

Trash Locked Files and Directories

by Kris Fong



WHAT YOU NEED

- Mac OS X (\$129, www.apple.com)
- Administrator privileges

Taking out the trash isn't a difficult chore—just ask any nagging spouse or parent. But when it comes to tossing stuff into the Trash in Mac OS X, complications can arise. For example, if you installed Fink from our “Run Unix Apps in Mac OS X” tutorial (May/03, p64), you may have discovered that you can't budge the `sw` folder Fink created in the root directory.

If you've ever tried to throw away a file or folder and promptly been told you didn't have the proper permission, here's how to get rid of those stubborn squatters via the Terminal. Warning: Once you dump, you can't undo.



For troublesome trash, use the Terminal to remove files and folders—now if only we could use this dialog's excuse on garbage night.

1 Try Unlocking First Before you resort to chucking a file via the Terminal, try unlocking that file first—especially if you see a small padlock attached to its icon. Select the file or folder icon and press Command-I (Get Info). In the resulting window, uncheck the Locked box, close the window, and throw away the item. If there's no check in the Locked box or if the box is grayed out, read on.



That little padlock indicates that a file's locked. Before firing up the Terminal, try unlocking the file via Get Info first.

2 Journey to the Junk To remove files or directories (aka folders), first navigate to the directory that houses them. Launch the Terminal. At the prompt, type `cd` (change directory), press the space bar, type the path to the target directory, and press Return. For example, to remove, say, some stubborn installer-log file, type `cd /Documents/"Installer Logs"` to navigate to the Installer Log folder—the parent directory. Use the list command (`ls`) to list directory contents so you can get to where you need to be. Enclose multiword file and directory

```
Last login: Mon Mar 3 13:40:05 on ttty1
Welcome to Darwin!
[node-6-134:~] kFong% ls
Canon S230 review      Library                Public
Desktop                Movies                 Sites
Documents              Music                  netTunes_InstallLog.log
Icon?                  Pictures

[node-6-134:~] kFong% cd Music/iTunes/"iTunes Music"
[node-6-134:~/Music/iTunes/iTunes Music] kFong% ls
Aimee Mann  Disturbed  Leon  Mindgames  Storm Inc.  Veruca Salt
Amanda Ghost  Hoobastank  Linkin Park  Mischief  Vegas DeMillo  What's This?
[node-6-134:~/Music/iTunes/iTunes Music/What's This?] kFong% cd "What's This?"
[node-6-134:iTunes/iTunes Music/What's This?] kFong% ls
Hello, I am a virus-play me.mp3
[node-6-134:iTunes/iTunes Music/What's This?] kFong% █
```

names in double quotes (""), and remember that command-line text is case sensitive.

We used the change directory (`cd`) and list (`ls`) commands to navigate to this tenacious MP3 file.

3 Fling Out Files To remove a file, you generally type `rm file name`, where *file name* is the file's full name. However, with files for which you don't have privileges, OS X won't permit you to do so. To circumvent this obstacle, you must assume the role of the great and powerful root user. Type `sudo` (superuser do), press the space bar, type `rm` (remove), press the space bar again, type the file name, and press Return. At the Password prompt, type your admin password and press Return. If asked to override permissions, type `y` for yes and press Return. This will remove the file. To remove multiple files, list all the file names after the command, with a single space between file names: `sudo rm file name 1 file name 2 file name 3` and so forth.

```
[node-6-134:~/Music/iTunes/iTunes Music] kFong% cd "What's This?"
[node-6-134:iTunes/iTunes Music/What's This?] kFong% ls
Hello, I am a virus-play me.mp3
[node-6-134:iTunes/iTunes Music/What's This?] kFong% rm "Hello, I am a virus-play me.mp3"
normal removal not permitted
[node-6-134:iTunes/iTunes Music/What's This?] kFong% sudo rm "Hello, I am a virus-play me.mp3"
sudo removal deletes the file
Password:
[node-6-134:iTunes/iTunes Music/What's This?] kFong% █
```

To delete unmovable files, type `sudo` (to execute a single command as root) prior to typing `rm` (to remove directory entries).

4 Delete Directories To remove a directory and its contents, navigate to its parent directory and type `sudo rm -r directory name`, where *directory name* is the full name of the directory, and press Return. For example, to remove Fink's `sw` directory, we typed `sudo rm -r sw`. When asked for an administrator password, type it in and press Return.

```
Desktop DB          Productivity        shln
Desktop DF          System              sw
Desktop Folder     System Folder      tmp
Digidesign         TheFindByContentFolder  usr
Disc Stuff         TheVolumeSettingsFolder  var
Documents          Trash              ???+???Gizmo
Edit Archive       Users              ???+???Gizmo(1)
Games              Volumes            ???+???Gizmo(2)
Graphics & Multimedia  automount

[node-6-134:~] kFong% rm -r sw
rm: sw: Operation not permitted
[node-6-134:~] kFong% sudo rm -r sw
Password:
[node-6-134:~] kFong% ls
392127              Icon?              bin
Address Book.app   Internet           aares
AmpliTube Documentatn  Late Breaking News  dev
AppleShare PDS     Library           etc
Applications       MP3s              iserror.log
Applications (Mac OS 9)  Move All Digi Demo P.I.s  mach
Audio & Music      Network            mach_sym
Cleanup At Startup  Network Trash Folder  mach_kernel
Desktop (Mac OS 9)  Photos            private
Desktop DB         Productivity       tmp
Desktop DF         System             tmp
Desktop Folder     System Folder      usr
```

After listing the root directory's contents, we removed Fink's `sw` directory with one command.

 Kris Fong loves to talk trash but has an aversion to taking it out.