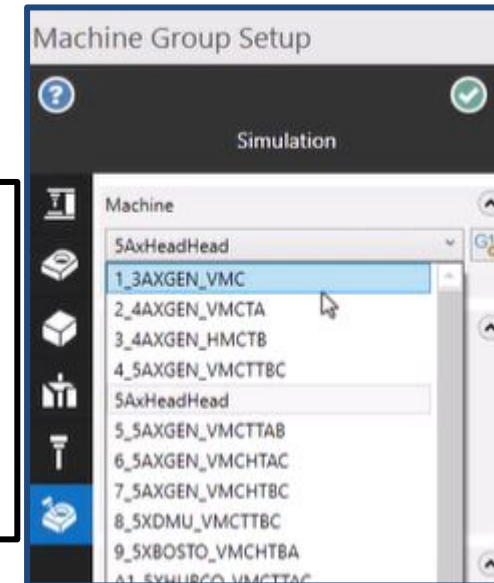


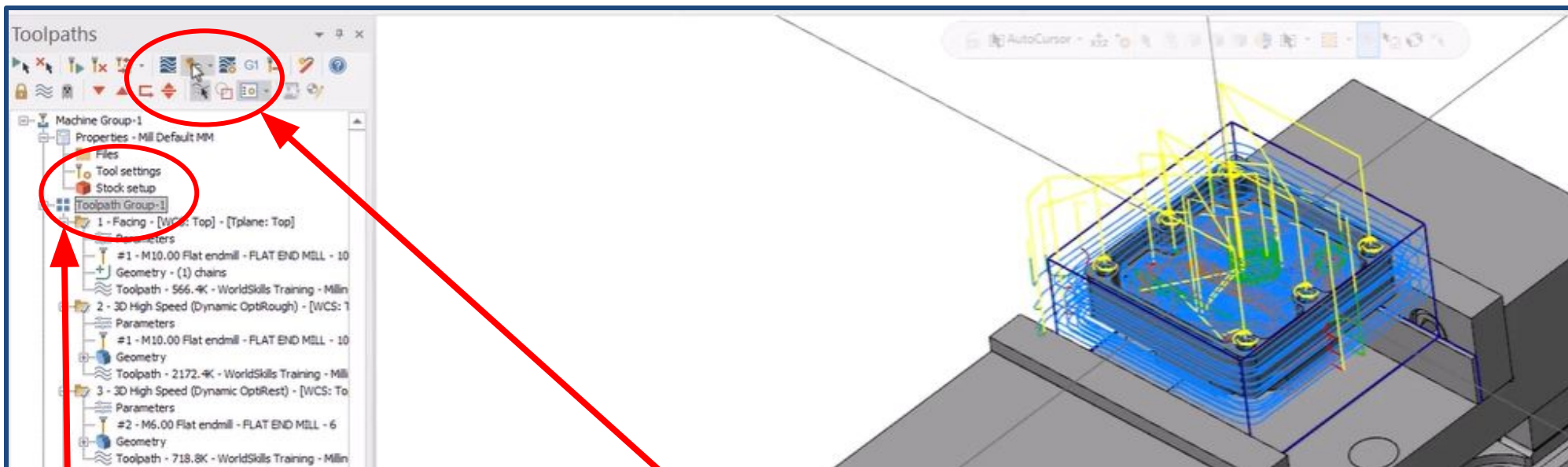
3. Select the 'Fixtures' Tick box and Select 'Add from a level' Icon



4. Select the Level that has the vice on - in this example Level 500 Green Tick to Accept

5. On the Machine Simulation Page - Select the 3-axis VMC machine on the drop-down Green Tick to accept

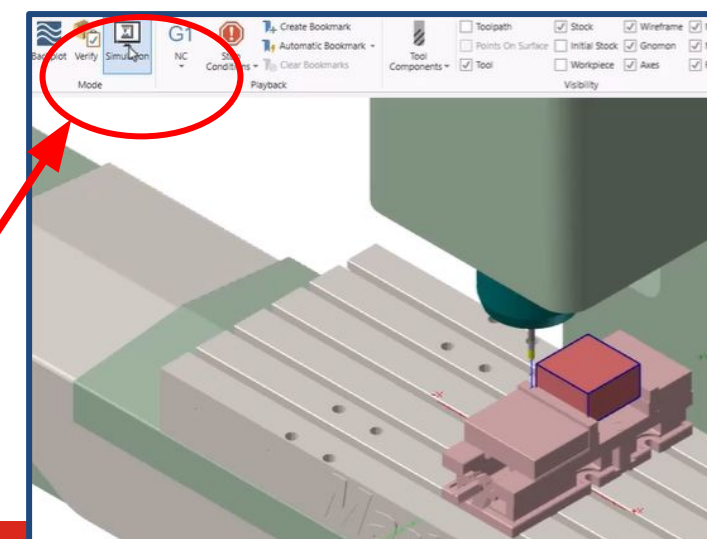


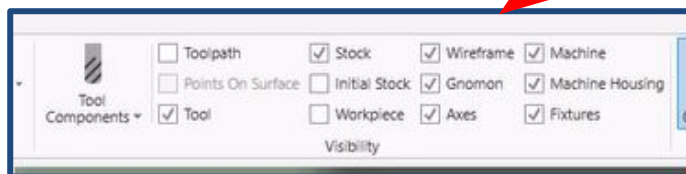
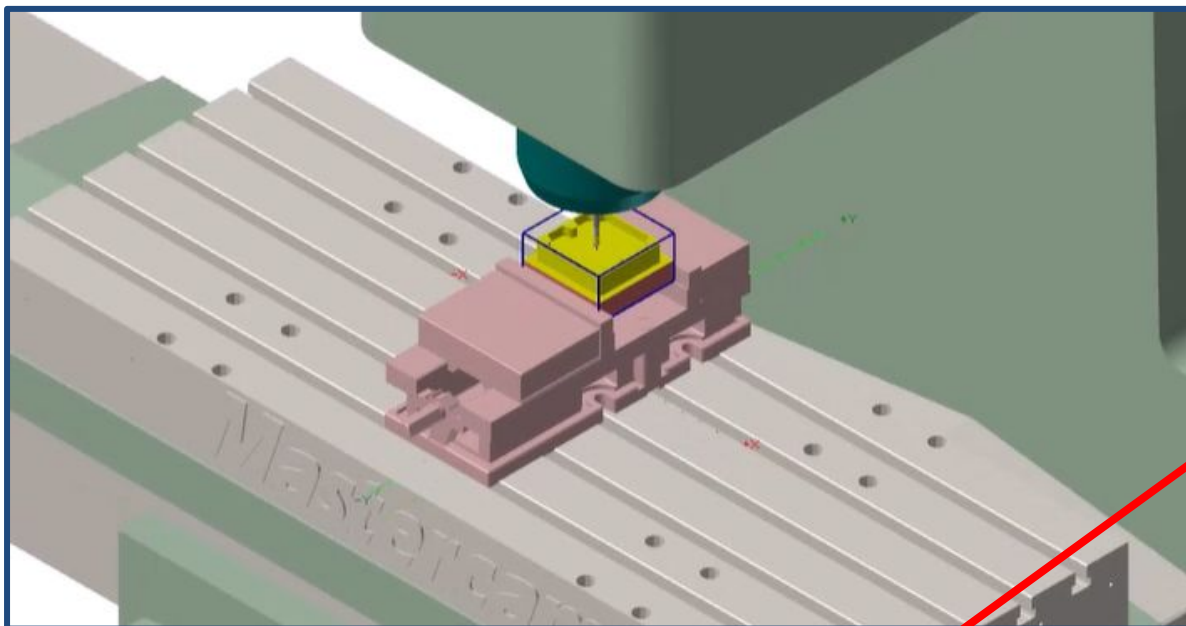


To Simulate Side 1
Click On 'Toolpath Group-1' in the
toolpath manager
This will select all toolpaths in this group

Now click on the 'Verify Selected
Operations' Icon
This will launch the Mastercam
Simulator

Once the Simulator has opened -
select the 'Simulation' Tab on
the top toolbar





If needed use the visibility options under the 'Home' tab to switch features between, Visible, Translucent, and off.

Press 'Play' on the simulation - Simulating the program like this, helps detect any collisions between the tool, workholding or part.

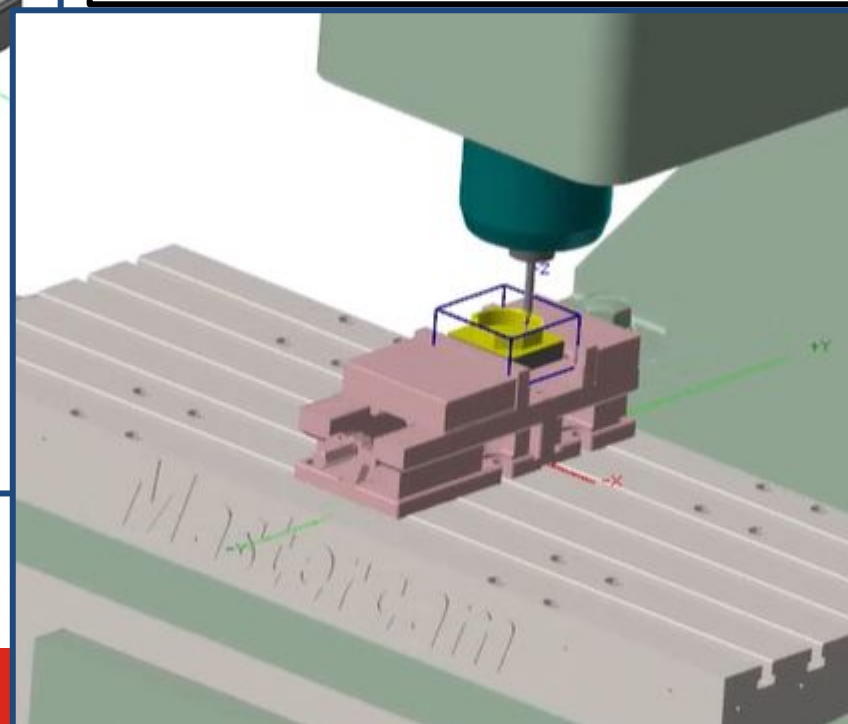
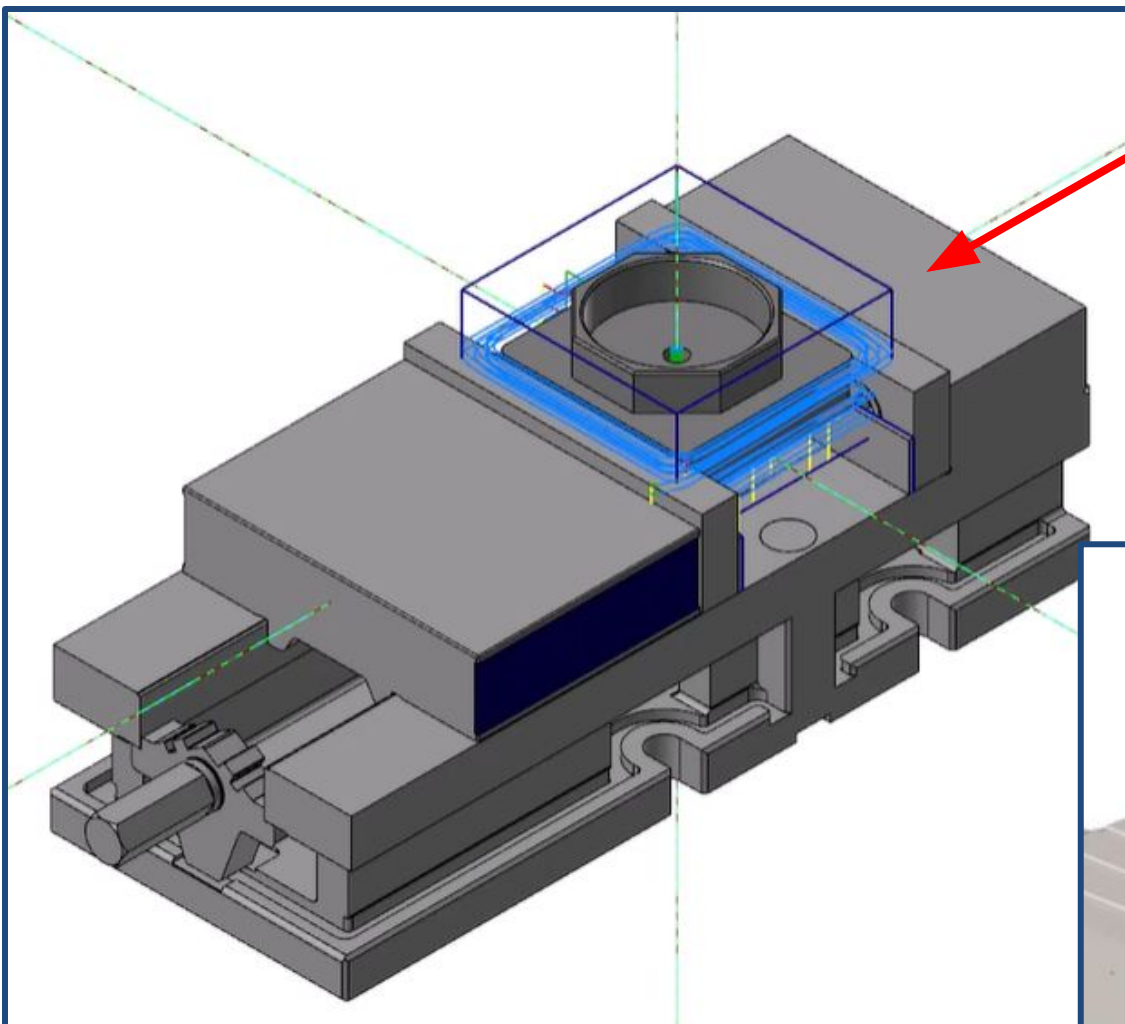
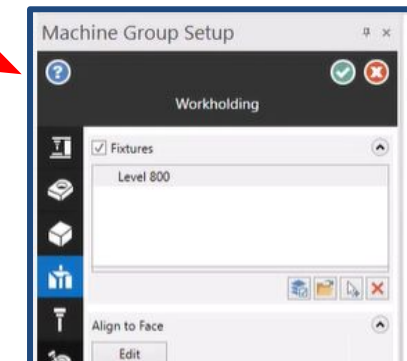
It can also be used to visualise whether there are any missing features or mismatches due to problems with the toolpaths.

When the simulation is finished, Exit and return to Mastercam.

Using the same steps as before -
Merge in the second side machine
vice and select it as your main fixture
in the machine group set-up.

Simulate the second side toolpaths.

Check for any errors.



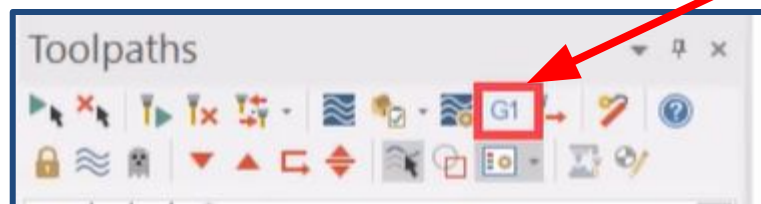
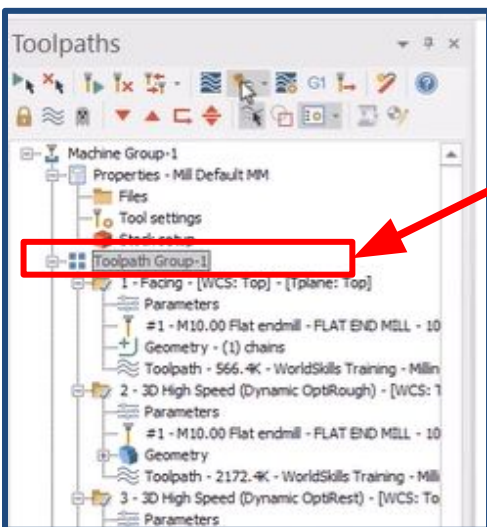
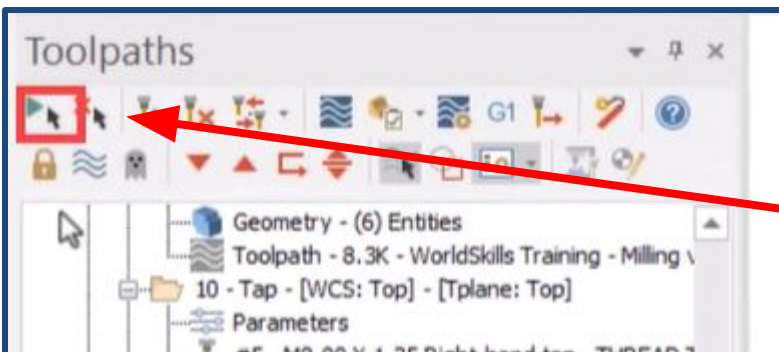
Now let's generate the CNC code.

If you want to post all the operations at once then you can use the 'Post All Operations' button

Or you can select all toolpaths in one Toolpath Group by clicking on the Toolpath Group Title

Alternatively, individual toolpaths can be selected for outputting by clicking on them separately.

When the desired toolpaths have been selected, use the 'Post Selected Operations' button.



Once the 'Post Selected Operations' button has been selected the Post processing dialogue box will appear

Ensure 'Edit' and 'Ask' options are selected

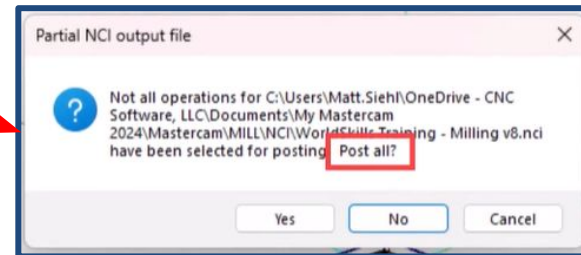
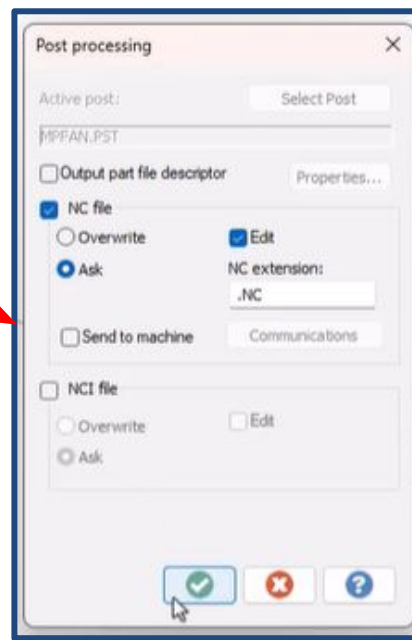
Green Tick to accept

If not all toolpaths groups are selected then a warning dialogue box will be displayed.

This is letting us know that not all the operations have been selected for posting, and is asking if you want to post all of the operations.

Clicking 'Yes' will make Mastercam go back and select all the operations for posting.

In most cases - you may want to select 'No' as you have selected the desired operations for posting.

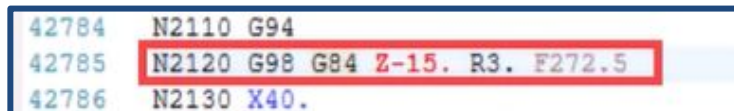
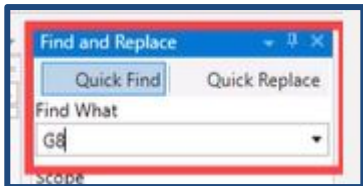
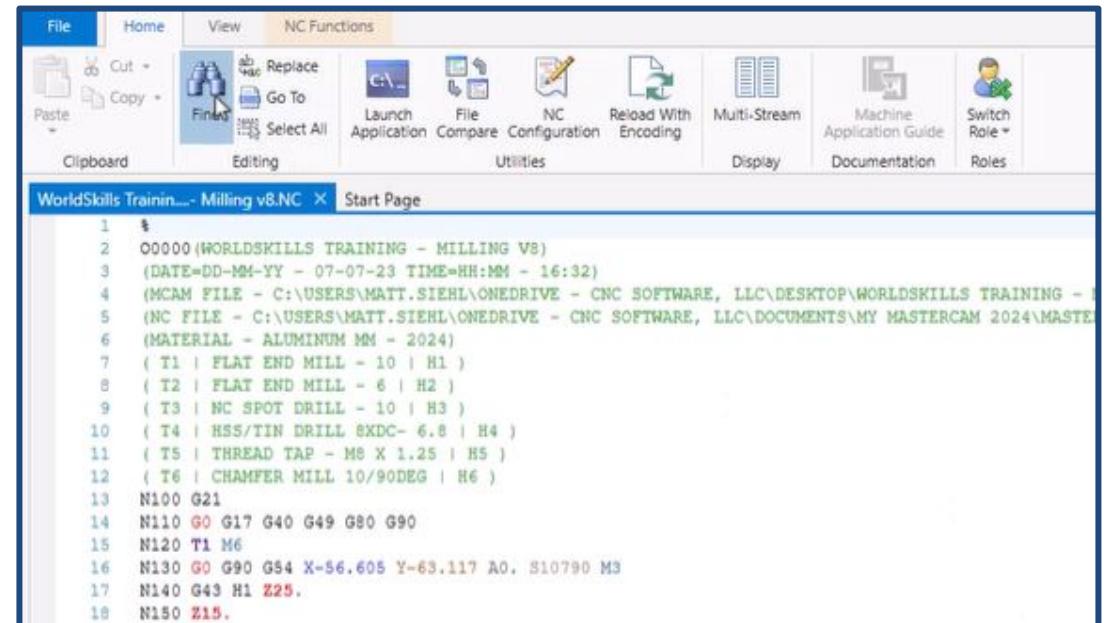
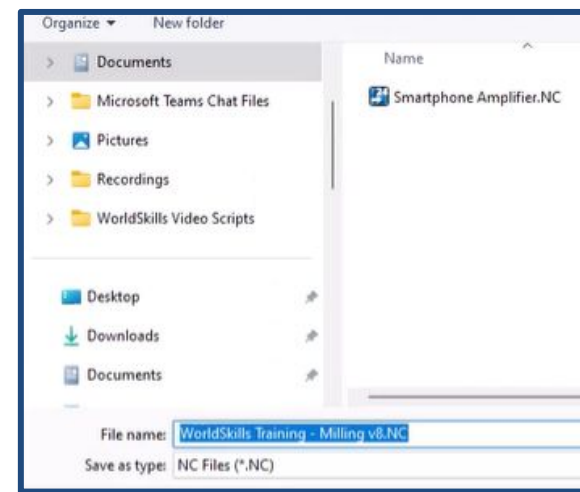


Now Save the program in a easy location for you to access later

Name the file and select 'Save'

Mastercam will now launch a CNC code editor in a separate window, in this case Code Expert.

On the 'Home' tab you can use tools such as 'Find' to search for particular parts of code, for instance G84 for a tapping cycle



Congratulations! - You have now finished this
WorldSkills Tutorial Series.

You are now ready to program your next part!



Mastercam 
UNIVERSITY™