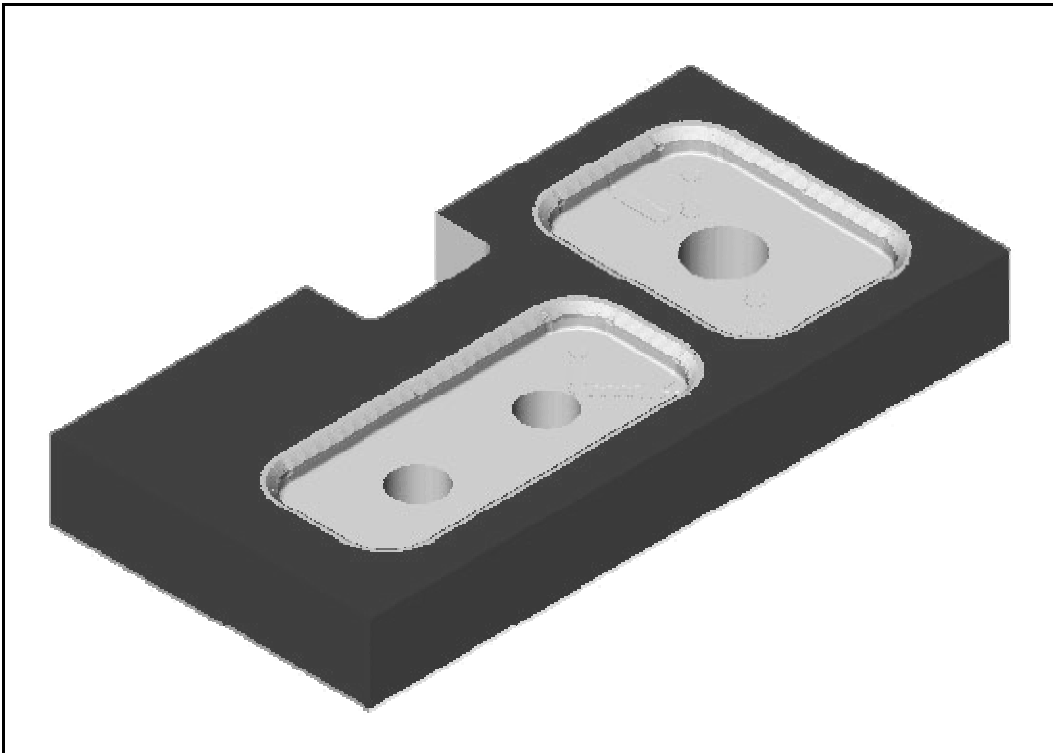


# GibbsCAM Tutorial

Version 2005



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**SDC**  
PUBLICATIONS

Schroff Development Corporation

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[www.schroff.com](http://www.schroff.com)  
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## Chapter 4

# Mill

### Introduction

For each exercise in this chapter you will open a part file that contains CAD geometry. You will then set up the tools needed to machine the part, create machining processes, simulate them, and post process the machining operations to generate CNC code.

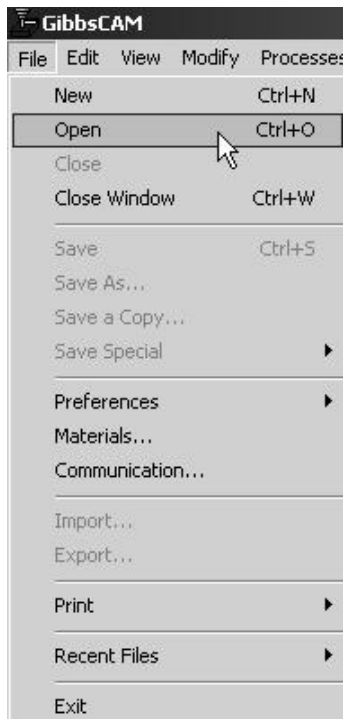
*Part files for the exercises in this chapter can be downloaded at [www.schroff1.com](http://www.schroff1.com).*

**Note: For the exercises in this chapter, activate balloons (found under *Help in the Main Menu*). This will allow you to view a full explanation of all of the data entry fields you will see in the tool creation and machining dialog boxes as you complete the exercises.**

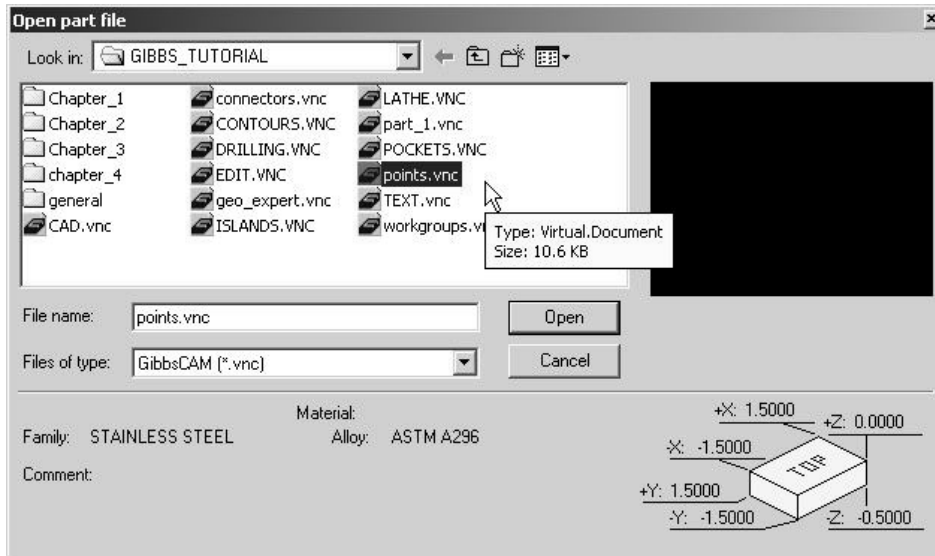
### Exercise 1 – Drilling

In this exercise you will drill holes for the points you created in Chapter 2 – Exercise 2.

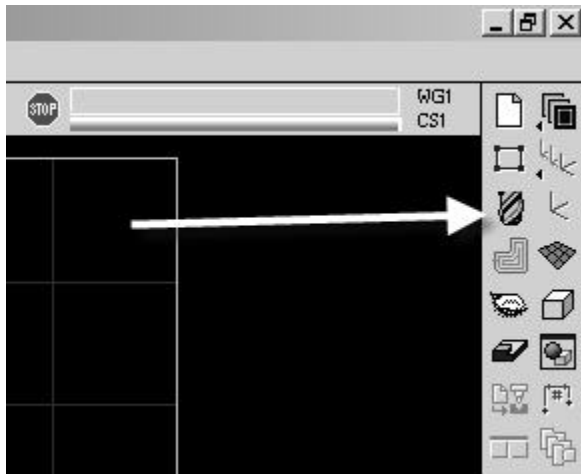
Choose *File-Open* from the *Main Menu*.



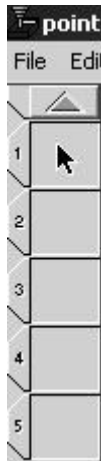
Select the file POINTS.vnc and click on Open. The CAD geometry for this part consists of points that will be used for drilling operations.



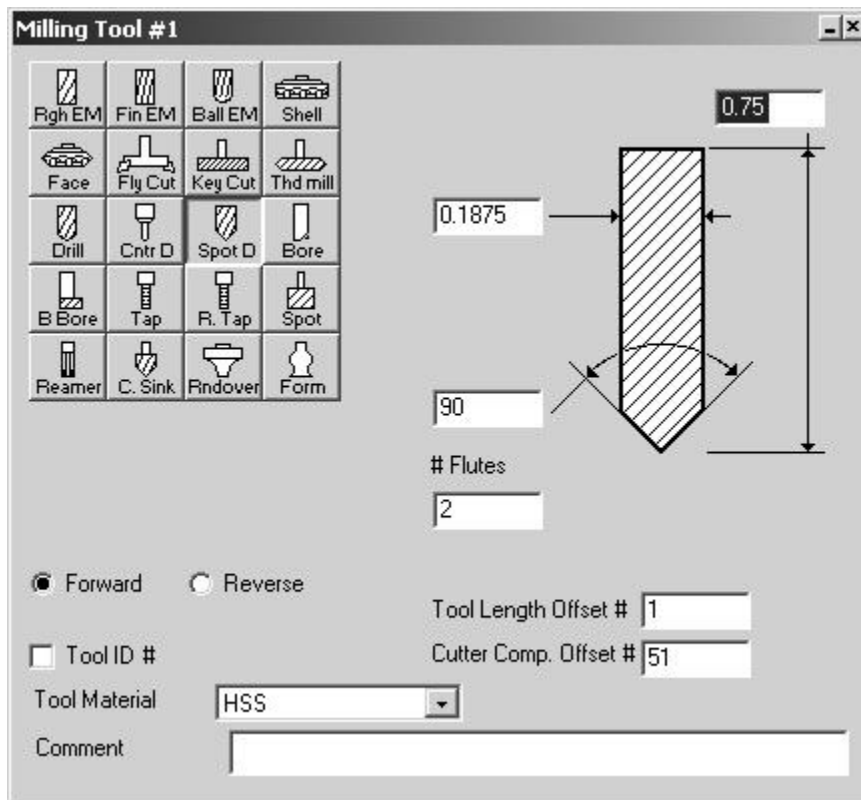
Select the Tools icon in the Top Level Palette to open up the Tool List.



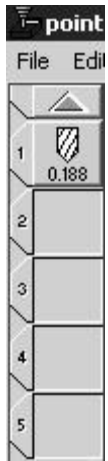
Double click on Tile 1 in the Tool List to create the first tool.



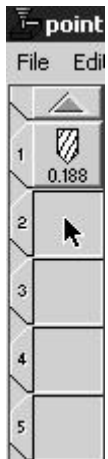
The Tool Creation dialog box will appear. Select the Spot D (spot drill) as the tool type. Enter the values in the diagram to define the size of the tool.



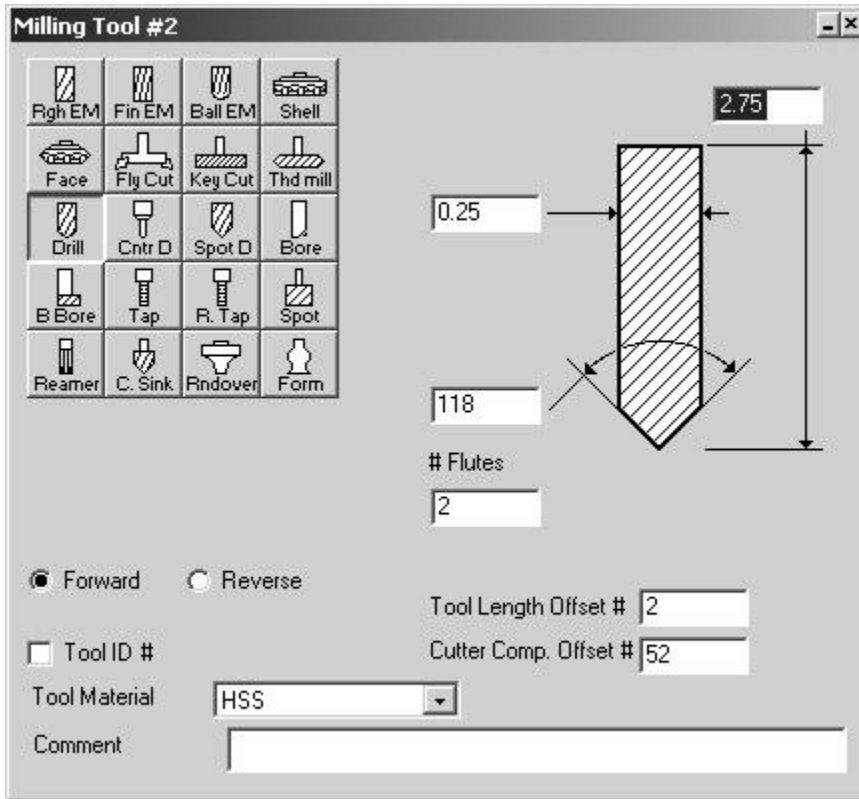
Close the Tool 1 dialog box.  
The tool will appear in the Tool List.



Double click on Tile 2 in the Tool List to create the second tool.



The Tool Creation dialog box will appear. Select Drill as the tool type. Enter the values shown on the next graphic to define the size of the tool.



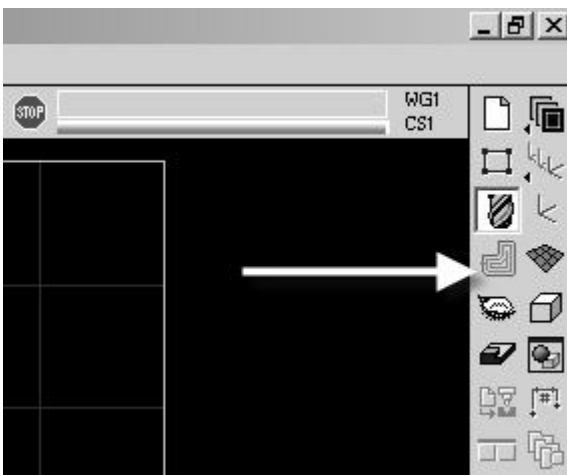
Close the Tool 2 dialog box. The tool will appear in the Tool List.







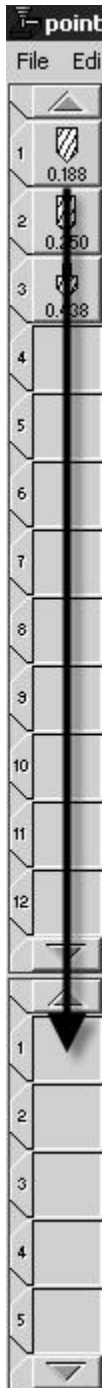
You are now ready to begin the machining operations. Select the CAM icon on the Top Level Palette to open the Machining Palette, Process List, and Operations List.



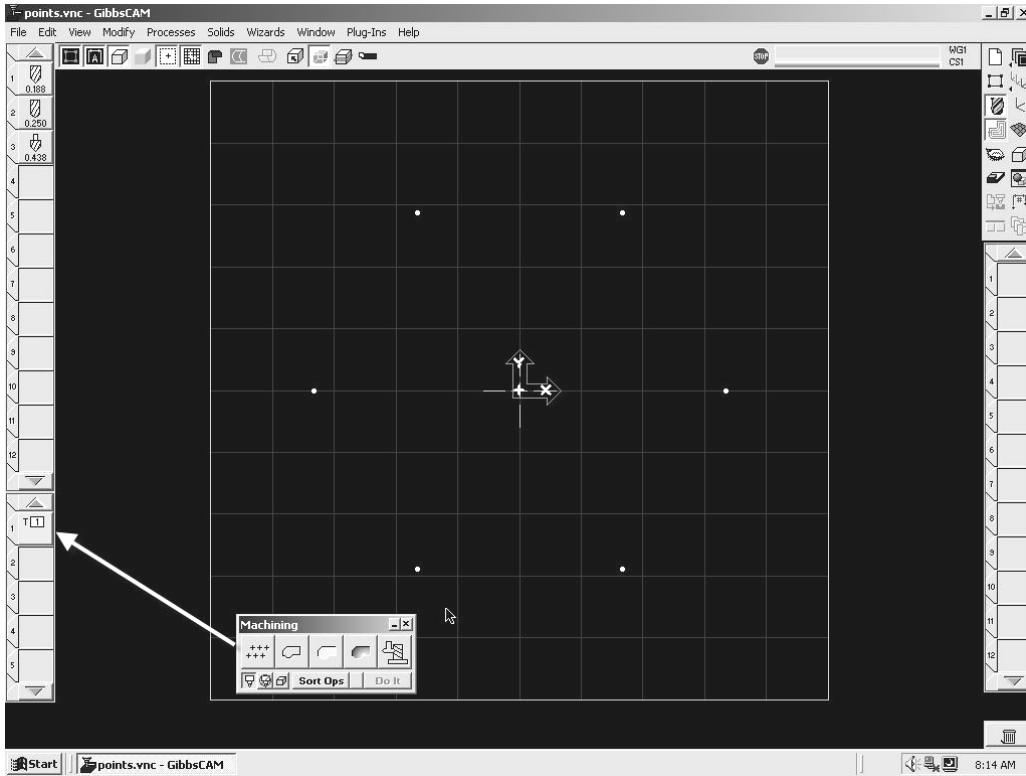
Machining operations are created by dragging a tool from the Tool List and a machining function from the Machining Palette on to the Process List.

Drag Tool 1 from the Tool List to Tile 1 of the process list as shown in the next graphic.

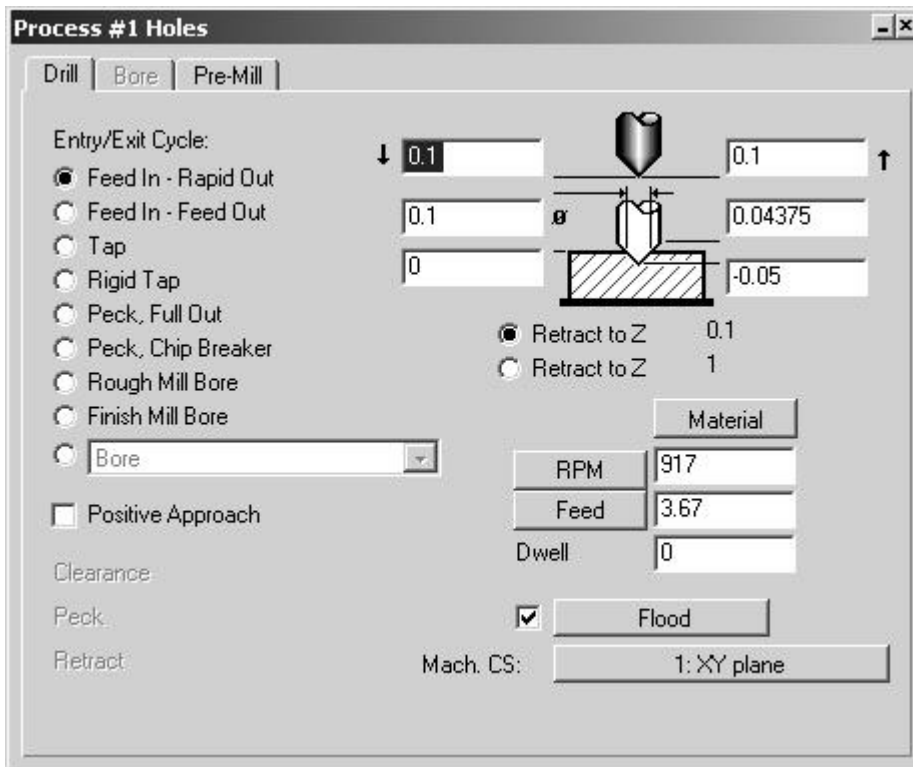




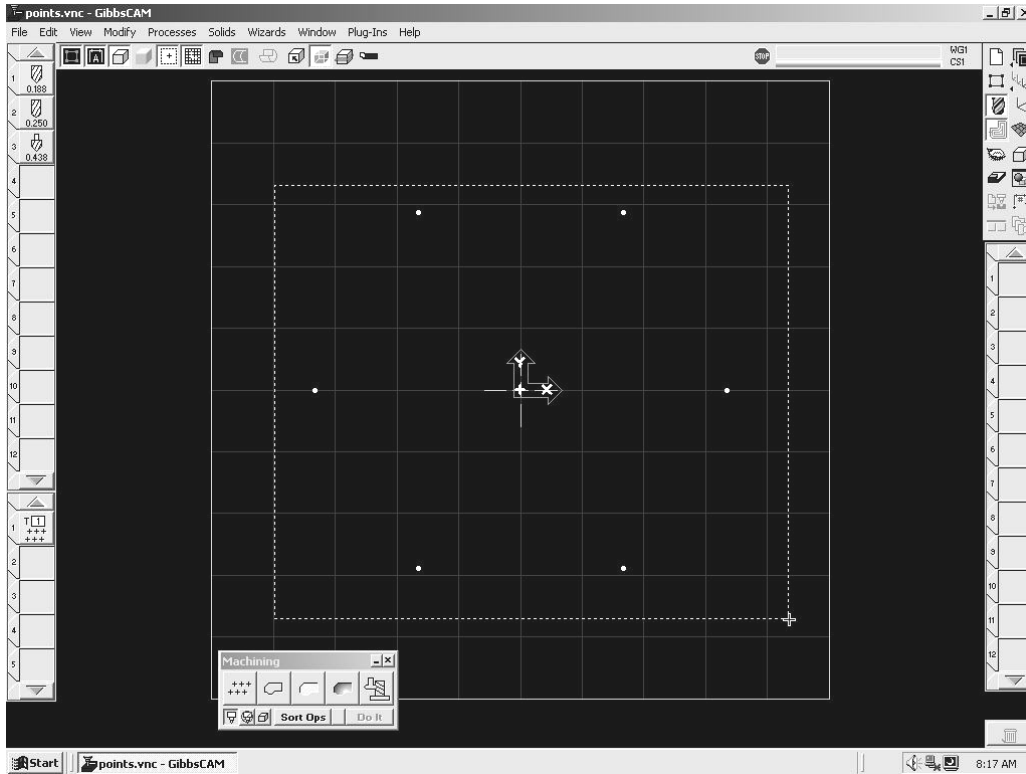
Tool 1 will now appear in the Process List. Drag the Holes icon from the Machining Palette to Tile 1 of the process list as shown in the next graphic.



The Process Holes dialog box will appear. Enter the values as shown.



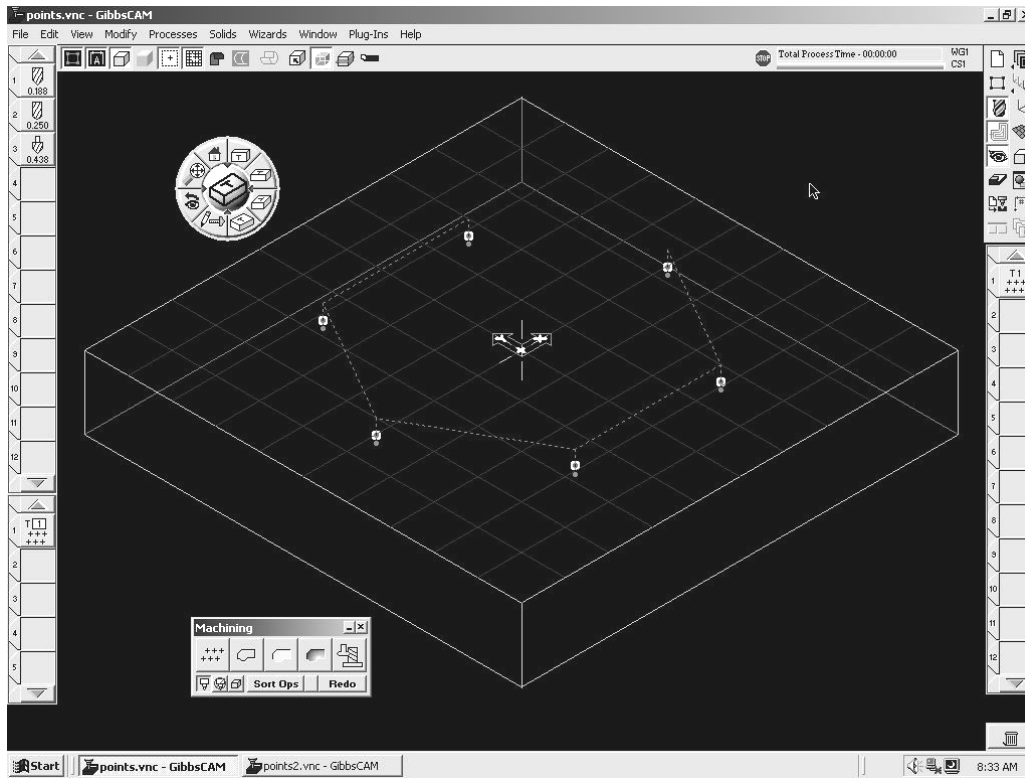
Close the dialog box. Hold down the shift key and drag a box around the points as shown.



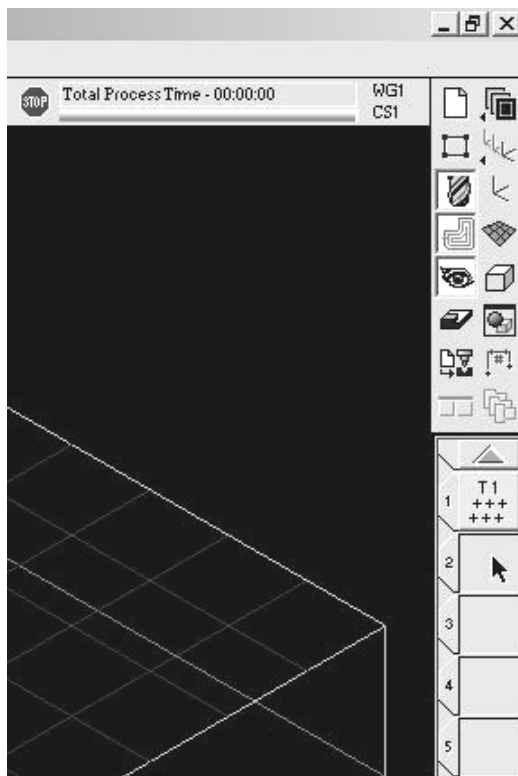
Click on Do It on the Machining Palette.



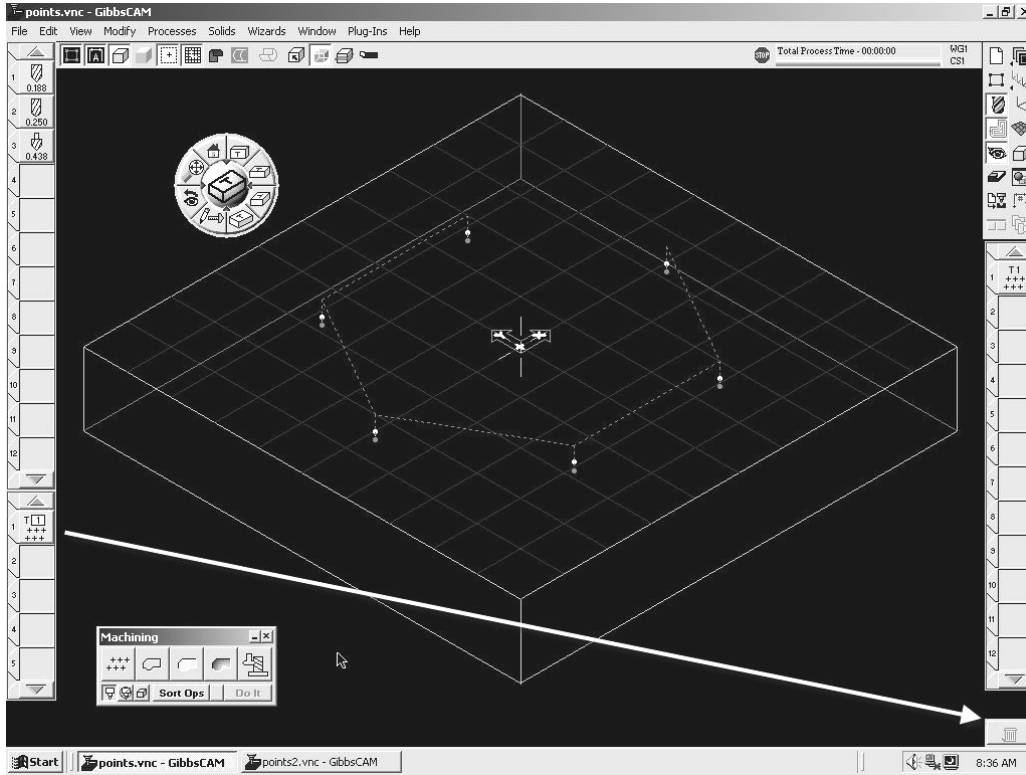
Change your view to an isometric view to see the toolpath.



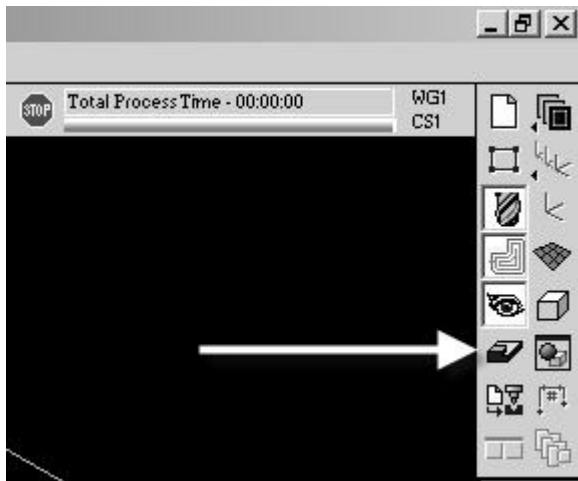
To begin the next operation, select Tile 2 in the Operations List.



Drag Tile 1 from the Process List to the Trash Can.



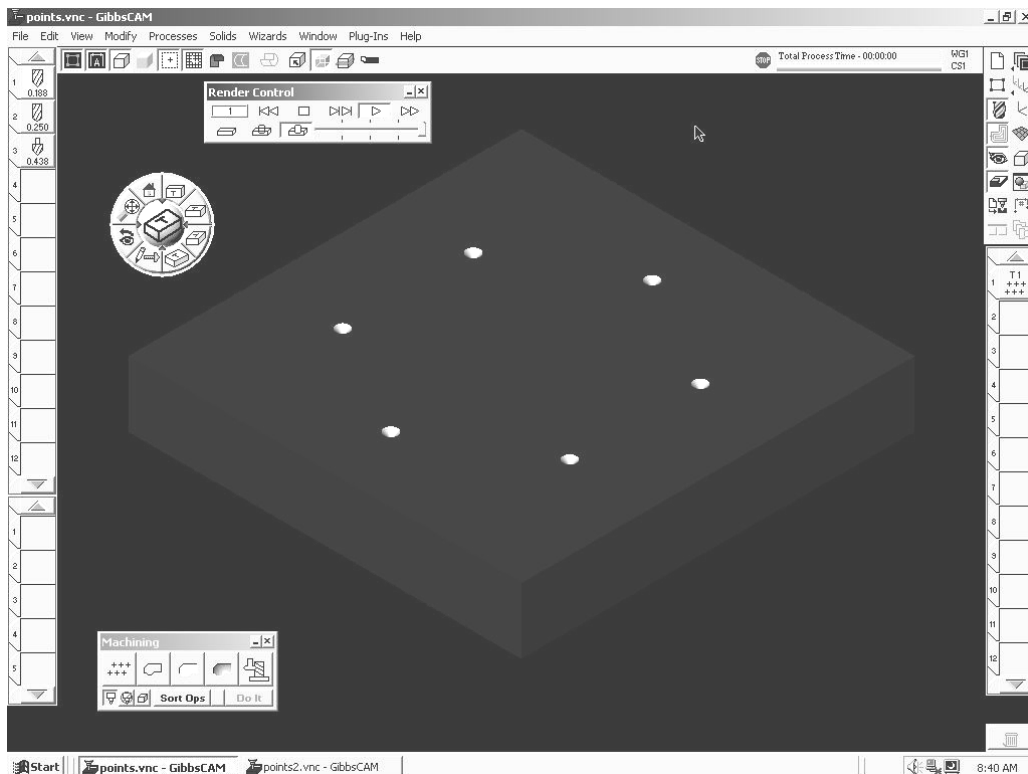
Click on the Render Icon on the Top Level Palette.



The Render Control dialog box will appear. Click on the Visible Tool icon as shown. Hit the Stop button and then the Rewind button to reset the simulation. Hit the Play button to run the simulation.

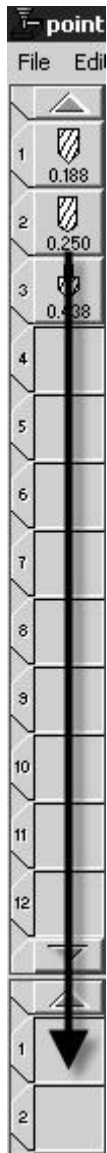


Note: You can drag the slider + or - to speed up or slow down the simulation.

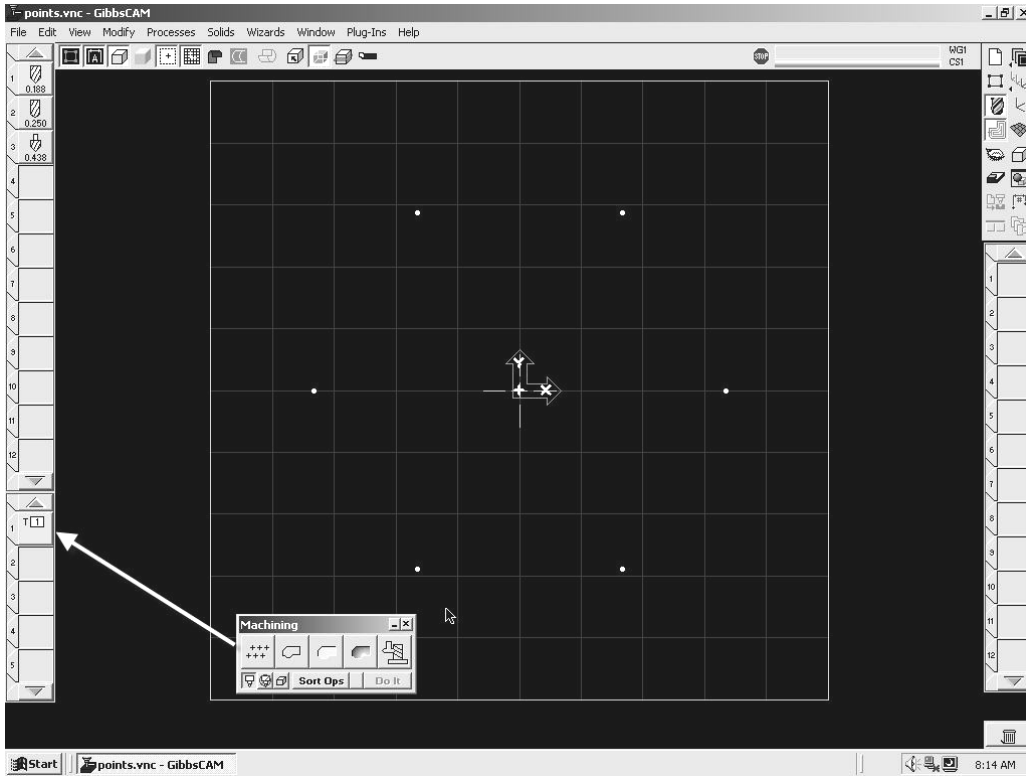


Close the Render Control dialog box.

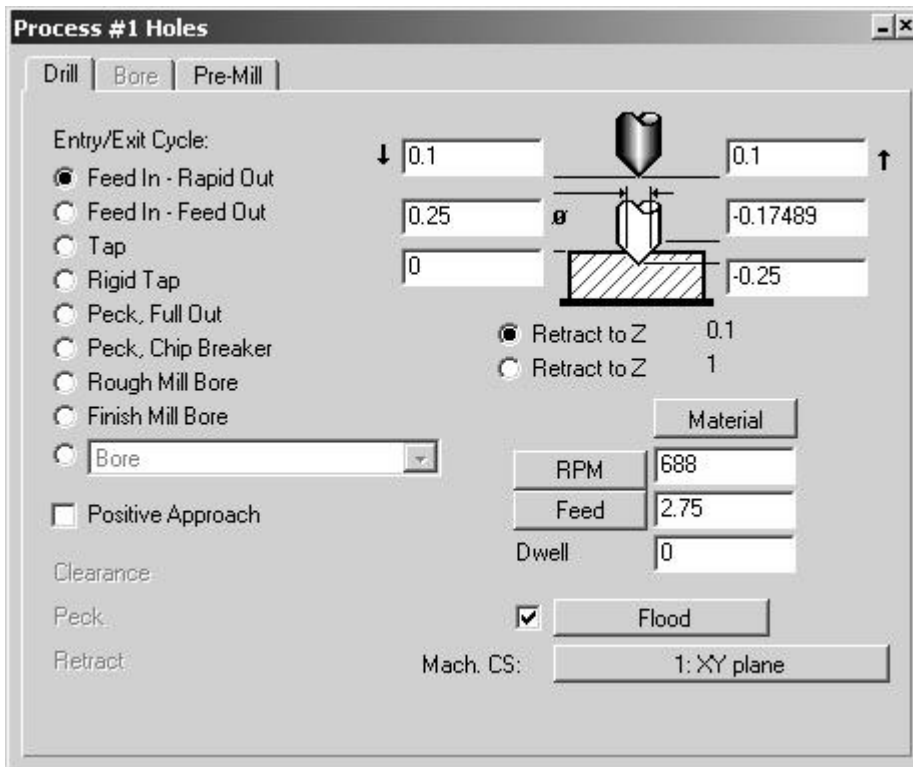
Drag the Tool 2 from the Tool List to Tile 1 of the Process List.



Drag the Drilling Icon from the Machining Palette to Tile 1 of the Process List.

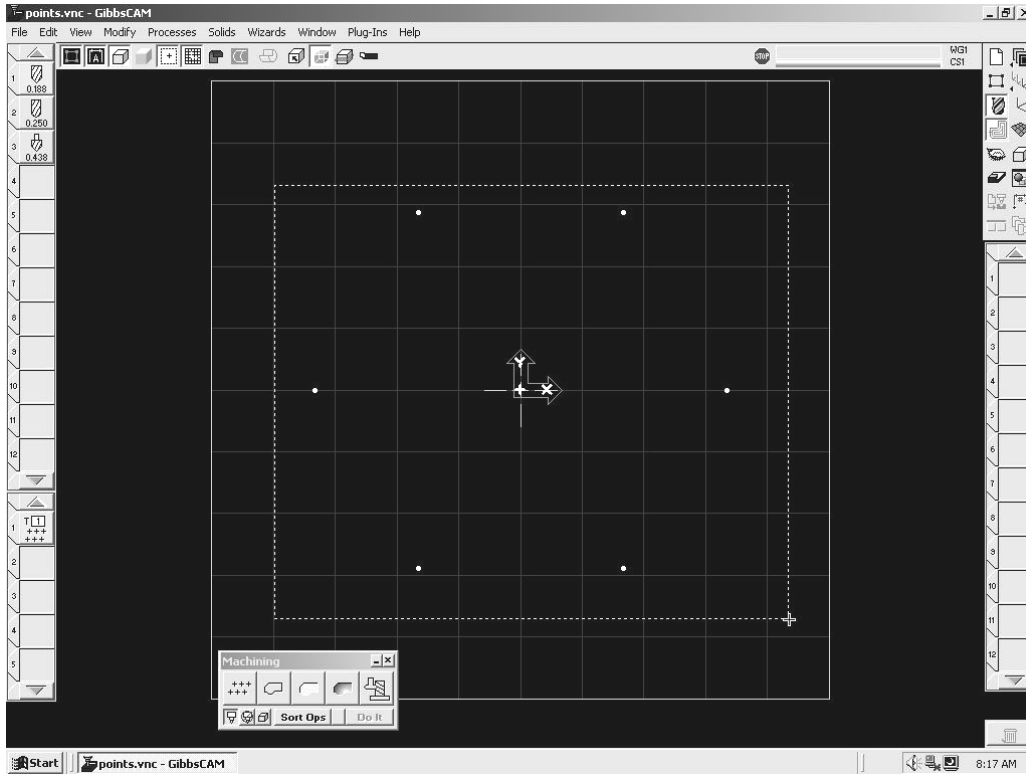


The Process Holes dialog box will appear. Enter the values as shown.





Close the dialog box. Hold down the shift key and drag a box around the points to select them.

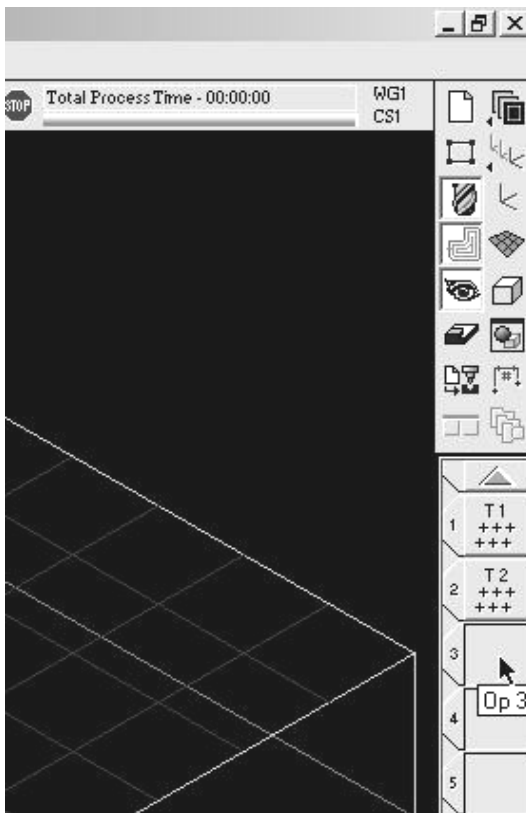


Click on Do It in the Machining Palette.

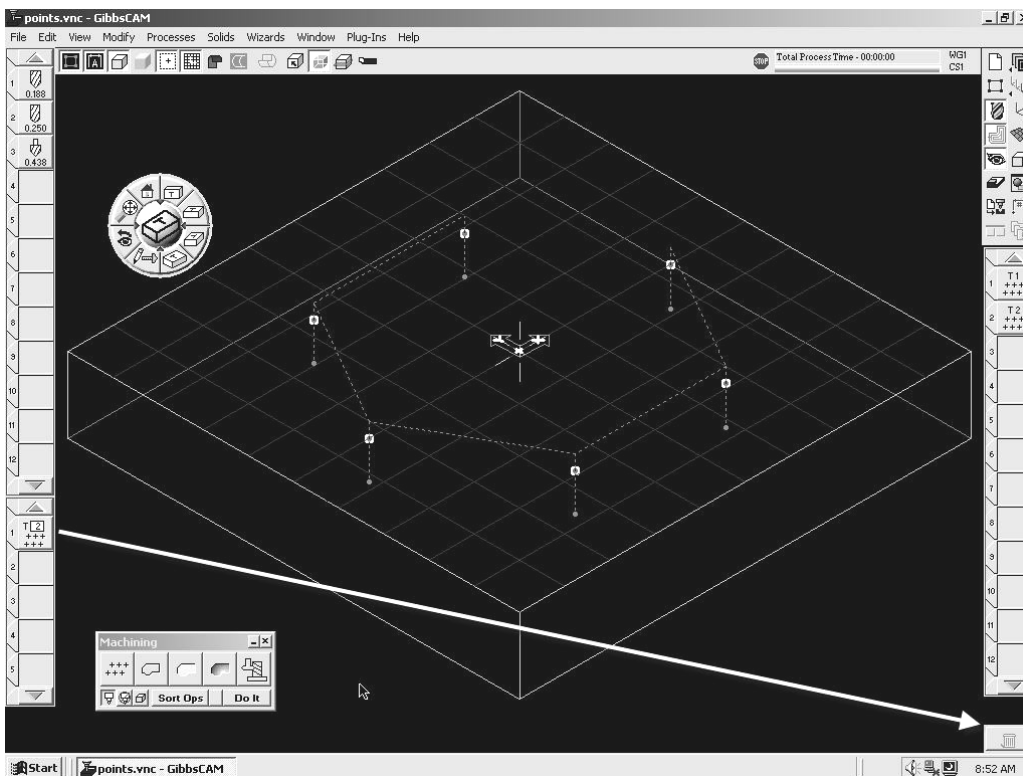


Render your part.

Select Tile 3 in the Operations List to begin the next operation.

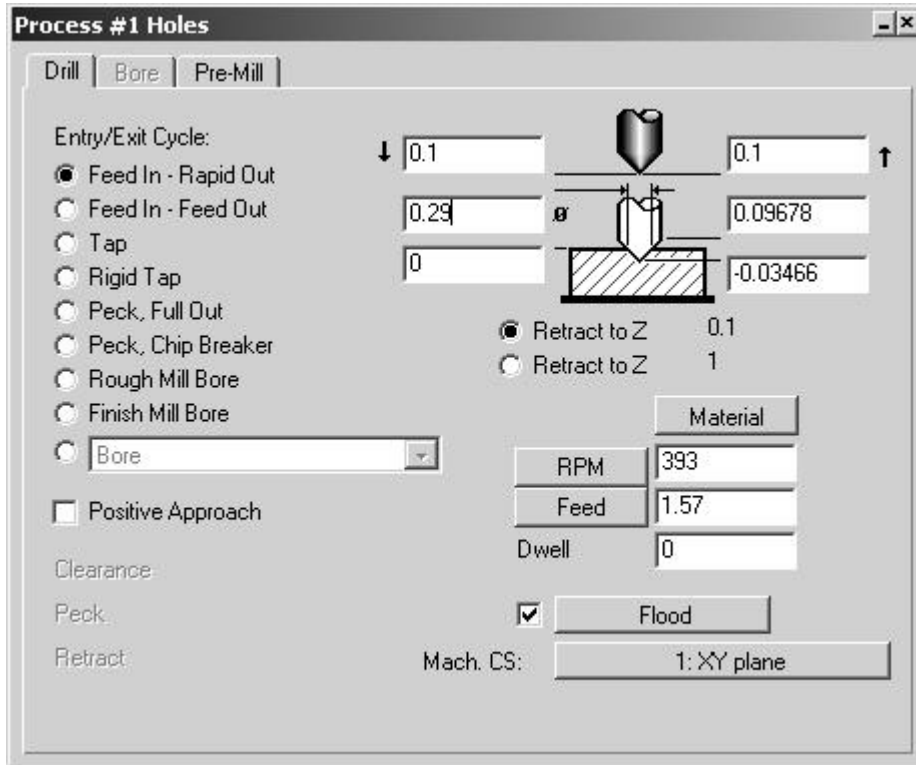


Drag Tile 1 from the Process List to the Trash Can.



Drag Tool 3 from the Tool List to Tile 1 of the Process List. Drag the Holes icon from the Machining Palette to Tile 1 of the Process List.

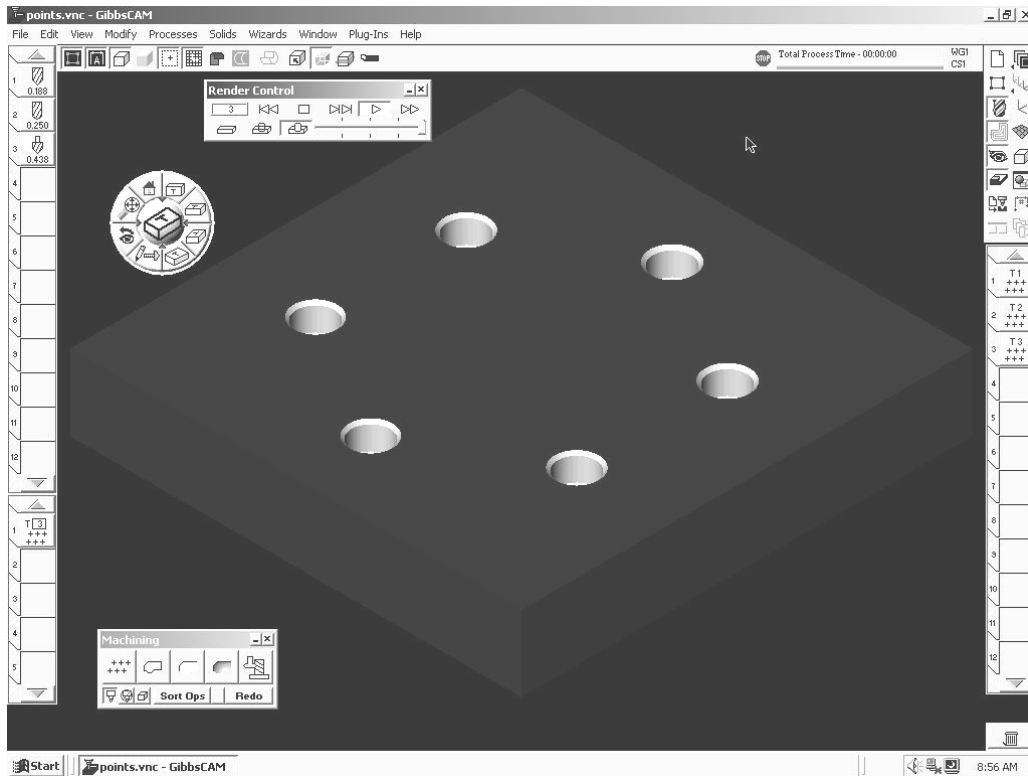
The Process Holes dialog box will appear. Enter the values as shown.



Close the dialog box. Hold down the shift key and drag a box around the points to select them. Click on Do It in the Machining Palette.



Render your part.



This completes the exercise. Save the file. Choose *File-Save* from the *Main Menu*.