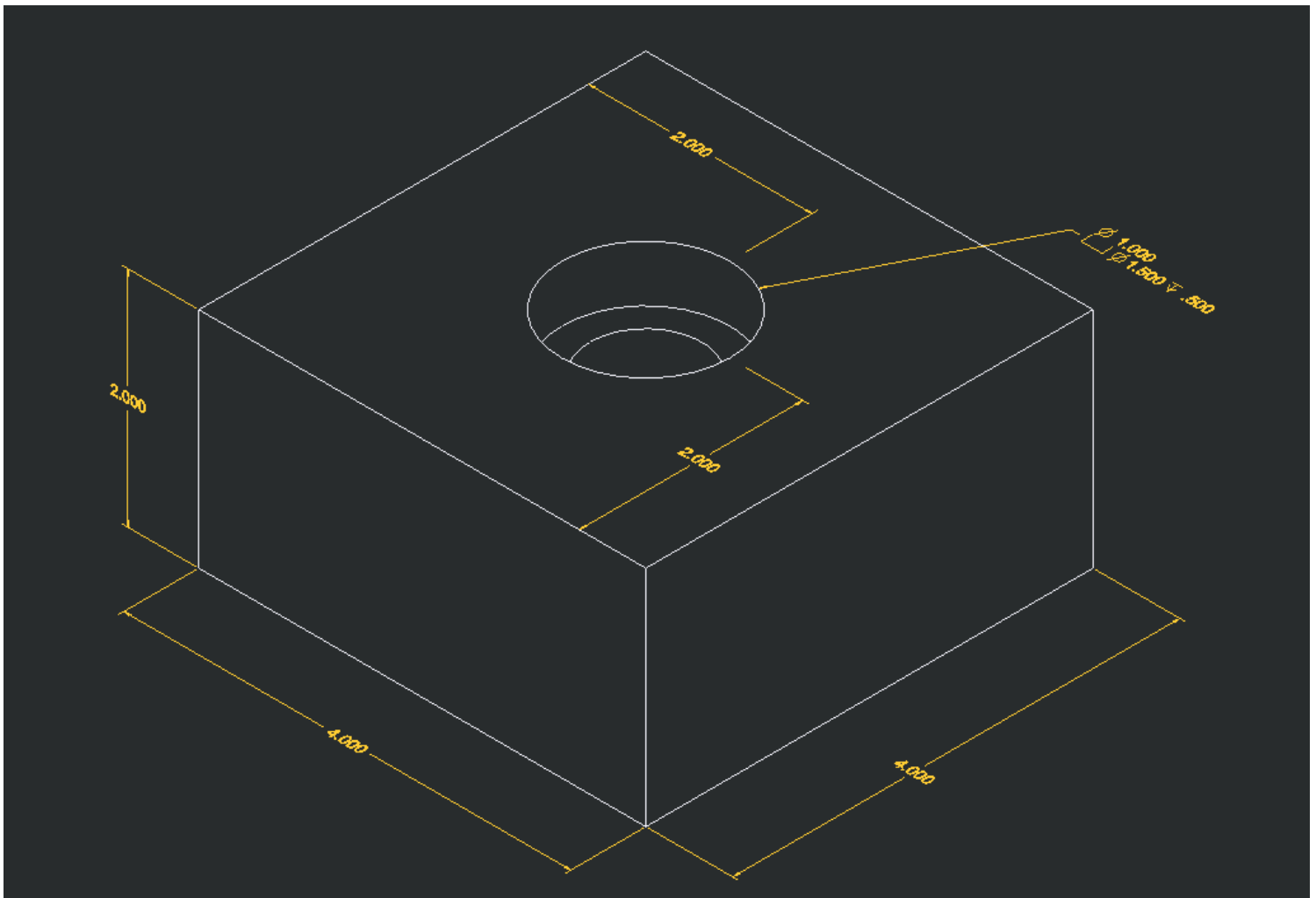


Full Section Tutorial

Creating a Part

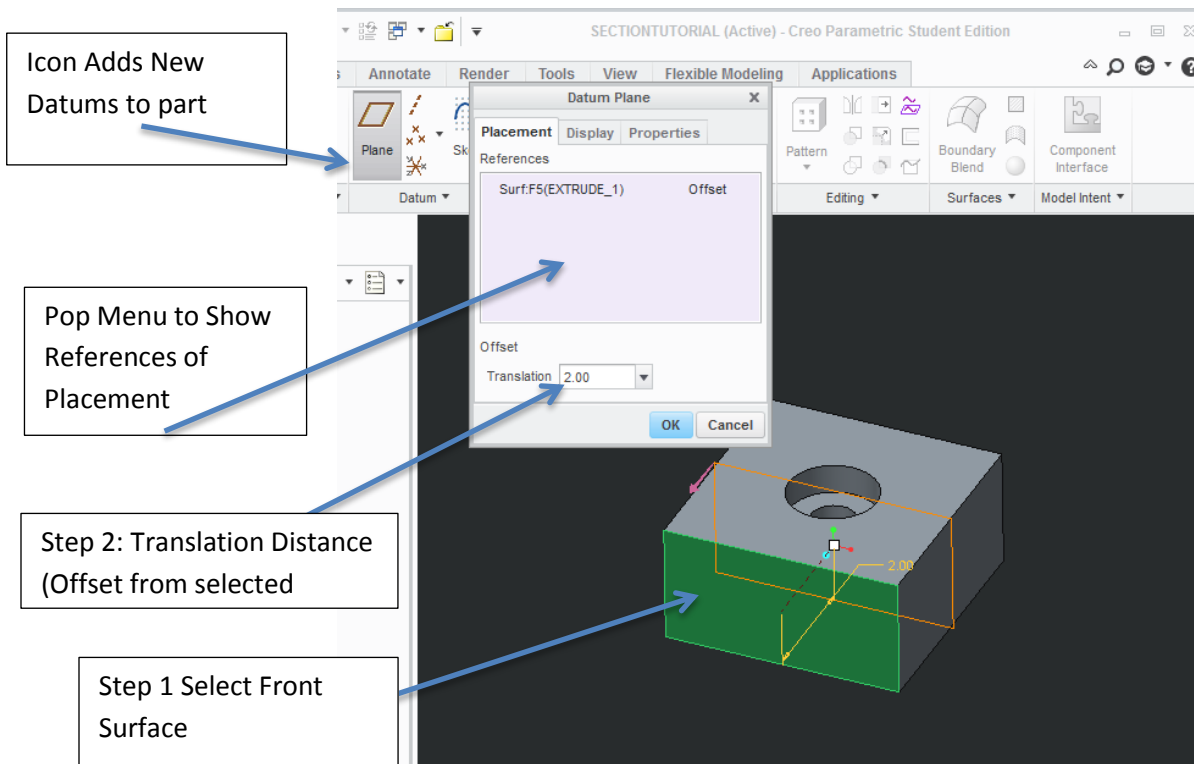
1. Create a block with the following measures
 - a. Length=4.00
 - b. Depth=4.00
 - c. Height= 2.00
2. Place a Counterbore hole on the top view at the center of the block with the following measures
 - a. Small Hole = 1.00
 - b. Large Hole = 1.50 Depth .50



Creating a Cutting Plane Line

First the designer will need to create or select an existing plane in which to create the cut along. This plane maybe one of the default or maybe created after the part is made. The following instructions are designed to create a new plane. IF a plane already exists skip to step 3

1. Model > Select Plane Icon(A pop menu will appear to enter the translation distance) > Select the Front surface of the part



2. Go to the Plane Menu
 - a. Placement Tab > enter a Translation distance of 2.00. See which way the plane goes if it goes in the correct direction simply click OK. If it does not go in the correct direction enter -2.00 in translation menu
 - b. Select Tab Properties > Change the Name to Cutting_Plane
3. Make sure your datums are turned On (Hotkey D)

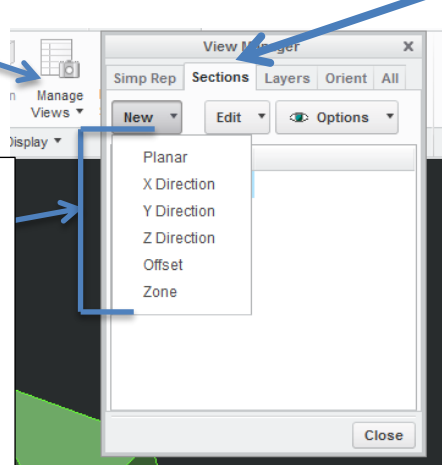
4. Go to View Tab > Select Manage Views

This menu will allow you to control sectional views, add or modify saved views, and other advanced view techniques.

5. In the pop menu select Sections Tab

6. Click one New

- a. You will have a few different options



View Tab > Manage Views

Planar: Full/Half Section by selecting a datum

X,Y,Z Directions- Full Section without using a datum

Offset: Creates an offset section by drawing a cutting plane line on an edge

Zone: Broken Section

View Manager

Simp Rep Sections Layers Orient All

New Edit Options

Planar
X Direction
Y Direction
Z Direction
Offset
Zone

Close

Tabs

Simp Rep: Allows user to hide features of a part to show a more simplified object or assembly

Sections: Create Full/Half, Offset or Broken sections

Layers: Allows the user to place features (hidden lines, centerlines, holes, ETC) to help organize the part

Orient: Allows the user to create new saved views (I.E new pictorial or orthographic view)

7. Select Planar > Change the name to **A** > Hit the Enter Key

8. Click on the datum that you wish to be the cutting plane

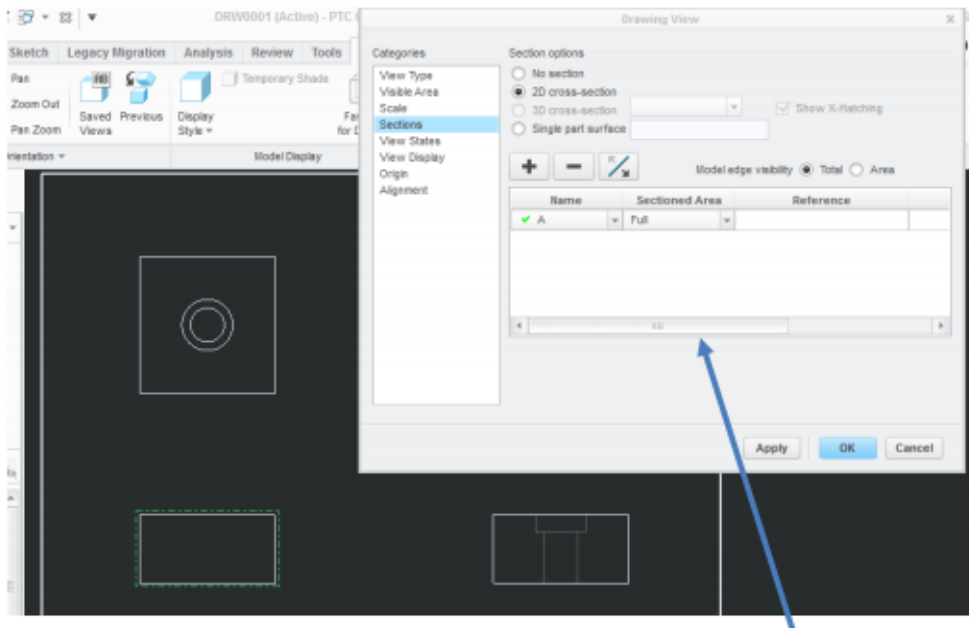
9. Select Ok

10. A Preview will show up of your cut. You can Hide the sectional cut by double clicking on NO SECTION in the Manage Views box of the Sections Tab

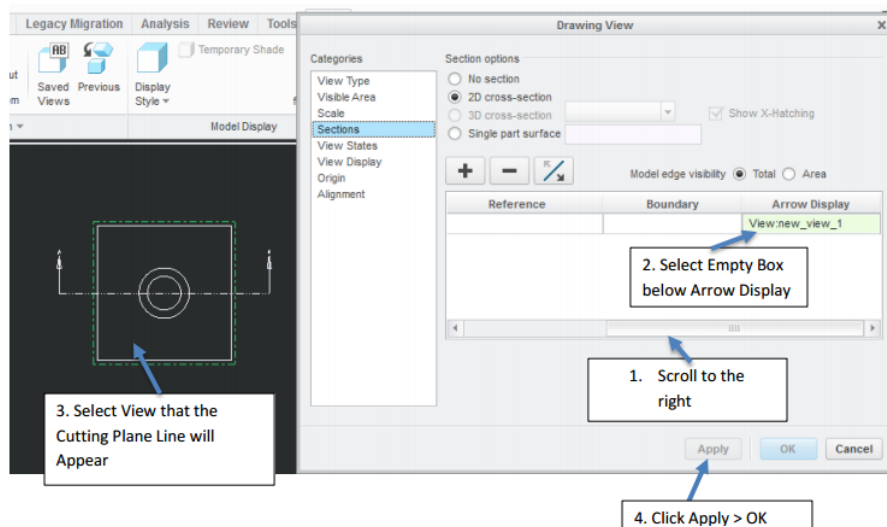
11. Close Manage Views Menu when done

Layout

1. Layout your Views as normal
2. Section View will be NO HIDDEN (For this tutorial the FRONT VIEW will be the section view) and the other Orthographic views will have HIDDEN lines.
3. Go into the properties menu of the view that is to be sectioned (For Tutorial will be the FRONT VIEW)
4. Click on the Sections Menu
5. Click on 2D Cross Section
6. Click on the + symbol to add a section > Click on the down arrow next to Create New
 - a. Listed will be all of your sections created.
 - b. Green Check next to the section name represents that the view can see the cut in that view
 - c. Red X next to the section name represents you **cannot** see the cut in that view
7. Select your section if the Green Check is next to it



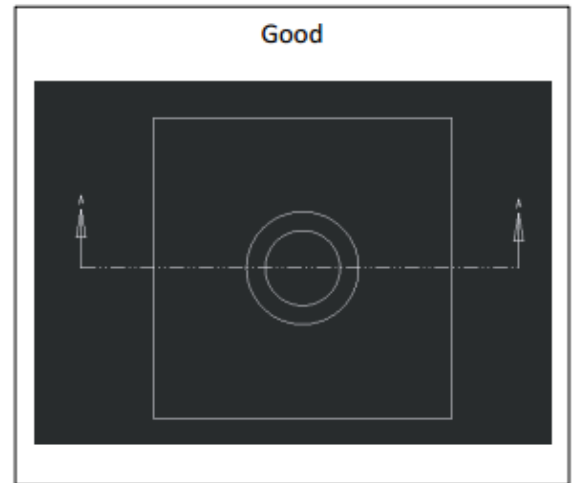
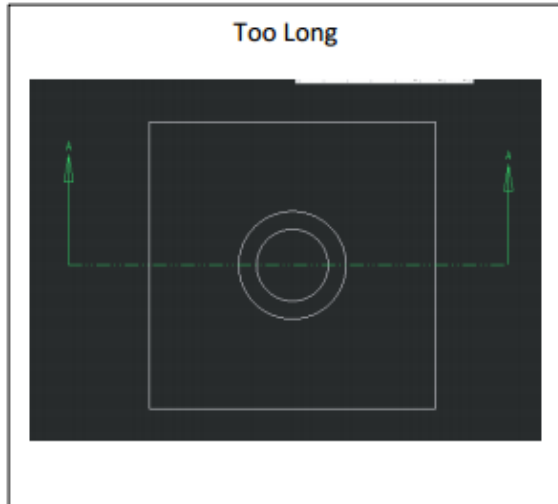
8. Adding the Cutting Plane Line
 - a. Scroll all the way to the right in the sections menu (NOTE: DUE NOT exit out of the properties of the section view)
 - b. Click on the empty box under arrow display
 - c. Select the view you want your cutting plane to be on. (In this tutorial you will select the Top View)



9. Click Ok to accept

Modifying Crosshatch and Cutting Plane Line

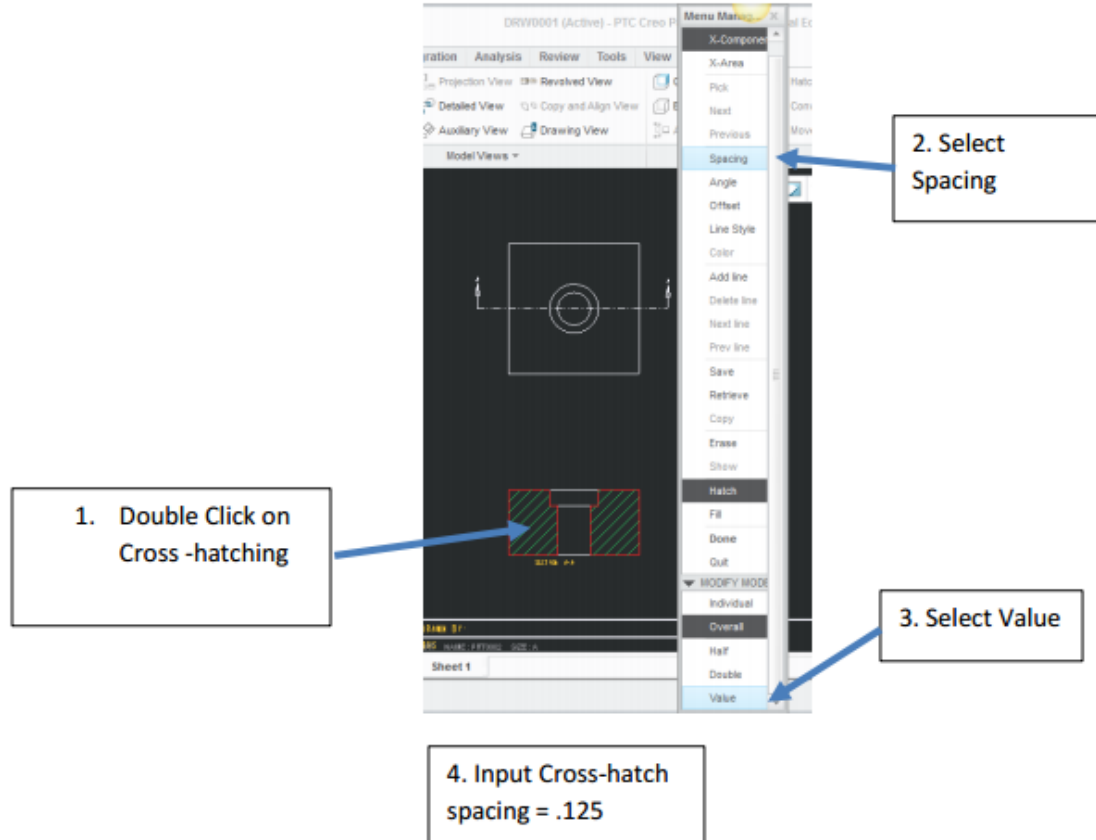
1. Cutting Plane Line: BE sure the arrow elbows are not too long and the cutting plane extends equidistant beyond the outside edge of each side of the part



- a. To change select the cutting plane line
- b. Place your cursor on the end of the arrow and draw to proper length
- c. Modifying Arrow Length
 - i. You will need to go into the drawing settings to do this
 - ii. File > Prepare > Drawing Properties > Click on Change next to Detail Options
 - iii. Scroll to the Category that says These Options Control cross sections and their annotations
 - iv. Change the Crossec_arrow_length and crossec_arrow_width (Note these values should be a minimum of a 3:1 ratio)
 1. Click on the desired option > in the lower right corner of the menu enter your value in the value box
Crossec_arrow_length = .09 > click add/change once the value is in place
Crossec_arrow_width = .03 > click add/change once the value is in place
 2. Click Apply > then click Close
 3. Zoom in or out to regenerate your screen

2. Modifying Crosshatch

- a. Go to the Layout Tab
- b. Place Cursor on Crosshatching > Double Click when crosshatching is Green > Menu Manager will pop-up > Select Spacing > Value > .125 > Select Done



3. Modify Text Height

- a. Make the Section A-A below the section view a Text Height of .100
- b. Make the Cutting Plane Line Letters a Text Height of .100

Save: Full_Section_Tutorial

Print Final Layout

