

Still Life Exercise

1. Come up to the table and sketch an object or 2 in the still life set up on the table. Sketch just the profile!
2. Recreate in 3d Max a couple of the objects from the scene. Use basic primitives with modifiers, and or shapes with modifiers (extrusions, and lathes) to create your objects.
3. Place all the virtual objects on a 3d table.
4. Add a camera and lights to make an interesting composition for your objects.
5. Render from camera view.
6. Show me your sketch and 3d model + render in class for evaluation.

SHAPES – CREATE PROFILES OF OBJECTS USING SHAPES TOOL

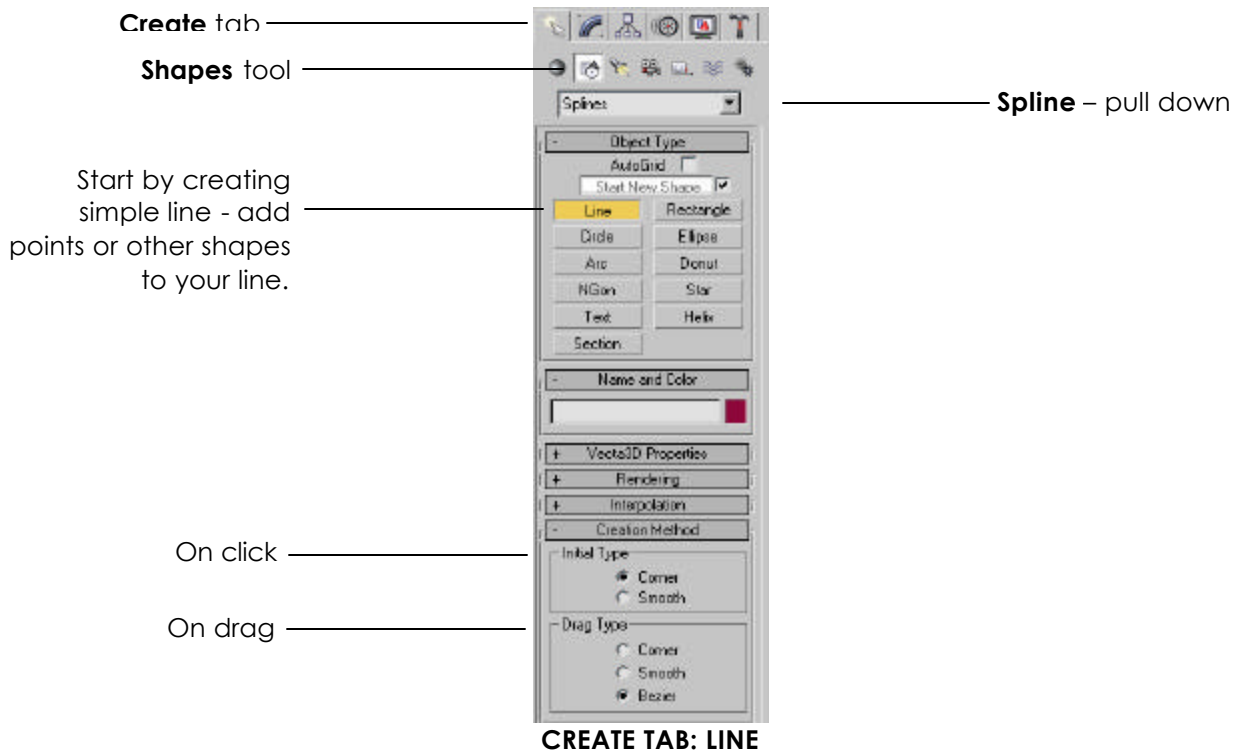
Referencing your profile sketch, draw using a simple line to represent the profile outline of the basic shapes.

Create in front or side views.

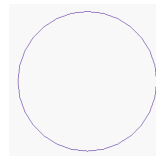
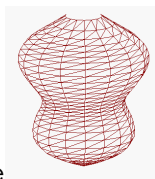
Create: Shapes: Line

Left click to create a point

Right-click to end line drawing tool



lathe an open shape



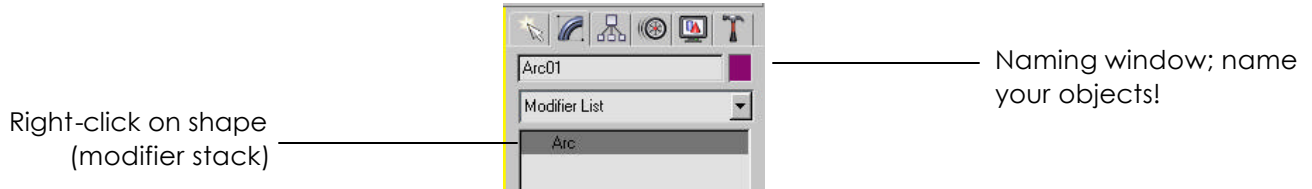
extrude a closed shape



SHAPES – ATTACHING MULTIPLE SHAPES

If you have created multiple independent shapes - attach them to each other before adding modifiers such as extrude or lathe.

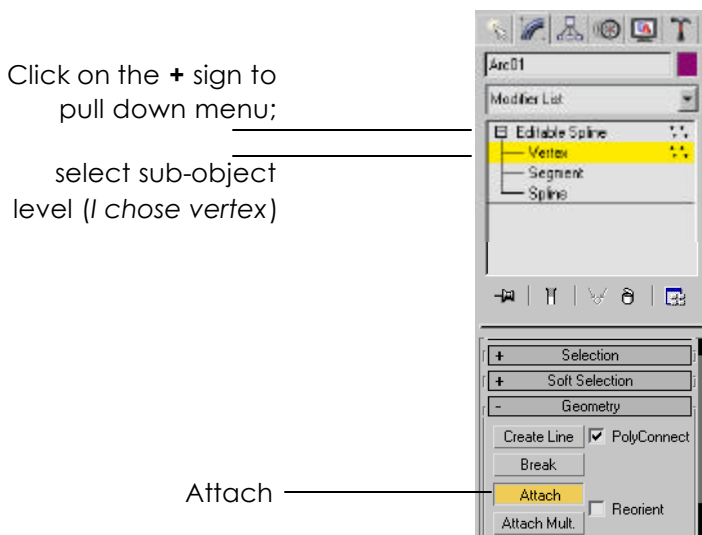
1. Select Line in any viewport.
2. Select Modifier Tab; choose shape in modifier stack window (*not shape name!*)
Modify Tab: Select line - right-click on shape in window



3. Choose '**editable spline**' from modifier list to convert to spline.



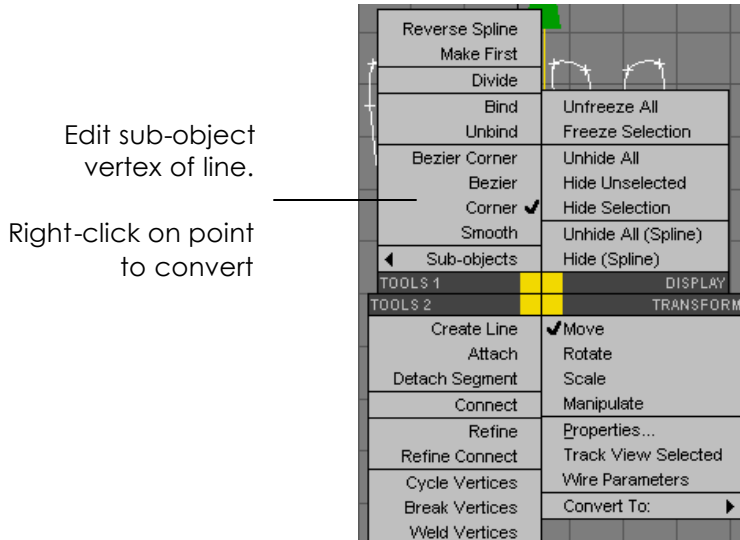
4. Left-Click on the **+** next to the name 'editable spline' in the modifier window.
5. Choose any of the sub-object selections (I chose vertex- you can attach from vertex, segment or spline sub-object selection)
6. Toggle Attach (under Geometry menu)
7. Select the other independent shape you want to attach.



SHAPES – CONVERTING CORNERS TO SMOOTH

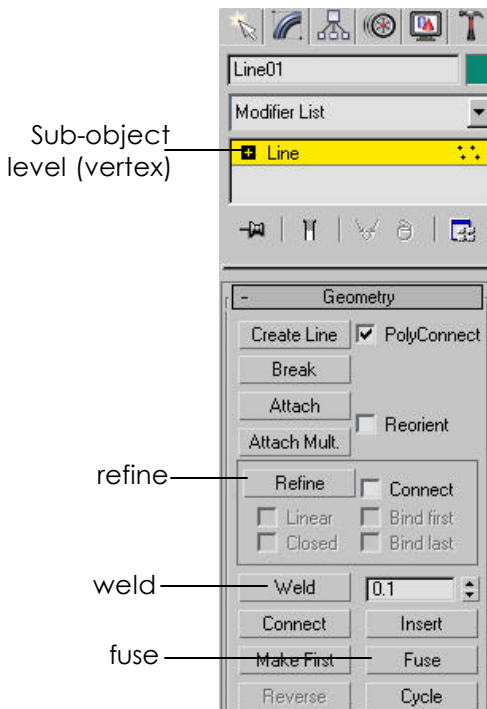
Right-click on an anchor point of your editable shape and choose corner, bezier, bezier corner, or smooth (smooth is the best default starting point!)

You must be in the line's sub-object vertex level to edit points!



Edit sub-object vertex of line.

Right-click on point to convert



SHAPES – CONNECTING BROKEN POINTS OR OPEN SHAPES

Edit vertex sub-object level
Select the 2 points to connect

ctrl click to select multiple points

1. click **fuse** button in modifier panel to pull points together and join
2. then click **weld** button in modifier panel to connect

or

1. select 1 point of an open shape
2. toggle connect (*geometry menu under modify tab*)
3. click on point - drag to next open end

SHAPES – adding more points in shape

Toggle refine - click anywhere between two points.

Modifiers – FROM 2D TO 3D...

Modifiers allow you to stack parameters on top of each other without permanent change. You can change the order of the stack or delete elements from the stack at your will. By using parameters you have the ability to edit objects without fear of destroying their original structure. Use modifiers in habit!

Basic Types

Mesh-editing modifiers - transform shapes into objects (lathe, extrude, face extrude etc.)

Parametric modifiers - further manipulate objects (bend, taper, etc)

MESH EDITING MODIFIERS

Extrude – closed 2d profile to 3d profile with thickness

Face Extrude – use above mesh select: sub-object level selection (face or poly)

Lathe – revolves an **open** profile around a center axis

Cap Holes – use with extrude to cap open areas of mesh

Normal – use to flip normals so model is not inside out

Extrude Profile – create a shape and create profile for shape (like extrude but this one extrudes along a profile you create; then you can manipulate the profile to change)

PARAMETRIC MODIFIERS

Bend – bend mesh

Taper – taper mesh

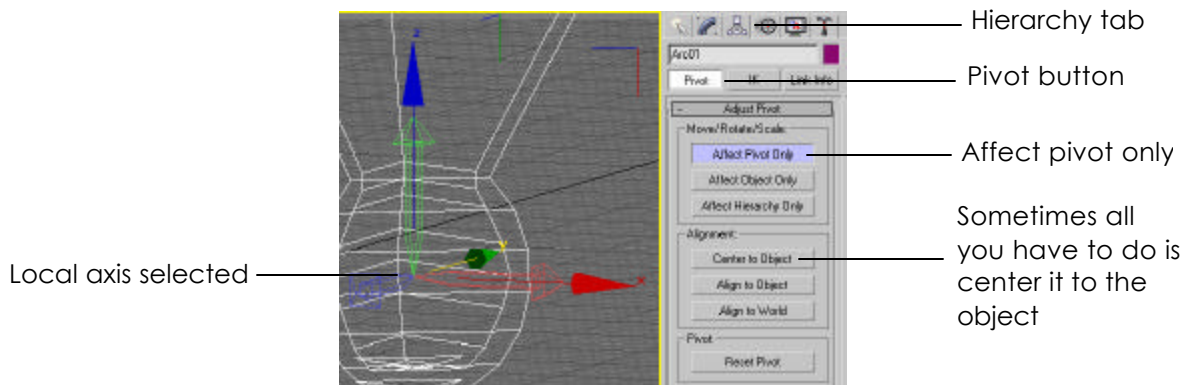
Xform – use this modifier when changing the scale of an object in a non-uniform way. Non-uniform scale can modify the object and all other elements in the stack in odd ways but an X-form modifier changes only the object at that section of the stack.

Bevel: objects in the real world desire a beveled edge to be less flat and more realistic when rendered. Be sure to add extra points in your geometry for this bevel effect.

MESH - CHANGING THE LOCAL AXIS OF OBJECT

Hierarchy Tab: Pivot Button

To change to local axis of an object (for scale, rotation, arrays, etc.)



Basic Modeling Tips...

Bevels – adding bevels to your objects make them more realistic and interesting when rendered. Add bevels to all edges. Do not create edges or corners of objects without a beveled edge. Light will reflect off of these surfaces better.

Segments – the amount of detail you want in your object. More detail, more render time, finer surface.

Generate mapping coordinates – when it comes time to adding textures, this generate mapping coordinates comes in handy. Use it.

Spline parameters: Interpolation: Steps or detail within line creation. Higher number = finer curve and more detail in object being lathed.

Normals (flip normals) – if you see your model 'inside out' it probably has its normals flipped. Toggle this button to flip the normals in the other direction. Normals affect the way light hits an object.

SPEED SPINNER VALUE CHANGES

Holding the **CTRL** key down while dragging slides exponentially increments values

CLONING OBJECTS

Shift key Clones object

SELECT MULTIPLE OBJECTS

CTRL key allows you to select multiple objects

Rendering - RENDERING TO A FILE OR PREVIEWING A SCENE

Menu Rendering... Render

Choose which view you want to render in pull down menu

Render Buttons

