Cheat Sheet: 21 useful find commands

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For todays article I wanted to put together a quick little cheat sheet for some GNU find command examples.

Some of these commands will be basic some will be more advanced, but they all will be useful. As a caveat some commands don't work in all Unix environments and this is especially true with older releases. If you find yourself in one of those situations there is a way to make the find command work you will just need to use different methods like the `-exec` flag.

Find things by name

```
# find /path/to/search -name filename
```

Example

```
# find /etc -name hosts
 /etc/hosts
```

Find things by name (case-insensitive)

```
# find /path/to/search -iname filename
```

Example

```
# find /etc -iname HOSTS
 /etc/hosts
```

Find only files by name

```
# find /path/to/search -name filename -type f
```

Example

```
# find /etc -name network* -type f
 /etc/init/networking.conf
```

Find only directories by name

```
# find /path/to/search -name dirname -type d
```

Example

```
# find /etc -name network* -type d
 /etc/apparmor/init/network-interface-security
```

Find all symlinks

```
# find /path/to/search -type l
```

Example

```
# find /etc -type l
 /etc/vtrgb
```

Find things by owner

```
# find /path/to/search -user owner
```

Example

```
# find ./ -user root
 ./
 ./log.file
```

Find executable files

```
# find /path/to/search -type f -executable
```

Example

```
# find ./ -type f -executable
./4/2651.file
```

Find SUID files

```
# find /path/to/search -perm -4000
```

Example

```
# find /sbin -perm -4000
/sbin/mount.ecryptfs_private
```

Find things changed today

```
# find /path/to/search -daystart -ctime -1
```

Example

```
# find ./ -daystart -ctime -1
 ./
```

Find things changed in the last 24 hours

```
# find /path/to/search -ctime -1
```

Example

```
# find ./ -ctime -1
 ./
```

Counting how many things you find

```
# find /path/to/search | wc -l
```

Example

```
# find ./ | wc -l
 14674
```

Deleting things you find

```
# find /path/to/search -delete
```

Deleting things you find (with xargs)

```
# find /path/to/search | xargs rm
```

Deleting things you find (with exec)

```
# find /path/to/search -exec rm {} ;
```

Printing Type of file, Filename & Inode

```
# find /path/to/search -printf "%y %i %prn"
```

Example

```
# find ./ -printf "%y %i %prn"
 d 4852409 ./
```

Finding Broken Symlinks

```
# find /path/to/search -follow -lname "*"
```

Example

```
# find ./ -follow -lname "*"
 ./bad_link
```

Find files older than 31 days and delete them

```
# find /path/to/search -mtime +31 -delete
```

Example

```
# find ./ -mtime +31
 ./sudoers.new
 ./file.symlink
 ./somedirectory
 ./play/list.txt2
 ./tar.tgz
# find ./ -mtime +31 -delete
# find ./ -mtime +31
```

Remove Empty Directories

```
# find /path/to/search -type d -exec rmdir --ignore-fail-on-non-empty {} + ;
```

Tar files changed today

```
# tar -cvzf ../files_created_today.tgz `find /path/to/search -type f -daystart -ctime -1
```

Find files bigger than X Size

```
# find /path/to/search -size +
```

Example

```
# find ./ -size +100M
 ./madflojo/Downloads/ubuntu-12.04-server-amd64.iso
```

Using Regex with find

```
# find /path/to/search -regex 'regex pattern (full path)'
```

Example

```
# find /var -regex '.*/tmp/.*[0-9]*.file'
/var/tmp/testing/2/914.file
```

About Benjamin

Benjamin is a Infrastructure and Software Engineer. On this blog he writes about Linux, Docker, Programming as well as other Systems topics.

Learn more about Linux

If you liked this article, check out Benjamin's book: Red Hat Enterprise Linux Troubleshooting Guide (https://www.amazon.com/Red-Enterprise-Linux-Troubleshooting-Guide-ebook/dp/B016OQOOAK). Where you can learn a lot more about troubleshooting Linux systems. This book is filled with tips and techniques he has learned over years of managing mission critical systems.

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