

## interesting.bits

```
# vim: set filetype=text:

* Pipe stdin/out to/from vim - vipe (moreutils)

* Allow some_user to run X programs:
  xhost +si:localuser:some_user

* Show all files in a directory with fbvsp:
  for f in img/*; do [ -f "$f" ] && { clear; fbvsp "$f"; \
  printf "%s\nPress ENTER..." "$f"; read; }; done; clear

* Next cron date+time (needs package cronie for cronnext):
  date -Ins -d "@$(cronnext | cut -d' ' -f2)"

* Just list UUID (needs root, otherwise might output nothing):
  lsblk -no UUID /dev/sda1

* csv2tsv (opinionated - delim=',',quote='"', GNU sed):
  sed -e's/\(("\?\\),/\1\t/g' -e's/"\?\\([\^"]*\)"\?/\1/g' \
  < file.csv > file.tsv

* tsv2csv (opinionated - delim=',',quote='"', GNU sed):
  sed -e's/\t/", "/g' -e's/^\t/"' -e's/$/"'/' < file.tsv > file.csv

* is the process running? human-readable:
  ps -ef | grep [p]rogram_name # [] to skip including grep itself
machine-readable:
  pidof program_name >/dev/null 2>&1 && do_something

* create a PDF from a text file (needs cups, cups-filters):
  /usr/lib/cups/filter/texttopdf 1 1 1 1 1 file.txt > file.pdf
using the user's font (CUPS_DATADIR has charsets subdirectory):
  CUPS_DATADIR=~/.config/cups CHARSET=utf-8 \
  /usr/lib/cups/filter/texttopdf 1 1 1 1 1 file.txt > file.pdf
optimize the above PDF and make the text searchable:
  pdftocairo file.pdf -pdf file-opt.pdf

* list X input devices:
  xinput list

* Necessary changes in config.mk to build 9base statically:
  CFLAGS += -static -fcommon
  LDFLAGS += -static -zmuldefs
Nice to have: uncomment "@strip" line in "all:"

* Restore tmux client after suspend-client (C-b C-z):
  kill -CONT $(pidof_tmux_client)

* Set xterm (or compatible) title:
  printf '\e]N;new_title\b'
where N is: 0 = set icon + title, 1 = set icon, 2 = set title

* mpv as image viewer:
  mpv --keep-open=always /image/directory
< = Previous image, > = Next image
```

## interesting.bits

- \* List terminal capabilities of terminal type \$some\_term (for tput):  
infocmp \$some\_term
- \* `basename \$file` in POSIX shell (note: shell parameter substitution is slow):  
basename=\${file%/}; echo \${basename##\*/}  
`basename -s .ext \$file`:  
basename=\${file%/}; basename=\${basename%.ext}; echo \${basename##\*/}
- \* `dirname \$file` in POSIX shell:  
case \$file in \*/\*) echo \${file%/\*};; \*) echo .; esac
- \* Get the name of the first X.Org monitor:  
xrandr --listmonitors | sed '/^[^ ]/d;s/. \* \(\S\+\)\\$/\1/;1q'
- \* Set window of an X.Org application "on top":
  - With \$part\_of\_title inside title (case-insensitive):  
wmctrl -r \$part\_of\_title -b add,above
  - With \$window\_id (find out with `wmctrl -l`):  
wmctrl -i -r \$window\_id -b add,above
- \* Scroll to the end of file with less (useful for logs):  
less +G /some/file  
Scroll to the end of file and wait for data (like `tail -f`):  
less +F /some/file  
Jump to line 123 immediately when starting vim:  
vim /some/file +123
- \* List in a tree:
  - Files and directories:  
tree
  - Mounts:  
findmnt
  - Processes:  
pstree
  - Packages in Arch-based distributions:  
pactree
- \* Restrict output to lines with "foo", replacing "foo" with "bar", using only POSIX sed:
  - Print all occurrences:  
sed '/foo/s/foo/bar/;t;d'  
alternative:  
sed -n '/foo/s/foo/bar/p'
  - Print only the first such line:  
sed '/foo/s/foo/bar/;te;d;;e q'  
alternative:  
sed -n '/foo/{s/foo/bar/p;q}'
- \* Click a window to get its command with arguments (ps from procs-ng):  
ps --no-headers -o '%a' \$(xprop | sed -n \

- \* If `~/.profile` is not sourced by Bash, check for the existence of `~/.bash_profile`, as it gets sourced first/instead of `~/.profile` if present. Possible solutions:
  - Move/rename `~/.bash_profile`, or
  - Source `~/.profile` from `~/.bash_profile`
- \* Directory holding DKMS modules, logs and links to sources: `/var/lib/dkms`
- \* If `tcc -static` on musl complains about missing `abort`, use `export LDFLAGS='-L/usr/lib/tcc -ltcc1'`  
Sometimes LIBS needs to be set instead, as those parameters need to come at the end of the command (for example, mksh requires LIBS instead of LDFLAGS).
- \* Mount a QEMU qcow2 disk:

```
modprobe nbd max_part=8
qemu-nbd -c /dev/nbd0 /path/to/image.qcow2
mount /dev/nbd0p1 /mnt
```

Unmount it:

```
umount /mnt
qemu-nbd -d /dev/nbd0
rmdir nbd
```
- \* Make tcc work for static linking on a glibc-based system (use separately installed musl-libc, for example precompiled from <https://musl.cc>): `$s - dir` where musl is installed (ex. `/cross/x86_64-linux-musl`)

```
./configure --prefix=/usr --sysroot=$s --config-musl \
--sysincludepaths=$s/include \
--crtprefix=$s/lib \
--libpaths=$s/lib
# sysincludepaths - colon-separated list of directories with files like
#                   stdio.h, stdlib.h etc
# crtprefix        - directory with crt[1in].o
# libpaths         - colon-separated list of directories with libc.a,
#                   ld-*.so.1 -> libc.so etc
```

inside the tcc source directory, then make and make install. Check with:

```
tcc -vv
```

Related:  
<https://lists.nongnu.org/archive/html/tinycc-devel/2010-04/msg00082.html>  
(tcc still gives similar errors about "undefined symbols" when `-static` is used on glibc-based systems).
- \* For GCC, multiple directories in `startfile_prefix_spec` search path are separated with a space.
- \* When booting from a USB flash medium, if it isn't recognized and thus booting stops with a kernel panic, try adding `rootdelay=5` to the kernel command line. For example:

```
root=/dev/sda2 rootdelay=5
```
- \* If neomutt setup using Luke Smith's `mutt-wizard` refuses to open attachments using programs which `xdg-open` is set to open, edit `$PREFIX/lib/mutt-wizard/openfile`  
Probably your system doesn't support `setsid -f`.
- \* If the output from `date(1)` differs for root and ordinary users, besides the obvious (environment variable `$TZ`), check the permissions on `/etc/localtime` and `/etc/zoneinfo/*` files and directories. They need to be "R"eadable for "O"thers (`o+r`).

- \* In LibreOffice Math, ``nitalic`` directive formats text as upright (non-italic); useful for units eg.
 

```
30 nitalic min, 2.5 nitalic kg
```

 For functions, some, like ``sin`` and ``cos`` are automatically formatted upright. For the rest, there is the ``func`` directive, e.g:
 

```
func ort v
```
- \* Interactively edit environment variables in ``$EDITOR`` (needs `vipe` from `moreutils`):
 

```
eval $(printenv | vipe | while read -r line; do
    ident=$(echo "$line" | cut -d= -f1);
    rest=$(echo "$line" | cut -d= -f2);
    printf "export %s=\"%s\"\n" "$ident" "$rest"; done)
```
- \* When configuring `tcc`, be **very** careful of what is assigned to ``tccdir``:
 

```
$ ./configure --tccdir=$tccdir
```

 This directory will be ``rm -frv``d on uninstall! (Found out the hard way -
 

```
$ ./configure --tccdir=/lib
```

 with later
 

```
# make uninstall
```

 nuked my `/lib`.)
- \* Current ELinks requires GNU Bash to compile. It declares `/bin/sh` in shebang, but uses Bash-specific features such as `<<<`. To build it, instead of
 

```
./configure --prefix= # etc.
```

 it is necessary to instead execute
 

```
bash ./configure --prefix= # etc.
```
- \* `doas` in Alpine Linux uses configuration file(s) in `/etc/doas.d/` over `/etc/doas.conf`, resulting in (most likely) unexpected "operation not permitted", which doesn't depend on the contents of `/etc/doas.conf` at all! Solution: ``mv /etc/doas.conf /etc/doas.d/``
- \* If `sled` is used as `EDITOR`, Busybox's ``crontab -e`` won't work unless ``backup_fail`` or ``create_backups`` is set to `0` in `config.h`, or ``-B`` is used.
- \* Try to make Syncthing less privacy-intrusive:
 

```
# Disable automatic check for upgrades
syncthing cli config options auto-upgrade-intervalh set 0
# Disable sending crash reports
syncthing cli config options crenabled set false
# Set "Global announce" (pinging centralized server) to false
syncthing cli config options global-ann-enabled set false
# Disable upgrading to pre-releases
syncthing cli config options upgrade-to-pre-releases set false
# Set "Usage Report" (telemetry) sending to "not accepted"
syncthing cli config options uraccepted set -- -1
# Set "Usage Report Unique ID" to empty
syncthing cli config options urunique-id set ''
```
- \* ASan only works for Clang/LLVM under Alpine Linux. Libraries for it are located in the package `compiler-rt`.
- \* If ``df -h`` on Alpine Linux complains about "Permission denied", make sure that the service `hwdrivers` is **not** added to a runlevel. Otherwise, the following error is printed on stdout:
 

```
df: /sys/kernel/debug/tracing: Permission denied
```

\* xenodm is recommended on OpenBSD, but for those who would like to not have the overhead of running a display manager with a dedicated service, there is still a way to use startx (autostart or not) without a DM. To do so, it is needed to set setuid bit on Xorg binary:

```
# chmod +s /usr/X11R6/bin/Xorg
```

of course, it is needed to disable and stop xenodm if it is running:

```
# rcctl disable xenodm && rcctl stop xenodm
```

Caution: This does come with the cost of having X setuid. Still, it is possible, contrary to what is stated in the most replies on the matter.

\* If elinks hangs on startup, try stopping gpm. If elinks was compiled with gpm support, sometimes it can get "confused" like that.

\* In suckless st, if the text in bold is shown in yellow instead of white, check the fonts in config.h. You can test this by launching st from within st: mismatched fonts will produce warnings on stderr.

\* Quick and dirty running git-daemon(1) from ~/src to export somerepo:

```
cd ~/src
```

```
git daemon --reuseaddr --verbose --base-path=. --export-all \  
./somerepo.git
```

then access with got(1) from another machine as:

```
got clone git://X.X.X.X/somerepo.git
```

\* If Neomutt is slow to start, add

```
set hostname = localhost
```

to ~/.config/mutt/muttrc. Apparently, gethostbyaddr(3) times out badly otherwise on some systems.

\* If slstatus isn't showing in the dwm "status bar" at the top, check fonts array in dwm's config.h. Invalid fonts can cause the entire bar not to show.

\* If groff exhibits "willful" behavior (eg. in OpenBSD text is not justified by default, and justification cannot be changed with .ad), check troffrc and other files in

```
/usr/share/groff/<version>/tmac
```

or, in OpenBSD,

```
/usr/local/share/groff/<version>/tmac
```

In this OpenBSD example, .ad is explicitly turned off, along with other opinionated changes, such as the deactivation of hyphenation, etc.