

```

:
:      :      -02-20      .      ..№ 1032204593
2021 .

:

UNIX.
. #      : 1.      ,
.      t1      ,
,      ,      t2<>t1,
(      ).
# —      (> /dev/tty#,
,      ,

```

(1)

```

georges@georges-VirtualBox:~$ ./lab10.sh
lock
work
work
work
work
work
work
work
georges@georges-VirtualBox:~$

```

(2) man
 (3) 2. /usr/share/man/man1.
 , less

```

georges@georges-VirtualBox:~$ touch lab101.sh
georges@georges-VirtualBox:~$ chmod +x lab101.sh
georges@georges-VirtualBox:~$

```

```

emacs@georges-VirtualBox
File Edit Options Buffers Tools Sh-Script Help
[Icons] Save Undo [Icons]
#!/bin/bash
cd /usr/share/man/man1
less $1*

```

(4) georges@georges-VirtualBox:~\$./lab101.sh less
 (5) georges@georges-VirtualBox:~\$

```

georges@georges-VirtualBox: ~
.TH LESS 1 "Version 551: 11 Jun 2019"
.SH NAME
less \- opposite of more
.SH SYNOPSIS
.B "less \-?"
.br
.B "less \- \-help"
.br
.B "less \-V"
.br
.B "less \- \-version"
.br
.B "less [\- \-aABcCdEfFgGiIJKLmMnNqQrRsSuUVvWwX~]"
.br
.B " [\-b \fIspace\ \fP] [\-h \fIlines\ \fP] [\-j \fIline\ \fP] [\-k \fIkeyfile\ \fP]"
.br
.B " [\-{o} \fIlogfile\ \fP] [\-p \fIpattern\ \fP] [\-P \fIprompt\ \fP] [\-t \fItag\ \fP]"
.br
.B " [\-T \fItagsfile\ \fP] [\-x \fItab\ \fP, ...] [\-y \fIlines\ \fP] [\-z \fIlines\ \fP]"
.br
.B " [\-# \fIshift\ \fP] [\+ \fIcmd\ \fP] [\- \-] [\fIfilename\ \fP]..."
.br
(See the OPTIONS section for alternate option syntax with long option names.)

.SH DESCRIPTION
.I Less
is a program similar to
.I more
(1), but it has many more features.
.I Less
does not have to read the entire input file before starting,
so with large input files it starts up faster than text editors like

```

(6)

```

georges@georges-VirtualBox: ~
LESS(1)                                General Commands Manual                                LESS(1)

NAME
    less - opposite of more

SYNOPSIS
    less -?
    less --help
    less -V
    less --version
    less [-[+ ]aABcCdeEfFgGhIJKLmMnNqQrRsSuUVvWwX~-]
        [-b space] [-h lines] [-j line] [-k keyfile]
        [-{oO} logfile] [-p pattern] [-P prompt] [-t tag]
        [-T tagsfile] [-x tab,...] [-y lines] [-{z} lines]
        [-# shift] [+{+}cmd] [--] [filename]...
    (See the OPTIONS section for alternate option syntax with long option names.)

DESCRIPTION
    less is a program similar to more (1), but it has many more features. less does not
    have to read the entire input file before starting, so with large input files it starts
    up faster than text editors like vi (1). less uses termcap (or terminfo on some sys-
    tems), so it can run on a variety of terminals. There is even limited support for hard-
    copy terminals. (On a hardcopy terminal, lines which should be printed at the top of
    the screen are prefixed with a caret.)

    Commands are based on both more and vi. Commands may be preceded by a decimal number,
    called N in the descriptions below. The number is used by some commands, as indicated.

COMMANDS
    In the following descriptions, ^X means control-X. ESC stands for the ESCAPE key; for
    example ESC-v means the two character sequence "ESCAPE", then "v".

Manual page less(1) line 1 (press h for help or q to quit)

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(7) Manual page less(1) line 1 (press h for help or q to quit)

(8) 3. \$RANDOM, , 0
 . , \$RANDOM

```

emacs@georges-VirtualBox
File Edit Options Buffers Tools Sh-Script Help

#!/bin/bash
M=10
C=1
d=1
echo
echo "10 random words:"
while (($C!=($M+1)))
do
    echo $(for((i=1;i<=10;i++)); do printf '%s' "${RANDOM:0:1}"; done) | tr '0-9' '[a-z]'
    echo $d
    ((C+=1))
    ((d+=1))
done

U:**- lab102.sh All L14 (Shell-script[sh])

```

32767.

```

georges@georges-VirtualBox:~$ cd /usr/share/man/man1
georges@georges-VirtualBox:~$ ./lab102.sh

```

```

10 random words:
bbjcccbbc
1
bdfcccccbb
2
bbiddccbbd
3
cbebfccbbd
4
bcdbfbcbbb
5
ccbdbdbcbc
6
cbjbbcbcbg
7
bbbbbdicbd
8
bdcfecbdci
9
bbccdcbbdb
10

```

(9) georges@georges-VirtualBox:~\$

(10) 4. man

/usr/share/man/man1 (11).

less

man1.

```

georges@georges-VirtualBox:~$ cd /usr/share/man/man1
georges@georges-VirtualBox:/usr/share/man/man1$ ls
' [.1.gz'
411toppm.1.gz
7z.1.gz
7za.1.gz
7zr.1.gz
aa-enabled.1.gz
aa-exec.1.gz
aconnect.1.gz
add-apt-repository.1.gz
addr2line.1.gz
afm2pl.1.gz
afm2tfm.1.gz
aleph.1.gz
alsabat.1.gz
alsactl.1.gz
alsaloop.1.gz
alsamixer.1.gz
alsatplg.1.gz
alsaucm.1.gz
amidi.1.gz
amixer.1.gz
animate.1.gz
animate-im6.1.gz
animate-im6.q16.1.gz
anytopnm.1.gz
apg.1.gz
apgbfm.1.gz
aplay.1.gz
aplaymidi.1.gz
apport-bug.1.gz
mkocp.1.gz
mkofm.1.gz
mksquashfs.1.gz
mktemp.1.gz
mktexfmt.1.gz
mktexlsr.1.gz
mktexmf.1.gz
mktexpk.1.gz
mktexfm.1.gz
mkzftree.1.gz
mlabel.1.gz
mlocate.1.gz
mmcli.1.gz
mmd.1.gz
mmount.1.gz
mmove.1.gz
mogrify.1.gz
mogrify-im6.1.gz
mogrify-im6.q16.1.gz
montage.1.gz
montage-im6.1.gz
montage-im6.q16.1.gz
more.1.gz
mountpoint.1.gz
mousetweaks.1.gz
mpartition.1.gz
mpost.1.gz
mpris-proxy.1.gz
mptopdf.1.gz
mrd.1.gz

```

(11) 4. 1. : man.sh (12)

```

emacs@georges-VirtualBox
File Edit Options Buffers Tools Sh-Script Help
[Icons: Save, Undo, Cut, Copy, Paste, Find]

#!/bin/bash
c=$1
if [ -f /usr/share/man/man1/${c}.1.gz ]
then
    gunzip -c /usr/share/man/man1/${c}.1.gz | less
else
    echo "There is no help for this command"
fi

```

(12) 5. («./man.sh ls» «./man.sh
mkdir»), («chmod +x man.sh») (13,

```

georges@georges-VirtualBox:~$ chmod +x man.sh
georges@georges-VirtualBox:~$ ./man.sh ls
georges@georges-VirtualBox:~$ ./man.sh mkdir
georges@georges-VirtualBox:~$

```

14)

```

gzip: invalid option -- 'C'
Try 'gzip --help' for more information.
(END)

```

(13) (14) # : UNIX, # : 1.
while [\$1 != "exit"] . 2.
VAR1="Hello," VAR2=" World" VAR3="\$VAR1VAR2" echo "\$VAR3"
3. seq ,
bash seq for, , \$ for i in \$(seq 1
0.5 4) do echo "The number is \$i" done 4. \$((10/3))
3. 5. , Z Shell Bash: zmv
'(*)'('#q.?' '\$1.txt'. zcalc — , zmv -C
, . zparseopts — ,
autopushd , popd , cd,
(Bash).
« » , Bash: -norc,
, .bashrc
-rcfile bash ,
) sh Bash (POSIX.
set -o posix, , —posix
Bash. PROMPT_COMMAND
. Bash (rbash -restricted),
/ :
SHELL, PATH, ENV, BASH_ENV '>', '>|',
'<>', '>&', '&>', '>>' SHELLOPTS
exec, 6. for ((a=1; a

```

<= LIMIT; a++)) . 7. bash : -
50% , / ++, ;
- - - ,
; - . -
2-3
, ( 10 )
; - ,
Intel, , GNU LLVM;
- x86-64 , x86, 10%; -
Intel; - Intel ,
, , (gawk, mawk) .
Intel
32- ; - ,
(gcc, icc, ...)
; - gawk, php, perl, bash
, perl , , bash
, 8-16 ack(5,2,3).

```