



Read, write, and execute permissions overlap to create seven octal permission notations.

You'll learn how to modify permissions using the Info window in the next section. But to really leverage permissions, you need to learn the Unix-based symbolic and octal permission notations, which are hidden beneath the Mac OS X graphical user interface. All of the available permissions are shown in the table below.

Permissions	No permission	Execute	Write	Write and execute	Read	Read and execute	Read and write	Read, write and execute
Octal Notation	0	1	2	3	4	5	6	7
Symbolic notation	---	--x	-w-	-wx	r--	r-x	rw-	rwx

The Terminal application allows you to use octal notation to set permissions for the owner, a group, and everyone else. To create a "write only" drop box folder, you could set directory permissions to 622 to give the owner read and write permissions, and the group and everyone else write only permissions. The three groups of notations are shown below.

	Owner	Group	Everyone
Symbolic Notation	rw-	r--	r--
Octal Notation	6	4	4

Table 9-3 provides some examples of file attribute settings.

Table 9-3: Permission Attribute Examples

File Attributes	Meaning
-rwx-----	A regular file that is readable, writable, and executable by the file's owner. No one else has any access.
-rw-----	A regular file that is readable and writable by the file's owner. No one else has any access.
-rwxr--r--	A regular file that is readable and writable by the file's owner. Members of the file's owner group may read the file. The file is world-readable.
-rwxr-xr-x	A regular file that is readable, writable, and executable by the file's owner. The file may be read and executed by everybody else.
-rwxrwx---	A regular file that is readable and writable by the file's owner and members of the file's group owner only.
lrwxrwxrwx	A symbolic link. All symbolic links have "dummy" permissions. The real permissions are kept with the actual file pointed to by the symbolic link.
drwxrwx---	A directory. The owner and the members of the owner group may enter the directory and create, rename, and remove files within the directory.
drwxr-x---	A directory. The owner may enter the directory and create, rename, and delete files within the directory. Members of the owner group may enter the directory but cannot create, delete, or rename files.