Introduction to Sketching
Using Pro/ENGINEER to View Models

Once Pro/E is up and running, and you have loaded a file, the screen appears as shown below (the screen background will be a graduated blue - but it has been turned to white in the figure below, in case somebody wants to print this document):

“Click” on the following items:

Turn on Hidden Lines

Turn off Datums, Axis, Points, Coord Sys

Minimize Model Tree Size (Move cursor slowly over the vertical line until the cursor changes to “||” . Click and drag the line to the left.

When you are finished, the figure below shows the results:
To “see” what the dimensions of the part are:

1. Show dimensions. Select **Feature – Modify** and click on feature’s surface.

Dimensions appear, as shown in the figure above. Notice the feature’s shape (L shape) is shown in the middle of the object with dimensions. The reason the dimensions appear to run down the center of the block is because the “section” was sketched on a vertical plane and the geometry was extruded both sides.

If there is more than one feature, this selection process must be repeated for each feature, whether it is a cut (hole) or a protrusion (sticking out part.) For example, the following object is made up of three features – the base, a protrusion and a cut.
Notice the feature’s shape is on the end of the object, with dimensions, and not in the middle like the first example. Where the dimensions are displayed, is determined on how the object was modeled (what plane was sketched on and direction the sketch was extruded.)

In order to view the object from the “front” view, select the Saved View List Icon and pick on FRONT.

To view the object from any of the standard six orientations (top, front, right side, etc.), select Modify and pick on the surface of the object to re-display the dimensions.

TRY THE FOLLOWING: (GSP pages 14 – 15)
- You can also get an idea of the overall shape by dynamically spinning the object. This works best in shaded mode (re-pick the Shaded Block Icon). Spin, or Rotate, the object: by pressing the Ctrl key and the middle mouse button simultaneously. Now move the mouse to see how the part can be rotated. To Reorient the object back to the isometric view - select the Saved View List icon and select Default.

- To zoom in and out: Press the Ctrl key and the left mouse button simultaneously. Now move the mouse to see how the part can be manipulated. To Resize the object - select the Refit icon.

- To pan: Press the Ctrl key and the right mouse button simultaneously. Now move the mouse to see how the part can be moved the same direction as the mouse is moved.
Move a Dimension in Pro_E

Select **Part – Modify – DimCosmetics – Move Dim** – select the dimension you wish to move, move the cursor to the new location, select the dimension’s new location. (See examples below - the dimension will not move with the cursor, when you move it to the new location.) When finished, select **Done** to close Cosmetic Dimension menu and **Done** to close the Modify menu.

The menu structure in Pro-E will be confusing to learn all at one time. To help understand how it works, study the selections below.

---

Move a Dimension in Pro_E

Select **Part – Modify – DimCosmetics – Move Dim** – select the dimension you wish to move, move the cursor to the new location, select the dimension’s new location. (See examples below - the dimension will not move with the cursor, when you move it to the new location.) When finished, select **Done** to close Cosmetic Dimension menu and **Done** to close the Modify menu.

The menu structure in Pro-E will be confusing to learn all at one time. To help understand how it works, study the selections below.

---

Move a Dimension in Pro_E

Select **Part – Modify – DimCosmetics – Move Dim** – select the dimension you wish to move, move the cursor to the new location, select the dimension’s new location. (See examples below - the dimension will not move with the cursor, when you move it to the new location.) When finished, select **Done** to close Cosmetic Dimension menu and **Done** to close the Modify menu.

The menu structure in Pro-E will be confusing to learn all at one time. To help understand how it works, study the selections below.

---

Move a Dimension in Pro_E

Select **Part – Modify – DimCosmetics – Move Dim** – select the dimension you wish to move, move the cursor to the new location, select the dimension’s new location. (See examples below - the dimension will not move with the cursor, when you move it to the new location.) When finished, select **Done** to close Cosmetic Dimension menu and **Done** to close the Modify menu.

The menu structure in Pro-E will be confusing to learn all at one time. To help understand how it works, study the selections below.