





Manitoba UNIX Users Group

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RTFM: 1s(1)

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Naming Conventions

- Based on traditional UNIX Manual sections
- ls(1) refers to the version of “ls” documented in Section One (1) of the UNIX Programmers's Manual, “General Commands”

Accessing Manual Pages

- Use `man(1)` to view manpages:
 - “`man ls`” output:

```
LS(1) User Commands LS(1)
NAME
  ls - list directory contents

SYNOPSIS
  ls [OPTION]... [FILE]...

DESCRIPTION
  List information about the FILES (the current directory by default).
  Sort entries alphabetically if none of -cftuvSUX nor -sort.

  Mandatory arguments to long options are mandatory for short options
  too.

  -a, --all
        do not ignore entries starting with .

  -A, --almost-all
        do not list implied . And ..
```

[...]

Compliance

- UNIX Programmer's Manual, 1st Edition
 - <http://cm.bell-labs.com/cm/cs/who/dmr/1stEdman.html>
- UNIX98 (aka Single Unix Specification v2)
 - <http://www.unix.org/unix98.html>
- POSIX.1 (aka IEEE Std. 1003.1-1988)
 - <http://www.opengroup.com/austin>
 - Incorporated into Single Unix Specification v3
- We'll cover mostly 1st Ed.-compatible options, but may highlight new features from UNIX03, SUS3 and/or IEEE Std. 1003.1-2004.

ls(1) from UNIX P.M. 1st Ed.

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LS (I)

NAME `ls` -- list contents of directory

SYNOPSIS `ls [-ltasd] name1 ...`

- Options:
 - l – long format
 - t – sort by time
 - a – all entries
 - s – size in blocks
 - d – directory name only

ls(1) from UNIX98 / SUSv2

- SUS v2:

<http://www.opengroup.org/onlinepubs/7990989775/xcu/ls.html>

NAME

ls - list directory contents

SYNOPSIS

ls [-CFRacdilqr¹tu1][-fgmno²psx][file...]

- Over four times as many options!

ls(1) from IEEE Std. 1003.1-2008

- Base Specifications Issue 7:

<http://www.opengroup.org/onlinepubs/9699919799/utilities/ls.html>

NAME

ls - list directory contents

SYNOPSIS

```
ls [-ACFRSacdfilelmnpqrstux1] [-H|-L] [-  
go] [file...]
```

- Over *five* times as many options!

A Few Useful Options

- -A All entries, excluding “.” and “..”
- -C Columnar Output
- -F Print symbols according to file type
- -S Sort by size
- -i Print serial (inode) number
- -r Reverse sort order
- -x As “-C” but sort across instead



Examples taken from the LFS LiveCD

ls /root

bin

Desktop

1fscd-remastering-howto.txt

README.txt

VBOX

ls -A /root

```
.bash_history  
.bashrc  
bin  
.cache  
.chewing  
.config  
.dbus  
Desktop  
.ICEauthority  
.irssi  
.lesshst  
[...]
```

ls -ACF /root

```
.bash_history  .lesshst      .scim/
.bashrc       1fscd-remastering-howto.txt .serverauth.1163
bin/          .local/       .subversion/
.cache/       .mozilla/     VBOX/
.chewing/     .muttrc       .vboxclient-clipboard.pid
.config/      .ncftp/       .vboxclient-seamless.pid
.dbus/        .newsrc       .viminfo
Desktop/      .profile      .Xauthority
.ICEauthority .purple/      .xchat2/
.irssi/       README.txt    .xinitrc
```

ls -AxF /root

```
README.txt  
bin/  
.chewing/  
.dbus/  
.ICEauthority  
.lesshst  
.local/  
.muttrc  
.newsrc  
.purple/  
.scim/  
.subversion/  
.vboxclient-clipboard.pid  
.viminfo  
.xchat2/  
.bashrc  
.cache/  
.config/  
Desktop/  
.irssi/  
lfscd-remastering-howto.txt  
.mozilla/  
.ncftp/  
.profile  
README.txt  
.serverauth.1163  
VBOX/  
.vboxclient-seamless.pid  
.Xauthority  
.xinitrc
```


ls -iSFl /bin

total 2896

```
32779 -rwxr-xr-x 1 root root 520472 2007-12-29 12:31 bash*
32834 -rwxr-xr-x 1 root root 232780 2007-12-29 12:42 tar*
32817 -rwxr-xr-x 1 root root 228887 2007-12-29 15:47 netstat*
32787 -rwxr-xr-x 1 root root 111464 2007-12-29 15:53 cpio*
32828 -rwxr-xr-x 1 root root 95700 2007-12-29 12:20 sed*
32808 -rwxr-xr-x 1 root root 81324 2007-12-29 12:23 ls*
32796 -rwxr-xr-x 1 root root 80916 2007-12-29 12:33 find*
32798 -rwxr-xr-x 1 root root 76100 2007-12-29 12:36 grep*
32806 -rwxr-xr-x 1 root root 74872 2007-12-29 12:39 loadkeys*
32824 -r-xr-xr-x 1 root root 63948 2007-12-29 12:25 ps*
32816 -rwxr-xr-x 1 root root 61668 2007-12-29 12:23 mv*
32813 -rwsr-xr-x 1 root root 60644 2007-12-29 12:43 mount*
32781 -rwxr-xr-x 1 root root 57045 2007-12-29 12:32 bzip2*
32786 -rwxr-xr-x 1 root root 55904 2007-12-29 12:23 cp*
```

[...]