



fzf

Information Security Inc.

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# About fzf

- fzf is a general-purpose command-line fuzzy finder
- It's an interactive Unix filter for command-line that can be used with any list; files, command history, processes, hostnames, bookmarks, git commits, etc



# Testing Environment

- Kali Linux 2017

```
root@kali2017:~# cat /etc/*rel*
DISTRIB_ID=Kali
DISTRIB_RELEASE=kali-rolling
DISTRIB_CODENAME=kali-rolling
DISTRIB_DESCRIPTION="Kali GNU/Linux Rolling"
PRETTY_NAME="Kali GNU/Linux Rolling"
NAME="Kali GNU/Linux"
ID=kali
VERSION="2017.2"
VERSION_ID="2017.2"
ID_LIKE=debian
ANSI_COLOR="1;31"
HOME_URL="http://www.kali.org/"
SUPPORT_URL="http://forums.kali.org/"
BUG_REPORT_URL="http://bugs.kali.org/"
```

# Installing fzf

- Download GitHub repository

```
root@kali2017:~# git clone --depth 1 https://github.com/junegunn/fzf
Cloning into 'fzf'...
remote: Counting objects: 92, done.
remote: Compressing objects: 100% (85/85), done.
remote: Total 92 (delta 3), reused 26 (delta 2), pack-reused 0
Unpacking objects: 100% (92/92), done.
```

# Installing fzf

- Running install script

```
root@kali2017:~# cd fzf/
root@kali2017:~/fzf# ls -alh
total 144K
drwxr-xr-x 11 root root 4.0K Oct 26 20:46 .
drwxr-xr-x 83 root root 4.0K Oct 26 20:46 ..
drwxr-xr-x 2 root root 4.0K Oct 26 20:46 bin
-rw-r--r-- 1 root root 1.3K Oct 26 20:46 BUILD.md
-rw-r--r-- 1 root root 20K Oct 26 20:46 CHANGELOG.md
drwxr-xr-x 2 root root 4.0K Oct 26 20:46 doc
drwxr-xr-x 8 root root 4.0K Oct 26 20:46 .git
drwxr-xr-x 2 root root 4.0K Oct 26 20:46 .github
-rw-r--r-- 1 root root 77 Oct 26 20:46 .gitignore
-rw-r--r-- 1 root root 1.2K Oct 26 20:46 glide.lock
-rw-r--r-- 1 root root 549 Oct 26 20:46 glide.yaml
-rwxr-xr-x 1 root root 9.9K Oct 26 20:46 install
-rw-r--r-- 1 root root 1.1K Oct 26 20:46 LICENSE
-rw-r--r-- 1 root root 128 Oct 26 20:46 main.go
-rw-r--r-- 1 root root 4.3K Oct 26 20:46 Makefile
drwxr-xr-x 3 root root 4.0K Oct 26 20:46 man
drwxr-xr-x 2 root root 4.0K Oct 26 20:46 plugin
-rw-r--r-- 1 root root 17K Oct 26 20:46 README.md
-rw-r--r-- 1 root root 6.1K Oct 26 20:46 README-VIM.md
drwxr-xr-x 2 root root 4.0K Oct 26 20:46 shell
drwxr-xr-x 5 root root 4.0K Oct 26 20:46 src
drwxr-xr-x 2 root root 4.0K Oct 26 20:46 test
-rw-r--r-- 1 root root 436 Oct 26 20:46 .travis.yml
-rwxr-xr-x 1 root root 1.8K Oct 26 20:46 uninstall
```

# Installing fzf

- Running install script

```
root@kali2017:~/fzf# ./install
Downloading bin/fzf ...
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left   Speed
100  616    0  616    0    0   616      0  --:--:--  --:--:--  --:--:--   753
100 894k 100 894k    0    0 298k      0  0:00:03  0:00:03  --:--:-- 347k
- Checking fzf executable ... 0.17.1
Do you want to enable fuzzy auto-completion? ([y]/n) y
Do you want to enable key bindings? ([y]/n) y

Generate ~/.fzf.bash ... OK
Generate ~/.fzf.zsh ... OK

Do you want to update your shell configuration files? ([y]/n) y

Update /root/.bashrc:
- [ -f ~/.fzf.bash ] && source ~/.fzf.bash
+ Added

Update /root/.zshrc:
- [ -f ~/.fzf.zsh ] && source ~/.fzf.zsh
+ Added

Finished. Restart your shell or reload config file.
source ~/.bashrc # bash
source ~/.zshrc  # zsh

Use uninstall script to remove fzf.

For more information, see: https://github.com/junegunn/fzf
```

# Installing fzf

- Reload config file and view fzf options

```
root@kali2017:~/fzf# source ~/.bashrc
root@kali2017:~/fzf# fzf -h
usage: fzf [options]

Search
  -x, --extended           Extended-search mode
                           (enabled by default; +x or --no-extended to disable)
  -e, --exact             Enable Exact-match
  --algo=TYPE             Fuzzy matching algorithm: [v1|v2] (default: v2)
  -i                      Case-insensitive match (default: smart-case match)
  +i                      Case-sensitive match
  --literal              Do not normalize latin script letters before matching
  -n, --nth=N[,..]       Comma-separated list of field index expressions
                           for limiting search scope. Each can be a non-zero
                           integer or a range expression ([BEGIN]..[END]).
  --with-nth=N[,..]     Transform the presentation of each line using
                           field index expressions
  -d, --delimiter=STR   Field delimiter regex (default: AWK-style)
  +s, --no-sort          Do not sort the result
  --tac                 Reverse the order of the input
  --tiebreak=CRI[,..]   Comma-separated list of sort criteria to apply
                           when the scores are tied [length|begin|end|index]
                           (default: length)

Interface
  -m, --multi            Enable multi-select with tab/shift-tab
  --no-mouse            Disable mouse
  --bind=KEYBINDS       Custom key bindings. Refer to the man page.
  --cycle              Enable cyclic scroll
  --no-hscroll         Disable horizontal scroll
```



# Using fzf

- fzf usage -> Ctrl+r

```
root@kali2017:~/fzf# `__fzf_history__`

1528 fakeroot checkinstall -y --install=no --pkgversion $(echo $(pwd) | sed -n -re's/.*node-v(.+)$/\1/p') make -j${$(nproc)+1} install
1879 cp /usr/share/gnome-shell/extensions/EasyScreenCast@iacopodeenosee.gmail.com/prefs.js .
1093 for i in {88,95};do nmap -O -T 5 192.168.10.$i;sleep 5;echo;echo -e "Default \e[93mlight green Scanning the second IP" ;done
..ffected_product Windows_XP_Vista_7_8_10_Server_32_64_Bit, attack_target Client_Endpoint, deployment Perimeter, signature_severity Major, c..
1375 git clone https://bitbucket.org/cse-assemblyline/
1376 git clone https://bitbucket.org/cse-assemblyline
1509 git clone git://github.com/nodejs/node.git
1514 git clone git://github.com/npm/npm.git
1532 git clone clone https://github.com/gchq/CyberChef.git
> 1533 git clone https://github.com/gchq/CyberChef.git
1763 git clone https://github.com/corkami/pocs.git
1778 git clone https://github.com/NullArray/MIDA-Multitool.git
1847 git clone https://github.com/DidierStevens/DidierStevensSuite.git
1992 git clone --depth 1 https://github.com/junegunn/fzf
14/1000 +S
git clone
```

# Using fzf

- fzf usage -> find command

```
root@kali2017:~/fzf# find / -xdev -name "*.js" -type f -size +3M | fzf
/usr/share/javascript/openlayers/OpenLayers.tests.js
/root/node/deps/v8/tools/profviz/gnuplot-4.6.3-emscripten.js
> /root/node/deps/v8/test/mjsunit/asm/poppler/poppler.js
3/3
```

# Using fzf

- fzf usage -> man command

```
konstantin@12017: ~$ man fzf | fzf
      Field delimiter regex for --nth and --with-nth (default: AWK-style)
-d, --delimiter=STR
      Transform the presentation of each line using field index expressions
--with-nth=N[,..]
      the details.
      Comma-separated list of field index expressions for limiting search scope. See FIELD INDEX EXPRESSION for
-n, --nth=N[,..]
      v1      Faster but not guaranteed to find the optimal result (performance)
      v2      Optimal scoring algorithm (quality)
--algo=TYPE
      Fuzzy matching algorithm (default: v2)
--literal
      Do not normalize latin script letters for matching.
-i      Case-sensitive match
-I      Case-insensitive match (default: smart-case match)
-e, --exact
      Enable exact-match
-X, --extended
      Extended-search mode. Since 0.10.9, this is enabled by default. You can disable it with +x or --no-extended.
Search mode
OPTIONS
      fzf is a general-purpose command-line fuzzy finder.
DESCRIPTION
SYNOPSIS
      fzf [options]
NAME
      fzf - a command-line fuzzy finder
fzf(1)                                fzf - a command-line fuzzy finder                                fzf(1)
```

# References

- GitHub  
<https://github.com/junegunn/fzf>
- Kali Linux  
<https://www.kali.org/downloads/>
- Wiki  
<https://github.com/junegunn/fzf/wiki/examples>