

# LESSON 10

## LEARNING OBJECTIVES

*After completing this lesson, you will be able to:*

1. Move the Origin.
2. Control the display of the UCS icon.

# Moving the Origin

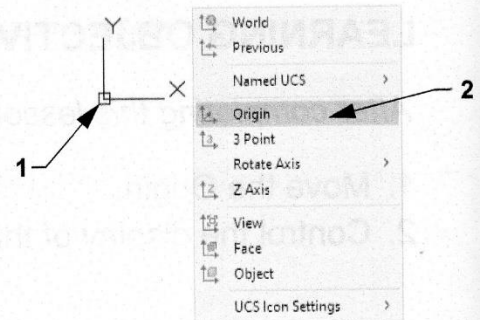
As previously stated in Lesson 9, the **Origin** is where the X, Y, and Z-axes intersect. The Origin's (0,0,0) default location is in the lower left corner of the drawing area. But you can move the Origin anywhere on the screen using the UCS command. (The default location is designated as the "**World**" option or **WCS**, World Coordinate System. When it is moved, it is UCS, User Coordinate System.)

You may move the Origin many times while creating a drawing. This is not difficult and will make it much easier to draw objects in specific locations.

Refer to the examples on page 10-3.

## How to move the Origin

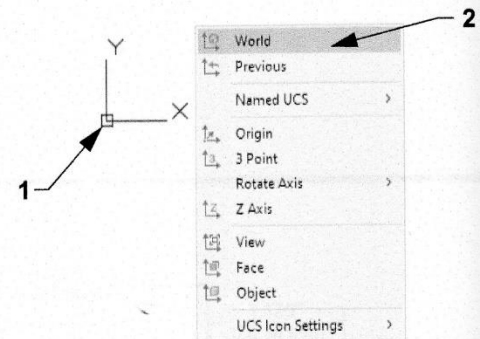
1. Right click on the **Origin** icon.
2. Select **Origin** from the Shortcut Menu.
3. Place the new Origin location by entering coordinates or pressing the left mouse button.



## How to return the Origin

To the default "World" location (the lower left corner)

1. Right click on the **Origin** icon.
2. Select **World** from the Shortcut Menu.

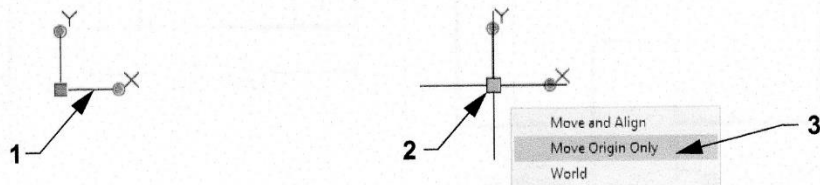


You can quickly return to the default "World" or WCS location by typing in **UCS <Enter>** and then **W <Enter>**.

There is also another method of moving the UCS Origin to a new location.

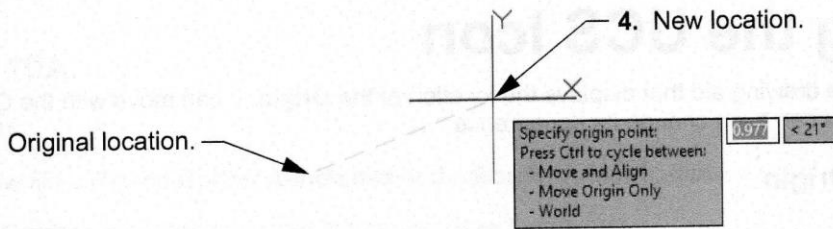
## How to move the Origin

1. Left click on the **Origin** icon.
2. Hover your mouse over the blue square base grip until it turns red. A Shortcut Menu will appear.



3. Select **Move Origin Only** from the Shortcut Menu.
4. Place the new Origin location by entering coordinates or pressing the left mouse button.

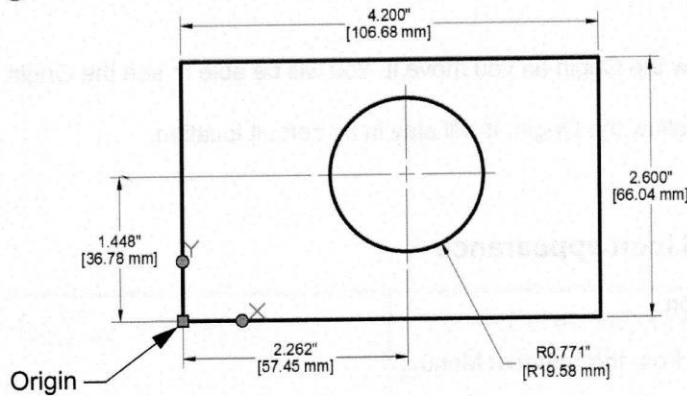
Continued on the next page...



5. Press the **<Esc>** key to deselect the Origin icon.

**CAD TIP!** Press the **<Ctrl>** key to cycle between **Move and Align**, **Move Origin Only**, and **World**.

### Why move the Origin?

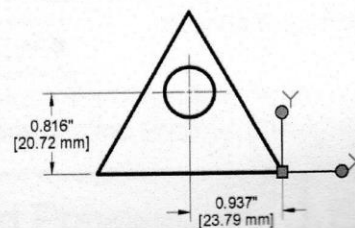
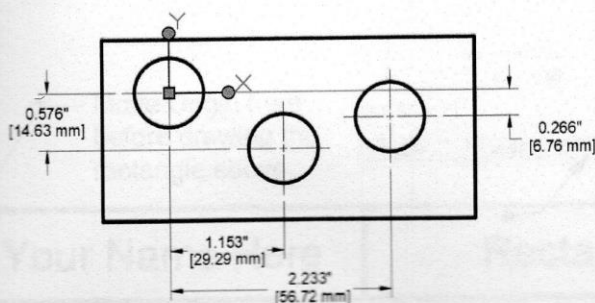


If you move the Origin to the lower left corner of the rectangle, it will make it very easy to accurately place the center of the circle.

### How to place the Circle accurately

1. Select **“Origin”** from the Shortcut Menu as shown on the previous page.
2. Snap to the lower left corner of the rectangle using Object Snap Endpoint. The UCS icon should now be displayed as shown above.
3. Select the **Circle** command.
4. Enter the coordinates to the center of the circle: **2.262,1.448 <Enter>** for inch users, or **57.45,36.78 <Enter>** for metric users.
5. Enter the radius: **0.771 <Enter>** for inch users, or **19.58 <Enter>** for metric users.
6. Select **“World”** from the Shortcut Menu to return the UCS icon to its default location. (Refer to page 10-2.)

### More examples of why you would move the Origin

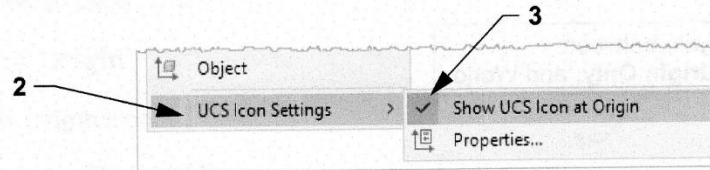


# Displaying the UCS Icon

The **UCS icon** is merely a drawing aid that displays the location of the **Origin**. It can move with the Origin or stay in the default location. You can even change its appearance.

## Show UCS Icon at Origin

1. Right click on the Origin icon.
2. Select **UCS Icon Settings** from the Shortcut Menu.

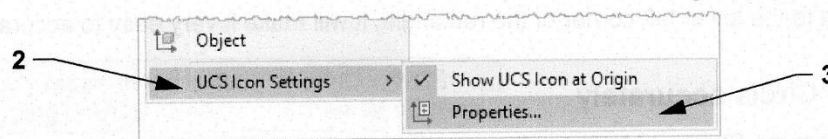


### 3. Show UCS Icon at Origin

- The UCS icon will follow the Origin as you move it. You will be able to see the Origin location at a glance.
- The UCS icon will not follow the Origin. It will stay in its default location.

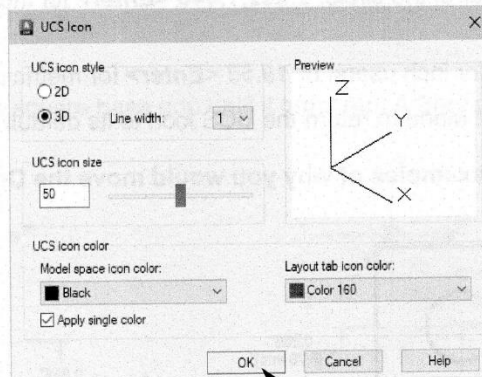
## How to change the UCS icon appearance

1. Right click on the Origin icon.
2. Select **UCS Icon Settings** from the Shortcut Menu.



### 3. Select **Properties...**

When you select this option, the dialog box shown below will appear. You may change the style, size, and color of the icon at any time. Changing the appearance is a personal preference and will not affect the drawing or commands.



4. When complete, select the **OK** button.