Contents

```
1
2
2
3
3
             4
4
             5
5
             5
             5
6
6
7
             7
8
tr...........
             9
             9
9
10
for i in \{1...5\}; do
1
. . .
done
3
while: ; do echo "hi"; done
python -c "print('hi')"
python -e "print 'hi';"
cat < file.txt \# y?
With no FILE, or when FILE is -, read standard input.
```

ls

```
Usage: ls [OPTION]... [FILE]...
List information about the FILEs (the current directory by default).
```

```
-a, --all
                           do not ignore entries starting with .
                           do not list implied . and ..
-A, --almost-all
-C
                           list entries by columns
    --color[=WHEN]
                           colorize the output; WHEN can be 'always' (default
                             if omitted), 'auto', or 'never'; more info below
-d, --directory
                           list directories themselves, not their contents
-D, --dired
                           generate output designed for Emacs' dired mode
-f
                           do not sort, enable -aU, disable -ls --color
-F, --classify
                           append indicator (one of */=>0) to entries
                           likewise, except do not append '*'
    --file-type
                           like -1, but do not list owner
-h, --human-readable
                           with -1 and -s, print sizes like 1K 234M 2G etc.
    --si
                           likewise, but use powers of 1000 not 1024
-i, --inode
                           print the index number of each file
-I, --ignore=PATTERN
                           do not list implied entries matching shell PATTERN
-1
                           use a long listing format
```

```
-L, --dereference
                             when showing file information for a symbolic
                               link, show information for the file the link
                               references rather than for the link itself
                             fill width with a comma separated list of entries
  -m
  -0
                             like -1, but do not list group information
  -p, --indicator-style=slash
                             append / indicator to directories
  -q, --hide-control-chars
                             print ? instead of nongraphic characters
      --show-control-chars
                             show nongraphic characters as-is (the default,
                               unless program is 'ls' and output is a terminal)
                             enclose entry names in double quotes
  -Q, --quote-name
      --quoting-style=WORD
                             use quoting style WORD for entry names:
                               literal, locale, shell, shell-always,
                               shell-escape, shell-escape-always, c, escape
                               (overrides QUOTING_STYLE environment variable)
                             reverse order while sorting
  -r, --reverse
  -R, --recursive
                             list subdirectories recursively
  -s, --size
                             print the allocated size of each file, in blocks
                             sort by file size, largest first
  -S
                             sort by WORD instead of name: none (-U), size (-S),
      --sort=WORD
                               time (-t), version (-v), extension (-X)
                             with -1, show time as WORD instead of default
      --time=WORD
                               modification time: atime or access or use (-u);
                               ctime or status (-c); also use specified time
                               as sort key if --sort=time (newest first)
      --time-style=TIME_STYLE time/date format with -1; see TIME_STYLE below
                             sort by modification time, newest first
  _t.
  -U
                             do not sort; list entries in directory order
                             natural sort of (version) numbers within text
  -v
                             set output width to COLS. O means no limit
  -w, --width=COLS
  – X
                             sort alphabetically by entry extension
                             list one file per line. Avoid '\n' with -q or -b
  -1
mkdir
Usage: mkdir [OPTION]... DIRECTORY...
Create the DIRECTORY(ies), if they do not already exist.
                    set file mode (as in chmod), not a=rwx - umask
  -m, --mode=MODE
                    no error if existing, make parent directories as needed
  -p, --parents
  -v, --verbose
                    print a message for each created directory
Usage: cp [OPTION]... [-T] SOURCE DEST
  or: cp [OPTION]... SOURCE... DIRECTORY
  or: cp [OPTION] ... -t DIRECTORY SOURCE...
Copy SOURCE to DEST, or multiple SOURCE(s) to DIRECTORY.
  -a, --archive
                               same as -dR --preserve=all
                               don't copy the file data, just the attributes
      --attributes-only
      --backup[=CONTROL]
                               make a backup of each existing destination file
                               like --backup but does not accept an argument
  -b
      --copy-contents
                               copy contents of special files when recursive
```

```
-d
                               same as --no-dereference --preserve=links
  -f, --force
                               if an existing destination file cannot be
                                 opened, remove it and try again (this option
                                 is ignored when the -n option is also used)
                               prompt before overwrite (overrides a previous -n
  -i, --interactive
                                  option)
  -H
                               follow command-line symbolic links in SOURCE
  -1, --link
                               hard link files instead of copying
                               always follow symbolic links in SOURCE
  -L, --dereference
                               do not overwrite an existing file (overrides
  -n, --no-clobber
                                 a previous -i option)
  -R, -r, --recursive
                               copy directories recursively
      --reflink[=WHEN]
                               control clone/CoW copies. See below
                               remove each existing destination file before
      --remove-destination
                                 attempting to open it (contrast with --force)
                               control creation of sparse files. See below
      --sparse=WHEN
      --strip-trailing-slashes remove any trailing slashes from each SOURCE
                                 argument
  -s, --symbolic-link
                               make symbolic links instead of copying
  -S, --suffix=SUFFIX
                               override the usual backup suffix
  -t, --target-directory=DIRECTORY copy all SOURCE arguments into DIRECTORY
  -T, --no-target-directory
                               treat DEST as a normal file
  -v, --verbose
                               explain what is being done
  -x, --one-file-system
                               stay on this file system
mv
Usage: mv [OPTION]... [-T] SOURCE DEST
  or: mv [OPTION]... SOURCE... DIRECTORY
  or: mv [OPTION]... -t DIRECTORY SOURCE...
Rename SOURCE to DEST, or move SOURCE(s) to DIRECTORY.
      --backup[=CONTROL]
                               make a backup of each existing destination file
  -b
                               like --backup but does not accept an argument
                               do not prompt before overwriting
  -f, --force
  -i, --interactive
                               prompt before overwrite
  -n, --no-clobber
                               do not overwrite an existing file
If you specify more than one of -i, -f, -n, only the final one takes effect.
      --strip-trailing-slashes remove any trailing slashes from each SOURCE
                                 argument
  -S, --suffix=SUFFIX
                               override the usual backup suffix
  -t, --target-directory=DIRECTORY move all SOURCE arguments into DIRECTORY
  -T, --no-target-directory
                               treat DEST as a normal file
  -u, --update
                               move only when the SOURCE file is newer
                                 than the destination file or when the
                                 destination file is missing
  -v, --verbose
                               explain what is being done
rm
Usage: rm [OPTION]... [FILE]...
Remove (unlink) the FILE(s).
  -f, --force
                        ignore nonexistent files and arguments, never prompt
```

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-i
                        prompt before every removal
  -I
                        prompt once before removing more than three files, or
                          when removing recursively; less intrusive than -i,
                          while still giving protection against most mistakes
      --no-preserve-root do not treat '/' specially
      --preserve-root[=all] do not remove '/' (default);
                              with 'all', reject any command line argument
                              on a separate device from its parent
                        remove directories and their contents recursively
  -r, -R, --recursive
  -d, --dir
                        remove empty directories
                        explain what is being done
  -v, --verbose
ln
Usage: ln [OPTION]... [-T] TARGET LINK_NAME
  or: ln [OPTION]... TARGET
  or: ln [OPTION]... TARGET... DIRECTORY
  or: ln [OPTION]... -t DIRECTORY TARGET...
In the 1st form, create a link to TARGET with the name LINK_NAME.
In the 2nd form, create a link to TARGET in the current directory.
In the 3rd and 4th forms, create links to each TARGET in DIRECTORY.
Create hard links by default, symbolic links with --symbolic.
By default, each destination (name of new link) should not already exist.
When creating hard links, each TARGET must exist. Symbolic links
can hold arbitrary text; if later resolved, a relative link is
interpreted in relation to its parent directory.
      --backup[=CONTROL]
                              make a backup of each existing destination file
  -b
                              like --backup but does not accept an argument
  -d, -F, --directory
                              allow the superuser to attempt to hard link
                                directories (note: will probably fail due to
                                system restrictions, even for the superuser)
  -f, --force
                              remove existing destination files
  -i, --interactive
                              prompt whether to remove destinations
  -L, --logical
                              dereference TARGETs that are symbolic links
                              treat LINK_NAME as a normal file if
  -n, --no-dereference
                                it is a symbolic link to a directory
  -P, --physical
                              make hard links directly to symbolic links
  -r, --relative
                              create symbolic links relative to link location
  -s, --symbolic
                              make symbolic links instead of hard links
  -S, --suffix=SUFFIX
                              override the usual backup suffix
                              print name of each linked file
  -v, --verbose
cat
Usage: cat [OPTION]... [FILE]...
Concatenate FILE(s) to standard output.
  -b, --number-nonblank
                           number nonempty output lines, overrides -n
                           equivalent to -vE
  -E, --show-ends
                           display $ at end of each line
  -n, --number
                           number all output lines
  -s, --squeeze-blank
                           suppress repeated empty output lines
  -t
                           equivalent to -vT
```

```
-T, --show-tabs
                           display TAB characters as ^I
  -v, --show-nonprinting use ^ and M- notation, except for LFD and TAB
\mathbf{pr}
Usage: pr [OPTION]... [FILE]...
Paginate or columnate FILE(s) for printing.
  +FIRST_PAGE[:LAST_PAGE], --pages=FIRST_PAGE[:LAST_PAGE]
                    begin [stop] printing with page FIRST_[LAST_]PAGE
  -COLUMN, --columns=COLUMN
                    output COLUMN columns and print columns down,
                    unless -a is used. Balance number of lines in the
                    columns on each page
                    print columns across rather than down, used together
  -a, --across
                    with -COLUMN
  -д
                    double space the output
  -h, --header=HEADER
                    use a centered HEADER instead of filename in page header,
                    -h "" prints a blank line, don't use -h""
  -1, --length=PAGE_LENGTH
                    set the page length to PAGE_LENGTH (66) lines
                    (default number of lines of text 56, and with -F 63).
                    implies -t if PAGE_LENGTH <= 10</pre>
  -m, --merge
                    print all files in parallel, one in each column,
                    truncate lines, but join lines of full length with -J
  -n[SEP[DIGITS]], --number-lines[=SEP[DIGITS]]
                    number lines, use DIGITS (5) digits, then SEP (TAB),
                    default counting starts with 1st line of input file
fmt
Usage: fmt [-WIDTH] [OPTION]... [FILE]...
Reformat each paragraph in the FILE(s), writing to standard output.
The option -WIDTH is an abbreviated form of --width=DIGITS.
  -s, --split-only
                            split long lines, but do not refill
  -u, --uniform-spacing
                          one space between words, two after sentences
  -w, --width=WIDTH
                            maximum line width (default of 75 columns)
lp
Usage: lp [options] [--] [file(s)]
Options:
-d destination
                        Specify the destination
-o nofilebreak
                        don't jump on new page after finishing a file
-o length=n
                        duh
-o width=n
                        duh
                        Specify a list of pages to print
-P page-list
                        Write a message on exit - not found on Manjaro
-W
wc
Usage: wc [OPTION]... [FILE]...
Print newline, word, and byte counts for each FILE, and a total line if
```

more than one FILE is specified. A word is a non-zero-length sequence of characters delimited by white space.

The options below may be used to select which counts are printed, always in the following order: newline, word, character, byte, maximum line length.

diff

Usage: diff [OPTION]... FILES Compare FILES line by line.

\mathbf{sort}

Usage: sort [OPTION]... [FILE]...

or: sort [OPTION]... --filesO-from=F

Write sorted concatenation of all FILE(s) to standard output.

With no FILE, or when FILE is -, read standard input.

Ordering options:

-b, --ignore-leading-blanks ignore leading blanks consider only blanks and alphanumeric characters -d, --dictionary-order -f, --ignore-case fold lower case to upper case characters -g, --general-numeric-sort compare according to general numerical value consider only printable characters -i, --ignore-nonprinting compare (unknown) < 'JAN' < ... < 'DEC'</pre> -M, --month-sort -h, --human-numeric-sort compare human readable numbers (e.g., 2K 1G) compare according to string numerical value -n, --numeric-sort -R, --random-sort shuffle, but group identical keys. See shuf(1) --random-source=FILE get random bytes from FILE reverse the result of comparisons -r, --reverse --sort=WORD sort according to WORD: general-numeric -g, human-numeric -h, month -M, numeric -n, random -R, version -V -V, --version-sort natural sort of (version) numbers within text

Other options:

- --batch-size=NMERGE merge at most NMERGE inputs at once; for more use temp files
- -c, --check, --check=diagnose-first $\,$ check for sorted input; do not sort

--debug annotate the part of the line used to sort, and warn about questionable usage to stderr --files0-from=F read input from the files specified by NUL-terminated names in file F; If F is - then read names from standard input -k, --key=KEYDEF sort via a key; KEYDEF gives location and type merge already sorted files; do not sort -m, --merge write result to FILE instead of standard output -o, --output=FILE stabilize sort by disabling last-resort comparison -s, --stable -S, --buffer-size=SIZE use SIZE for main memory buffer -t, --field-separator=SEP use SEP instead of non-blank to blank transition -T, --temporary-directory=DIR use DIR for temporaries, not \$TMPDIR or /tmp; multiple options specify multiple directories change the number of sorts run concurrently to N --parallel=N -u, --unique with -c, check for strict ordering; without -c, output only the first of an equal run -z, --zero-terminated line delimiter is NUL, not newline

cut

Usage: cut OPTION... [FILE]...

Print selected parts of lines from each FILE to standard output.

-b, --bytes=LIST select only these bytes -c, --characters=LIST select only these characters -d, --delimiter=DELIM use DELIM instead of TAB for field delimiter select only these fields; also print any line -f, --fields=LIST that contains no delimiter character, unless the -s option is specified (ignored) -n --complement complement the set of selected bytes, characters or fields -s, --only-delimited do not print lines not containing delimiters --output-delimiter=STRING use STRING as the output delimiter the default is to use the input delimiter line delimiter is NUL, not newline -z, --zero-terminated display this help and exit --version output version information and exit

Use one, and only one of -b, -c or -f. Each LIST is made up of one range, or many ranges separated by commas. Selected input is written in the same order that it is read, and is written exactly once. Each range is one of:

N N'th byte, character or field, counted from 1
N- from N'th byte, character or field, to end of line
N-M from N'th to M'th (included) byte, character or field
-M from first to M'th (included) byte, character or field
cut f -b 1-10

paste

Usage: paste [OPTION]... [FILE]...
Write lines consisting of the sequentially corresponding lines from

each FILE, separated by TABs, to standard output.

With no FILE, or when FILE is -, read standard input.

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

- -d, --delimiters=LIST reuse characters from LIST instead of TABs
- -s, --serial paste one file at a time instead of in parallel
- -z, --zero-terminated line delimiter is NUL, not newline

 \mathbf{tr}

Usage: tr [OPTION]... SET1 [SET2]

Translate, squeeze, and/or delete characters from standard input, writing to standard output.

- -c, -C, --complement use the complement of SET1
- -d, --delete delete characters in SET1, do not translate
- -s, --squeeze-repeats replace each sequence of a repeated character that is listed in the last specified SET,

with a single occurrence of that character

- -t, --truncate-set1 first truncate SET1 to length of SET2
 - --help display this help and exit
 - --version output version information and exit

SETs are specified as strings of characters. Most represent themselves. Interpreted sequences are:

\NNN	character with octal value NNN (1 to 3 octal digits)
\\	backslash
\a	audible BEL
\b	backspace
\f	form feed
\n	new line
\r	return
\t	horizontal tab
\ν	vertical tab
CHAR1-CHAR2	all characters from CHAR1 to CHAR2 in ascending order
[CHAR*]	in SET2, copies of CHAR until length of SET1
[CHAR*REPEAT]	REPEAT copies of CHAR, REPEAT octal if starting with 0
[:alnum:]	all letters and digits
[:alpha:]	all letters
[:blank:]	all horizontal whitespace
[:cntrl:]	all control characters
[:digit:]	all digits
[:graph:]	all printable characters, not including space
[:lower:]	all lower case letters
[:print:]	all printable characters, including space
[:punct:]	all punctuation characters
[:space:]	all horizontal or vertical whitespace
[:upper:]	all upper case letters
[:xdigit:]	all hexadecimal digits
[=CHAR=]	all characters which are equivalent to CHAR

tee

Usage: tee [OPTION]... [FILE]...

Copy standard input to each FILE, and also to standard output.

-a, --append append to the given FILEs, do not overwrite

-i, --ignore-interrupts ignore interrupt signals

-p diagnose errors writing to non pipes

--output-error[=MODE] set behavior on write error. See MODE below

head

Usage: head [OPTION]... [FILE]...

Print the first 10 lines of each FILE to standard output.

With more than one FILE, precede each with a header giving the file name.

With no FILE, or when FILE is -, read standard input.

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

-c, --bytes=[-]NUM print the first NUM bytes of each file;

with the leading '-', print all but the last

NUM bytes of each file

-n, --lines=[-]NUM print the first NUM lines instead of the first 10;

with the leading '-', print all but the last

NUM lines of each file

-q, --quiet, --silent $\,\,$ never print headers giving file names

-v, --verbose always print headers giving file names

-z, --zero-terminated line delimiter is NUL, not newline

tail

Usage: tail [OPTION]... [FILE]...

Print the last 10 lines of each FILE to standard output.

With more than one FILE, precede each with a header giving the file name.

With no FILE, or when FILE is -, read standard input.

-c, --bytes=[+]NUM output the last NUM bytes; or use -c +NUM to

output starting with byte NUM of each file

-f, --follow[={name|descriptor}]

output appended data as the file grows;

an absent option argument means 'descriptor'

-F same as --follow=name --retry

-n, --lines=[+]NUM output the last NUM lines, instead of the last 10;

or use -n +NUM to output starting with line NUM

--max-unchanged-stats=N

with --follow=name, reopen a FILE which has not changed size after N (default 5) iterations to see if it has been unlinked or renamed

(this is the usual case of rotated log files); with inotify, this option is rarely useful

--pid=PID with -f, terminate after process ID, PID dies

-q, --quiet, --silent never output headers giving file names

--retry keep trying to open a file if it is inaccessible

-s, --sleep-interval=N with -f, sleep for approximately N seconds

```
(default 1.0) between iterations;
with inotify and --pid=P, check process P at
least once every N seconds
-v, --verbose always output headers giving file names
-z, --zero-terminated line delimiter is NUL, not newline
```

\mathbf{perl}

Usage: perl [switches] [] [programfile] [arguments]		
-0[octal]	specify record separator (\0, if no argument)	
-a	autosplit mode with -n or -p (splits \$_ into @F)	
-C[number/list]	enables the listed Unicode features	
-c	check syntax only (runs BEGIN and CHECK blocks)	
-d[:debugger]	run program under debugger	
-D[number/list]	set debugging flags (argument is a bit mask or alphabets)	
-e program	one line of program (several -e's allowed, omit programfile)	
-E program	like -e, but enables all optional features	
-f	don't do \$sitelib/sitecustomize.pl at startup	
-F/pattern/	<pre>split() pattern for -a switch (//'s are optional)</pre>	
-i[extension]	edit <> files in place (makes backup if extension supplied)	
-Idirectory	specify @INC/#include directory (several -I's allowed)	
-l[octal]	enable line ending processing, specifies line terminator	
-[mM][-]module	execute "use/no module" before executing program	
-n	assume "while (<>) { }" loop around program	
-p	assume loop like -n but print line also, like sed	
-s	enable rudimentary parsing for switches after programfile	
-S	look for programfile using PATH environment variable	
-t	enable tainting warnings	
-T	enable tainting checks	
-u	dump core after parsing program	
-U	allow unsafe operations	
- A	print version, patchlevel and license	
-V[:variable]	<pre>print configuration summary (or a single Config.pm variable)</pre>	
-W	enable many useful warnings	
-W	enable all warnings	
<pre>-x[directory]</pre>	<pre>ignore text before #!perl line (optionally cd to directory)</pre>	
-X	disable all warnings	

Run 'perldoc perl' for more help with Perl.