## 文件目录管理

### ls - List directory contents

命令描述：列出目录里的内容的信息，默认是列出当前目录的信息，按字母排序，

命令语法：**ls [OPTION]... [FILE]...**

命令参数：

-a, --all do not ignore entries starting with。

-l use a long listing format

-A, --almost-all do not list implied . and .

-F, --classify append indicator (one of \*/=>@|) to entries

-r, --reverse reverse order while sorting

-R, --recursive list subdirectories recursively

-t sort by modification time

$ ls -ltr s\*

列出目前工作目录下所胡名名称是s开头的文件，越新的排越后面

$ ls –lR /bin

将/bin目录以下所胡目录及文件详细资料列出

$ ls –AF

列出目前工作目录下所胡文件及目录，目录名称后加”/”,可执行档后加“\*”

### mkdir - Make directories

命令描述：如果该目录不存在，创建一个目录，

命令语法: SYNOPSIS mkdir [OPTION]... DIRECTORY...

命令参数：**-p, --parents** no error if existing, make parent directories as needed

-m, --mode=MODE set file mode (as in chmod), not a=rwx - umask

$ mkdir /data

在根目录下创建一个data文件。

$ mkdir -p /sandow/word

首先创建sandow文件然后再创建word文件

$ mkdir a b c

创建多个文件a b c

### rmdir remove empty directories

命令描述：删除空目录，

命令语法: rmdir [OPTION]... DIRECTORY...

命令参数：-p, --parents

### cd - change directory

命令描述：更改当前工作目录，默认目录为家目录

命令语法: cd [-L|-P] [dir]

命令参数：-p, --parents

$ cd /

切换到根目录

$ cd ~

切换到home 目录

$ cd ../..

跳到目前目录的上上两层

### mv - Move (rename) files

命令描述：移动目录，或者更改文件名字

命令语法: mv [OPTION]... [-T] SOURCE DEST

mv [OPTION]... SOURCE... DIRECTORY

mv [OPTION]... -t DIRECTORY SOURCE...

命令参数：

-f, --force do not prompt before overwriting

-i, --interactive rompt before overwrite

$ mv aaa bbb

将文件aaa更名为bbb

$ mv /data /tmp/

把文件夹data移动到tmp下

$ mv /data/ /tmp/

把文件夹data里的内容移动到tmp下

$ mv /usr/student/\* .

把student下的所有文件移动到当前目录下

### rm - Remove the files or directories

命令描述：删除文件或者目录，取消链接

命令语法: rm [OPTION]... FILE...

命令参数：

-r, -R, --recursive remove directories and their contents recursively

-f, --force ignore nonexistent files, never prompt

-i prompt before every removal

$ rm –f test.txt

强制删除test.txt不做提示

$ rm –r homework

删除文件夹homework

**rm 删除文件或目录，默认会提示确认，用-f 强制删除文件， -r 删除目录 删除是危险动作，用mv或者用 find删除**

### pwd - Print name of current/working directory

SYNOPSIS **pwd [OPTION]...**

DESCRIPTION Print the full filename of the current working directory.

**-L, --logical** use PWD from environment, even if it contains symlinks

**-P, --physical** avoid all symlinks

### tree - List contents of directories in a tree-like format.

$ mkdir -p 1/2/3 1/3/5

$ ls

1 VMwareTools-9.9.3-2759765.tar.gz

$ tree

.

|-- 1

| |-- 2

| | `-- 3

| `-- 3

| `-- 5

`-- VMwareTools-9.9.3-2759765.tar.gz

5 directories, 1 file

### cp - Copy files and directories

SYNOPSIS

cp [OPTION]... [-T] SOURCE DEST  
  cp [OPTION]... SOURCE... DIRECTORY

  cp [OPTION]... -t DIRECTORY SOURCE...

DESCRIPTION Copy SOURCE to DEST, or multiple SOURCE(s) to DIRECTORY.

把原文件（可以是多个）copy到目标文件

-a, --archive same as -dR --preserve=all 在复制目录时使用，保留链接，文件属性，并复制目录下的所有内容

-d same as --no-dereference --preserve=links 复制时保留链接（windows快捷方式）

-f, --force if an existing destination file cannot be opened, remove it and try again (redundant if the -n option is used)

-i, --interactive prompt before overwrite (overrides a previous -n option)

-p same as --preserve=mode,ownership,timestamps 复制内容，修改时间和访问权限

-R, -r, --recursive copy directories recursively

-l, --link link files instead of copying

-u, --update copy only when the SOURCE file is newer than the destination file or when the destination file is missing

$ cp –r test /newtest/file1

将file复制到目录/newtest下并改名为file1

**复制而不显示提示**

touch /mnt/test.txt /tmp/test.txt

\cp /mnt/test.txt /tmp/

/bin/cp /mnt/test.txt /tmp

**% 加全径**

### find - search for files in a directory hierarchy

SYNOPSIS find [-H] [-L] [-P] [-D debugopts] [-Olevel] [path...] [expression]

DESCRIPTION

find searches the directory tree rooted at each given file name by evaluating the given expression from left to right, according to the rules of precedence (see section OPERATORS), until the outcome is known (the left hand side is false for and operations, true for or), at which point find moves on to the next file name. more useful source of information.

-type c

File is of type c:

b block (buffered) special

c character (unbuffered) special

d directory

p named pipe (FIFO)

f regular file

l symbolic link; this is never true if the -L option or the -follow option is in effect, unless the symbolic link is broken.If you want to search for symbolic links when -L is in effect, use -xtype.

s socket

D door (Solaris)

#### ACTIONS

**-delete**

Delete files; true if removal succeeded. If the removal failed, an error message is issued. If -delete fails, find's exit status will be nonzero (when it eventually exits). Use of -delete automatically turns on the '-depth' option.

**-exec command;**

Execute command; true if 0 status is returned. All following arguments to find are taken to be arguments to the command until an argument consisting of ';' is encountered. The string '{}' is replaced by the current file name being processed everywhere it occurs in the arguments to the command, not just in arguments where it is alone, as in some versions of find. Both of these constructions might need to be escaped (with a '\') or quoted to protect them from expansion by the shell. See the EXAMPLES section for examples of the use of the -exec option. The specified command is run once for each matched file. The command is executed in the starting directory. There are unavoidable security problems surrounding use of the -exec action; you should use the -execdir option instead.

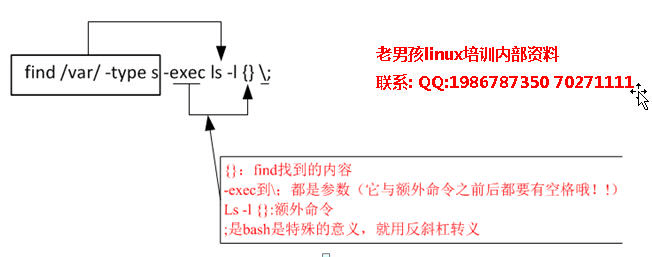
**-exec command {} +**

This variant of the -exec action runs the specified command on the selected files, but the command line is built by appending each selected file name at the end; the total number of invocations of the command will be much less than the number of matched files.The command line is built in much the same way that xargs builds its command lines. Only one instance of '{}' is allowed within the command. The command is executed in the starting directory.

-exec 参数后面跟的是command命令，它的终止是以;为结束标志的，所以这句命令后面的分号是不可缺少的，考虑到各个系统中分号会有不同的意义，所以前面加反斜杠。

{} 花括号代表前面find查找出来的文件名。

exec选项后面跟随着所要执行的命令或脚本，然后是一对儿 {}，一个空格和一个\，最后是一个分号。



$ ls

dependency\_links.txt entry\_points.txt not-zip-safe pbr.json PKG-INFO requires.txt SOURCES.txt top\_level.txt

$ find . -type f -exec ls -l {} \;

-rw-r--r--. 1 501 games 9533 Aug 23 06:47 ./SOURCES.txt

-rw-r--r--. 1 501 games 1 Aug 23 06:47 ./not-zip-safe

-rw-r--r--. 1 501 games 68 Aug 23 06:47 ./entry\_points.txt

-rw-r--r--. 1 501 games 1961 Aug 23 06:47 ./PKG-INFO

-rw-r--r--. 1 501 games 1 Aug 23 06:47 ./dependency\_links.txt

-rw-r--r--. 1 501 games 46 Aug 23 06:47 ./pbr.json

-rw-r--r--. 1 501 games 4 Aug 23 06:47 ./top\_level.txt

-rw-r--r--. 1 501 games 56 Aug 23 06:47 ./requires.txt

$ find /etc -name “passwd” -exec grep “root” {} \;

%找到名这passwd的文件然后执行grep 查看这些文件中是否存在一个root用户

$ find /etc -name "passwd" -exec grep "root" {} \;

root:x:0:0:root:/root:/bin/bash

operator:x:11:0:operator:/root:/sbin/nologin

$ find . -name "\*.txt" -exec cp {} /Data/pip-7.1.2/abc \;

**找到后缀名为txt的文件复制到abc里(原abc为空)**

$ find . -name "\*.txt" -exec cp {} /Data/pip-7.1.2/abc/ \;

$ cd /Data/pip-7.1.2/abc/

$ ls

dependency\_links.txt entry\_points.txt requires.txt SOURCES.txt top\_level.txt

find . -name "\*.log" -exec mv {} .. \;

**%找到后缀名为log的文件移动到上一级目录**

$ ls

abc AUTHORS.txt build CHANGES.txt docs LICENSE.txt MANIFEST.in pip pip.egg-info PKG-INFO README.rst setup.cfg setup.py

$ cd pip.egg-info/

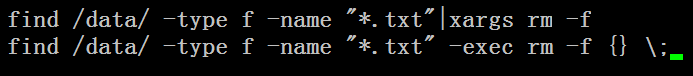
$ find . -name "\*.txt" -exec cp {} .. \;

$ cd ..

$ ls

abc build dependency\_links.txt entry\_points.txt MANIFEST.in pip.egg-info README.rst setup.cfg SOURCES.txt AUTHORS.txt CHANGES.txt docs LICENSE.txt pip PKG-INFO requires.txt setup.py top\_level.txt

$find / -type f -name "hosts" -exec rm -f {} \:



$ find /data –type f ! –name "8"|xargs rm –f

$ find /data –type f|grep –v 8|xargs rm -f

$find /root/data  -type f ! -name "oldboy.txt" |xargs rm -f  
-type：表示文件类型  
-name：表示文件名称  
!表示取反，用在参数前面  
$ find ./ -type f -o -name "\*.txt"  
-o或者，相当于or  
-a并且，相当于and  
$ find /oldboy/test/ -type f -name "access\*.log" -mtime +7|xargs rm –f  
-mtime 按修改时间  
+7  7天以前  
-7  最近7天

7   7天前

find /tmp -type f -name  "\*.txt" |xargs

find /tmp -type f -name  "\*.txt" |xargs -n 3

-fls file

True; like -ls but write to file like -fprint. The output file is always created, even if the predicate is never matched. See the UNUSUAL FILENAMES section for information about how unusual characters in filenames are handled.

-fprint file

True; print the full file name into file file. If file does not exist when find is run, it is created; if it does exist, it is truncated. The file names '/dev/stdout' and '/dev/stderr' are handled specially; they refer to the standard output and standard error output, respectively. The output file is always created, even if the predicate is never matched. See the UNUSUAL FILENAMES section for information about how unusual characters in filenames are handled.

-fprint0 file

True; like -print0 but write to file like -fprint. The output file is always created, even if the predicate is never matched. See the UNUSUAL FILENAMES section for information about how unusual characters in filenames are handled.

-fprintf file format

True; like -printf but write to file like -fprint. The output file is always created, even if the predicate is never matched. See the UNUSUAL FILENAMES section for information about how unusual characters in filenames are handled.

-ls True; list current file in ls -dils format on standard output. The block counts are of 1K

-print True; print the full file name on the standard output, followed by a newline. If you are piping the output of find into another program and there is the faintest possibility that the files which you are searching for might contain a newline, then you should seriously consider using the -print0 option instead of -print. See the UNUSUAL FILENAMES section for information about how unusual characters in filenames are handled.

-print0

True; print the full file name on the standard output, followed by a null character (instead of the newline character that -print uses). This allows file names that contain newlines or other types of white space to be correctly interpreted by programs that process the find output. This option corresponds to the -0 option of xargs.

-printf format

True; print format on the standard output, interpreting '\' escapes and '%' directives. Field widths and precisions can be specified as with the 'printf' C function. Please note that many of the fields are printed as %s rather than %d, and this may mean that flags don't work as you might expect. This also means that the '-' flag does work (it forces fields to be left-aligned). Unlike -print, -printf does not add a newline at the end of the string. The escapes

and directives are:

\a Alarm bell.

\b Backspace.

\c Stop printing from this format immediately and flush the output.

\f Form feed.

\n Newline.

\r Carriage return.

\t Horizontal tab.

\v Vertical tab.

\0 ASCII NUL.

\\ A literal backslash ('\').

### touch - Change file timestamps

SYNOPSIS **touch [OPTION]... FILE...**

DESCRIPTION: Update the access and modification times of each FILE to the current time. A FILE argument that does not exist is created empty, unless -c or -h is supplied. A FILE argument string of - is handled specially and causes touch to change the times of the file associated with standard output.

更新文件或者目录的时间属性，包括存取时间和更改时间。若文件不存在，就建立一个新的文件如果给定参数-c –h，便不会创建

Options:

-a change only the access time 改变档案的读取时间记录

-m change only the modification time 改变档案的修改时间记录

-c, --no-create do not create any files

-d, --date=STRING parse STRING and use it instead of current time

-r, --reference=FILE use this file times instead of current time

-t STAMP use [[CC]YY]MMDDhhmm[.ss] instead of current time

$ touch testfile

%修改文件的时间属性(若不存在)； 创建名为”testfile”的新空白文件

$ touch /tmp/stu{1..12}.txt

%批量创建多个文件

### chattr - change file attributes on a Linux file system

命令描述: 改变文件的属性

The format of a symbolic mode is +-=[acdeijstuADST]. 加属性，减属性以及

The operator '+' causes the selected attributes to be added to the existing attributes of the files; '-'

causes them to be removed; and '=' causes them to be the only attributes that the files have.

命令语法: chattr [ -RVf ] +-=[acdeijstuADST] [ -v version ] [ mode ] files...

命令参数:

-i 锁定系统文件

chattr + i /etc/passwd /etc/shadow /etc/group /etc/gshadow /etc/inittab

lsattr /etc/passwd

----i--------e- /etc/passwd

### lsattr - list file attributes on a Linux second extended file system

命令描述：列出linux EXT2文件系统的属性

命令语法：lsattr [ -RVadv ] [ files... ]

命令参数：

-R Recursively list attributes of directories and their contents.递归显示目录以及其包含内容的属性

-V Display the program version.显示程序版本

-a List all files in directories, including files that start with '.' 列出所有目录下的文件，包括以.开头的文件

-d List directories like other files, rather than listing their contents.

-v List the file's version/generation number.