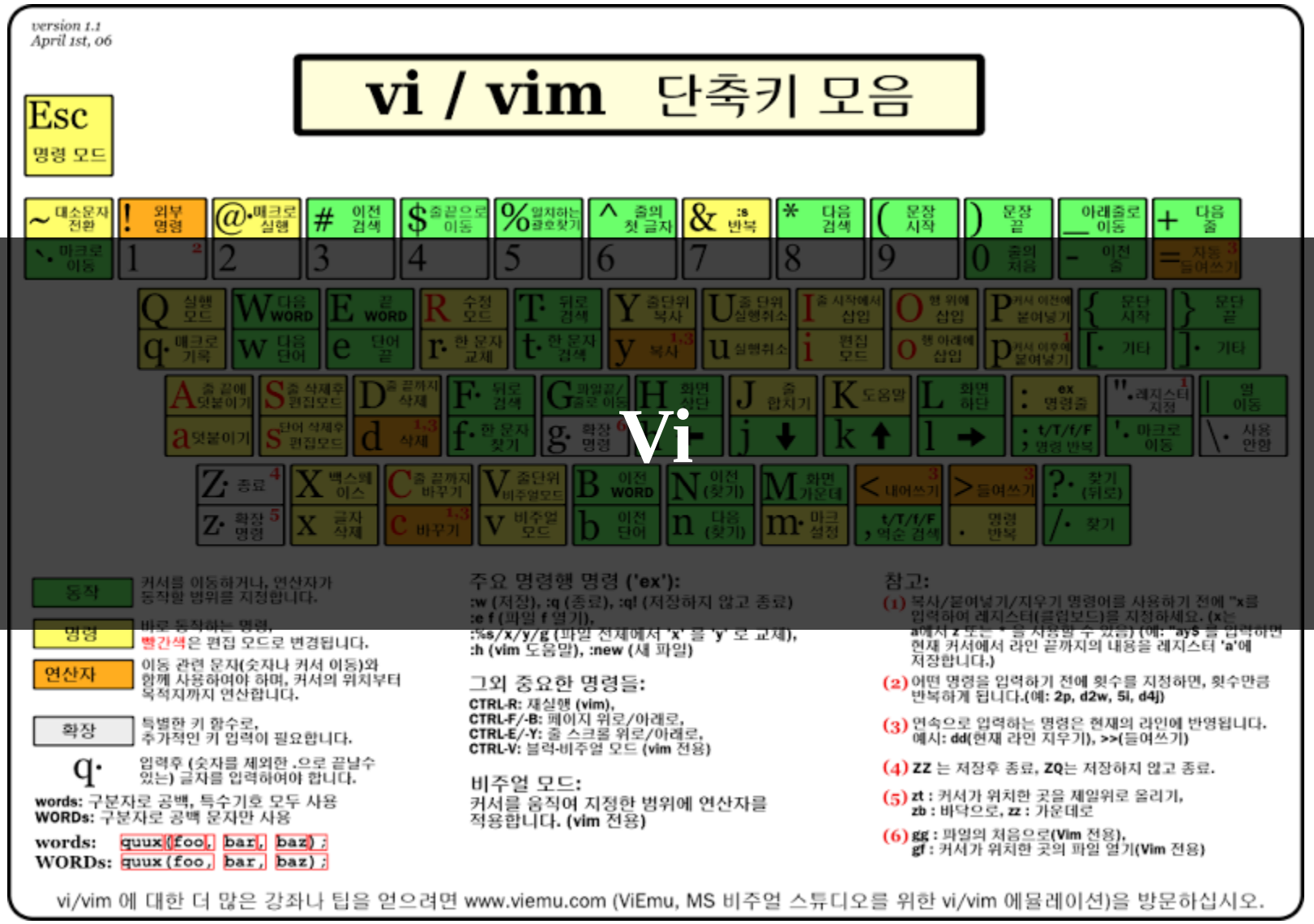
Experiments10
Vi Editor and Utility

Open Source SW Development
CSE22300


version 1.1
April 1st, 06
vi / vim 단축키 모음
Esc
명령 모드
Vi
동작
명령
연산자
확장
q·
words: quux(foo, bar, baz);
WORDs: quux(foo, bar, baz);
주요 명령행 명령 ('ex'):
:w (저장), :q (종료), :q! (저장하지 않고 종료)
:e f (파일 f 열기),
:%s/x/y/g (파일 전체에서 'x' 를 'y' 로 교체),
:h (vim 도움말), :new (새 파일)
그외 중요한 명령들:
CTRL-R: 재실행 (vim),
CTRL-F/-B: 페이지 위로/아래로,
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비주얼 모드:
커서를 움직여 지정한 범위에 연산자를 적용합니다. (vim 전용)
참고:
(1) 복사/붙여넣기/지우기 명령어를 사용하기 전에 "x를 입력하여 레지스터(클립보드)를 지정하세요. (x는 a에서 z 또는 * 을 사용할 수 있음) (예: "a)$ 을 입력하면 현재 커서에서 라인 끝까지의 내용을 레지스터 'a'에 저장합니다.)
(2) 어떤 명령을 입력하기 전에 횟수를 지정하면, 횟수만큼 반복하게 됩니다.(예: 2p, d2w, 5i, d4j)
(3) 연속으로 입력하는 명령은 현재의 라인에 반영됩니다. 예시: dd(현재 라인 지우기), >>(들여쓰기)
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(6) gg : 파일의 처음으로(Vim 전용),
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Vi

- **The editor on the Unix.**
- **Before vi the primary editor used on Unix was the line editor**
  - **User was able to see/edit only one line of the text at a time**
- **The vi editor is not a text formatter (like MS Word, Word Perfect, etc.)**
  - **you cannot set margins**
  - **center headings**
  - **Etc…**

Characteristics of Vi

- **The vi editor is:**
  - **a very powerful**
  - **but at the same time it is cryptic**
  - **It is hard to learn, specially for windows users**
- **The best way to learn vi commands is to use them**
- **So Practice…**

Vim equals Vi

- **The current iteration of vi for Linux is called vim**
  - **Vi Improved**
  - **http://www.vim.org**

- **Starting vi**
  - **Type vi <filename> at the shell prompt**

Vi Modes

- **There are two modes in vi**
  - **Command mode**
  - **Input mode**
- **When you start vi by default it is in command mode**
- **You enter the input mode through various commands**
- **You exit the input mode by pressing the Esc key to get back to the command mode**

How to Exit From Vi

- **First go to command mode**
  - **Press Esc**
  - **There is no harm in pressing Esc even if you are in command mode**
  - **Your terminal will just beep and/or or flash if you press Esc in command mode**

- **There are different ways to exit when you are in the command mode**

How to Exit from Vi (Command Mode)

- **:q <enter> is to exit, if you have not made any changes to the file**
- **:q! <enter> is the forced quit, it will discard the changes and quit**
- **:wq <enter> is for save and Exit**
- **:x <enter> is same as above command**
- **ZZ is for save and Exit (Note this command is uppercase)**
- **The ! Character forces over writes, etc. :wq!**

Moving Around

- **You can move around only when you are in the command mode**
- **Arrow keys usually works(but may not)**
- **The standard keys for moving cursor are:**
  - **h - for left**
  - **l - for right**
  - **j - for down**
  - **k - for up**

Moving Around

- **- (minus) moves the cursor to the first character in the current line**
- **H - takes the cursor to the beginning of the current screen(Home position)**
- **L - moves to the Lower last line**
- **M - moves to the middle line on the current screen**

Moving Around

-) - moves cursor to the next sentence
- } - move the cursor to the beginning of next paragraph
- (- moves the cursor backward to the beginning of the current sentence
- { - moves the cursor backward to the beginning of the current paragraph
- % - moves the cursor to the matching parentheses

Moving Around

- **Control-d scrolls the screen down (half screen)**
- **Control-u scrolls the screen up (half screen)**
- **Control-f scrolls the screen forward (full screen)**
- **Control-b scrolls the screen backward (full screen).**

Entering text

- **To enter the text in vi you should first switch to input mode**
- **To switch to input mode there are several different commands**
- **a - Append mode places the insertion point after the current character**
- **i - Insert mode places the insertion point before the current character**

Entering text

- **I - places the insertion point at the beginning of current line**
- **o - is for open mode and places the insertion point after the current line**
- **O - places the insertion point before the current line**
- **R - starts the replace(overwrite) mode**

Entering text

- **x - deletes the current character**
- **d - is the delete command but pressing only d will not delete anything you need to press a second key**
- **dw - deletes to end of word**
- **dd - deletes the current line**
- **d0 - deletes to beginning of line**
- **There are many more keys to be used with delete command**

Structure of vi command

- **The vi commands can be used followed by a number such as**
- **n<command key(s)>**
  - **For example, dd deletes a line 5dd will delete five lines.**
- **This applies to almost all vi commands**
- **This how you can accidentally insert a number of characters into your document**

Undo and repeat command

- **u - undo the changes made by editing commands**
- **. (dot or period) repeats the last edit command**

Copy, cut and paste in vi

- **yy - (yank) copy current line to buffer**
- **nyy - Where n is number of lines**
- **p - Paste the yanked lines from buffer to the line below**
- **P - Paste the yanked lines from buffer to the line above**

Searching for a String

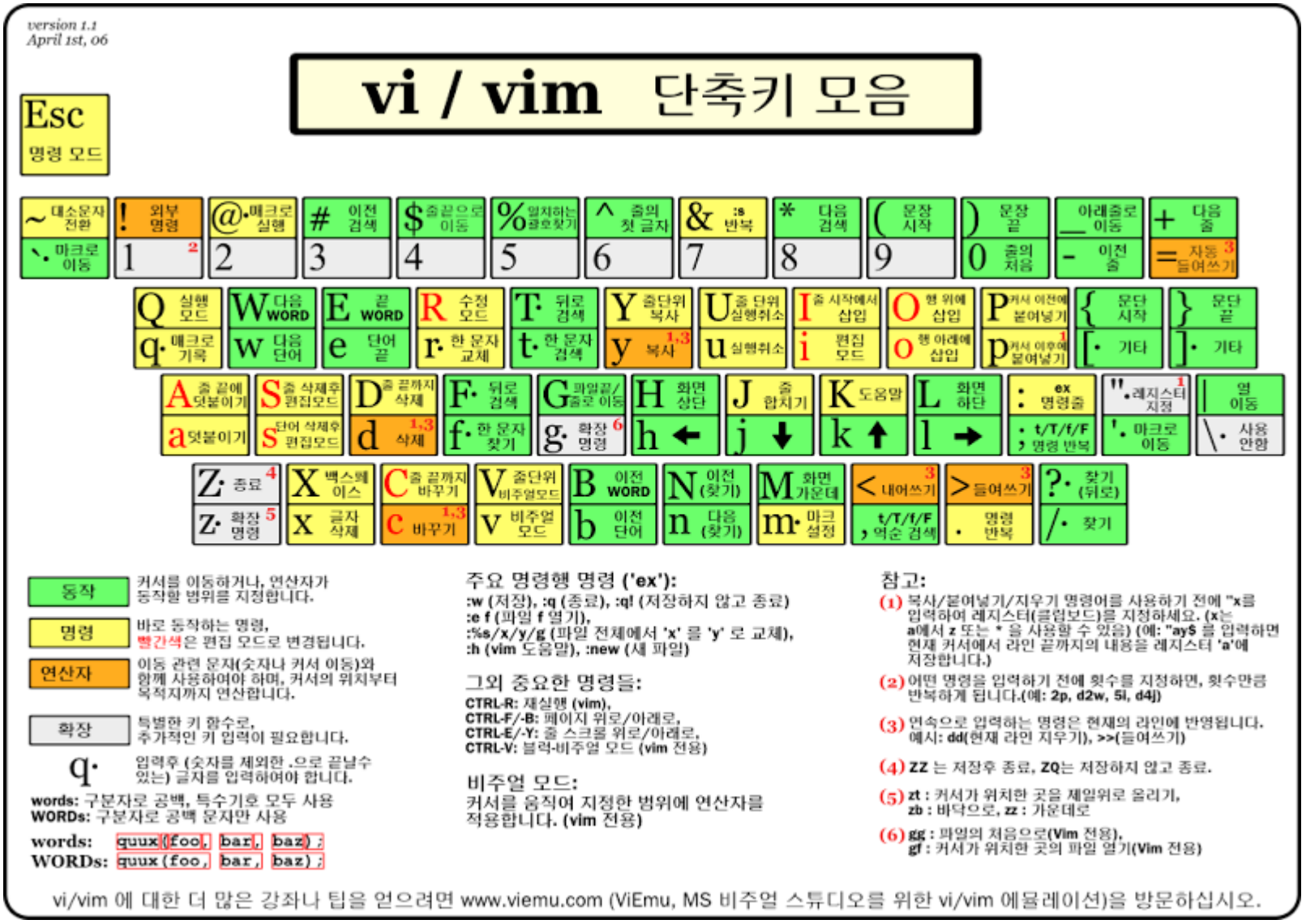
- **/pattern - search for pattern (forwards)**
- **?pattern - search for pattern (backwards)**
- **n - repeat last search**

- **:%s/old/new/g - replace every occurrence of old with new in entire file**

Stupid vi Tricks

- **Indent four lines: 4>>**
- **Will delete the character under the cursor, and put it afterwards. In other words, it swaps the location of two characters: xp**
- **Similar to xp, but swapping lines: ddp**
- **Remove all lines that start with #**
- **:g/^#/d**
- **Remove all empty lines, assumes no spaces or tabs:**
- **:g/^$/d**

Shortcut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명령 모드
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명령
바로 동작하는 명령, 빨간색은 편집 모드로 변경됩니다.
연산자
이동 관련 문자(숫자나 커서 이동)와 함께 사용하여야 하며, 커서의 위치부터 목적지까지 연산합니다.
확장
특별한 키 함수로, 추가적인 키 입력이 필요합니다.
q·
입력후 (숫자를 제외한 .으로 끝날수 있는) 글자를 입력하여야 합니다.
words: 구분자로 공백, 특수기호 모두 사용
WORDs: 구분자로 공백 문자만 사용
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Assignment01

- **Practice with this script**

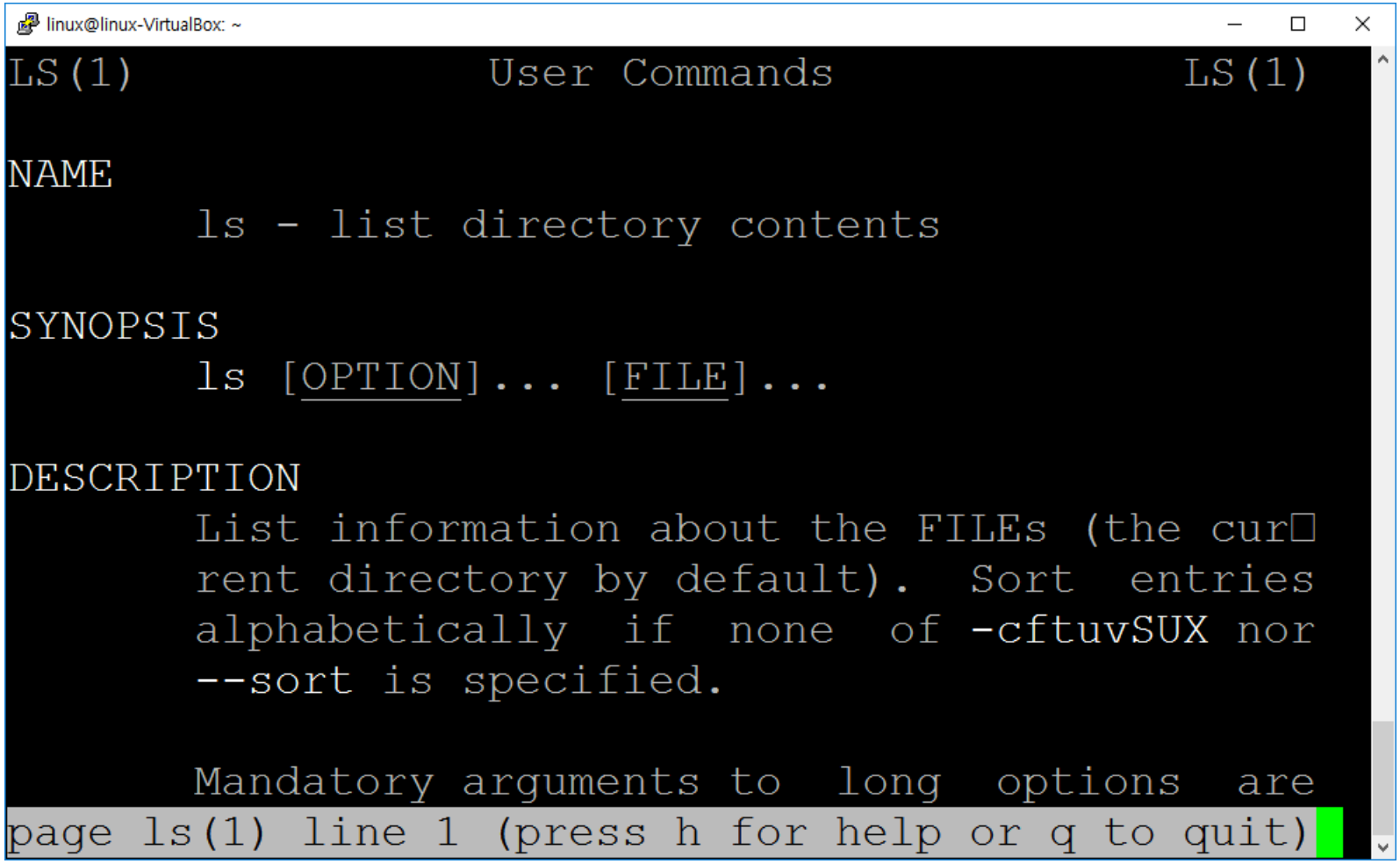
I am happy to join with you today in what will go down in history as the greatest demonstration for freedom in the history of our nation.
Five score years ago, a great American, in whose symbolic shadow we stand today, signed the Emancipation Proclamation. This momentous decree came as a great beacon light of hope to millions of Negro slaves who had been seared in the flames of withering injustice. It came as a joyous daybreak to end the long night of their captivity.
But one hundred years later, the Negro still is not free. One hundred years later, the life of the Negro is still sadly crippled by the manacles of segregation and the chains of discrimination. One hundred years later, the Negro lives on a lonely island of poverty in the midst of a vast ocean of material prosperity.
One hundred years later, the Negro is still languished in the corners of American society and finds himself an exile in his own land. And so we've come here today to dramatize a shameful condition.
In a sense we've come to our nation's capital to cash a check. When the architects of our republic wrote the magnificent words of the Constitution and the Declaration of Independence, they were signing a promissory note to which every American was to fall heir. This note was a promise that all men, yes, black men as well as white men, would be guaranteed the "unalienable Rights" of "Life, Liberty and the pursuit of Happiness." It is obvious today that America has defaulted on this promissory note, insofar as her citizens of color are concerned. Instead of honoring this sacred obligation, America has given the Negro people a bad check, a check which has come back marked "insufficient funds."

- **Run vi (vi speech.txt)**
- **Entering input mode (i)**
- **Paste the script**
- **Practice**

Utility

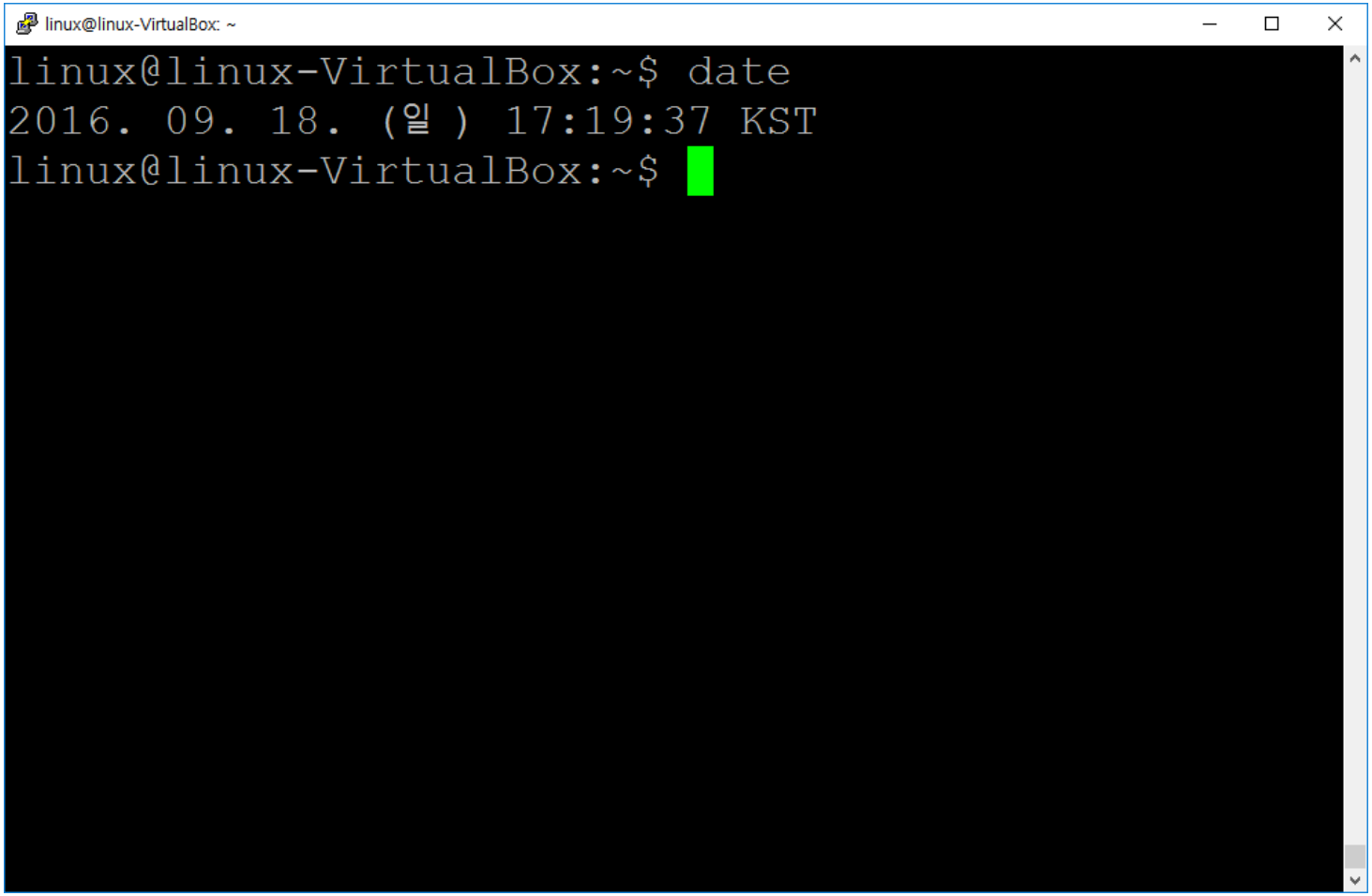
man

- **Display manual of command**



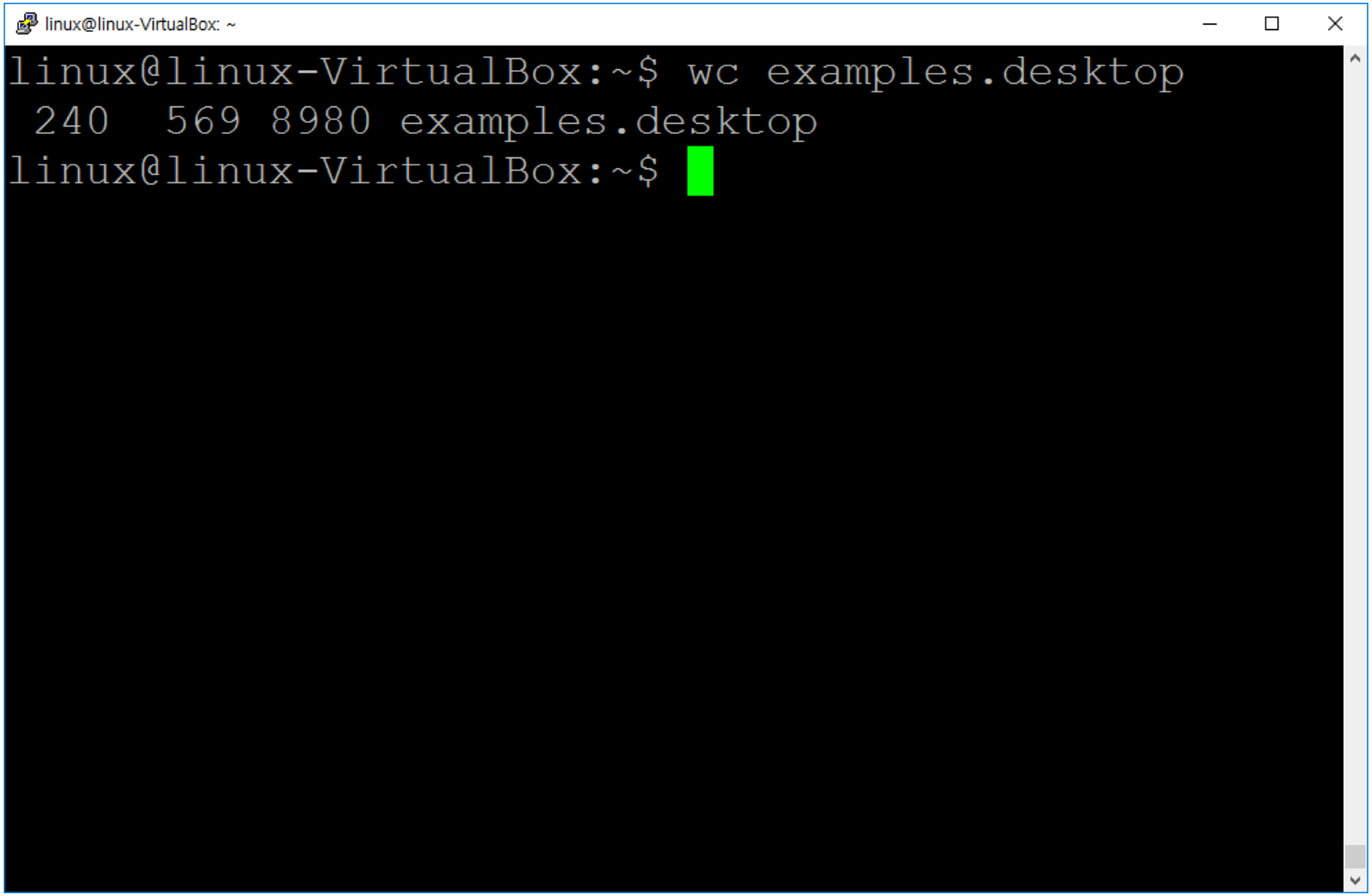
Date

- **Print or set the system date and time**



wc

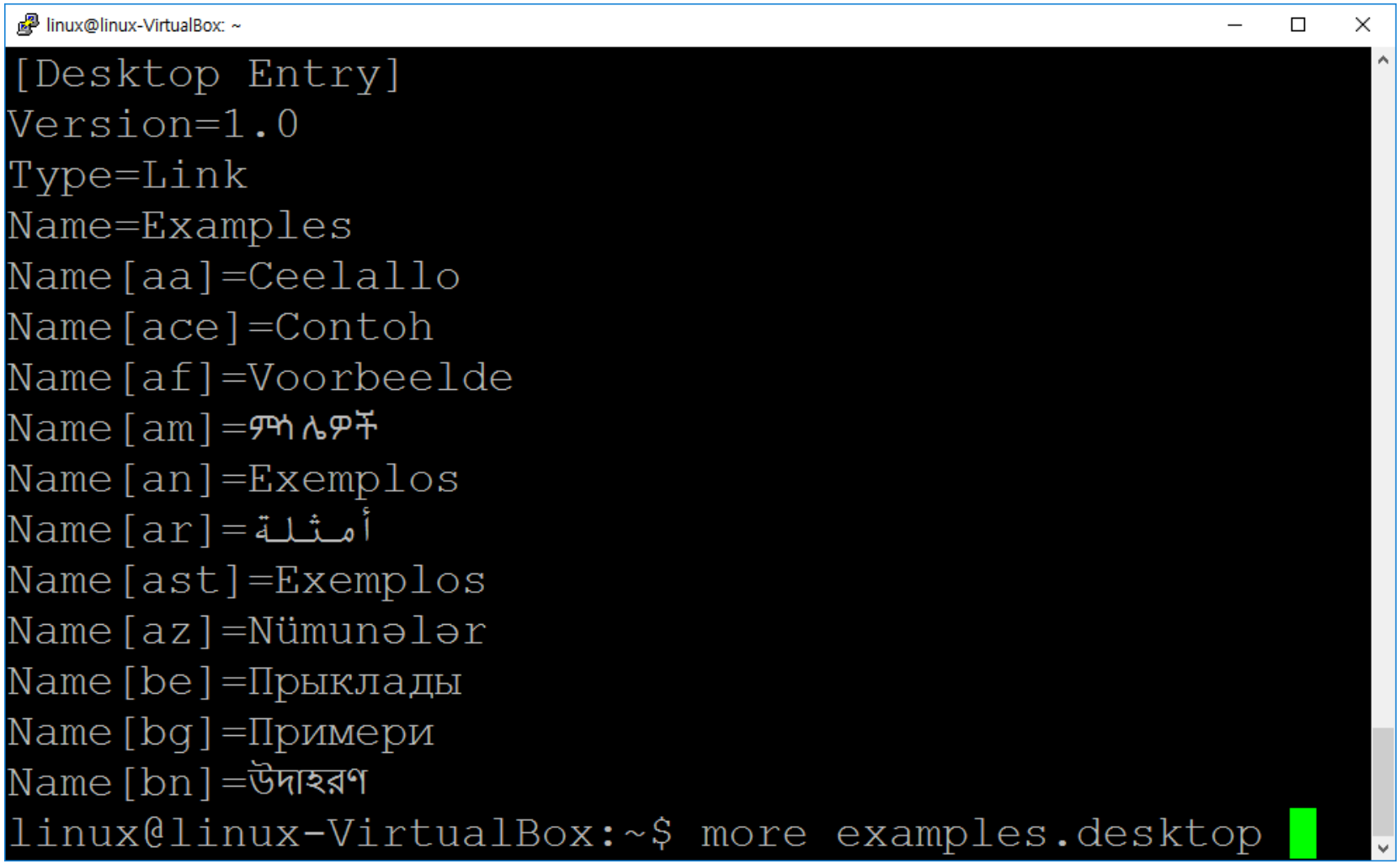
- **Print newline, word, and byte counts for each file**



more

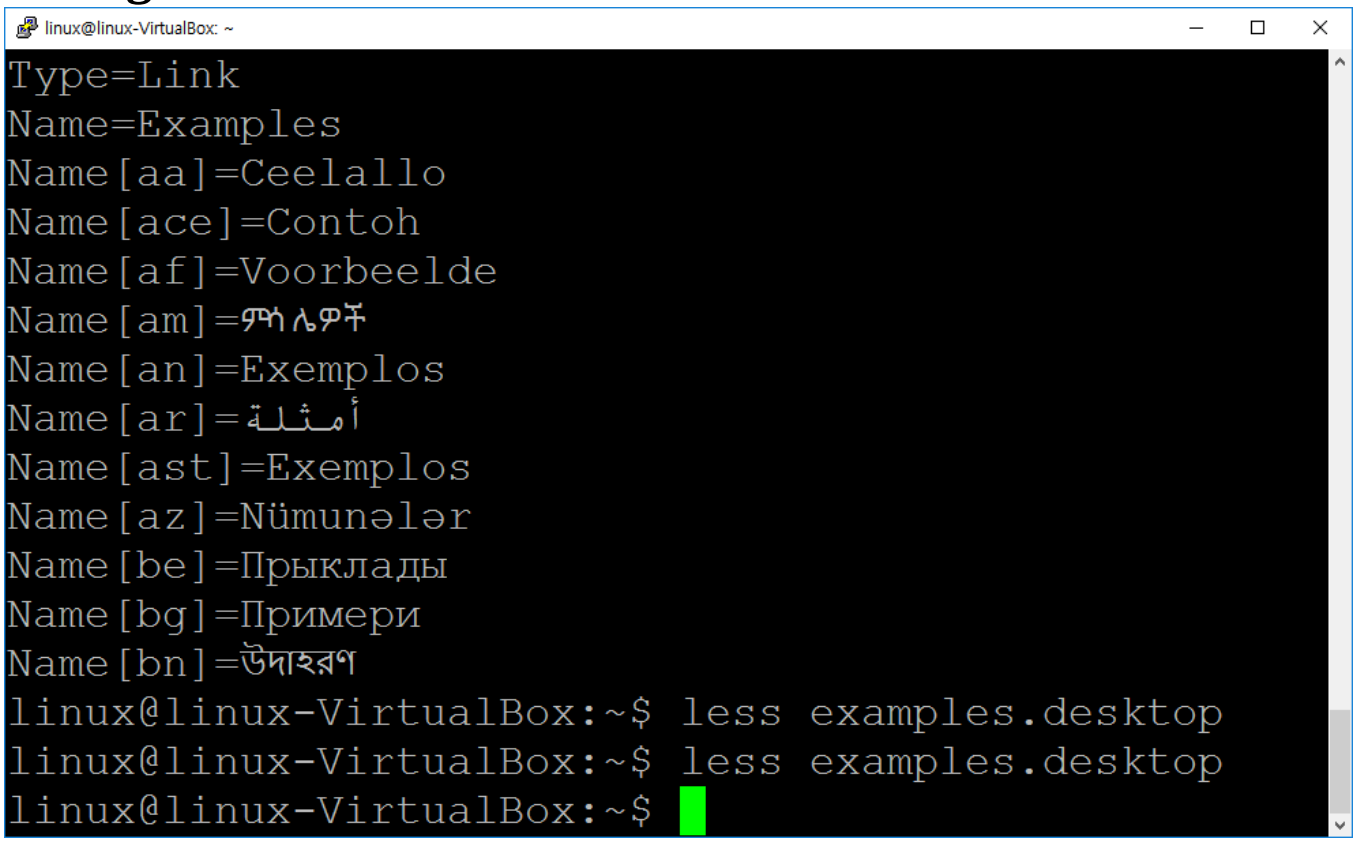
- **Displays the entire contents of a file one page at a time**
  - **Spacebar moves through file one page at a time**
  - **Enter key moves through file one line at a time**
  - **Only moves forward through a file, not backward**
  - **Exit: q**
  - **Example 1: more lab1.txt**

more


linux@linux-VirtualBox: ~
[Desktop Entry]
Version=1.0
Type=Link
Name=Examples
Name[aa]=Ceelallo
Name[ace]=Contoh
Name[af]=Voorbeelde
Name[am]=ምሳሌዎች
Name[an]=Exemplos
Name[ar]=أمثلة
Name[ast]=Exemplos
Name[az]=Nümunələr
Name[be]=Прыклады
Name[bg]=Примери
Name[bn]=উদাহরণ
linux@linux-VirtualBox:~$ more examples.desktop

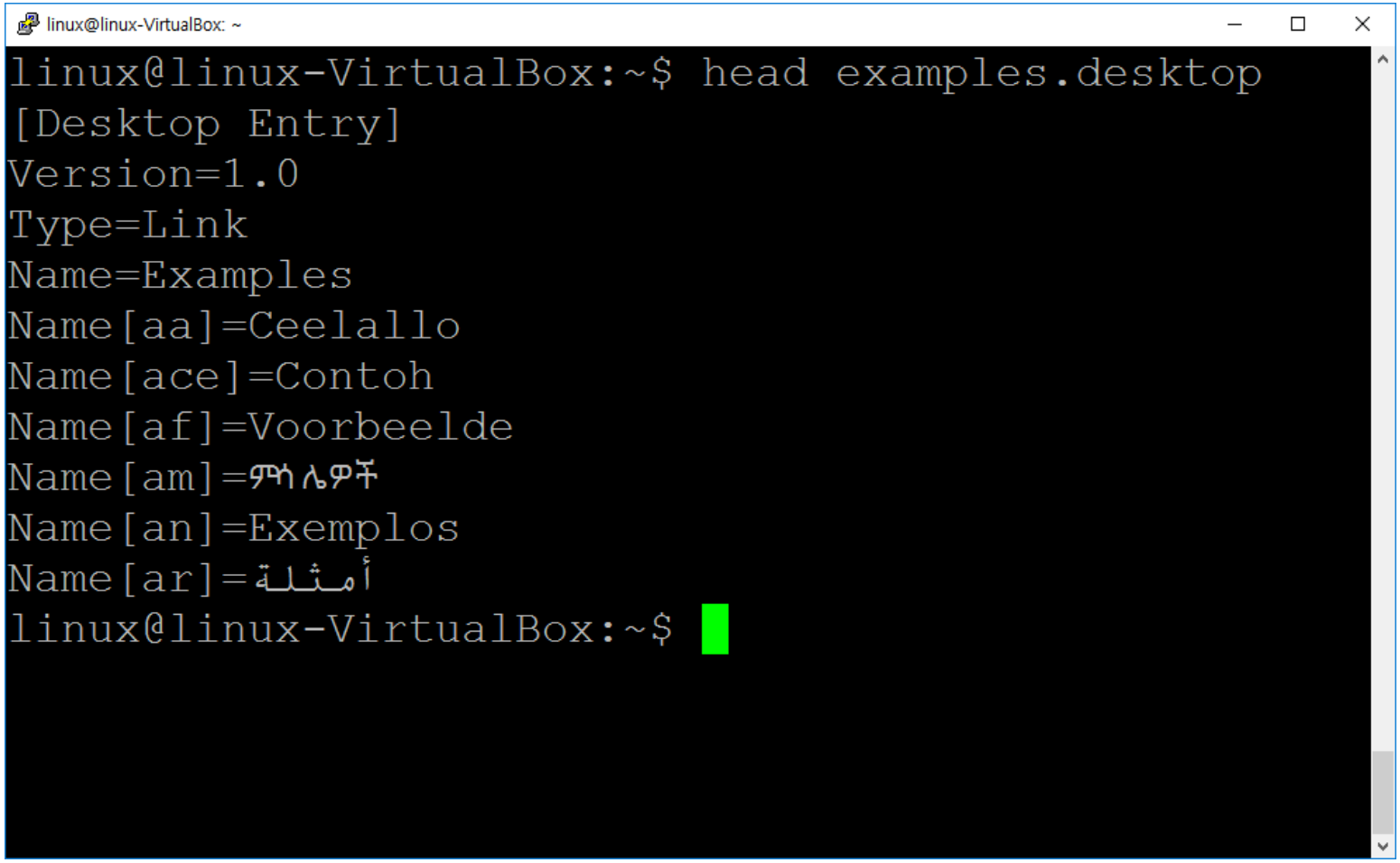
less

- **Nearly equivalent to the more command**
  - **Allows you to move forward and backward in the file**
  - **Usage: same as more**



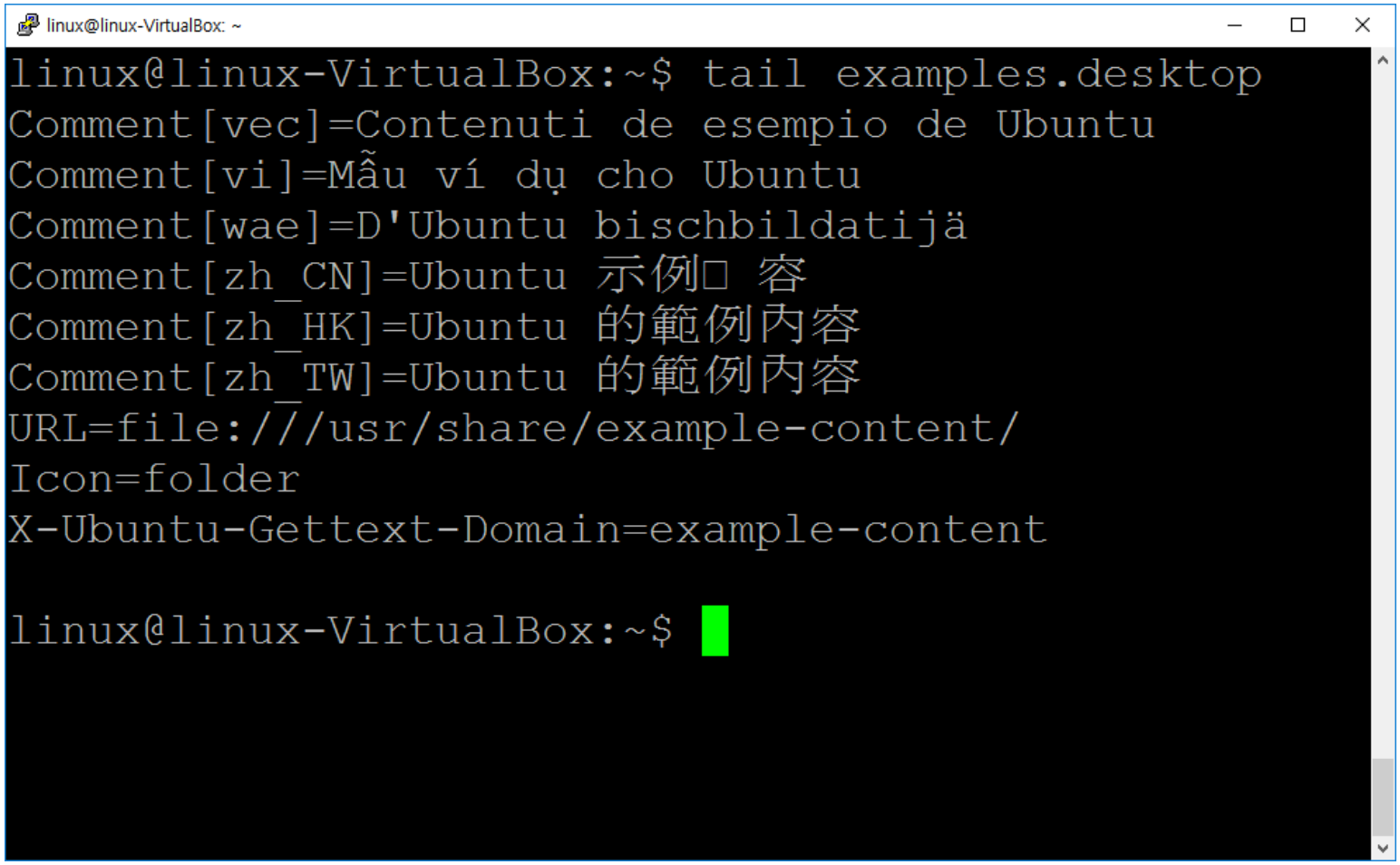
head

- **Displays just the first ten lines of a file**



tail

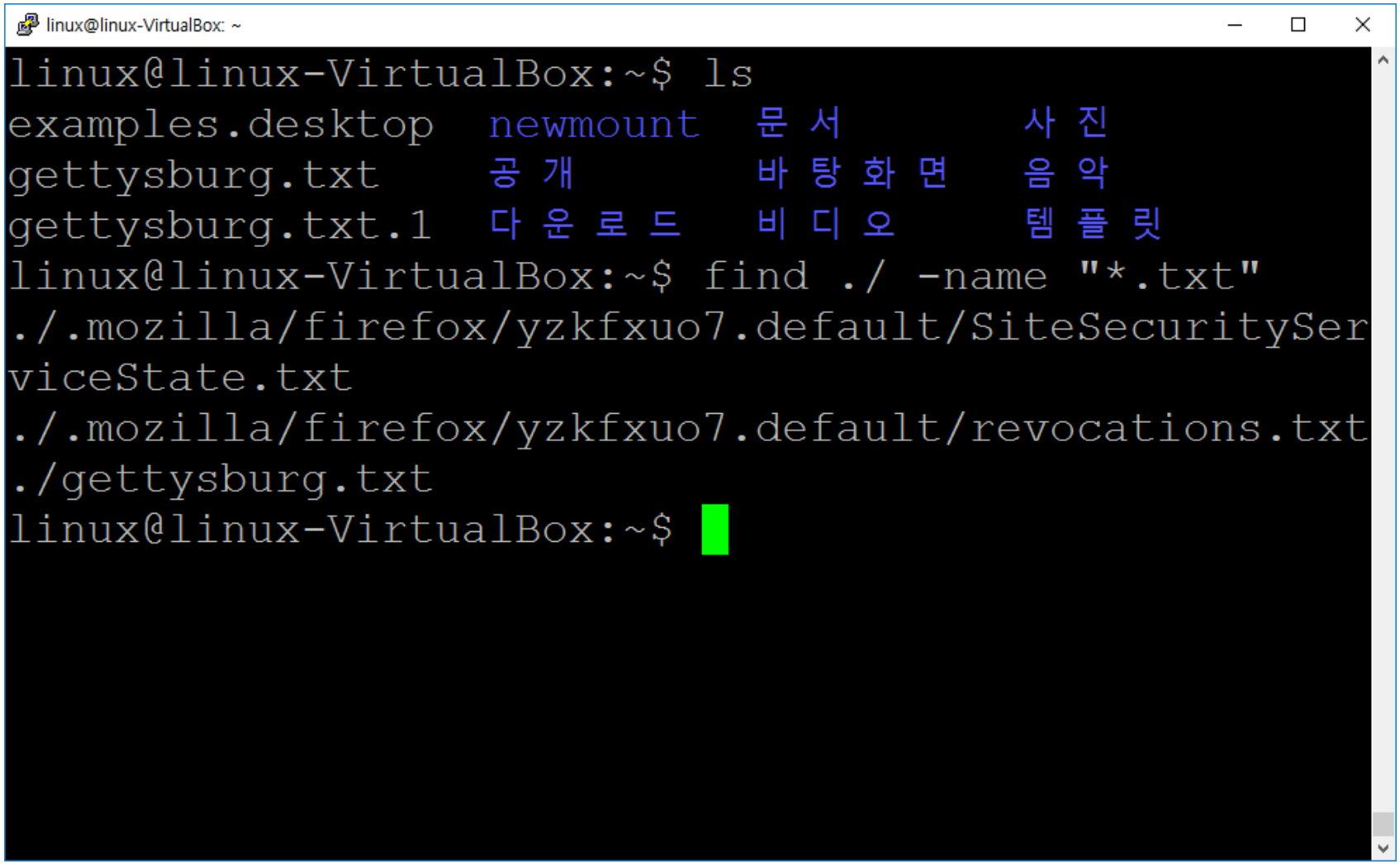
- **Displays just the last ten lines of a file**



find

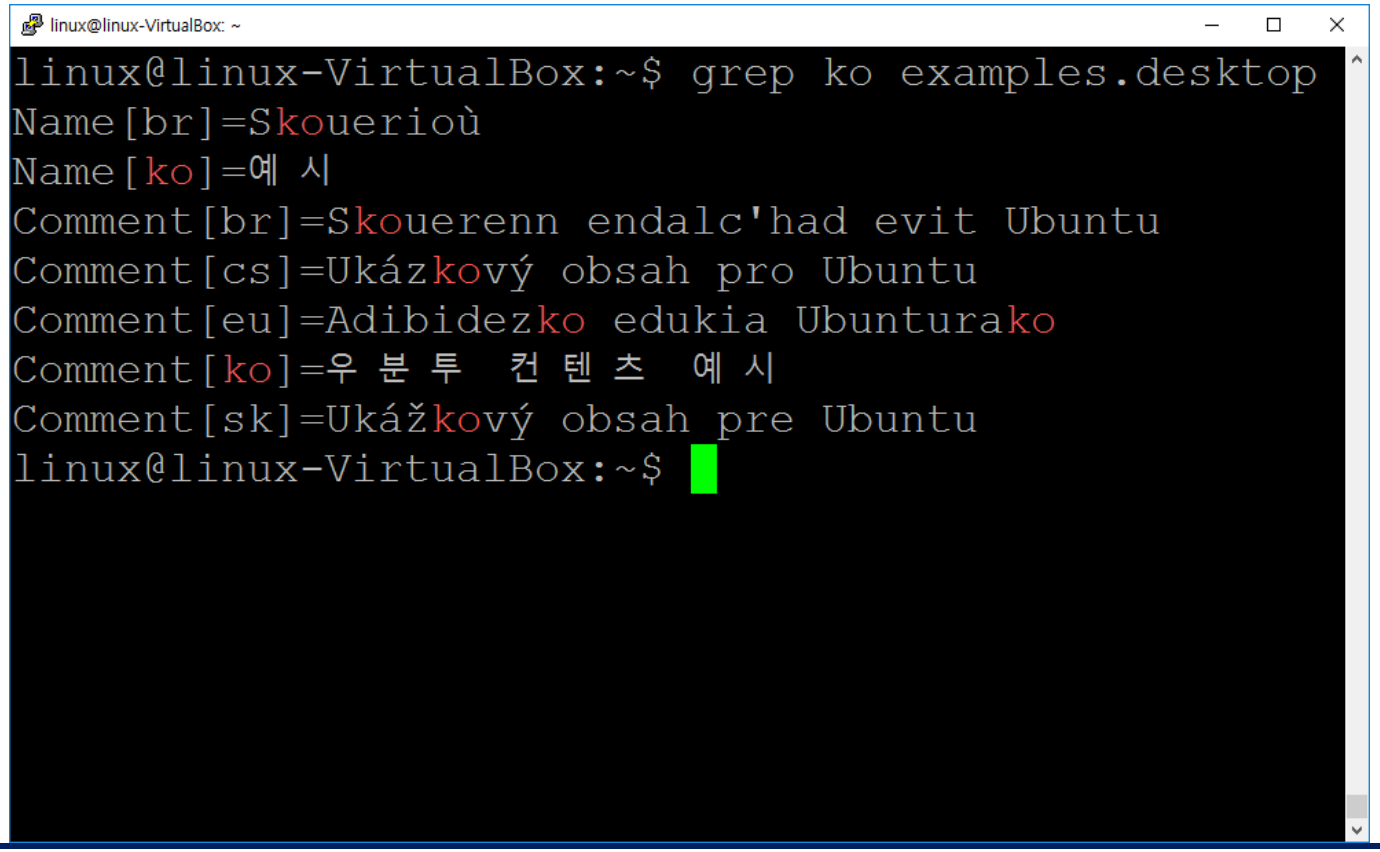
- **Find files**
  - **The argument is a path. The name of the file must be specified with the option –name.**
  - **There more options**
- **Find file with name “hw1.txt” in current directory (including sub directories)**
  - **find ./ -name hw1.txt**
- **Find file with name extension “.txt” in root (including all sub directories)**
  - **find / -name “*.txt”**

find


linux@linux-VirtualBox: ~
linux@linux-VirtualBox:~$ ls
examples.desktop newmount 문서 사진
gettysburg.txt 공개 바탕화면 음악
gettysburg.txt.1 다운로드 비디오 템플릿
linux@linux-VirtualBox:~$ find ./ -name "*.txt"
./.mozilla/firefox/yzkfxuo7.default/SiteSecurityServiceState.txt
./.mozilla/firefox/yzkfxuo7.default/revocations.txt
./gettysburg.txt
linux@linux-VirtualBox:~$

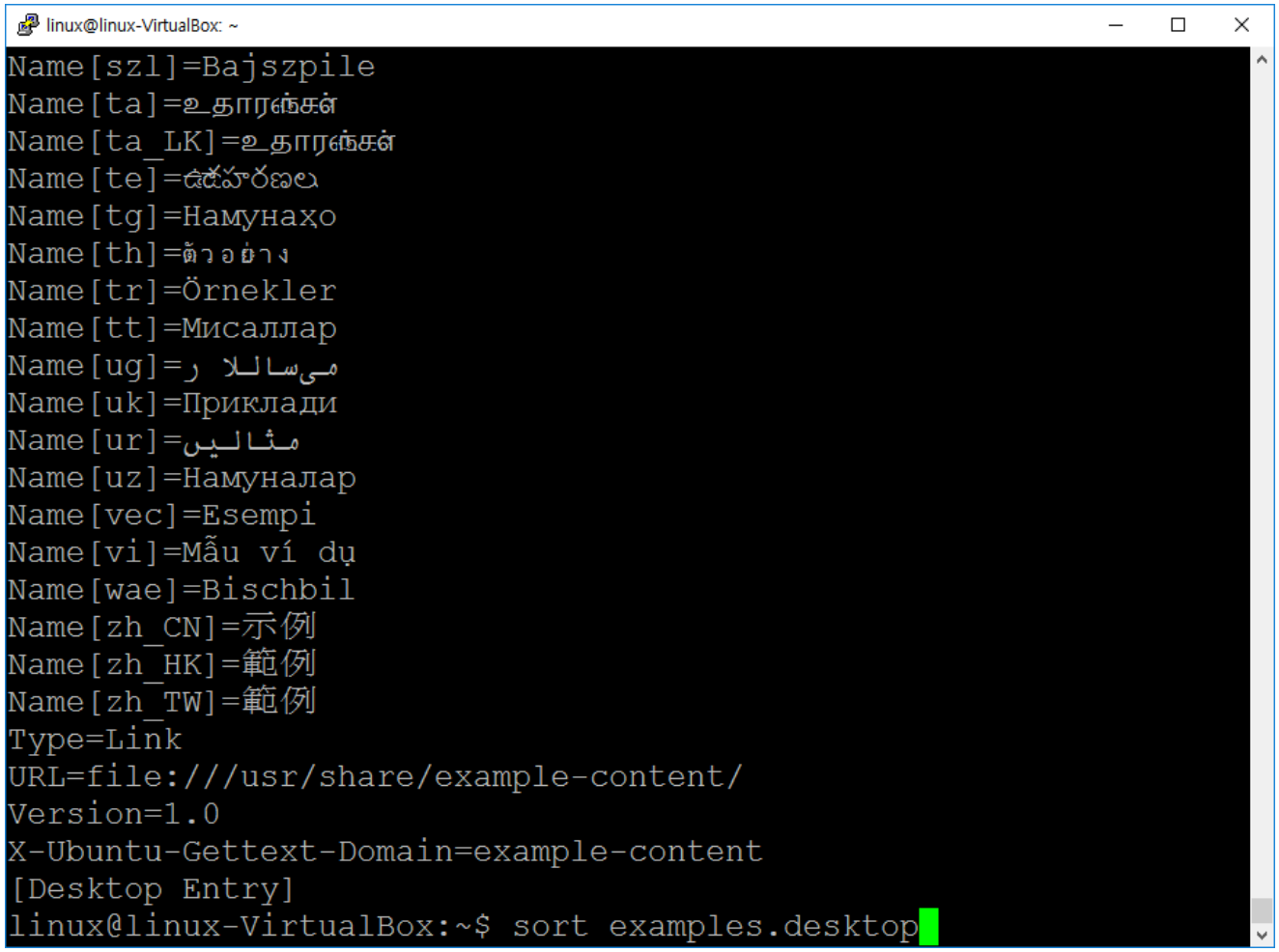
grep

- **Match a regular expression against text in a file**
- **Display the lines that contain ligyu in file file1.txt**
  - **grep “ligyu” file1.txt**



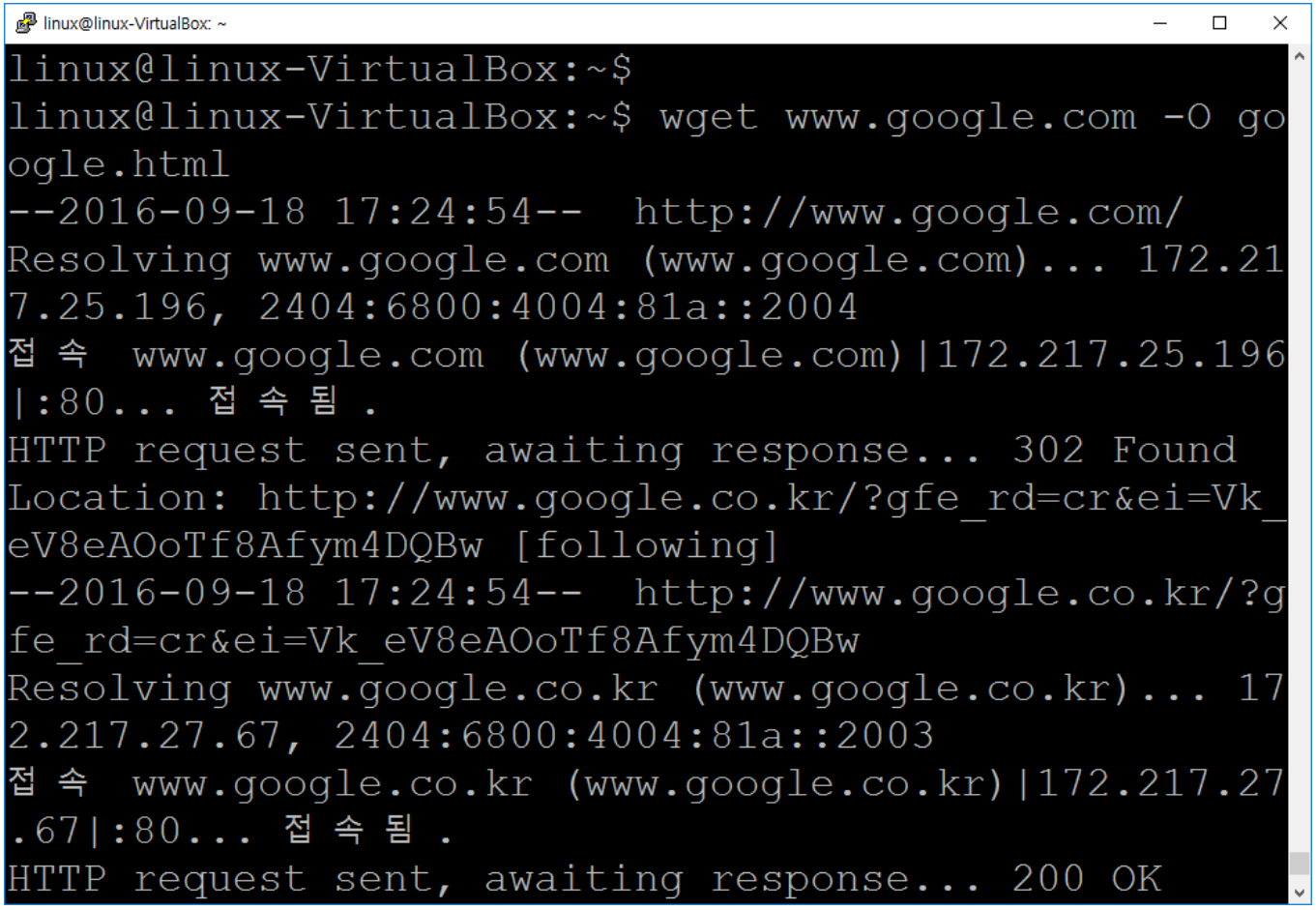
sort

- **Sort lines of text files**



wget

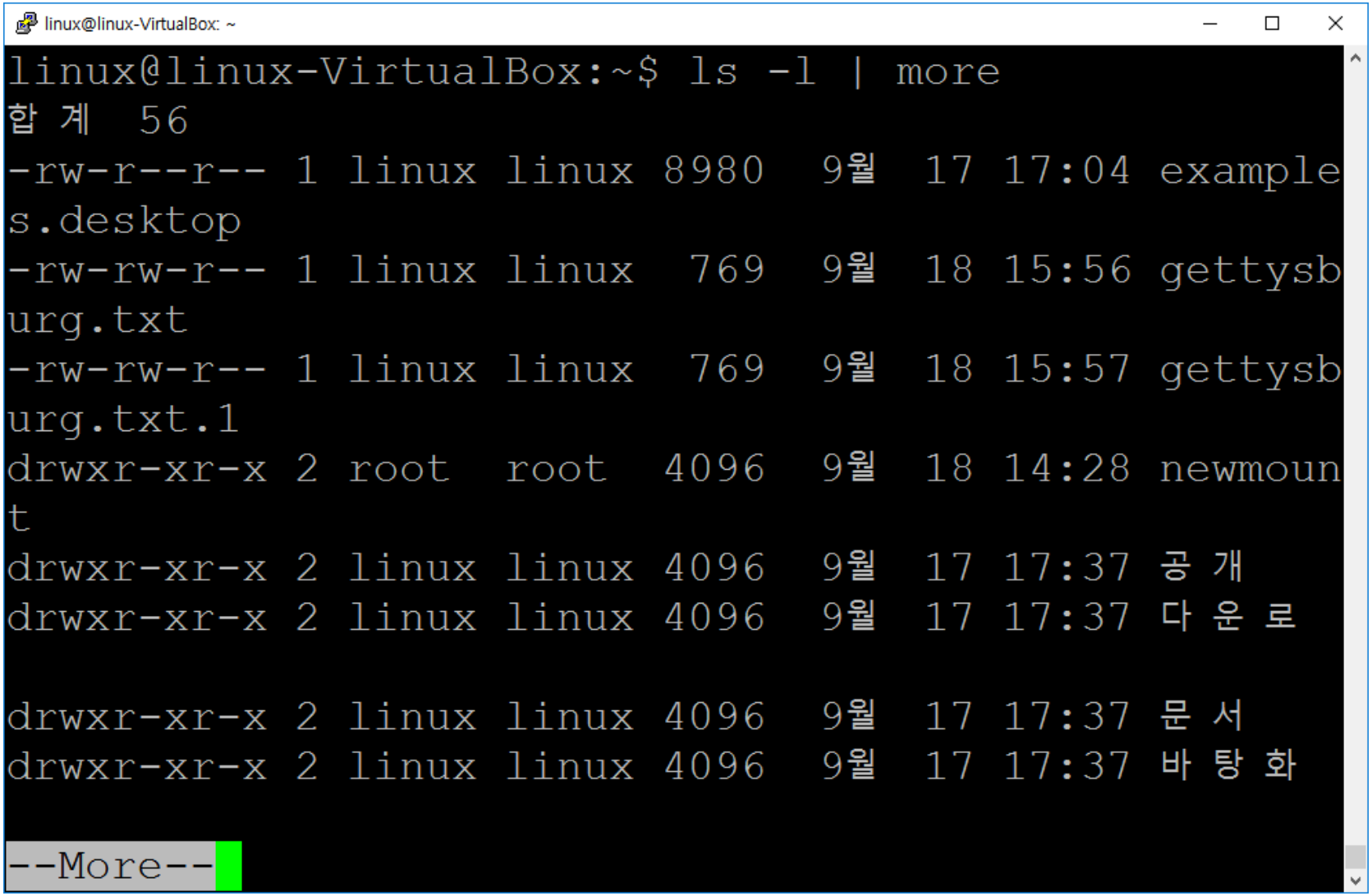
- **The non-interactive network downloader**
  - **Try: wget www.google.com -O google.html**



Pipe

- **Pipe (|)**
  - **Pass the output of one command through the input of another command**
- **ls -l | more**
- **Pipe creates a temporary file to store the result of the first command**
- **Then this file becomes the input to second command**

Pipe

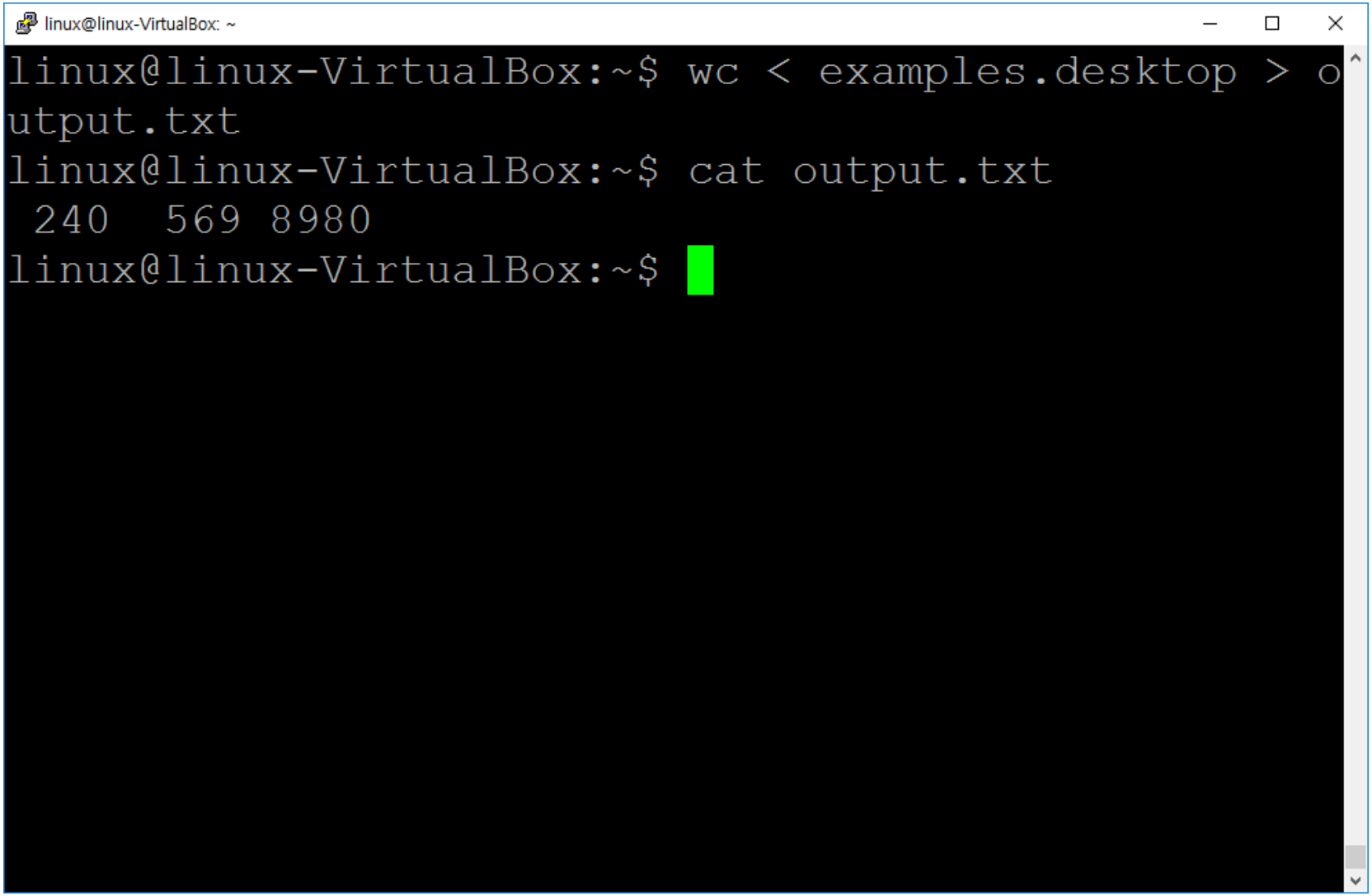

linux@linux-VirtualBox: ~
linux@linux-VirtualBox:~$ ls -l | more
합 계 56
-rw-r--r-- 1 linux linux 8980 9월 17 17:04 example
s.desktop
-rw-rw-r-- 1 linux linux 769 9월 18 15:56 gettysb
urg.txt
-rw-rw-r-- 1 linux linux 769 9월 18 15:57 gettysb
urg.txt.1
drwxr-xr-x 2 root root 4096 9월 18 14:28 newmoun
t
drwxr-xr-x 2 linux linux 4096 9월 17 17:37 공 개
drwxr-xr-x 2 linux linux 4096 9월 17 17:37 다 운 로
drwxr-xr-x 2 linux linux 4096 9월 17 17:37 문 서
drwxr-xr-x 2 linux linux 4096 9월 17 17:37 바 탕 화
--More--

Input and Output Redirection

- **Redirecting the input:**
  - **command < filename**
  - **Any input will read from that file (must be file).**
- **Redirecting the output**
  - **The simple > rewrites the output file**
  - **The double one >> appends to the file (must be file).**
- **command > filename**
- **command >> filename**

- **wc < examples.desktop > output.txt**

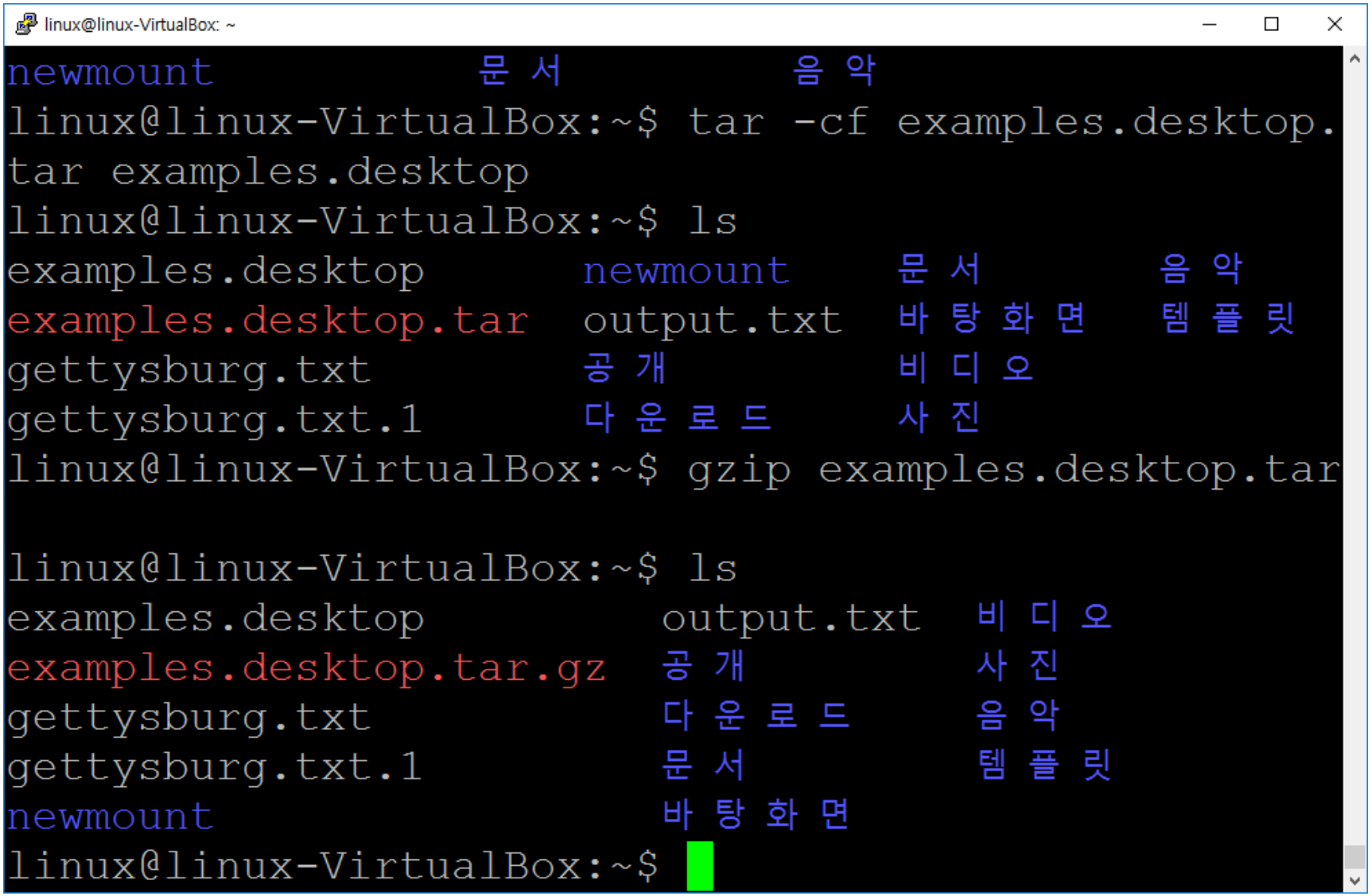
Input and Output Redirection



Compressing Files

- **Tar, gzip, gunzip**
- **tar**
  - **compress several files (directories) into one archive.**
  - **Options: cf for compressing, xf for decompressing.**
  - **Example: tar –cf examples.desktop.tar examples.desktop**
- **gzip**
  - **Compresses one file at a time.**
  - **Options: none to compress, -d to decompress.**
  - **Example: examples.desktop.tar**

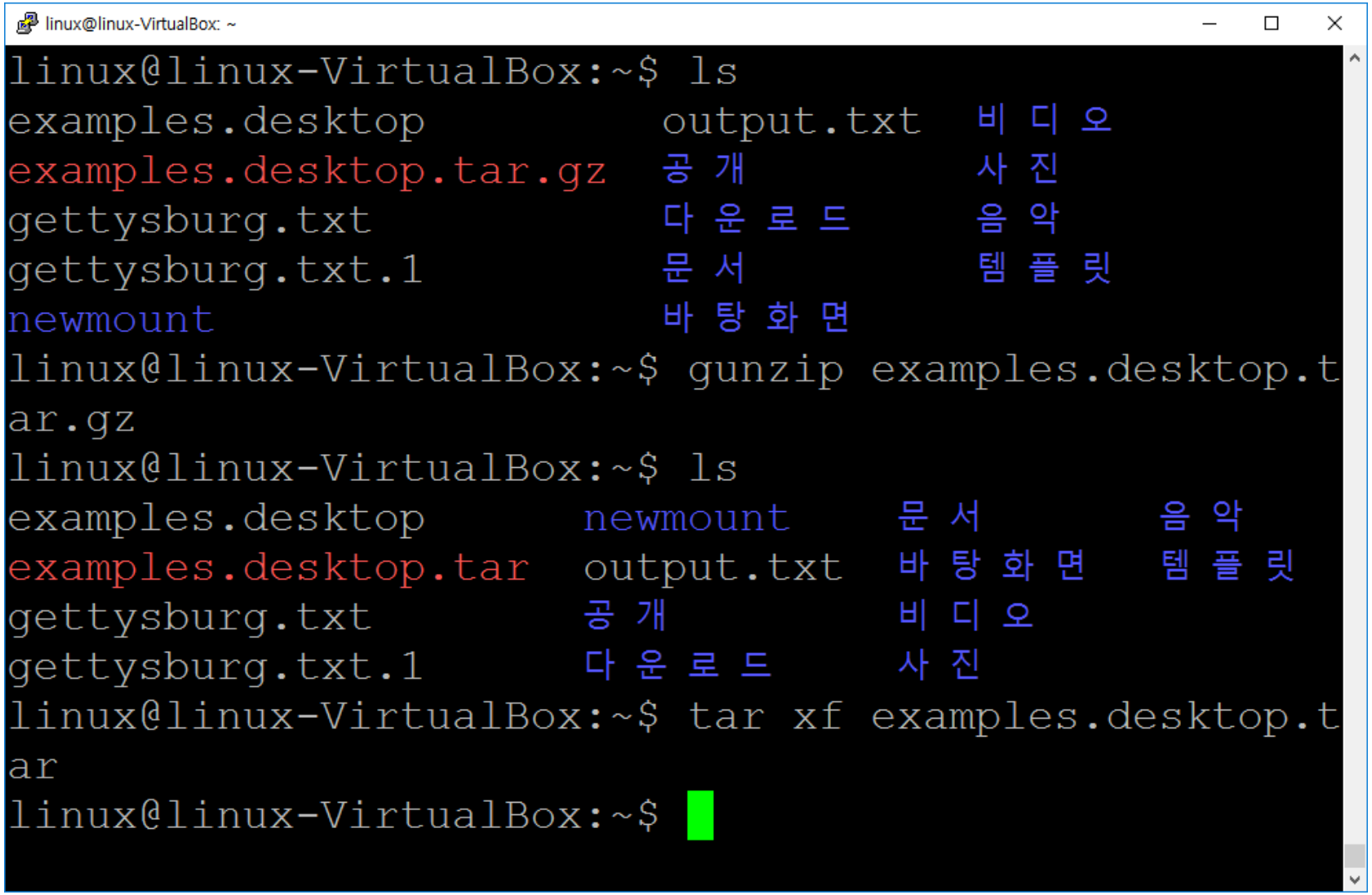
Compressing Files



Decompressing Files

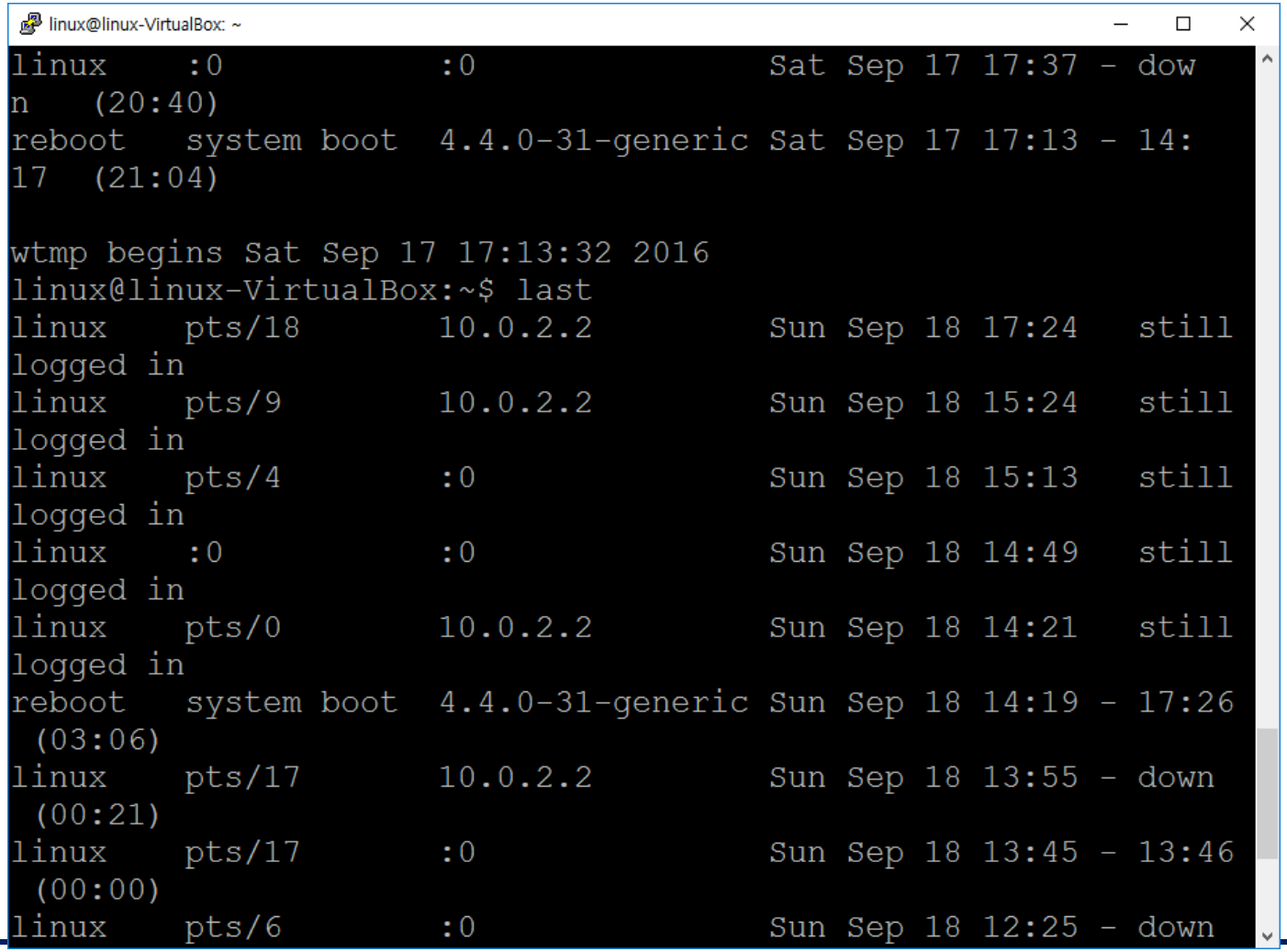
- **gzip –d examples.desktop.tar.gz (or gunzip examples.desktop.tar.gz)**
  - **We get examples.desktop.tar**
- **tar –xf examples.desktop.tar**
- **We get uncompressed files (folders)**

Decompressing Files



last

- **Show listing of last logged in users**



Assignment02

- **Prints word counts of files located in current directory**
  - **Hint : wc**
- **Compress a folder without using gzip**
  - **Hint : tar**
- **Sort all of files based on word count**
  - **Hint : wc and pipe**
- **Sort files in current directory based on file size**
  - **Hint : sort**
- **Print all of files containing “test” with ignoring case**
  - **Test, TEST, TeST, TESt**
  - **Hint : grep**
- **Prints all of files containing “test” in all directories**
  - **Hint : grep**

Assignment03

- **Find all empty directories**
  - **Hint : find**
- **Find all of the files older than 7 days**
  - **Hint : find**
- **Remove all of the files older than 7 days**
  - **Hint : find**
- **Find files between 1MB and 2MB size**
  - **Hint : find**