CHAPTER 35 EXERCISES

For the following exercises you will need access to the sample drawing files that are shipped with AutoCAD. (The default installation path is C:\Program Files\Acad2000\Sample.)

1. **Isometric Views**

   Open the **R300-20** drawing from the Acad2000\Sample directory. Activate the *Model* tab. Turn *On* the *Ucsicon* and set it to the *Origin*.

   Using *3D Views* from the *View* pull-down menu, generate a *SE Isometric* viewpoint. Next, *Zoom* into the assembled section of the model. For each of the following views, notice the position of the UCS icon. Generate a *SW Isometric*, then a *NE Isometric*, and finally a *NW Isometric* view. Notice how the assembled section appears to be located above the XY plane. <u>Do not save changes</u> and do not exit the drawing.

2. **Orthographic Views**

   Continue working on the **R300-20** drawing. Use the *Plan* command to generate a plan view of the *Current* UCS. Take note of the position of the UCS. Next, using *3D Views* from the *View* pull-down menu, generate a *Front* view, then a *Right* side view. Notice that the Ucsicon changes to display a new coordinate system parallel to the view only when an orthographic view is generated but not when an isometric view is generated (since the *UCSORTHO* system variable is set to 1 by default). Notice also that the assembled view of the model is located above the XY plane of the World Coordinate System. <u>Do not save changes</u> and do not exit the drawing.

3. *Shademode*

   Continue working on the **R300-20** drawing. Generate a *SE Isometric* view. *Zoom* in to one of the cylindrical components of the model. Generate a *Flat Shaded* and a *Flat Shaded, Edges On* display. Next, generate a display of each of the two *Gouraud* options and notice the smoother appearance of the cylindrical shapes. <u>*Exit*, but do not save changes </u>to the drawing.

4. *3Dorbit*

   Open the **WATCH** drawing from the Acad2000\Sample directory. Activate the *Model* tab. Does the watch appear to be assembled? Next use *3Dorbit* to generate several new viewpoints. Is the watch assembled? With *3Dorbit* active, right-click to make the shortcut menu appear and select *Visual Aids* to turn off the grid. Using the same technique, turn on *Gouraud* shading, then generate other views. Notice that the shading mode is "persistent" (does not return to a wireframe display when the object is "rotated"). Next, using the right-click menu, generate a *Perspective* view. Finally, put the watch into *Continuous Orbit*. When finished, *Exit* *3Dorbit*, but do not save changes or exit the drawing.

5. Viewports

Continue working with the WATCH drawing. Ensure the *Model* tab is active. Using the ***Vports*** command, set up ***Three Right*** viewports on the screen and use any method to generate the following views:

top left viewport	plan view
bottom left viewport	right view
right viewport	southeast isometric view

When you are finished, ***Exit*** the drawing, but <u>do not save changes</u>.