

# SOME MAYBE USEFUL TIPS

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# TOOLS

zsh tmux ssh/mosh ack/ag (m)awk vim autojump/z cmake  
clang

# ZSH MULTI INPUT/OUTPUT STREAMS

```
setopt multios  
ls > list | tee  
less <file1 <file2
```

# CMD/PROC SUBSTITUTION

```
comm -1 -2 <(cat a1|sort) <(cat a2|sort) | uniq  
diff -Nur =(ls old) =(ls new)
```

```
cut -d'|' -f2 <(grep -v '/bin/false' \  
                <(paste -d'|' <(cut -d: -f7 /etc/passwd) \  
                <(cut -d: -f1 /etc/passwd)))
```

# BIND STRING

```
bindkey -s code 'for i in `seq 1 5`; do echo ; done\eb\eb'
```

# GLOBAL/SUFFIX ALIAS

```
alias -g G="|RANDOM=\$(date +%N) \  
    GREP_COLOR=\"\$(echo 3\${RANDOM%6+1}';1;7')\" \  
    egrep -i --color=always"
```

```
alias -s pdf=/opt/FoxitSoftware/FoxitReader
```

# BUILTIN FLOAT ARITHMETIC

```
echo $(( r = 5.4, pi = 3.1415926, r * r * pi ))
```

# FAST CONVERSION

```
printf "0x%x\n" 1048576  
bc <<< 'obase=16; print "0x",1048576'
```



# RECURSIVE SEARCH

instead of

```
find . -name '*.vala'
```

do

```
ls **/*.vala
```

# QUALIFIERS

```
ls *(Lm+10)
```

```
ls *(m\t # tab to see
```

```
# comm files
```

```
ls test/**/*(.e:'[[ -e ${REPLY/test/test2}  ]]' :)
```

# MISC

```
dpkg-query -S =lspci
```

```
echo $USER:u
```

```
<file
```

```
push-line
```

```
history-incremental-pattern-search-backward
```

reuse previous args: **Alt+.** **Alt+[1-9]**

how to type raw control chars

# (M)AWK IS FUN

```
# comm -1 -2 <(cat a1|sort) <(cat a2|sort) | uniq  
  
mawk '   
{  
    if (FNR == NR) {  
        lines[$0]++  
    } else {  
        if ($0 in lines) {  
            comm[$0]++  
        }  
    }  
}  
  
END {  
    for (i in comm) { print i }  
}' a1 a2
```

Famous oneliners **explained**

- ssh config

```
ControlMaster auto  
ControlPath /tmp/ssh_mux_%h_%p_%r  
  
Host 10.1.11.*  
    Ciphers arcfour
```

- use *mosh* in slow connection
- reverse connection

```
ssh -R 12345:localhost:22 root@45.32.28.235
```

more details [here](#)

# COMPILATION DATABASE

```
cmake -DCMAKE_EXPORT_COMPILE_COMMANDS=on ..
```

See [spec](#) here

# DEBUG MAKEFILE

```
# print any variable  
print-%: ; @echo $* = $($*)
```

# 广告

## socat

```
# copy file
socat -u open:file.txt,binary tcp-listen:1025
socat -u tcp:localhost:1025 open:copy.txt,create,binary

# port forwarding (through NAT)
socat tcp-listen:1234 tcp-listen:9527 # public host
socat tcp:publichost:1234 tcp:localhost:9527 # private

# and many more
```



# THE END

Thank You.