# **Illustrator Transformation Tools**

The Transformation tools are a (relatively) small group. There are several commonalities in using the transformation tools, and all of them do pretty much what one might expect (rotate?).

The first way to use these tools is simply clicking on them. Then you click on the object you want to transform, usually on an anchor point (which sets the transformation anchor, or where the object will transform from), and drag. Shift-dragging will constrain the tool, as in the case of the Scale tool, shift-dragging constrains it to proportional. Option-dragging while transforming will create a transformed copy.

A second, and more accurate way to use these tools is by selecting the object, the double-clicking the tool. This will bring up a dialog box, where you can enter values. The dialog box also (usually) allows you to copy the object at the same time you are transforming, like option-dragging.

The Transformation tools:

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## Rotate (R)

Just as you might expect, the Rotate tool rotates objects. Keep in mind that when you type in a value to rotate, Illustrator goes in a counter-clockwise direction, for positive values. To go clockwise, just enter a negative value ( $-45^{\circ}$  instead of  $45^{\circ}$ ).

## Reflect (O)

The Reflect tool flips objects along the horizontal, vertical or an axis you enter. I rarely, if ever, drag with this tool, preferring the dialog box. Note the Reflect tool doesn't reflect gradient or pattern fills along with the object.



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### Scale (S)

The scale tool scales, either proportionally or not. To drag-scale proportionally, you need to keep the Shift key down.

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Shear

The easiest description of what the Shear tool does is that it pushes thing over. It basically keeps two sides of the object parallel, and tilts the others.

## Reshape

The Reshape tool allows you to select part of an object and alter it, leaving the general shape of the object intact.



#### Warp, Twirl, Pucker, Bloat, Scallop, Chrystallize, Wrinkle (Shift+R)

These are the sort of things that make you wonder. Somebody stayed up real late thinking these up. Not that they're not fun to play with... What they do is distort objects, by dragging through them. The Warp tool has an occasional use, but like gradients, a little goes a very long way.



#### Free Transform (E)

Clicking on an object with the Free Transform tool gives you a bounding box, with handles. Dragging the handles allows you to scale, and if you move slightly outside the handles, rotate. As usual, Shift constrains the transformations.