Contents

1 small tips

1.1 default directory

the directory of xdg-default were writen in /.config/usr-dirs.dirs. For example, if you want to set the default directory gnome search for wallpaper, you can change the value of "XDG_PICTURE_DIR" in that file to the directory path you want to.

1.2 number list

to put a list of continuous of number in vim, use :put = range(n,m), and will generated a list from n to m in document. if want random list, should use shell command :r! echo \$RANDOM [1] , and m is the limit of random.

to generate a continuous number list by shell, use seq \$BEGIN \$END, so for loop can use: for i in \$(seq \$BEGIN \$END);do ... or for i in {\$BEGIN .. \$END }; do ...

1.3 calculate

to calculate the sum of the first line in file, use:

$$\boxed{\text{awk 's+=\$1 END print s' } \textit{file\_include\_data}}$$

---

[1] :r! echo \$((\$RANDOM%m)) seems can not be used in vim

if the data is not in the first line, change $1.

and some times awk will get into bug if the sum exceeding 2^{31}, so use printf is a good choice: change the 'print s' to 'printf "%.0f", s'.

1.4 lambda function

python lambda function example: test = lambda x, n: [x[i:i+n] for i in range(0, len(x), n)] this can apart the string every n chars [2], and lambda function usually used for the functions needed in a short time, it can also use with filter() or map() function, the syntax of lambda function: "lambda arguments: expression"

1.5 hex conversion

```
awk '{print "ibase=10;obase=2;" $1 }' $file |bc |xargs printf "%08d\n"
```

this can convert every line in $file from decimal to binary of 8 bits.

"xxd -p" can print only the value, no line number and characters.

python convert hex to bin: bin(int[3](str, 16))[2:]

1.6 mail in command line

config before use "mail" command to send e-mail: edit config file[4], add these lines:

set from="*your_email_address*" smtp="*smtp_address_of_your_mail_server*"

set smtp-auth-user="*your_email_address*" smtp-auth-password="*your_password*"

set smtp-auth=login set smtp-use-starttls(this enable SSL)

1.7 cron table

set cron work:

use crontab -e, and add work in the file, the format is: *min hour day month year work*.

1.8 merge output

if you want to use the output of multi command as input by pipe, then you need to parenthesis these two commands, such as:

(echo "test" ; cat hello.txt) |mail -s "test" username@mailaddress

---

[2]this can use re.findall('..?',str) to replace

[3]int() function have two arguments, the first is string of number, and the last is the base of this number, for example, int('AB9', 16) can get $2745((2745)_{10} = (AB9)_{16})$.

[4]archlinux use /etc/mail.rc, ubuntu use /etc/s-nail.rc

1.9   distro check

if you want to check your distro without screenfetch or neofetch installed, you can use: "cat /etc/*-release", then it will output the distro information of your distro.

1.10   different authority for different user

if you want to make different users have different authority to a certain file, you can use $setfacl$: for example, if you want to set all authority to $file$ file with group $group$, you can use:

$$\boxed{\text{setfacl -m g:}group\text{:}rwx\text{ -R}^5 file}$$

and then use:"setfacl -m g:[6]test:r -R file"to set only read authority to group test.

1.11   use footnote in table or other environments

use \footnotemark in the position you need to note, and then use \footnotetext{$your\_footnote$} out the environment.

1.12   list directory by size

$$\boxed{\text{du -sh -B } BLOCKSIZE * / \text{ |sort -nr}}$$

This command will list your subdirectory in currect directory by size and from big to small, $BLOCKSIZE$ such as M, it will output the size by certain format, $*/$ is path, you can also use another path replace it, but you should add "/*" in the tail.

1.13   get some informations in sqlite

1.13.1   get column names from certain table

if you are in sqlite command, you can execute '.schema $table\_name$' to get it;
  or if you are in python or you just want to use sql command to get it, you can try:

$$\boxed{\text{SELECT sql FROM sqlite\_master WHERE tbl\_name = '}table\_name\text{' AND type = 'table'}}$$

---

[5]-R is to use recursive
[6]for user, use u:

1.13.2   get tables names from current dbfile

if you are in sqlite command, you can execute '.tables' to get it;

  or if you are in python or you just want to use sql command to get it, you can try:

```
SELECT name FROM sqlite_master WHERE type = 'table'
```

1.14   batch rename file with sequential numbers

Firstly, set a variable:

```
a=1
```

  and then execute the while loop (or for loop):

```
ls *.jpg | while read line;do mv $line ` printf "%03d.jpg" "$a" ` ;let a=a+1;done
```

1.15   some tips of regular expression

  To change a certain line a a certain text block, you can use:

```
sed -i "/pattern1/,/pattern2/s/origin_pattern/dest_pattern/g" filename
```