

# MAXONFORM FOR ARCHICAD TUTOR

## 3. EDITING BASICS

### Content Outline

- Part 1: Moving Objects, understanding Undo in MaxonForm
- Part 2: Scale and Rotate
- Part 3: Using Quick Access

### Exercises

- Moving Objects
- Scale and use Object parameters
- Rotate

### Objectives

At the completion of this lesson you will be able to

- 1 Understand how to work with the basic editing features of MaxonForm
- 2 Sketch and design accurately
- 3 Handle Object parameters
- 4 See how QuickAccess can improve your efficiency

### MOVING OBJECTS

MaxonForm offers smart and effective ways to edit your design. They are easy to learn and handle, yet some of them are a bit different from the ones you use in ArchiCAD.

Continue your work where you ended up in Lesson 2, or start ArchiCAD and open the TestModel.pln file. Go to the 3D view and choose the Create New Object in MaxonForm command in the Tools menu. Place the Figure element from the Object/Primitive menu and change its height to 1800 mm. Choose the Frame Active Objects in the Edit menu of the Editor Window.

The human figure we have placed in Lesson 2 is still in the slab up to its waist. Let's put it on the top of the slab!

Make sure the Object is selected (i.e. the corners of its bounding box are red and its name is shown with red characters in Object), and the Move icon is active in the Top Command Palette.

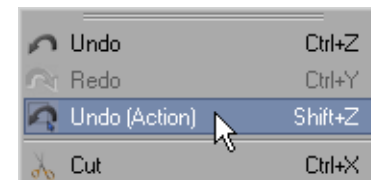


There are several ways to move an object; first, let's do it first graphically. If you click and drag any point of the object you can move it on the scene. In the meantime watch the numbers in the Coordinate Manager. It is nearly impossible to move the object in an accurate way. Even in the "2D" views (Front, Top etc.) it is clear that this method is not the most efficient way for architects.

MaxonForm provides several excellent solutions that help you to work in an easy and accurate way.



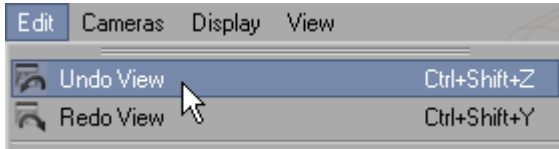
Click the Undo icon in the Top Command Palette to return the object to its original position. MaxonForm has two types of Undo. The undo queue of the Undo command we just used stores every operation on the scene, including selection and deselecting of elements.



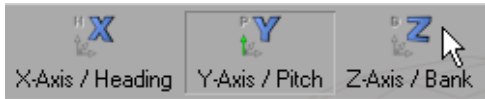
The other type of Undo is called 'Undo (Action)' and can undo all operations except for selections. If there are selection actions among the steps you are undoing with this command, all selection actions

are removed from the queue, and redoing them is not possible any more.

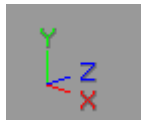
Note: There is a third type of Undo, which is available in the Edit menu of the Editor windows. Its queue stores the views of the respective window. So, if you accidentally changing a view, you can move back and forth between previous and next views as in ArchiCAD, using the Undo View command in MaxonForm..



In the Top Command Palette there are three icons symbolizing the directions of the coordinate system. Click 'X' and 'Z' direction to leave only 'Y' active.

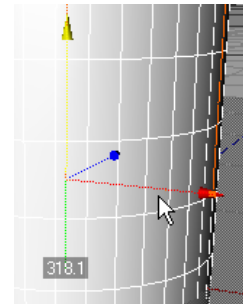
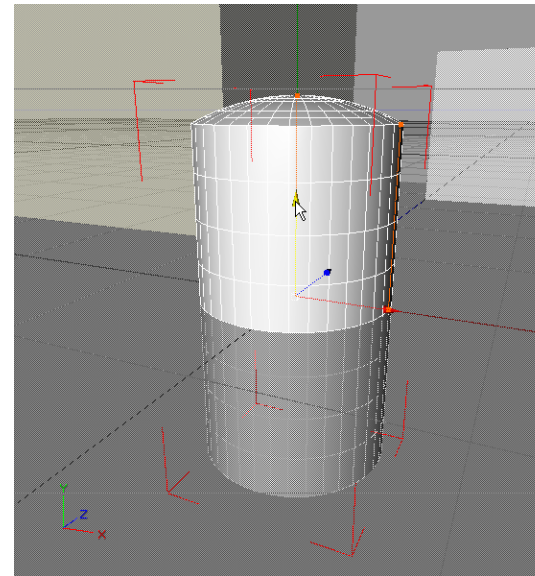


Now, if you click and drag any point of the tank it moves by the 'Y' axis only – that is, up or down only.



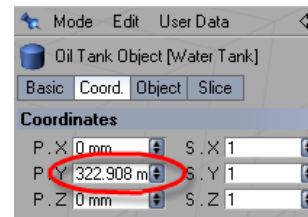
You might have noticed already, that the coordinate system in MaxonForm is different from the one in ArchiCAD. 'X' and 'Z' axis lie in the floor plan's plane, while here the 'Y' axis points upright.

The same applies to the local coordinate system of the object: the red arrow stands for the 'X' axis, the green arrow for 'Y' and the blue for 'Z'. When you move the cursor over an arrow, the whole arrow turns yellow, showing that you can edit it now.

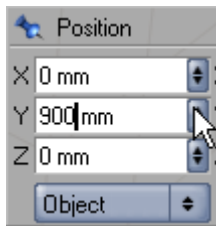
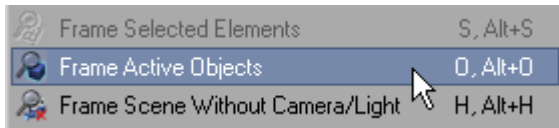


If you click and drag the mouse when the arrow changes its color to yellow you can move the object. As you can see, it is moved exclusively along the direction of the axis represented by the arrow regardless which directions are locked in the Top Command Palette.

However, while the Editor Window provides a feedback about the rough numeric size of the operation; its exact number can be seen in the Attribute Manager (left below).

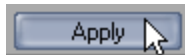


In the image on the left you can see the result of a graphical operation in numerical values. You can also enter the exact, desired number instead of this value. Type '500' into the 'Y' field and choose Frame Active Object in the Edit menu of the Editor Window.



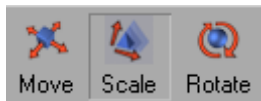
Alternatively, you can set the position of an object in the Coordinate Manager. This method is available even if you are an editing mode other than 'Move'. It means that even if either 'Scale' or 'Rotate' is active in the Top Command Palette, you are still able to move the selected object by adjusting its numeric values in the Coordinate Manager either by entering a number or moving the cursor over the arrows and scrolling with the

wheelmouse. Make sure you click the Apply button after setting the desired values.

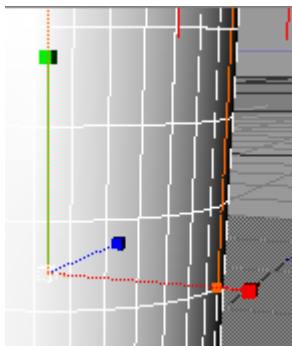


**Exercise**

**SCALE AND ROTATE**



When you change to scale mode in the Top Command Palette by clicking its icon, the arrowheads of the object coordinate system change to small boxes.



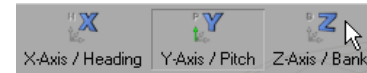
When you move the cursor over the boxes or their stem, they turn to yellow, just like when working with the arrows while moving. Clicking and dragging the box scales the object proportionally in all directions.

Use the Undo command in the Edit menu or click to the Undo icon in the Top Command Palette to return the object to its original size.

When you look at the top of the head of the Figure, you can see an orange box.

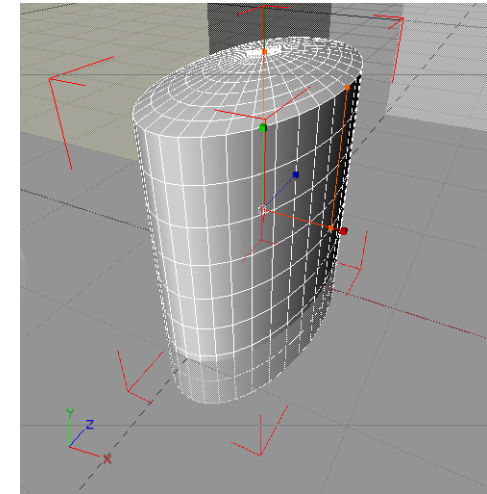
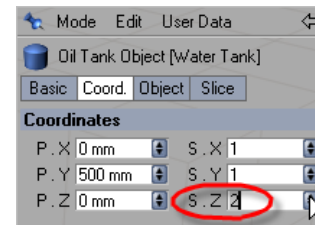
When you move the cursor over the orange box, it also changes to yellow, showing that you can drag it, scaling the element in the direction of the stem of the orange box.

Every object has orange boxes for some of the parameters that are available in the Object Manager to set its shape. Use the Undo command to return to the original shape.



Note: If any of the coordinate system directions in the Top Command Palette are switched off, you are able to change the object parameters only in the active direction(s).

It is possible to scale an object not only proportionally. If you adjust the values in the Scale field of the object coordinates in the Attribute Manager, as below, the object will be scaled along the respective axis.

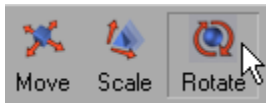


As you can see the Tank object is distorted along the 'Z' axis.

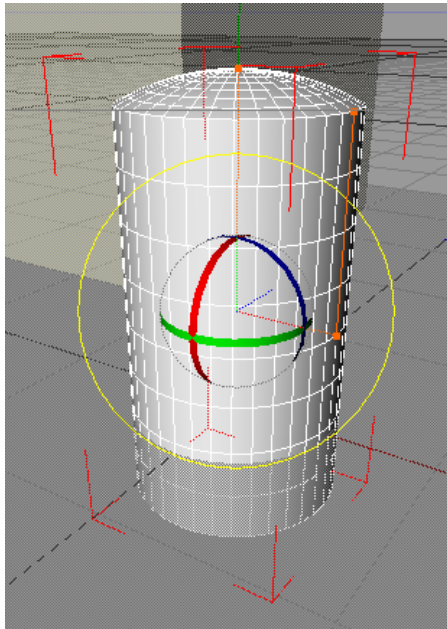
**Exercise**

Use Undo until you return to the original size of the object.



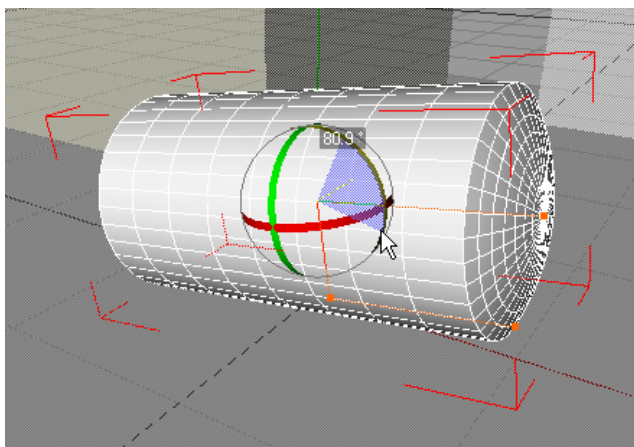


The Rotate command works similarly to Move and Scale. When you click the Rotate icon in the Top Command Palette, four circles appear in the Editor Window:

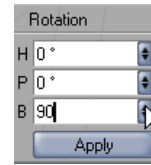


When clicking and dragging the outer yellow circle in the Perspective view, the element will be rotated freely, practically in every direction. Watch the values changing in the Coordinate Manager. Use Undo to return the object to its original position.

Click and drag any of the red, blue or green circles to rotate the object around its X, Z or Y axes respectively. The circles change their color to yellow when you move the cursor over them.



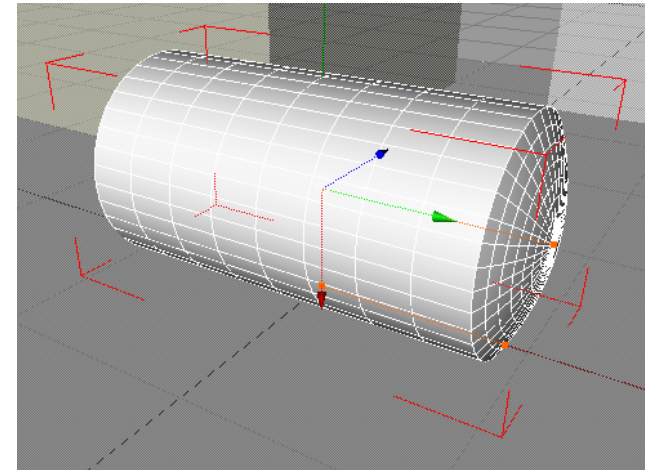
Just like when moving an element by its own local coordinate axis, the program provides a visual feedback about the rotation angle.




An accurate value of the rotation angle can be entered in the appropriate field of the Coordinate Manager, just like when moving elements. Make sure you press the Apply button after entering 90 in the B field of the Rotation section in Coordinate Manager.

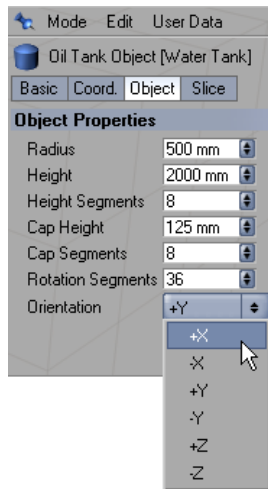


Change back to Move mode, and you can see that the coordinate system of the object has been also rotated.



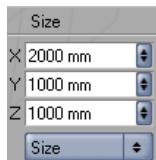
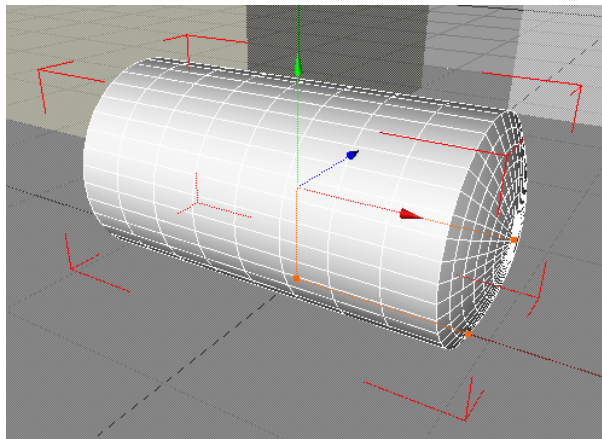
Use the Undo  command until you get to the position you were in when first beginning to work with the Rotate command.

In many cases, you can use the Orientation parameter in Attribute Manager instead of the Rotate command. However, its result is somewhat different from the one you have just seen.



Click the object to open its parameters in Attribute Manager. Choose Object tab page. At the bottom of this page you find the Orientation parameter. Change its value to '+X' using the popup menu to rotate the Water Tank Object, as with the rotate command.

As you can see, the coordinate system remains in the same position.



Naturally, the X, Y and Z values change accordingly in the Size section of the Coordinate Manager.

**Exercise**

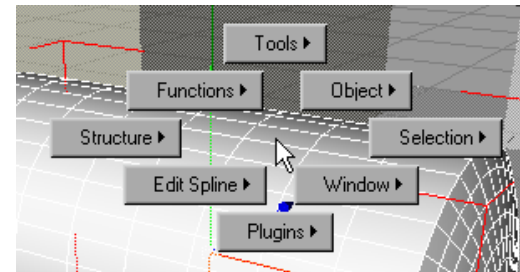
**Lesson review**

- 1 Choose the moving method you find most appropriate for your working method.
- 2 Can you scale an object proportionally only?
- 3 Is Scale the only way to change the size of an object?

**Quick Access**

MaxonForm 9 offers a handy tool to make editing faster and enhance productivity: Quick Access.

By pressing the 'V' key on your keyboard, eight buttons will appear alongside your cursor, representing eight items of the Main Menu.



Moving the cursor onto any of these buttons will open its respective menu. This gives you fast and easy access to the most commonly used commands of these menus. The content of Quick Access can be configured in the Window/Layout menu by choosing the Menu Manager command. For further details about configuring Quick Access please see MaxonForm Reference Guide page 56.

Besides Quick Access there is a Context menu in MaxonForm (similar to ArchiCAD) that you can reach by clicking the right mouse button in any Editor Window or clicking on the object name or symbol in Object Manager.

- 4 Can you rotate an Object accurately in a direction?
- 5 Is Rotate the only way to change the orientation of an Object?
- 6 Is there a context menu available in MaxonForm, like in ArchiCAD?