

Modification date

When the file was last modified, or the directory contents last changed (when something in the directory was added, renamed, or removed). If an entry was modified more than six months ago, **ls** shows the year instead of the time.

Name

The name of the file or directory.

Notice especially the columns that list the owner and group of the files, and the access modes (also called permissions). The person who creates a file is its owner; if you've created any files (or system staff did it for you), this column should show your username. You also belong to a group, set by the person who created your account. Files you create are either marked with the name of your group, or in some cases, the group that owns the directory.

The *permissions* show who can read, write, or execute the file or directory; we explain what that means in a moment. The permissions have ten characters. The first character shows the file type (d for directory or - for a plain file). The other characters come in groups of three. The first group, characters 2–4, show the permissions for the file's owner, which is yourself if you created the file. The second group, characters 5–7, show permissions for other members of the file's group. The third group, characters 8–10, show permissions for all other users.

For example, the permissions for *.profile* are **-rw-r--r--**, so it's a plain file. The owner, *john*, has both read and write permissions. Other users who belong to the file's group *doc*, as well as all other users of the system, can only read the file; they don't have write permission, so they can't change what's in the file. No one has execute (**x**) permission, which should only be used for executable files (files that hold programs).

In the case of directories, **x** means the permission to access the directory—for example, to run a command that reads a file there or to use a subdirectory. Notice that the two directories shown in the example are executable (accessible) by *john*, by users in the *doc* group, and by everyone else on the system. A directory with **w** (write) permission allows deleting, renaming, or adding files within the directory. Read (**r**) permission allows listing the directory with **ls**.

You can use the **chmod** command to change the permissions of your files and directories. See the section “Protecting and Sharing Files,” later in this chapter.