NAME

ls – list the contents of a directory

SYNOPSIS

/usr/ucb/ls [**–aAcCdfFgilLqrRstu1**] *filename* . . .

AVAILABILITY

SUNWscpu

DESCRIPTION

For each *filename* which is a directory, **ls** lists the contents of the directory; for each *filename* which is a file, **ls** repeats its name and any other information requested. By default, the output is sorted alphabetically. When no argument is given, the current directory is listed. When several arguments are given, the arguments are first sorted appropriately, but file arguments are processed before directories and their contents.

Permissions Field

The mode printed under the **–l** option contains 10 characters interpreted as follows. If the first character is:

- **d** entry is a directory;
- **b** entry is a block-type special file;
- **c** entry is a character-type special file;
- **l** entry is a symbolic link;
- **p** entry is a FIFO (also known as "named pipe") special file;
- **s** entry is an **AF_UNIX** address family socket, or
- – entry is a plain file.

The next 9 characters are interpreted as three sets of three bits each. The first set refers to owner permissions; the next refers to permissions to others in the same user-group; and the last refers to all others. Within each set the three characters indicate permission respectively to read, to write, or to execute the file as a program. For a directory, "execute" permission is interpreted to mean permission to search the directory. The permissions are indicated as follows:

- **r** the file is readable;
- **w** the file is writable;
- **x** the file is executable;
- – the indicated permission is not granted.

The group-execute permission character is given as **s** if the file has the set-group-id bit set; likewise the owner-execute permission character is given as **s** if the file has the set-user-id bit set.

The last character of the mode (normally **x** or \`–´) is **true** if the 1000 bit of the mode is on. See **chmod**(1) for the meaning of this mode. The indications of set-ID and 1000 bits of the mode are capitalized (**S** and **T** respectively) if the corresponding execute permission is *not* set.

When the sizes of the files in a directory are listed, a total count of blocks, including indirect blocks is printed.

OPTIONS

–a List all entries; in the absence of this option, entries whose names begin with a `**.**´ are *not* listed (except for the privileged user, for whom **ls** normally prints even files that begin with a `**.**´).

–A Same as **–a**, except that `**.**´ and `**..**´ are not listed.

–c Use time of last edit (or last mode change) for sorting or printing.

–C Force multi-column output, with entries sorted down the columns; for **ls**, this is the default when output is to a terminal.

–d If argument is a directory, list only its name (not its contents); often used with **–l** to get the status of a directory.

–f Force each argument to be interpreted as a directory and list the name found in each slot. This option turns off **–l**, **–t**, **–s**, and **–r**, and turns on **–a**; the order is the order in which entries appear in the directory.

–F Mark directories with a trailing slash (`**/**´), executable files with a trailing asterisk (`*´), symbolic links with a trailing at-sign (`**@**´), and **AF_UNIX** address family sockets with a trailing equals sign (`**=**´).

–g For **ls**, show the group ownership of the file in a long output.

–i For each file, print the i-node number in the first column of the report.

–l List in long format, giving mode, number of links, owner, size in bytes, and time of last modification for each file. If the file is a special file the size field will instead contain the major and minor device numbers. If the time of last modification is greater than six months ago, it is shown in the format `*month date year*´; files modified within six months show `*month date time*´. If the file is a symbolic link the pathname of the linked-to file is printed preceded by `**—>**´.

–L If argument is a symbolic link, list the file or directory the link references rather than the link itself.

–q Display non-graphic characters in filenames as the character **?**; for **ls**, this is the default when output is to a terminal.

–r Reverse the order of sort to get reverse alphabetic or oldest first as appropriate.

–R Recursively list subdirectories encountered.

–s Give size of each file, including any indirect blocks used to map the file, in kilobytes.

–t Sort by time modified (latest first) instead of by name.

–u Use time of last access instead of last modification for sorting (with the **–t** option) and/or printing (with the **–l** option).

–1 Force one entry per line output format; this is the default when output is not to a terminal.

FILES

/etc/group	to get group ID for `**ls −g**´
/etc/passwd	to get user ID's for `**ls −l**´ and `**ls −o**´

NOTES

NEWLINE and TAB are considered printing characters in filenames.

The output device is assumed to be 80 columns wide.

The option setting based on whether the output is a teletype is undesirable as `**ls −s**´ is much different than `**ls −s | lpr**´. On the other hand, not doing this setting would make old shell scripts which used **ls** almost certain losers.

Unprintable characters in file names may confuse the columnar output options.