

Chapter 1: Introduction



Introduction

"Well, Steve . . . I think it's more like we both had this rich neighbor named Xerox, and I broke into his house to steal the TV set and found out that you had already stolen it."

—Bill Gates to Steve Jobs

I like the quotation above. We often forget that neither Apple nor Microsoft came up with the first working system that had a mouse and a pointer. It was Xerox, in its Palo Alto Research Center (PARC) in 1973.

Xerox never marketed the system, but the company used it internally and at several universities. It influenced the development of GUI (graphical user interface) operating systems, though, especially Apple's first GUI systems, the Lisa and Mac. (By the way, Microsoft and Apple didn't "steal" the ideas—they were already in the public domain.)

So far in this course, everything has been *text-based*. We've worked entirely with text input and output, which is how all computers worked in the old days. Even though there's a lot more to learn about using Java in a text-based environment, I think it's time for a break from that so you can learn to use Java in another way.

Java can work in two other environments besides text. The first is a *browser-based environment*. You use that environment every time you go onto the Web . . . and I know you're familiar with that, or you wouldn't have made it this far in this course! Java can create *applets*, or small applications, that it loads and executes in a browser environment.

The other Java environment is a *windowed environment*, which programmers use to develop stand-alone applications that run in Windows, Linux, OS X, and on other platforms. BlueJ is a good example of a stand-alone application written in Java.

Writing full-blown GUI applications is more than we can cover in the remainder of this course, but we'll look at the basics of writing a windowed application. We'll discuss about the parts of a window within a Java program—there might be more of them than you're aware of. Then we'll put some basic graphics into the window.