**How to: Linux / UNIX Delete or Remove Files With Inode Number**

An inode identifies the file and its attributes such as file size, owner, and so on. A unique [inode number](https://www.linuxsecrets.com/component/k2/?view=item&id=262:understanding-unix-linux-file-system&Itemid=214) within the file system identifies each inode. But, why to delete file by an inode number? Sure, you can use [rm command](https://www.linuxsecrets.com/component/content/25-articles-five-years-older/4517-30-useful-linux-commands-for-system-administrators?Itemid=463) to delete file. Sometime accidentally you creates filename with control characters or characters which are unable to be input on a keyboard or special character such as ?, \* ^ etc. Removing such special character filenames can be problem. Use following method to delete a file with strange characters in its name:

Please note that the procedure outlined below works with Solaris, FreeBSD, Linux, or any other Unixish oses out there:

**Find out file inode**

First find out file inode number with any one of the following command:

stat {file-name}

OR

ls -il {file-name}

**Use find command to remove file:**

Use [find command](https://www.linuxsecrets.com/component/content/?id=6828:15-practical-unix-linux-find-command-examples-part-2-2&catid=1213:20-linux-howto,-tips,-tricks&Itemid=463) as follows to find and remove a file:

find . -inum [inode-number] -exec rm -i {} \;

When prompted for confirmation, press Y to confirm removal of the file.

**Delete or remove files with inode number**

Let us try to delete file using inode number.

(a) Create a hard to delete file name:  
$ cd /tmp  
$ touch "\+Xy \+\8"  
$ ls

(b) Try to remove this file with rm command:  
$ rm \+Xy \+\8

(c) Remove file by an inode number, but first find out the file inode number:  
$ ls -ilOutput:

781956 drwx------ 3 viv viv 4096 2006-01-27 15:05 gconfd-viv

781964 drwx------ 2 viv viv 4096 2006-01-27 15:05 keyring-pKracm

782049 srwxr-xr-x 1 viv viv 0 2006-01-27 15:05 mapping-viv

781939 drwx------ 2 viv viv 4096 2006-01-27 15:31 orbit-viv

781922 drwx------ 2 viv viv 4096 2006-01-27 15:05 ssh-cnaOtj4013

781882 drwx------ 2 viv viv 4096 2006-01-27 15:05 ssh-SsCkUW4013

782263 -rw-r--r-- 1 viv viv 0 2006-01-27 15:49 \+Xy \+\8

Note: **782263** is inode number.

(d) Use find command to delete file by inode:  
Find and remove file using find command, type the command as follows:  
$ find . -inum 782263 -exec rm -i {} \;

Note you can also use add \ character before special character in filename to remove it directly so the command would be:  
$ rm "\+Xy \+\8"

If you have file like name like name "2005/12/31" then no UNIX or Linux command can delete this file by name. Only method to delete such file is delete file by an inode number. Linux or UNIX never allows creating filename like 2005/12/31 but if you are using NFS from MAC OS or Windows then it is possible to create a such file.