

The root is always indicated by the slash (/) at the start of the pathname. In other words, *an absolute pathname always starts with a slash*.

Relative Pathnames

You can also locate a file or directory with a *relative pathname*. A relative pathname gives the location relative to your working directory.

Unless you use an absolute pathname (starting with a slash), Unix assumes that you're using a relative pathname. Like absolute pathnames, relative pathnames can go through more than one directory level by naming the directories along the path.

For example, if you're currently in the *users* directory (see Figure 3-2), the relative pathname to the *carol* directory below is simply *carol*. The relative pathname to the *play* directory below that is *carol/play*.

Notice that neither pathname in the previous paragraph starts with a slash. That's what makes them relative pathnames! Relative pathnames start at the working directory, not the root directory. In other words, *a relative pathname never starts with a slash*.

Pathname puzzle

Here's a short but important question. The previous example explains the relative pathname *carol/play*. What do you think Unix would say about the pathname */carol/play*? (Look again at Figure 3-2.)

Unix would say "No such file or directory." Why? (Please think about that before you read more. It's very important and it's one of the most common beginner's mistakes.) Here's the answer. Because it starts with a slash, the pathname */carol/play* is an absolute pathname that starts from the root. It says to look in the root directory for a subdirectory named *carol*. But there is no subdirectory named *carol* one level directly below the root, so the pathname is wrong. The only absolute pathname to the *play* directory is */users/carol/play*.

Relative pathnames up

You can go up the tree with the shorthand "*..*" (dot dot) for the parent directory. As you saw earlier, you can also go down the tree by using subdirectory names. In either case (up or down), separate each level by a slash (/).