Shell Spells

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Spell, /spel/, noun, a form of words used as a magical charm or incantation.

A bunch of unix spells, sorted in no definite order.

GNU Parallel

Split input into parts having no more than 5 lines each, but run j=2 jobs in parallel, and keep input order

```
seq 100 | parallel --keep-order --pipe -N 5 -j 2 'wc -lw && sleep 2 '
```

Show progress

```
seq 100 | parallel --progress --keep-order --pipe -N 5 -j 2 'wc -lw && sleep 2 '
```

Clear Terminal

We all use clear or CTRL+L but it's not really a "clear" terminal.

```
printf "\033c"  #<ESC>c
reset  # another way
```

Info stackoverflow.com/q/5367068/1506477

Invert / Exclude files

Info: www.tecmint.com/delete-all-files-in-directory-except-one-few-file-extensions/

```
shopt -s extglob # enable
ls !(conf.yml)  # list all except conf.yml
rm -r !(conf.yml)  # rm all except conf.yml
rm -v !("filename1"|"filename2")  # multiple exclusions
```

Bash Exit On Error

```
set -euo pipefail # recommended
set -euxo pipefail # Adding "x" prints out debugging statement
```

-e exits on error, -u errors on undefined variables, -x for echoing each statement, and -o pipefail exits on command pipe failures.

If set -x wasnt enough to debug, and you like to get more info

```
export PS4='+(${BASH_SOURCE}:${LINENO}): ${FUNCNAME[0]:+${FUNCNAME[0]}(): }'
```

- 1. vaneyckt.io/posts/safer_bash_scripts_with_set_euxo_pipefail/
- 2. stackoverflow.com/a/2871034/1506477
- **3.** stackoverflow.com/a/17805088/1506477

Get Free Port

Trying to bind to port 0 makes the kernel allocate a free port.

```
import socket

s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.bind(('', 0))
addr = s.getsockname()
print(addr[1])
s.close()
```

Shell one-liner:

```
PORT=$(python -c 'import socket; s=socket.socket(); s.bind(("", 0));
print(s.getsockname()[1]); s.close()')
echo $PORT
```

Find Files Modified in Last Hour

stackoverflow.com/a/33407491/1506477

```
find . -mmin -60 -type f -exec ls -l {} +
```