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UNIX / Linux Find File Owner Name

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[1]

Q. How do I find out the name of file / directory owner under UNIX / Linux operating systems?

A. You can use ls -l command (list information about the FILEs) to find our the file / directory owner and group names.

The -l option is known as long format which displays Unix / Linux / BSD file types, permissions, number of hard links, owner, group, size, date, and filename. In some environments and UNIX versions / Linux distributions, providing the option --color (for GNU ls) or -G (FreeBSD ls) causes ls to highlight different types of files with different colors.

```
lrwxrwxrwx  1 root root          7 Nov  7  2007 rc -> rc.d/rc
lrwxrwxrwx  1 root root         10 Nov  7  2007 rc0.d -> rc.d/rc0.d
lrwxrwxrwx  1 root root         10 Nov  7  2007 rc1.d -> rc.d/rc1.d
lrwxrwxrwx  1 root root         10 Nov  7  2007 rc2.d -> rc.d/rc2.d
lrwxrwxrwx  1 root root         10 Nov  7  2007 rc3.d -> rc.d/rc3.d
lrwxrwxrwx  1 root root         10 Nov  7  2007 rc4.d -> rc.d/rc4.d
lrwxrwxrwx  1 root root         10 Nov  7  2007 rc5.d -> rc.d/rc5.d
lrwxrwxrwx  1 root root         10 Nov  7  2007 rc6.d -> rc.d/rc6.d
drwxr-xr-x 10 root root       4096 Nov  7  2007 rc.d
lrwxrwxrwx  1 root root         13 Nov  7  2007 rc.local -> rc.d/rc
lrwxrwxrwx  1 root root         15 Nov  7  2007 rc.sysinit -> rc.d/
drwxr-xr-x  2 root root       4096 Jul 10  2007 readahead.d
-rw-r--r--  1 root root        435 May 11 15:17 reader.conf
drwxr-xr-x  2 root root       4096 Jul 10  2007 reader.conf.d
-rw-r--r--  1 root root         54 Aug 15  2007 redhat-release
-rw-r--r--  2 root root         70 Feb  8 08:57 resolv.conf
lrwxrwxrwx  1 root root         11 Jul 10  2007 rmt -> ../sbin/rmt
lrwxrwxrwx  1 root named        31 Jul 10  2007 rndc.key -> /var/na
-rw-r--r--  1 root root       1615 Aug 30  2001 rpc
drwxr-xr-x  2 root root       4096 Nov 23 14:15 rpm
```
[2]

(Fig. 01: Linux file colors)

```
brw-r--r--    1 unixguy staff 64,  64 Jan 27 05:52 block
crw-r--r--    1 unixguy staff 64, 255 Jan 26 13:57 character
-rw-r--r--    1 unixguy staff     290 Jan 26 14:08 compressed.gz
-rw-r--r--    1 unixguy staff  331836 Jan 26 14:06 data.ppm
drwxrwx--x    2 unixguy staff      48 Jan 26 11:28 directory
-rwxrwx--x    1 unixguy staff      29 Jan 26 14:03 executable
prw-r--r--    1 unixguy staff       0 Jan 26 11:50 fifo
lrwxrwxrwx    1 unixguy staff       3 Jan 26 11:44 link -> dir
-rw-rw----    1 unixguy staff     217 Jan 26 14:08 regularfile
```
[3]

(Fig. 02: Understanding Linux / UNIX file colors code [image credit wikipedia])

How do I find out owner / group name for a file?

Type the ls -l command at a shell prompt:

```
$ ls -l filename
```

Sample output:

```
-rw-r--r-- 1 vivek admin 2558 Jan  8 07:41 filename
```

Where,

- **-rw-r--r--** : file mode [4]

- **1** - number of links
- **vivek** - Owner name (if user name is not a known user, the numeric user id displayed)
- **admin** - Group name (if group name is not a known group, the numeric group id displayed)
- **2558** - number of bytes in the file (file size)
- **Jan 8 07:41** - abbreviated month, day-of-month file was last modified, hour file last modified, minute file last modified
- **filename** - File name / pathname

ls -l file mode (permissions)

Quoting from the unix ls command man page - the file mode printed under the -l option consists of the entry type and the permissions. The entry type character describes the type of file, as follows:

-	Regular file.
b	Block special file.
c	Character special file.
d	Directory.
l	Symbolic link.
p	FIFO.
s	Socket.
w	Whiteout.

The next three fields are three characters each: owner permissions, group permissions, and other permissions. Each field has three character positions:

1. If r, the file is readable; if -, it is not readable.
2. If w, the file is writable; if -, it is not writable.
3. The first of the following that applies:
    - **S** : If in the owner permissions, the file is not executable and set-user-ID mode is set. If in the group permissions, the file is not executable and set-group-ID mode is set.
    - **s** : If in the owner permissions, the file is executable and set-user-ID mode is set. If in the group permissions, the file is executable and set group-ID mode is set.
    - **x** : The file is executable or the directory is searchable.
    - **-** : The file is neither readable, writable, executable, nor set-user-ID nor set-group-ID mode, nor sticky.
4. These next two apply only to the third character in the last group (other permissions).
    - **T** : The sticky bit is set (mode 1000), but not execute or search permission.
    - **t** : The sticky bit is set (mode 1000), and is search able or executable.

See ls command man page for more information:

```
$ man ls
```