

## Practical Perspective techniques CorelDRAW 11

By [Steve Bain](#)

In the real world, all the shapes you see with your eyes have at least some degree of perspective-the effect of distant shapes appearing smaller. So it goes without saying that to make your shapes appear realistic in an illustrated scene, you'll need to add a sense of depth by scaling things which are close larger than things which are farther away. Perspective also comes into play with the surfaces on individual objects. For this, you can add a sense of depth using CorelDRAW's perspective effect. Let's take a close look at perspective drawing and learn a few tips and tricks CorelDRAW provides.

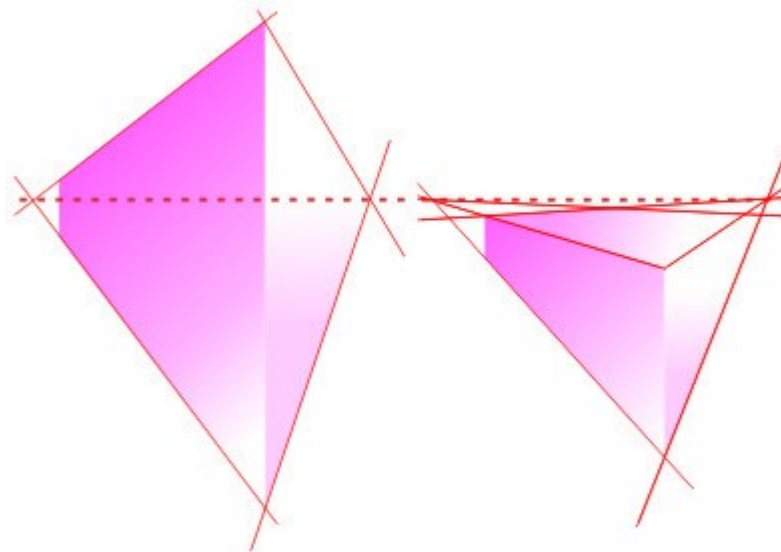
### How perspective effects work

As the distance between our plane of vision and an object's surfaces increase the measurements of its edges and surfaces change. The closer they are, the larger they appear; the further they are, the smaller they appear. When multiple objects and/or surfaces are involved, they share a fixed relationship with several reference points-the horizon line (your vantage point), the depth of the objects, and your plane of vision. Once you crack the riddle of this relationship, you can simulate 3D perspective effects in nearly any illustration task.

### How perspective creates depth

Manually creating the illusion of perspective is not something only "gifted" illustrators are capable of-it's an acquired skill which requires practice to perfect. As you learn the relationships between the points of reference involved, you can apply your own sense of depth and volume to just one shape or throughout an entire scene. These points of reference are your plane of vision, the horizon, and vanishing points.

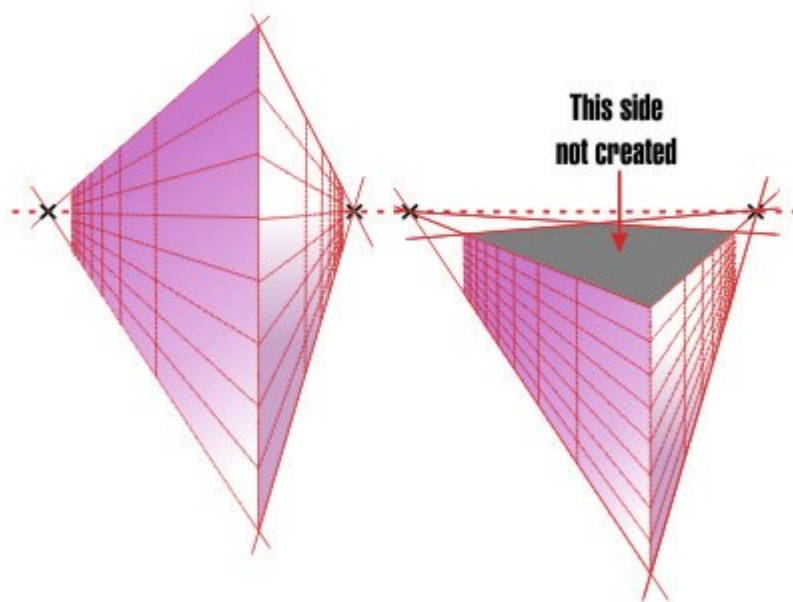
Vanishing points enable you to simulate diminishing volume. Most often, vanishing points align with the horizon line with all sides and surfaces diminishing as they progress toward these points. The next example shows two objects drawn in perspective, each with its own pair of vanishing points. Notice that the vanishing points align with the horizon line, and the guidelines show how all straight-line surfaces point toward them.



True perspective involves vanishing points above, below, or to one side or the other in relation to an object or scene. If you have previous experience drawing with perspective effects, this may seem second nature to you. As you work with CorelDRAW 11's perspective effect, you'll soon realize that achieving a true perspective effect involves a little more than a few simple clicks and drags.

### How CorelDRAW simulates perspective

Compared to other dynamic effects in CorelDRAW 11, perspective is easy to apply. You can intuitively apply perspective to single objects or groups of objects by manipulating one of four corner nodes or one of two vanishing points around your object. While an object's perspective is in progress, your active cursor becomes the Shape Tool, enabling you to drag the nodes and points. The next example shows shapes applied with CorelDRAW 11's perspective effect. The left and right sides of each object were applied with perspective, but the gray side was added manually.

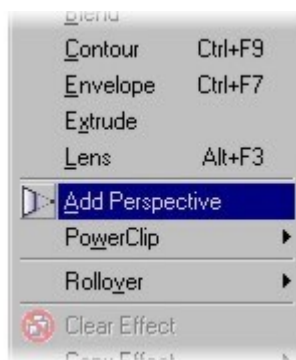


As an object is being manipulated in Perspective, CorelDRAW 11 automatically subdivides the shape into eight horizontal rows and eight vertical columns for visual reference. Since this type of applied perspective effect is merely a distortion rather than a created 3D effect, hidden object portions (such as the top surface of the left object in the previous example) are not created.

#### How to apply perspective

Depending on how adventurous you'd like to get, you may wish to do a little preparation work before applying your perspective distortion. For example, if you're preparing to create a scene containing multiple objects using a shared set of vanishing points and horizon line, you may want to create guides for reference as you apply the perspective effects. Try using guidelines, or drawing lines to represent the horizon and vanishing points.

Beginning the Perspective process requires that only one command be applied to your selected object: Effects, Add Perspective (shown next). If you have never applied a perspective effect before, you may find the process tricky the first time out.



Let's begin by applying and manipulating perspective:

1. Create an object to apply your perspective effect to, and choose the Pick Tool.
2. Select your object and choose Effects, Add Perspective. As soon as you apply the command, your object's shape is immediately subdivided into a series of horizontal and vertical grid lines. Notice also that your cursor has changed to the Shape Tool.
3. Using the Shape Tool cursor, drag any of the grid control handles to begin distorting the object. Notice that each time you move a handle, the representative perspective grid is mapped to the newly distorted shape. If your initial distortions are dramatic enough, you may see one or both of the vanishing points come into view. If not, decrease your zoom magnification by pressing F3 until at least one of the vanishing points becomes visible. Vanishing points resemble an X symbol.
4. To make adjustments to a vanishing point, drag the X marker itself and position it at the point toward which you wish your object to diminish. Rough perspective effects may not require precision; but if your effect will be applied across multiple objects for illustration purposes, precision may be more important. Notice that when you move the horizontal vanishing point toward the object, the top and bottom of the bounding box continue to point toward it, while the farthest side becomes smaller and the size of the closest side remains constant. The closer the vanishing point is to the object, the smaller the farthest side will become.
5. Once your object's perspective has been completed, click your page background or any other tool or object to deselect it and end the session.

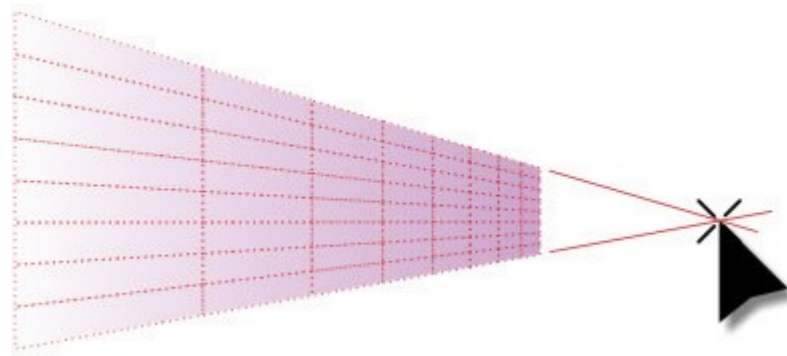
With perspective applied to a shape, the shape itself becomes a "perspective" object, meaning the effect is dynamic. Its editing state will become active simply by the object using the Pick or Shape tools. You can edit your object in perspective any time you wish in one of two ways:

- While using the Shape Tool, click the object once to select it.
- While using the Pick Tool, single clicks simply select the object, enabling you to manipulate it as any ordinary object. Double-clicking the object using the Pick Tool automatically selects the Shape Tool and a third click on the object selects it for perspective editing.

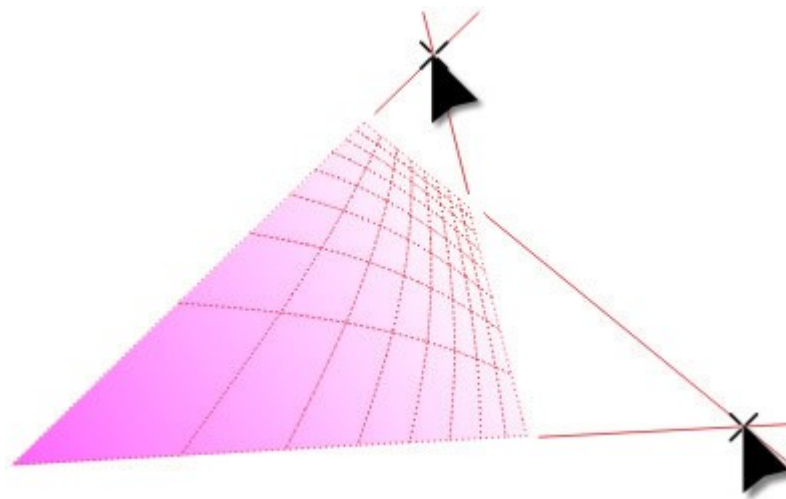
How to control the perspective

The vanishing points around your perspective are visual indicators showing lines of convergence. These appear automatically when the effect is applied; you can't actually "create" them. You can, however, manipulate the effect by dragging the vanishing points, the preferred method over dragging control handles. Using control handles enables you to quickly bring the vanishing points into view; but once these points are in close proximity to your object, using the control handles to alter the perspective becomes tricky.

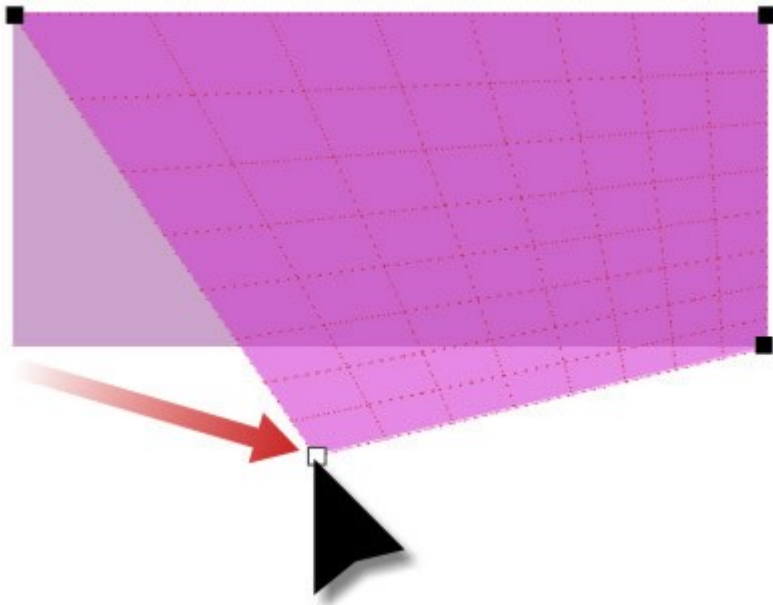
A perspective effect can involve either one or two vanishing points. Typically, just one vanishing point appears above or below your object (the vertical vanishing point), or to the left or right (the horizontal vanishing point). My next example shows a rectangle applied with a perspective distortion where a single vanishing point appears.



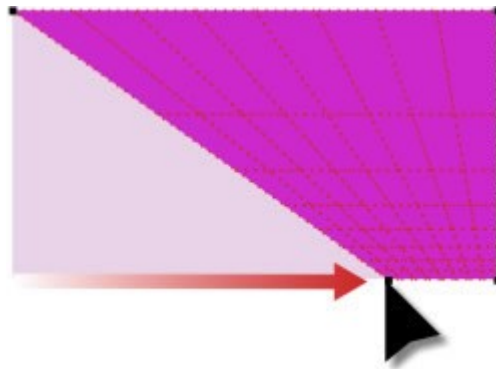
In advanced perspective effects both the vertical and horizontal vanishing points may be involved. Two visible vanishing points indicate that your object's perspective is being distorted both horizontally and vertically (shown next).



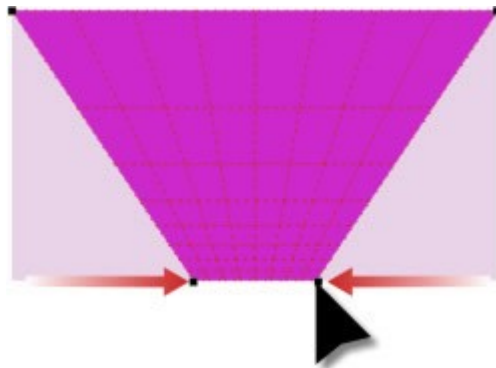
The four control handles found at the corners of the imaginary overlaying your shape may be used to create the distortion. These markers may be dragged in any direction, enabling you to shape the perspective effect based on object shape rather than a perspective vanishing point location (as shown next).



While manipulating either control handles or vanishing points, holding Ctrl will constrain the angular movement of perspective effect corner control handles to align with the angles of the perspective bounding box shape (as shown next). This enables you to manipulate each side of your shape without distorting it vertically or horizontally.

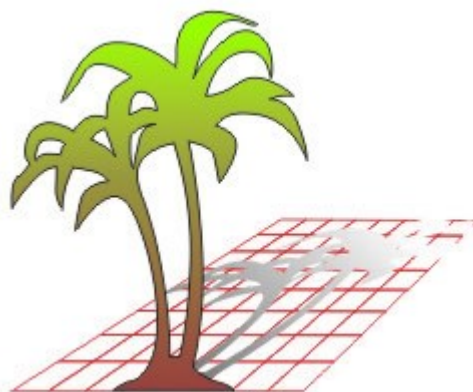
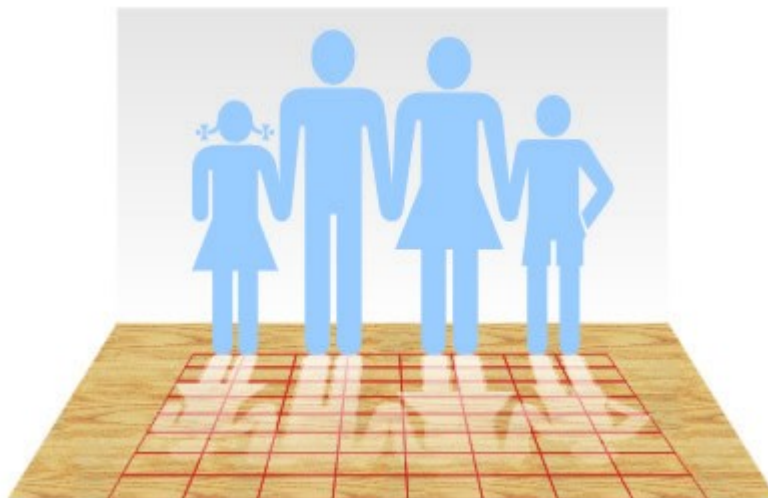


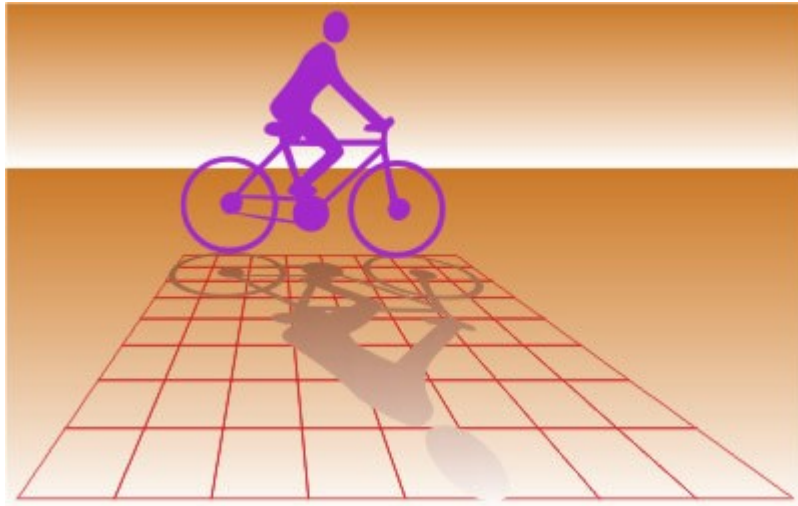
Holding Ctrl+Shift while moving a control handle constrains the same movement but enables you to move two control handles at once and applies a centering distortion to the perspective effect (as shown next).



## Enhancing the depth of a scene

You can add visual interest to a perspective scene using color and shading in the form of fountain fills. In doing so, keep in mind that the farther away a surface is, the more saturated its colors will be. If you're working with simple color schemes, creating shading is relatively straightforward using the Interactive Fill Tool. Many of the example illustrations shown in previous examples include fountain fill shading to emphasize the effect. The next simplistic examples demonstrate how perspective may be applied to copies of shapes and text to simulate the appearance of depth using shadows and reflections.





Color may be quickly applied to the perspective effects of most objects by using the following steps:

1. After applying a perspective effect to a selected object, choose the Interactive Fill Tool (G).
2. Apply a base fill color by clicking a color well in your onscreen palette. This will serve as the basis for the darkest color value of your perspective's fountain fill.
3. Using the Interactive Fill Tool, drag across your object beginning at the farthest side and ending at roughly the edge of the nearest side. This will create a default linear Fountain fill using your object's current fill color at the darkest point and applying white as the highlight color. If you wish, you may update the color for the highlight of the linear fill by dragging other colors onto either of the markers.
4. To further customize your perspective effect fill, increase or decrease the rate at which the two colors progress toward each other by dragging the edge pad slider located between the two interactive color markers.

CorelDRAW's perspective effect command enables you to apply distortion to flat objects-as if there were paper thin. Instead of trying to use Perspective to distort your 3D surfaces, you may wish to try applying perspective to each of them individually, or use conventional drawing techniques to change the perspective of your shapes.

*[Steve Bain](#) is an award-winning illustrator and designer, and author of nearly a dozen books including [CorelDRAW The Official Guide](#).*