# Linux 命令备忘

## awk ( a language) Used to get column

awk –F “分隔符” ‘{print $1}’ file # $n 第几列 $NF 最后一列 $(NF-1)

NR 行号 $0 代表整行

[root@redis-cluster data]# awk '{print $2}' awktest

[root@redis-cluster data]# awk -F ":" '{print $1}' /etc/passwd

[root@redis-cluster data]# awk -F ":" '{print $NF}' /etc/passwd

[root@redis-cluster data]# awk '{if(NR<31 && NR>19) printf $1"\n"}' tt.txt

 ifconfig eth0|grep 'inet addr'|awk -F ":" '{print $2}'|awk '{print $1}' #取IP

[root@centos6-server data]# ifconfig eth0|grep 'inet addr'|awk -F '[ :]' '{print $13}

[root@centos6-server data]# ifconfig eth0 |awk -F '[ :]+' 'NR==2 {print $4}

[root@centos6-server data]# ifconfig eth0 |awk -F '[: ]+' 'NR==2 {print $4}' #分隔符可以是多个

### awk array:

[root@centos6-server ~]# awk 'BEGIN{array[1]="oldboy";array[2]="oldgirl";for(key in array) print key,array[key]}'

1 oldboy

2 oldgirl

[root@centos6-server ~]# cat array.awk

#!/bin/awk

BEGIN{

array[1]="oldboy";

array[2]="oldgirl";

for(key in array)

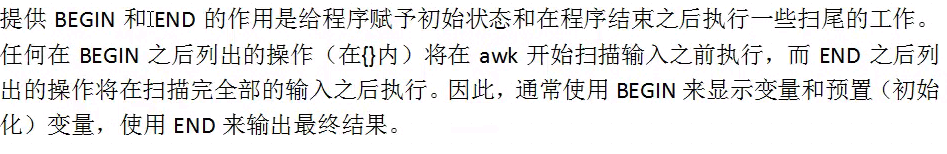
print key,array[key]

}

[root@centos6-server ~]# awk -f array.awk

1 oldboy

2 oldgirl



[root@centos6-server ~]# awk 'BEGIN{array[1]="oldboy";array[2]="oldgirl";i}END{for(key in array) print key,array[key]}' /etc/hosts



[root@centos6-server ~]# awk '{S[$1]=$2}END{for(k in S) print k, S[k]}' t3.log

1 oldboy

2 oldgirl

[root@centos6-server ~]# cat t3.log

1 oldboy

2 oldgirl

[root@centos6-server ~]# awk -F "/" '{s[$3]=s[$3]+1}END{for(k in s) print k, s[k]}' url.txt

mp3.vipshop.com 1

www.vipshop.com 3

post.vipshop.com 2



[root@centos6-server ~]# awk '{A[$1]++}END{for(k in A) print k, A[k]}' access-test.log |sort -r -t " " -k2

10.0.0.3 775

10.0.0.124 5

10.0.0.132 2

10.0.0.120 2

10.0.0.108 2

10.0.0.100 1

[root@centos6-server ~]# awk '/^tcp/ {A[$6]=A[$6]+1}END{for(k in A) print k, A[k]}' netstat.log |sort -k2 -rn

TIME\_WAIT 105

ESTABLISHED 101

FIN\_WAIT2 55

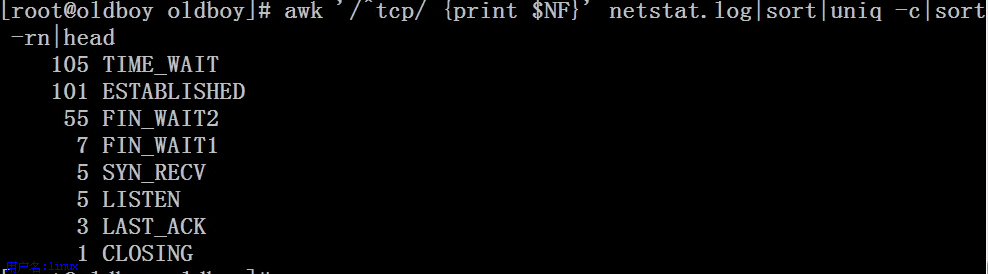
FIN\_WAIT1 7

SYN\_RECV 5

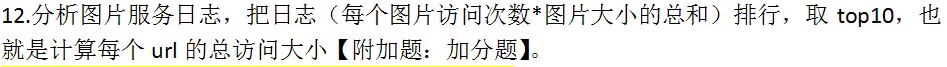
LISTEN 5

LAST\_ACK 3

CLOSING 1



解决机器流量突然变大的问题



[root@centos6-server ~]# awk '{A[$7]++;S[$7]=$10}END{for(k in A) print k, A[k], S[k], A[k]\*S[k]}' access\_2010-12-8.log |sort -rn -k4

/static/js/jquery-jquery-1.3.2.min.js 1 57254 57254

/?= 1 46232 46232

//back/upload/course/2010-10-25-23-48-59-048-18.jpg 1 44286 44286

/static/images/photos/2.jpg 3 11299 33897

/back/upload/teacher/2010-08-30-13-57-43-06210.jpg 1 11809 11809

/back/upload/teacher/2010-08-06-11-39-59-0469.jpg 1 10850 10850

/static/js/addToCart.js 1 6417 6417

/static/js/web\_js.js 1 4460 4460

/static/js/default.js 1 2686 2686

/static/js/common.js 1 1861 1861

/static/js/jquery.lazyload.js 1 1627 1627

/static/js/cookieUtil.js 1 955 955

/cms/cmtweb!getCommentListBySource.action 1 433 433

/static/web/coursesort/5.shtml 1 255 255

/messagebroker/amf 2 117 234

/static/flex/vedioLoading.swf 2 – 0

[root@locatest scripts]# awk '{print $7"\t" $10}' access\_2010-12-8.log|awk '{S[$1]+=$2;S1[$1]+=1}END{for(i in S) print S[i],S1[i],i}'|sort -rn|head -10 >2.log

## find

[root@redis-cluster data]# find . -type f ! -name "oldboy\*" |xargs rm –rf

[root@redis-cluster data]# find . -type f ! -name "oldboy\*" –exec rm –rf {} \;

[root@redis-cluster data]# find . -type f -name "test.txt" |xargs sed -i 's#leo#leo.song#g'

[root@redis-cluster data]# find . -type f -name "test.txt" -exec sed -i 's#leo#leo.song#g' {} \;

-a and –o or

找最近7天的文件，并保留下来

[root@centos6-server data]# find . -type f -name "\*" -mtime +7|xargs rm –f

[root@centos6-server data]# find . -type f -name "\*" -mtime +7 –exec rm –f {} \;

tar zcvf test.tar.gz `find /oldboy –type f`

find /oldboy/ -type f|xargs tar zcvf oldboy.tar.gz

## sed

sed –n ‘/过滤内容/处理命令’ 文件

sed ‘/oldboy/d’ test.txt #d Delete pattern space.

-n 取消sed 默认输出 -i 改变文件内容

[root@redis-cluster data]# sed -n '20,30p' tt.txt

sed ‘s###g’ filename s: 查找替换 g: 全局 #分隔符 可用其它的

[root@redis-cluster data]# sed 's#oldboy#leo#g' test.txt

[root@redis-cluster data]# sed -i 's#oldboy#leo#g' test.txt #change file content

[root@centos6-server data]# stat /etc/hosts|sed -nr 's#^.\*\(0(.\*)/-.\*$#\1#gp'

[root@centos6-server data]# stat test.txt|sed -n '4p'|sed 's#^.\*(0##g'|sed 's#/-r.\*##g' #644

[root@centos6-server data]# stat /etc/hosts|awk -F '[0/]' 'NR==4 {print $2}'

关闭selinux

sed -i 's#SELINUX=enforcing#SELINUXdisabled#' /etc/selinux/config (重启生效)

setenforce 0 (既时生效)

取IP：

[root@centos6-server data]# ifconfig eth0|sed -n '2p'|sed -r 's#.\*addr:##g'|sed -r 's# .\*##g'

[root@centos6-server data]# ifconfig eth0|sed -n '2p'|sed -r 's#^.\*dr:(.\*) Bc.\*$#\1#g'

[root@centos6-server data]# ifconfig eth0|sed -nr '2 s#^.\*dr:(.\*) Bc.\*$#\1#gp'

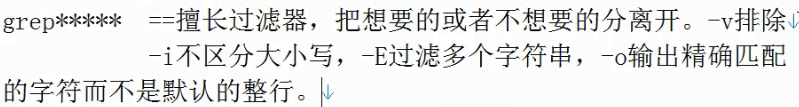
替换某个目录及其子目录下的文件：

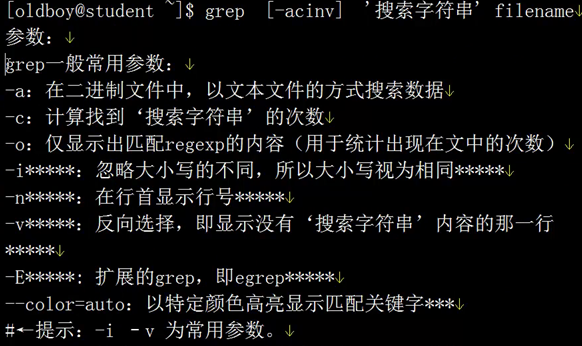
sed -i s#'$HADOOP\_HOME'#/home/app#g `grep HADOOP\_HOME -rl ./`

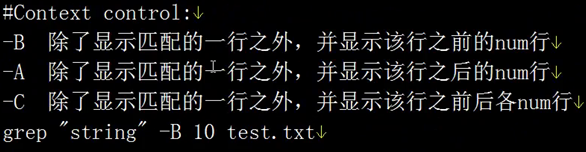
补充安装：

[root@redis-cluster data]# yum install tree nmap sysstat lrzsz dos2unix –y

## grep







[root@centos6-server data]# grep IPADDR /etc/sysconfig/network-scripts/ifcfg-eth0 |cut -d= -f2

grep –v “^$” oldboy.tx # 去空行

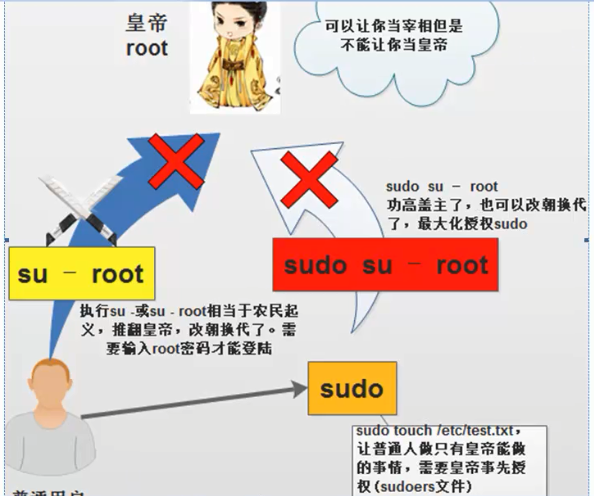
## cp 复制文件时不提示（取消别名）

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

\cp /mnt/test.txt /tmp

unalias cp 只在命令行中生效

## sudo



visudo == vi /etc/sudoers

97 ## Allow root to run any commands anywhere

98 root ALL=(ALL) ALL

99 leo ALL=(ALL) ALL

99 leo ALL=(ALL) /bin/touch, /usr/sbin/useradd

sudo 时不需要输入密码：

leo ALL=(ALL) NOPASSWD: ALL

## 修改用户密码

[root@centos6-server ~]# echo leo|passwd --stdin leo

Changing password for user leo.

passwd: all authentication tokens updated successfully

## mount

[root@centos6-server ~]# dd if=/dev/zero of=/opt/sdb1 bs=4096 count=100 #模拟设备

[root@centos6-server ~]# mkfs.ext4 /opt/sdb1 #格式化

[root@centos6-server ~]# mount -t ext4 -o loop,noatime,noexec /opt/sdb1 /mnt #挂载

挂载方式2：

[root@centos6-server /]# vi /etc/fstab #添加下面一行

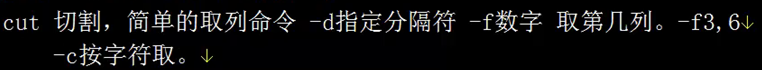
/dev/sdb1 /mnt ext4 loop,noatime,noexec 0 0

生效： mount –a 或者重启

NFS网络文件系统挂载时，网卡还没起，就已经加载fstab了。

所以网络挂载要放在 /etc/rc.local 里面

## cut



[root@centos6-server data]# echo "I am leo my qq is 46179140" >> leo.txt

[root@centos6-server data]# awk '{print $3 " "$7}' leo.txt

[root@centos6-server data]#

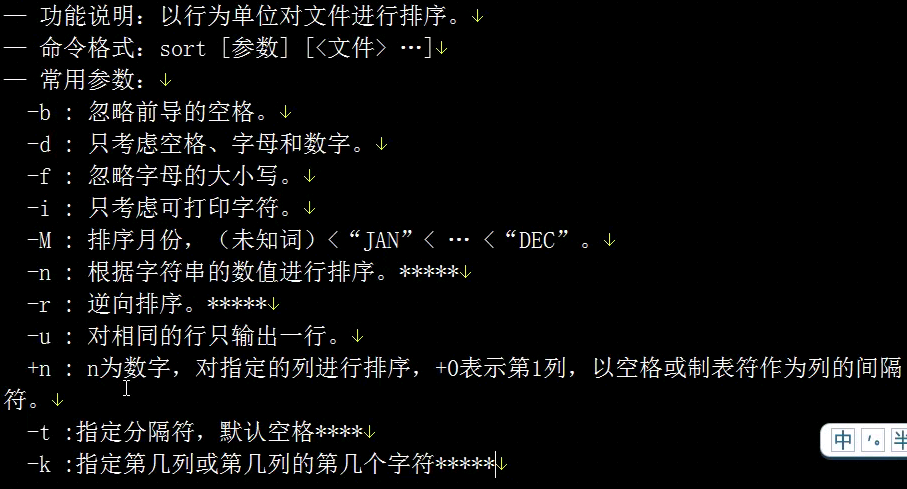
## date

[root@centos6-server data]# date +%F\ %H:%M:%S #\ 转义空格

[root@centos6-server data]# date +%F\ %T

2016-02-18 17:21:40

## sort



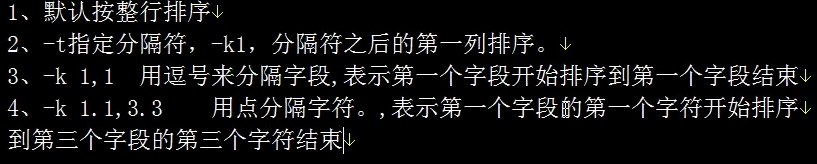
[root@centos6-server ~]# sort -u uniq.txt

10.0.0.7

10.0.0.8

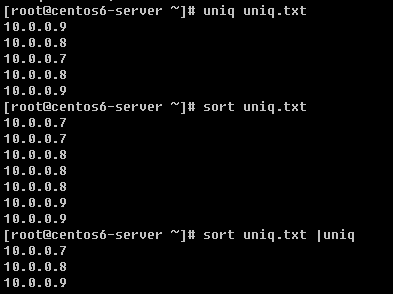
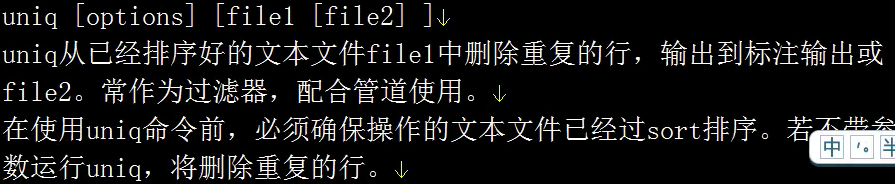
10.0.0.9

指定字段分隔排序





## uniq



#去重计数

[root@centos6-server ~]# sort uniq.txt |uniq -c

2 10.0.0.7

3 10.0.0.8

2 10.0.0.9

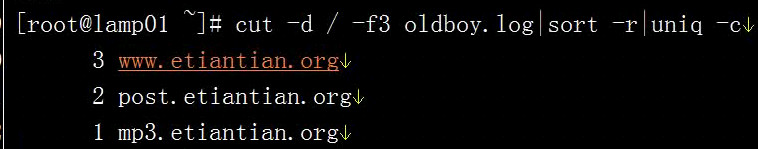


[root@centos6-server ~]# awk -F / '{print $3}' url.txt |sort -r|uniq -c

3 www.vipshop.com

2 post.vipshop.com

1 mp3.vipshop.com



# 精简开机启动服务

## 必要的服务

sshd, rsyslog, network, crond, sysstat

## 取消服务开机启动

* setup system services
* ntsysv
* cmd :

[root@centos6-server nginx]#

for name in `chkconfig --list|grep 3:on|awk '{print $1}'|

grep -Ev "sshd|rsyslog|crond|network|sysstat"`;do chkconfig $name off; done

[root@centos6-server nginx]# chkconfig --list|grep 3:on|awk '{print $1}'|

grep -Ev "sshd|rsyslog|crond|network|sysstat"|sed -r 's#(.\*)#chkconfig \1 off#g'|bash

[root@centos6-server nginx]# chkconfig --list|grep 3:off|awk '{print $1}'|grep -Ev "sshd|rsyslog|crond|network|sysstat"|awk '{print "chkconfig "$1 " off"}'

## /etc/ssh/sshd\_config 优化

修改前备份文件

port 修改为15222

useDNS no

PermitRootLogin no

ListenAddress 内网地址建议

GSSAPIAuthentication no 解决多台机器间SSH连接慢的问题

修改后比对： diff/vimdiff

sed -ir '13 iPort 22\nPermitRootLogin no\nUseDNS no\nGSSAPIAuthentication no'

sshd\_config

## 优化终端超时及历史记录数

[root@centos6-server data]# echo "#change terminal timeout and history count: " >> /etc/profile

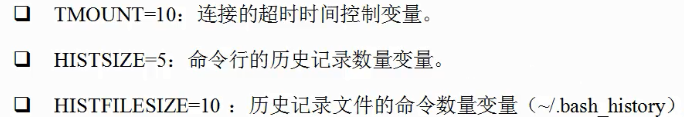
[root@centos6-server data]# echo "export TMOUT=10" >> /etc/profile

[root@centos6-server data]# timed out waiting for input: auto-logout

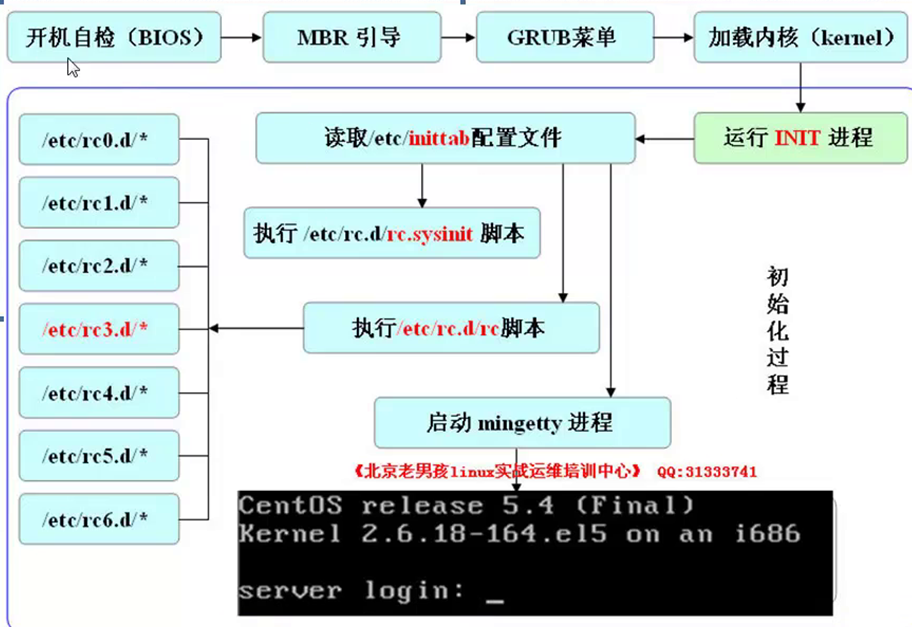
[root@centos6-server ~]# echo "export HISTSIZE=100" >> /etc/profile

[root@centos6-server ~]# echo "export HISTFILESIZE=100" >> /etc/profile

[root@centos6-server data]# source /etc/profile



## 启动流程





# 系统应用优化

## 时间同步

ntpdate 1.cn.pool.ntp.org

[root@centos6-server data]#

echo "\*/5 \* \* \* \* /usr/sbin/ntpdate 1.cn.pool.ntp.org >/dev/null 2>&1" >> /var/spool/cron/root

## 2．文件描述符

查看 ulimit –n 临时修改： ulimit -SHn 65535

永久修改 ： echo “ulimit –SHn 65535” > /etc/rc.locl

[root@centos6-server ~]# echo '\* - nofile 65535' >> /etc/security/limits.conf

## 3. 内核参数优化

内核参数文件： /etc/sysctl.conf

#------------------------------------------------------------------

net.ipv4.tcp\_fin\_timeout = 2

net.ipv4.tcp\_tw\_reuse = 1

net.ipv4.tcp\_tw\_recycle = 1

net.ipv4.tcp\_syncookies = 1

net.ipv4.tcp\_keepalive\_time = 600

net.ipv4.ip\_local\_port\_range = 4000 650000

net.ipv4.tcp\_max\_syn\_backlog = 16384

net.ipv4.tcp\_max\_tw\_buckets = 18000

net.ipv4.route.gc\_timeout = 100

net.ipv4.tcp\_syn\_retries = 1

net.ipv4.tcp\_synack\_retries = 1

net.core.somaxconn = 16384

net.core.netdev\_max\_backlog = 16384

net.ipv4.tcp\_max\_orphans = 16384

#以下参数是对iptables防火墙的优化 防火墙不开会提示 可以忽略不理

#net.nf\_conntrack\_max = 25000000

#net.netfilter.nf\_conntrack\_max = 25000000

#net.netfilter.nf\_conntrack\_tcp\_timeout\_established = 180

#net.netfilter.nf\_conntrack\_tcp\_timeout\_time\_wait = 120

#net.netfilter.nf\_conntrack\_tcp\_timeout\_close\_wait = 60

#net.netfilter.nf\_conntrack\_tcp\_timeout\_fin\_wait = 120

[root@centos6-server ~]# sysctl –p

参考：

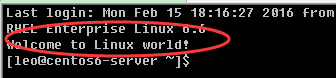
<http://yangrong.blog.51cto.com/6945369/1321594>

## 隐藏软件名和内核版本

[root@centos6-server ~]# > /etc/issue

登录后系统版本显示：

vi /etc/motd



## 锁定系统关键文件

/etc/passwd /etc/shadow /etc/group /etc/gshadow /etc/inittab /etc/hosts etc...

[root@centos6-server ~]# chattr +i /etc/passwd /etc/shadow /etc/group /etc/gshadow /etc/inittab

移除锁定：

[root@centos6-server ~]# chattr -i /etc/passwd /etc/shadow /etc/group /etc/gshadow /etc/inittab

[root@centos6-server ~]# mv `which chattr` /opt/ansafety #改变命令

## 禁PING 清理多余账号

[root@centos6-server ~]# grep -v "nologin$" /etc/passw

[root@centos6-server ~]# echo "net.ipv4.icmp\_echo\_ignore\_all = 1" >> /etc/sysctl.conf

[root@centos6-server ~]# sysctl -p

## grub菜单加密码

为grub菜单加密码的目的是防止他人修改grub做内核等启动设置，以及单用户模式破解root密码等操作。 操作步骤如下：

1. 先用/sbin/grub-md5-crypt 产生一个MD5 密码串，如下：

[root@centos6-server ~]# /sbin/grub-md5-crypt

Password:

Retype password:

$1$Whe/f$70TxDr32kqp16qzUNutLC0

1. 修改grub.conf 文件：

[root@centos6-server ~]# vi /etc/grub.conf



splashimage=(hd0,0)/grub/splash.xpm.gz

hiddenmenu

password --md5 $1$Whe/f$70TxDr32kqp16qzUNutLC0

title CentOS 6 (2.6.32-504.el6.x86\_64)

## 下载源修改

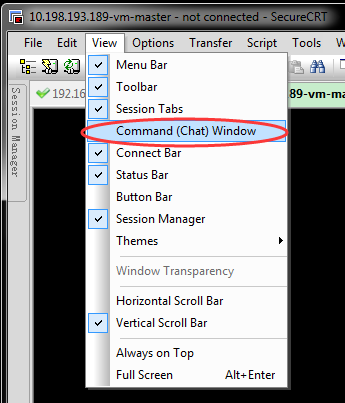
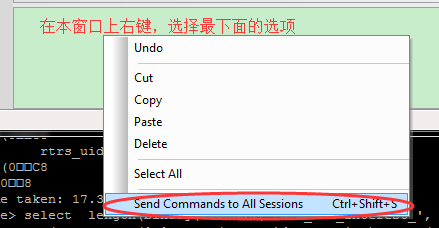
[root@centos6-server yum.repos.d]# cd /etc/yum.repos.d

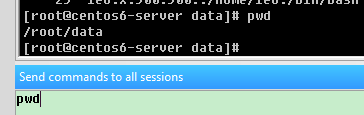
[root@centos6-server yum.repos.d]# cp CentOS-Base.repo CentOS-Base.repo.bak.20150628

[root@centos6-server yum.repos.d]# wget -O /etc/yum.repos.d/CentOS-Base.repo http://mirrors.aliyun.com/repo/Centos-6.repo

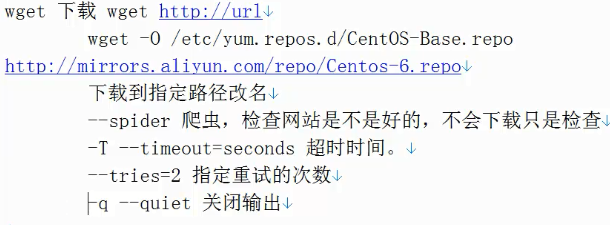
# 附录

## 利用SSH客户端批量管理LINUX重要应用

1. 
2. 
3. 发送命令即可：



## WGET 补充：



## 系统目录：

