SUMMARY

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Adobe Illustrator is a professional vector-based design and drawing program. Used as part of a larger design workflow, Illustrator allows for the creation of everything from single design elements to entire compositions. Designers use Illustrator to create posters, symbols, logos, patterns, icons, etc.

Vector

Computer graphics fall into two main categories: vector graphics and raster graphics. Understanding the difference between the two helps you create, edit, and import artwork appropriately.

What are vectors?

Drawing programs such as Adobe Illustrator create vector graphics, which are composed of lines and curves defined by mathematical objects called "vectors." Vectors describe a graphic according to its geometric characteristics. For example, a bicycle tire in a vector graphic is drawn using a mathematical equation for a circle with a certain radius, set at a specific location, and filled with a specific color. You can move, resize, or change the color of the tire without losing graphic quality because the underlying equations will compensate for your actions.

A vector graphic is resolution-independent, —that is, it can be scaled to any size and printed on any output device at any resolution without losing its detail or clarity. As a result, vector graphics are the best choice for type (especially small type) and bold graphics that must retain crisp lines when scaled to various sizes.

Illustrator's menu and toolbox layout is consistent with its other siblings in the Adobe Suite. If you have ever used Photoshop or PageMaker before, using Illustrator should feel intuitive. If you have never used any Adobe product before, however, the interface can be a bit dizzying.

Illustrator's interface can be easily broken down into small categories which can be more easily understood. We will first begin with the main toolbox on the left-hand side of the screen and from there we will work our way around the workspace.

The key components

The toolbox

The Color palette

The Transparency palette

The Stroke palette

The Gradient palette

The Layers palette

Creating Shapes

To create an object in Illustrator, just select the appropriate Shape tool and either click once where you want the center of that object to be or click and drag, creating your object as you drag. If you click only once, a box will pop up that will ask you want the dimensions of your object to be. Depending on the particular object, it may also ask for more information, such as how many sides or points you want for a polygon or star. Sounds simple, right? But what about those really complex objects you might want to make?

The Pen tool is probably the most powerful tool in Adobe Illustrator. It allows the artist to create shapes with freeform curves, and with time and skill, most curves found in the "real world" can be duplicated using the Pen tool.

Before you start using the Pen tool, there are some things to note in that it doesn't work the way you think it would. It does not draw wherever you drag, like the Paintbrush or Pencil tools. Notice if you click and drag immediately, all it seems to do is make a straight line with dots at each end. Before you can understand the Pen tool, you need to know what that line is: a path. (The following information was obtained from the Illustrator online help).

About Paths

A path is made up of one or more straight or curved "segments." The beginnings and ends of each segment are marked by "anchor points," which work like pins holding a wire in place. You change the overall shape of a path by editing its anchor points, and control a curve by dragging the "direction points" at the end of the "direction lines" that appear at anchor points.

A path is either open, like an arc, or closed, like a circle. For an open path, the starting and ending anchor points for the path are called its "endpoints."

ex3_path1

A. Selected (solid) endpoint

B. Selected anchor point

C. Curved path segment

D. Direction line

E. Direction point

Paths can have two kinds of anchor points"corner points" and "smooth points." At a corner point,"a path abruptly changes direction. At a smooth point, however, path segments are connected as a continuous curve. You can draw a path using any combination of corner and smooth points.

CONCLUSION

Adobe Illustrator CC is one of the best vector editors out there, with advanced features and new tools that allow you to create unique designs quickly. If you are a beginner, many resources are available to help you learn how to use Adobe Illustrator.