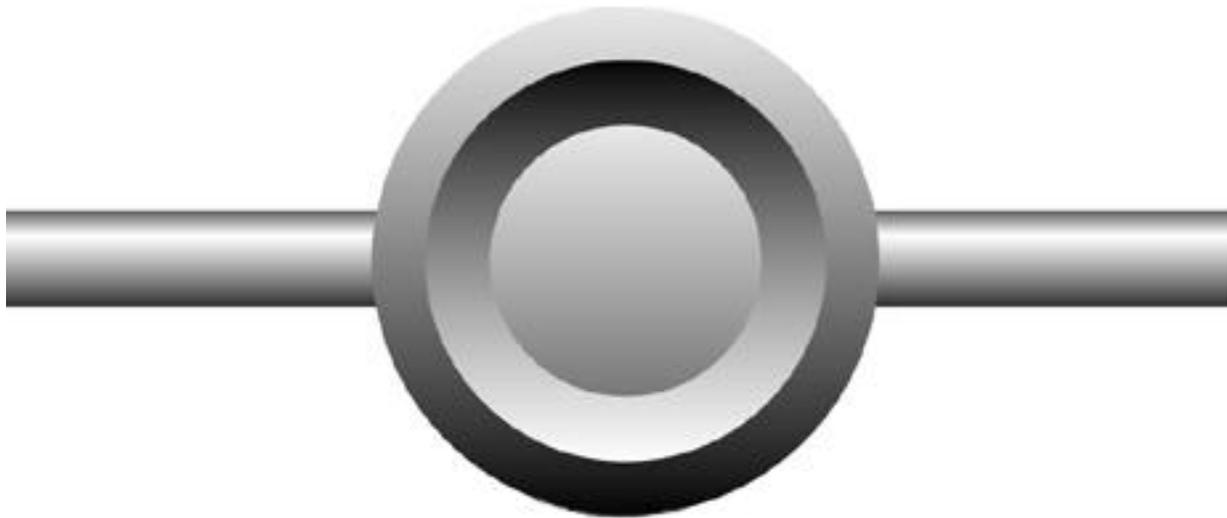# teach
yourself

ILLUSTRATOR 7

in 24 hours

by Mordy Golding

HOUR 1

GETTING TO KNOW ILLUSTRATOR

With the release of Illustrator 7, Adobe has completed a tightly integrated trio of applications (Photoshop 4, PageMaker 6.5, and now Illustrator) that all work in the same way. Most key commands are the same across all applications, and palettes look and work the same. The applications are truly cross-platform, working virtually identically on both the Macintosh and Windows 95/Windows NT platforms. If you are already familiar with Photoshop, many things will be familiar to you as you learn Illustrator.

If you are already an Illustrator user, you will need to adjust to version 7's new interface, and its metaphors. And for those new to Illustrator in general, this chapter will deal with how Illustrator works, and how it differs from other graphics programs.

This hour, we will learn about:

* Raster and vector images
* Illustrator's environment
* Illustrator's tools and palettes
* Views in Illustrator

NOTE: Illustrator 7 is a major program upgrade. Whereas the last Macintosh version was 6, the last Windows version of Illustrator was 4.1. Version 7 finally brings identical features to both platforms while sporting a completely revised user interface. If you've used Illustrator before, you may go through a short transitional phase to get used to working in version 7.

RASTER VS. VECTOR

In the ever-growing world of computer graphics, there are two types of images -- raster and vector. Some programs that create raster images (also known as pixel or paint images) are Photoshop, MacPaint, PC Paintbrush, or Painter. Some programs that create vector art (also known as object-oriented art) are Illustrator (that's us!), FreeHand, MacDraw, and Expression. Other programs, such as Canvas and CorelDRAW, have tools to create both raster and vector images.

Raster Images

Raster images are made up of a whole lot of tiny dots, called pixels. To illustrate this concept, we will use a sheet of graph paper. Each square on the sheet represents one pixel (see Figure 1.1). Let's start simple and create a black and white circle that is 20 pixels in diameter (see Figure 1.2). The number of pixels determines the resolution of your file. The computer stores this file by recording the exact placement and color of each pixel. The computer has no idea that it is a circle, only that it is a collection of little dots.
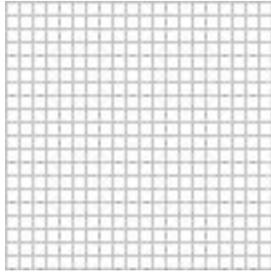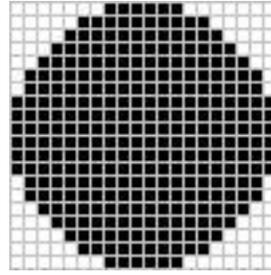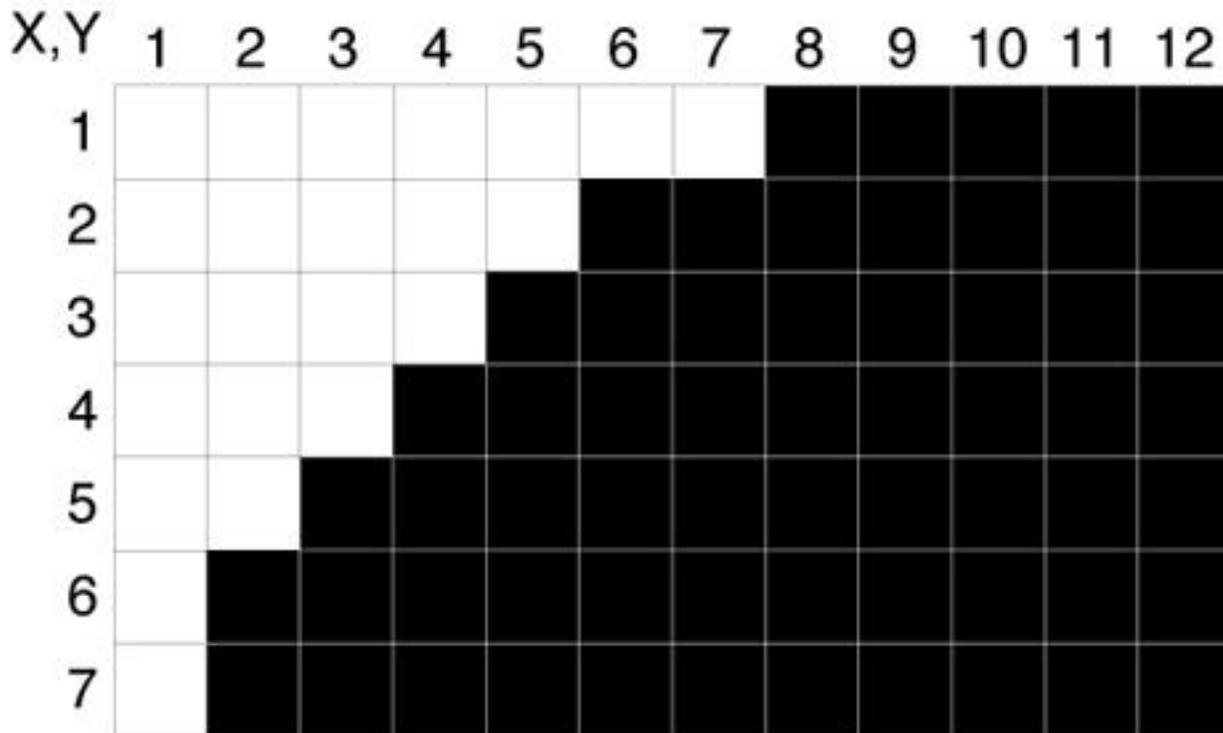
Figure 1.1

Figure 1.2

Each pixel has a coordinate, and the contents of that pixel are recorded and saved in a file.

In this example, we see each individual pixel, and the circle is very blocky. By adding more pixels, thereby increasing the resolution, we can make that same circle appear smoother because the pixels are much smaller. Of course, the higher your resolution is, the larger your file size will be because the computer has many more pixels to keep track of.

Where the problem arises is when you try enlarging a raster image. Because the resolution is set, when you scale the art, in reality, you are just enlarging the pixels, which results in a jaggy (or pixelated) image.

Vector Images: An Objective Approach

Vector art is different in that instead of creating individual pixels, you create objects, such as rectangles and circles. By noting the mathematical coordinates of these shapes, a vector program can store files in a fraction of the space as raster images, and more importantly, be able to scale images to virtually any size without any loss in detail.

Unlike raster images, the vector circle appears smooth at 100% (left) and just as smooth when enlarged 800% (right).

THE ILLUSTRATOR WORKPLACE

Now that we know all about Illustrator, let's actually open it up and see what it has to offer. If it isn't already installed, follow the instructions that came with Illustrator to install it on your computer. Now, let's launch Adobe Illustrator 7.

NOTE: If you've launched Illustrator before, or if you're working on someone else's computer, it's a good idea to trash your Adobe Illustrator Prefs file (in System Folder > Preferences folder) so that what you see pictured in this book matches what you see onscreen. Also, if Illustrator seems to be acting weird, or even crashing often, trashing the preferences and restarting Illustrator usually clears things up.

The next time you launch Illustrator, a sparkling new Preferences file is automatically created.

TIP: Did you know that you can edit Illustrator's Preferences file? If you're the daring type, open the file in a text editor and you can make changes, such as turning off warning dialog boxes.

After viewing the beautiful Illustrator splash screen and trying to read all the names of the programmers to see whether you know any of them, you are presented with Illustrator's working environment and an open Untitled document--we're ready for action.

The Illustrator Window

First, let's take a tour of the Illustrator window. We'll start with a general look at Illustrator and then go into more detail about each part.
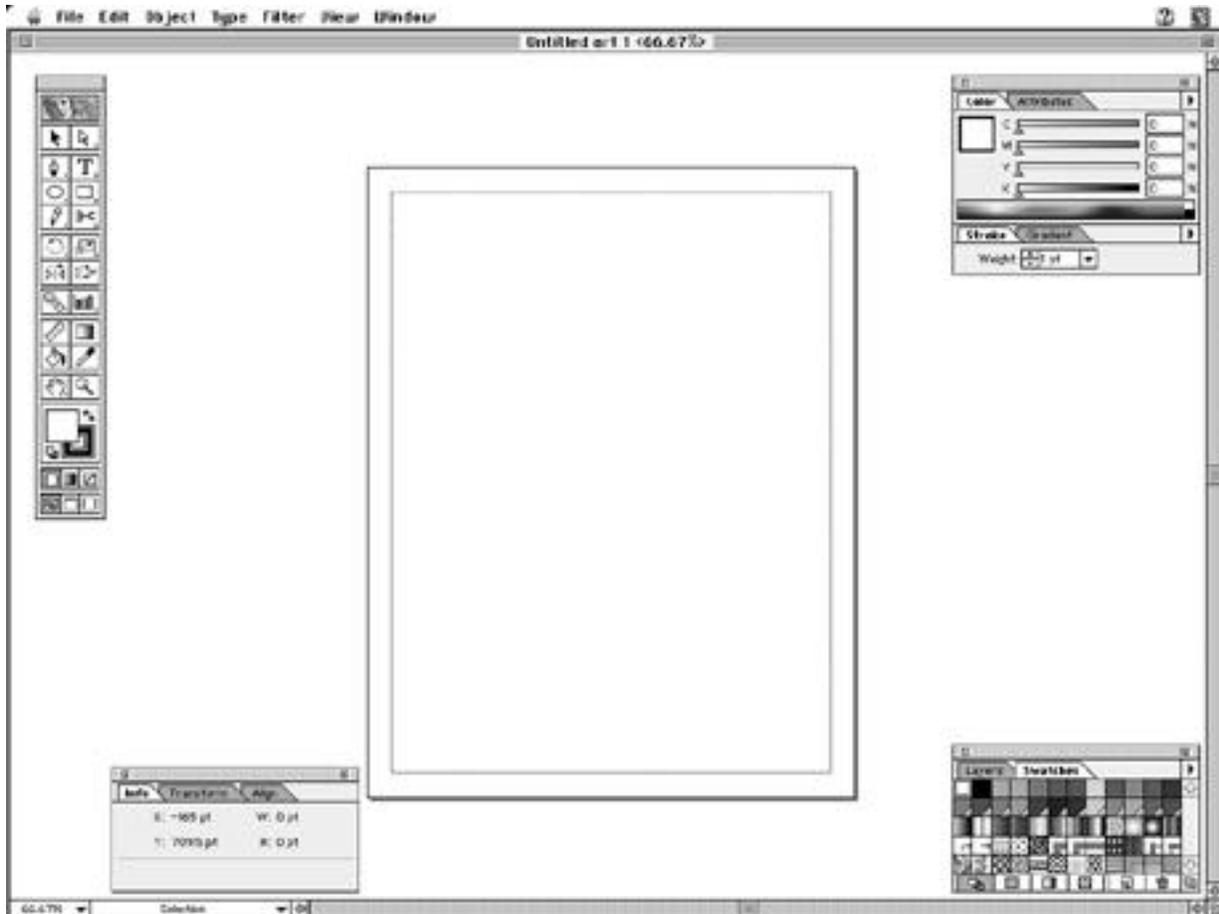
Across the top of the screen is the menu bar, which contains Illustrator's commands and essentials such as printing, saving, copying, and pasting.

Directly underneath is the document window, which is the actual Illustrator file. In the title bar of the document window is the filename and the percentage at which it is currently being viewed.

On the far left of the screen is a tall narrow strip of boxes. This is the Toolbox which contains the tools you will use to work in Illustrator.

In the center of your screen you will see the page border of your document. You can change the page size to fit whatever you might need--anywhere from 2x2 inches to 120x120 inches.

Right inside the page border is a dotted line that represents the physical print area of the printer. Illustrator determines this by taking information from the PPD (PostScript Printer Definition) file of your currently selected printer.