raspberry-pi, gk

Raspberry Read-Only

Page en construction

Objectif

Apporter des modifications à la distribution Raspbian pour une utilisation sans écritures sur la carte SD et permettre une extinction brutale de la machine sans risque de détériorer le système de fichiers

Limitation

Utilisation de la version Raspbian/Buster, version stable à ce jour (déc 2019). L'image installée à la base est la version **lite** pour limiter les logiciels installés.

lectures

https://the.mad-tinkerer.me/raspberry-pi/read-only-root-filesystem-debian-buster/

https://medium.com/@andreas.schallwig/how-to-make-your-raspberry-pi-file-system-read-only-raspbian-stretch-80c0f7be7353

https://k3a.me/how-to-make-raspberrypi-truly-read-only-reliable-and-trouble-free/

http://blog.gegg.us/2014/03/a-raspbian-read-only-root-fs-howto/

https://github.com/JasperE84/root-ro

https://www.a-netz.de/blog/2013/02/read-only-root-filesystem/

https://the.mad-tinkerer.me/raspberry-pi/read-only-root-filesystem-debian-buster/

Buster read-only

```
sudo apt update
sudo apt upgrade
sudo apt dist-upgrade
sudo apt install python3
sudo apt install puredata
sudo apt install pd-osc pd-mrpeach pd-iemlib
sudo apt install lsof
lsof / | awk 'NR==1 || $4~/[0-9]+[uw]/'
sudo systemctl disable apt-daily.timer apt-daily-upgrade.timer man-db.timer
sudo systemctl mask systemd-tmpfiles-setup apt-daily apt-daily-upgrade systemd-tmpfiles-clean systemd-tmpfiles-clean.timer systemd-update-utmp systemd-update-utmp-runlevel systemd-rfkill systemd-rfkill.socket systemd-logind.service man-db.service
systemd-update-utmp-runlevel systemd-rfkill systemd-rfkill.socket systemd-logind.service man-db.service
sudo systemctl disable dphys-swapfile
sudo apt clean
```

Modifier /etc/fstab

modifier en ro /boot et /

```
PARTUUID=6c586e13-01  /boot           vfat    defaults,ro          0 2
PARTUUID=6c586e13-02  /               ext4    defaults,ro,noatime  0 1
```

ajouter

```
none                  /tmp              tmpfs   size=128M,mode=01777                  0 0
none                  /var/tmp          tmpfs   size=16M                              0 0
none                  /var/log          tmpfs   size=16M,mode=0755                    0 0
```

```
none                /var/lib/logrotate tmpfs  size=1M                                0 0
```

sudo reboot et vérifier les services en erreur

```
systemctl list-units --state=failed
```

Changement de mode

Autoriser l'écriture

```
sudo mount / -o remount,rw
sudo mount /boot -o remount,rw
```

Retourner en mode read-only

```
sudo mount / -o remount,ro -f
sudo mount /boot -o remount,ro -f
```

Ajouter à /etc/bash.bashrc **source** : https://hallard.me/raspberry-pi-read-only/

```
# set variable identifying the filesystem you work in (used in the prompt below)
set_bash_prompt(){
    fs_mode=$(mount | sed -n -e "s/^\/dev\/.* on \/ .*(\(r[w|o]\).*/\1/p")
    PS1='\[\033[01;32m\]\u@\h${fs_mode:+($fs_mode)}\[\033[00m\]:\[\033[01;34m\]\w\[\033[00m\]\$ '
}

alias ro='sudo mount -o remount,ro / ; sudo mount -o remount,ro /boot'
alias rw='sudo mount -o remount,rw / ; sudo mount -o remount,rw /boot'

# setup fancy prompt"
PROMPT_COMMAND=set_bash_prompt
```

Compléments

Logrotate

modifier /etc/cron.daily/logrotate

```
#/usr/sbin/logrotate /etc/logrotate.conf
/usr/sbin/logrotate --state /var/log/logrotate.state /etc/logrotate.conf
```

lightdm

modifier /etc/lightdm.conf

```
cache-directory=/var/tmp/lightdm
```