

Exercise 02565-01	The User Interface of Softimage 3D
Reading	UG-W page 38 - 54, UG-M side 13-47.
Purpose	The purpose of the exercise is to give an introduction to the user interface of Softimage 3D. The exercise presents 2D and 3D model primitives such as circles, Bezier curves, spheres, cylinders etc. We demonstrate how the objects are placed relative to a global and a local coordinate system and how the basic transformations can be used on the primitives.
Start	Softimage is started by the command soft37. The start image is removed with the left mouse button (LM). If you are asked to make a softimage database, then do so and give it the name soft02.
Part 1	Make a sphere of diameter 5 units using the menus Get>Primitive>Sphere. In the dialogue box you chose Patch and B-spline for both directions. Show the control points with Show>Point (Toggle-menu). If you selected a wrong pop-up menu you can leave it again with the right mouse button (RM) or ESC. Make a sphere using Cardinal curves in both directions. Move the active sphere (selected). The last made object is automatically selected as default. Use TransX and move the mouse - pressing the left mouse bottom (LM) - from right to left in the Front window, so far that the spheres do not cover each other. Select the first sphere again using Select>Toggle mode and LM. Make a third sphere with linear curves in both directions. Compare the third sphere with the first one and move the third to the right until it is free of the first one (in the front view). Select the first sphere as the actual object. Make a fourth sphere using Polygon. Compare it to the first sphere. Choose TransY and move the fourth sphere below the first one. Select the first sphere again and move it upwards so the area in the middle is free in the front view. Zoom to make all spheres visible by Camera>Frame All. Interpret the results. Do also perform zooming in the perspective view using Camera>Zoom and set the zoom factor using RM. Zoom in with the middle mouse button (MM). Make a copy of the first sphere with Duplicate>Immediate (did you remember to make the first sphere the actual ones). Move the copy using the vector (30,25,0). Choose the upper left corner of one of the translation menus and type the data into the dialogue box and confirm with Set. Undo the translation with History>Undo. Skip the undo with History>Redo. Delete the copy of the first sphere with Delete>Selection and

confirm.

Show the centres of the spheres: Show>Centre. Select all spheres by first changing to multi select mode using the multi menu. Then use Select>Toggle Mode to select the four spheres. Zoom out again so that all the spheres are visible in all views. Enlarge the perspective view to cover the whole viewing area by pressing the icon in the upper right corner of the perspective view. Press the icon again to regenerate the four views.

Name the four spheres in the scene using Info>Scene. Use our group id. (Grxx) as prefix and give the spheres the name: *4spheres*.

Store the spheres on the hard disk: Save>Scene.

Delete all spheres from the screen: Delete>Selection>All.

Reset the screen area: Camera>Reset

Part 2

Make a cylinder of radius 4, heights10, and axis coincident with the z-axis. First make a vertical cylinder:

Get>Primitive>Cylinder. Which type of object is made?

Observe the position of the local coordinate system. Rotate the cylinder 90 degrees around the x-axis using RotX and give the rotation angle in the dialogue box.

Move a point on the cylinder: Edit>Move Point.

Tag a point: Tag>Points>Point Only, select the TAG menu in the lower right mode area and rotate the point 30 degrees around the y-axis. Identify which axis is the actual rotation axis. Change back to object mode by choosing the OBJ mode.

Rotate 30 degrees again around the y-axis. What is the difference between ADD and SET i the rotation dialogue box? Save the object on the hard disk using the name *cyl*. Erase the screen.

Part 3

Regenerate the screen areas: Camera>Reset. Get a circle of radius 5 and curve type B-spline: Get>Primitive>Circle. Extrude the circle 5 units using patch type B-spline: Surface Extrusion. Move one of the control points: Edit>MovePoint. Compare with the operation from part 2. Clean the screen again.

Part 4

Do experiments with Draw>Curve>B-spline/Bezier/Cardinal/Linear. Use all the four functions to draw a hand seen from above. Which function is most usefull for sketching a hand.

Part 5

The members of the group change roles and part 1 - 4 is repeated. In this way all get acquainted to the system.

Part 6

Make exercise 1 “Head” from the manual Softimage 3D Quick Start (QS).
Add more details to the head.