umount (unmount file systems)

This command is used to unmount file systems such as disk partitions. Note that there is no "n" in *umount*. The program is called like this:

> *umount DEVICE_OR_DIR*

You can specify the device to be unmounted (e.g. /dev/sda1) or its mount point (e.g. /media/data). Unmounting a removable file system such as a USB flash drive partition can take a long time. This is because Linux does not always transfer files to external media immediately. The files may enter a write buffer and sit there until Linux decides to copy them to the target device in one fell swoop.

When a file system is unmounted, Linux calls the *sync* command, which flushes all write buffers, commiting any changes to disk. You can run *sync* yourself, but you don't have to because *umount* does this automatically. When you're working with large files on a foreign system, you may want to run *sync* manually to ensure that your changes are committed to disk immediately.

Linux beginners often find themselves confronted with the following error:

> *Unmount failed: Cannot unmount because*
> *file system on device is busy*

You get this message when you try to unmount a device that is still in use. Sometimes it is far from obvious who is still using the device. For example, a file manager window may be showing the contents of a directory on the device. This can be enough for a call to *umount* to fail. Use the command *lsof* ("list open files") to find out which processes are using files on your target device. For example:

> *lsof /dev/sdb1*

This will list any processes that are using files on the partition /dev/sdb1. After terminating the processes, you will be able to unmount the device without errors.