Table 8.3. Common Permission Modes

MODE	COMMON USE
644	For files. Readable and writable by owning user, readable by everyone else.
755	For directories and programs (commands, scripts, and so on). For directories, this mode allows owning user to create and delete files in the directory, allows everyone to list directory contents and cd into or through the directory. For files, allows owning user to alter the file, allows everyone to read and to execute the program.
664	Same as 644 but also allows owning group to alter the file. Used for files that are part of a group project.
775	For program files (scripts, commands, and so on). Same as 755 but also gives write permission to the owning group so that anyone in the group may alter the file.
2775	Like 775 but adding the 2 at the beginning "sets the group id bit" and means that for directories any file or directory created inside this directory is owned by the same group that owns the parent directory, and for executable files the script or program will run with the group permissions of this file.
600	For private files. The owning user has read and write permission. No one else has any permissions.
700	For private directories or private executable files. The owning user has read, write, and execute permission. No one else has any permissions.

Table 8.3 shows the most common permission settings using absolute mode. This table includes some four-digit modes. When a four-digit mode is used, the first digit has a different set of meanings from the other three. **Table 8.4** and **Table 8.5** (next page) show the meanings of the values for each of the positions in three- or four-digit mode for files (Table 8.4) and for directories (Table 8.5). **Table 8.6** shows the options for the chmod command.

Table 8.4. Mode Values for File Permissions

PERMISSION	MODE	WHY AND WHEN
User read	0400	So that the owning user may read it.
User write	0200	So that the owning user may change it.
User execute	0100	So that the owning user may execute it.
Group read	0040	So that the owning group may read it.
Group write	0020	So that the owning group may change it.
Group execute	0010	So that the owning group may execute it.
Others read	0004	So that all others may read it.
Others write	0002	So that all others may change it.
Others execute	0001	So that all others may execute it.