

## Illustrator • transformation tools

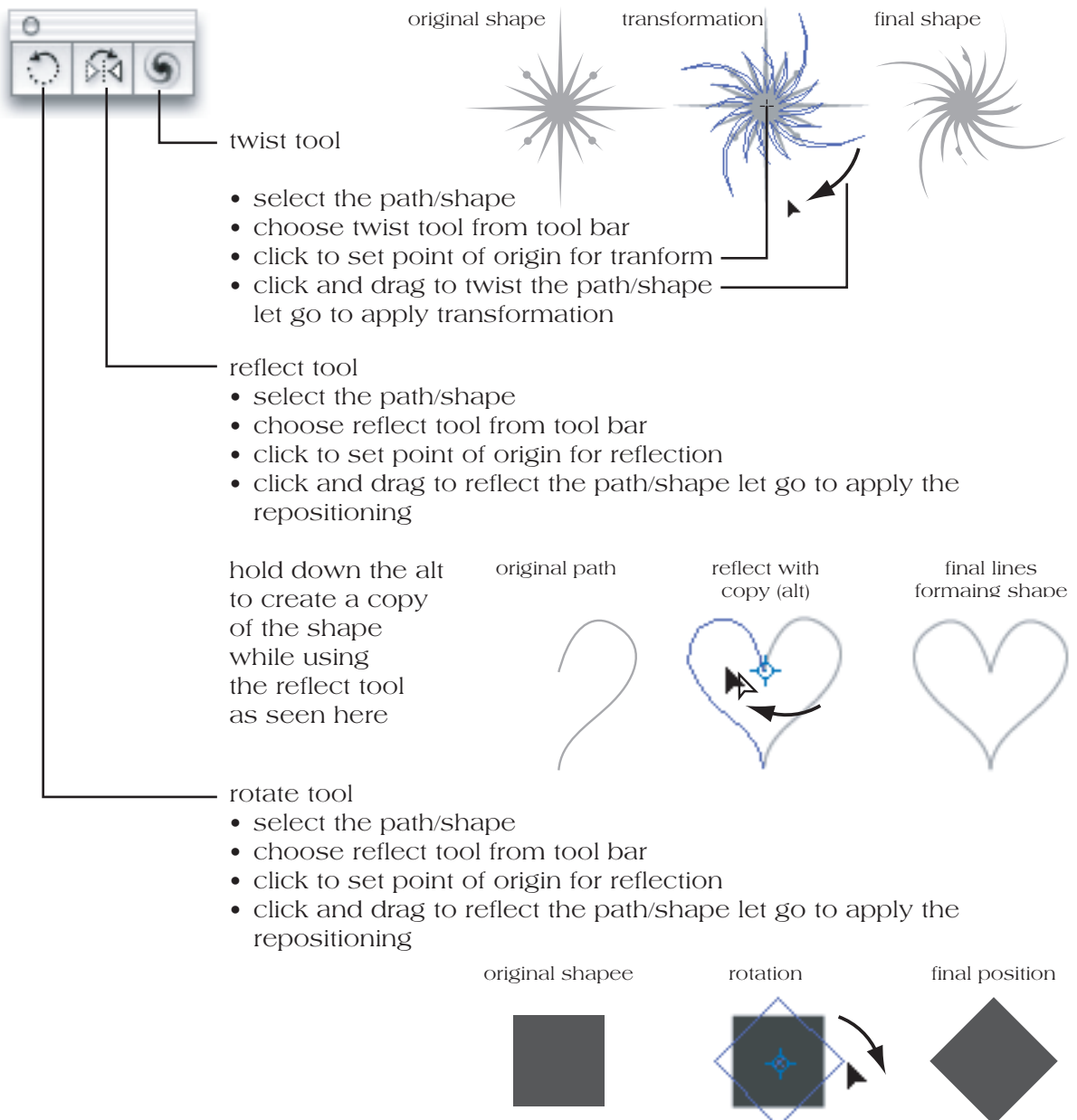
The transformation tools allow you to scale, rotate, skew, twirl and warp illustrator paths, either by clicking and dragging or by entering precise measurements.

To call up the dialog box for the required values, select the path or shape to be altered and do one of the following:

- double click the tool on the tool bar  
in this case, the point of origin will be set automatically in the center of the selected path/shape
- select the tool and hold down the alt key while clicking to set the point of origin

To edit manually:

rotate, reflect and twist tools



**twist tool**

- select the path/shape
- choose twist tool from tool bar
- click to set point of origin for transform
- click and drag to twist the path/shape  
let go to apply transformation

**reflect tool**

- select the path/shape
- choose reflect tool from tool bar
- click to set point of origin for reflection
- click and drag to reflect the path/shape let go to apply the repositioning

hold down the alt to create a copy of the shape while using the reflect tool as seen here

**rotate tool**

- select the path/shape
- choose reflect tool from tool bar
- click to set point of origin for reflection
- click and drag to reflect the path/shape let go to apply the repositioning

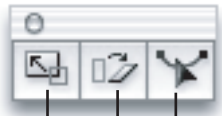
**original shape**      **transformation**      **final shape**

**original path**      **reflect with copy (alt)**      **final lines forming shape**

**original shapee**      **rotation**      **final position**

# Illustrator • transformation tools

## scale, shear and reshape tools



**reshape tool**

- select one side of the shape with the direct selection tool
- choose reshape tool from tool bar
- click on the path and drag to reshape the line

original shape → click and drag → added point → edit → final shape

**shear tool**

- select the path/shape
- choose shear tool from tool bar
- click to set point of origin for shear
- click and drag to shear


original path → click and drag → final distortion

**scale tool**

- select the path/shape
- choose scale tool from tool bar
- click to set point of origin for resize
- click and drag to scale the path/shape let go to apply the new size

original shape → click and drag → final size

## scale, shear and reshape tools



**warp tool**  
click and drag

**twirl tool**  
click and hold

**pucker tool**  
click and drag

**wrinkle tool**  
click and hold

**crystallize tool**  
click and hold

**scallop tool**  
click and hold

**bloat tool**  
click and hold

free transform tool 

To use this tool - you will need to use a combination of keyboard keys while dragging.

By selecting the free transform tool - the selected object will displayed within a specific bounding box - so it is best to hide the normal bounding box: top menu › view › hide bounding box (keyboard shortcut: command - shift - "B").

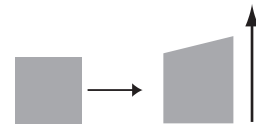
original

## freeTransform

( keep in mind that in order to transform any text - you will need to create outlines ! )

using the command (ctrl for PC) key

- select the path/shape
- choose free transform tool from toolbar
- click on a corner of the new bounding box and hold



- while still holding the mouse key down - hold down the command key (ctrl for PC) and start dragging



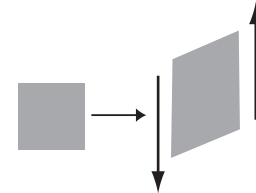
- let go to apply the transformation

freeTransform

using the command (ctrl for PC) and alt keys

›› repeat the first three steps as above

- while still holding the mouse key down - hold down the command (ctrl for PC) and alt keys and start dragging

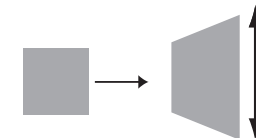


freeTransform

using the command (ctrl for PC), alt and shift keys

›› repeat the first three steps as above

- while still holding the mouse key down - hold down the command (ctrl for PC) alt and shift keys and start dragging

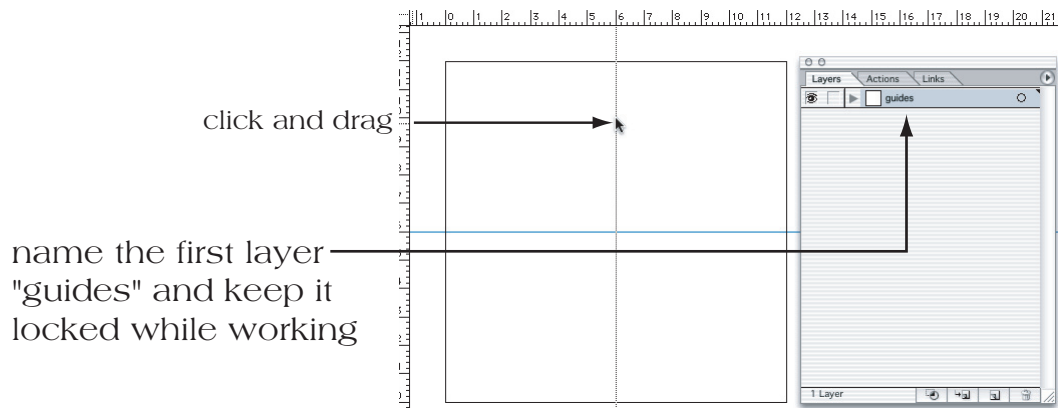


freeTransform

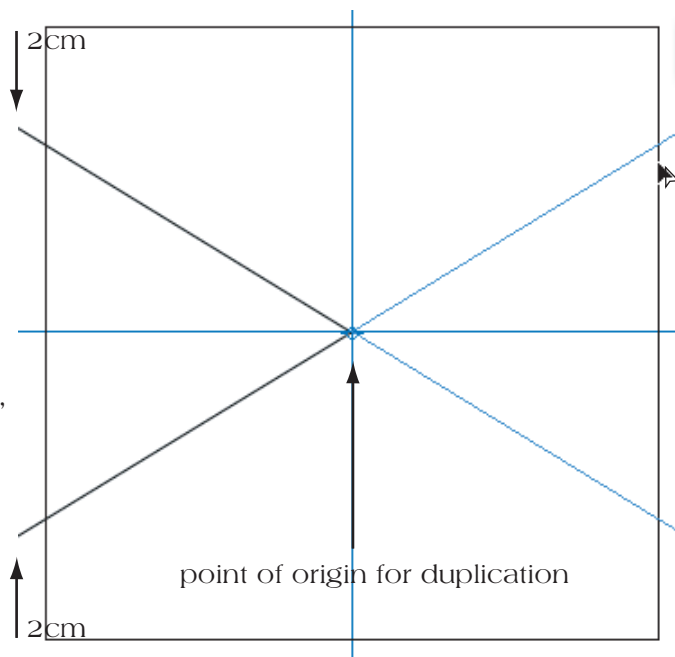
## Illustrator • perspective exercise

This step-by-step exercise will demonstrate how important and useful the setting of the point of origin is for creating illustrations.

- create a new document to these specifications:
  - 12 x 12 cm
  - RGB
  - call up the rulers (top menu › view › show ruler /or/ command + "R")
  - pull out guides to half the document vertically and horizontally



- using the pen tool, draw a v shaped line, as shown here
- select the path and copy it onto the right hand side, using either the reflect or rotate tool - while holding down the alt key
- select the 2 new paths, and turn them into guides:  
top menu › view › guides › make guides (command "5")
- lock the guide layer



The center point of the document, used here also as point of origin for the reflect/rotate tool duplication, will be the vanishing point for the illustration - the horizontal guide line being the horizon.

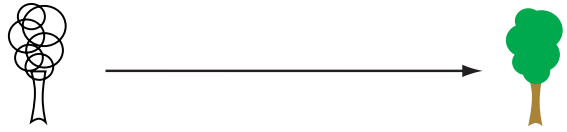
You can use the 'make guides' command for any path/shape you create in Illustrator. For complex designs, this feature will come in very useful as it will assist you in keeping to the right measurements and will make the aligning and positioning of the graphic elements easier and will ensure consistency throughout.

# Illustrator • perspective exercise



- create a new layer and draw out a tree - using either the pen tool or overlapping several shapes. For easier moving of the tree drawing, select all and group the items together (top menu › object › group /or/ command "G")

this tree was created using several ellipses and a reshapes rectangle

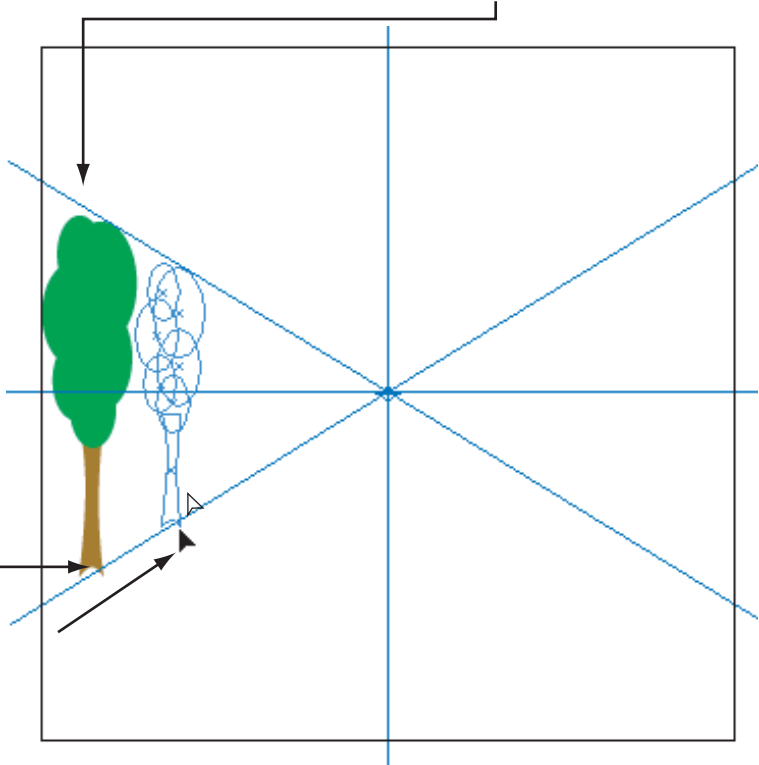


- line up the tree to fit neatly into the guides as shown here

- with the tree selected, choose the scale tool from the tool bar

- click in the center - the vanishing point - to set the point of origin for the scaling of the tree

- click on the tree where it meets the bottom guide line (you could also use the top of the tree, again, where it meets the guide line)



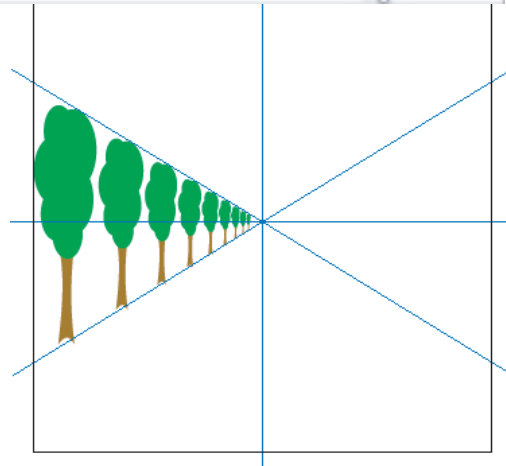
- hold down the alt key and drag towards the center point - make sure to leave a small gap between the tree and its copy.

- to create a row of trees - use the 'transform again' command



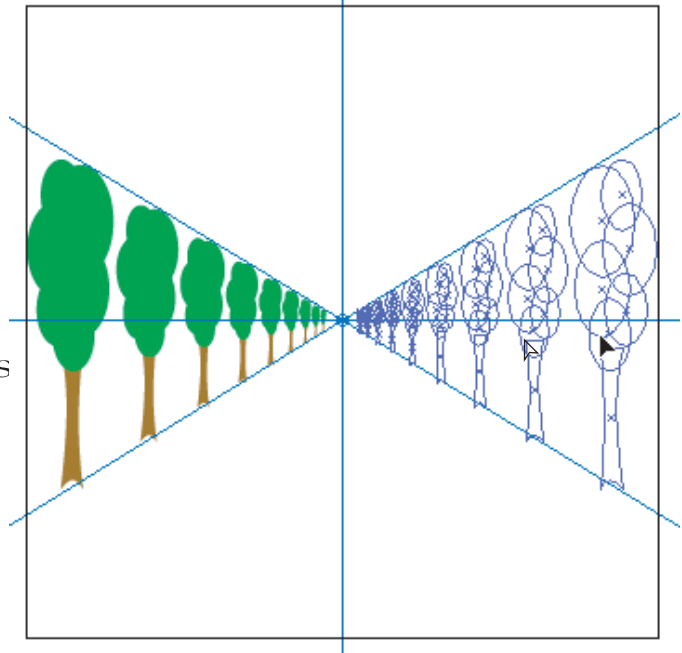
top menu › object › transform › transform again /or/ command "D"

This command will repeat any transformation such as move, rotate, reflect, shear etc, including the copying



## Illustrator • perspective exercise

- duplicate the row of trees in the same way as the V shaped guide lines
  - select all trees
  - choose the reflect or rotate tool
  - click in the center to set the point of origin
  - holding down the alt key - together with the shift key to ensure the copied trees will be as straight as the originals - and drag over to the right



- next, start creating additional graphics using your layer palette to control their stacking order

