

Raspberry Pi als "Kiosk Mode"

Basis-Installation

1) Debian (Raspbian) Jessie Lite Image installieren

2) Aktualisieren und Grundeinstellungen vornehmen (Sprache, Zeitzone, ...):

```
sudo apt-get update
sudo apt-get upgrade

# ggf. rpi-update noch installieren (wenn es fehlt)
# => Aktualisierung /boot (Firmware), alte FW liegt in /boot.bak
sudo apt-get install rpi-update
sudo rpi-update

sudo raspi-config

dpkg-reconfigure locales # de_DE.UTF-8 wählen als Standard
dpkg-reconfigure tzdata # Europe => Berlin
```

3) Einige „Standard-Programme / Tools“ nachinstallieren

```
sudo apt-get install nano joe
sudo apt-get install tree file
sudo apt-get install apt-utils
sudo apt-get install man
```

4) Basis-Installation für X

```
sudo apt-get install matchbox
sudo apt-get install x11-xserver-utils
sudo apt-get install ttf-mscorefonts-installer
sudo apt-get install xwit
sudo apt-get install sqlite3
sudo apt-get install libnss3
```

5) Weitere Pakete installieren

```
sudo apt-get install su
sudo apt-get install xinit
sudo apt-get install xserver-xorg
sudo apt-get install xserver-xorg-legacy
```

6a) Installation chromium-browser

```
sudo apt-get install chromium-browser
```

Wenn das so nicht funktioniert, weil irgendwelche abgespeckte / veränderten Quellen verwendet werden (z.B. Problem bei Volumio), behelfe man sich ggf. so:

6b)

```
apt-get download chromium-browser  
dpkg -i --ignore-depends=libraspberrypi0 chromium-  
browser_56.0.2924.84-0ubuntu0.14.04.1.1000_armhf.deb  
apt-get install gconf-service libgconf-2-4 libxss1 libxcb-image0 xdg-utils
```



ggf. wäre es sinnvoller, das chromium-browser Paket zu bearbeiten und die Abhängigkeit raus zu nehmen.

6c) Installation gepatchtes Paket (Abhängigkeit entfernt):

```
wget  
https://www.to-st.de/download/linux/raspian/chromium-browser_56.0.2924.84-0u  
buntu0.14.04.1.1000_armhf.deb  
dpkg -i chromium-browser_56.0.2924.84-0ubuntu0.14.04.1.1000_armhf.deb  
apt-get -f install
```

Dateien:

- [chromium-browser_56.0.2924.84-0ubuntu0.14.04.1.1000_armhf.deb](#)

7) Danach die Datei /etc/X11/Xwrapper.config bearbeiten:

```
sudo joe /etc/X11/Xwrapper.config
```

```
# Xwrapper.config (Debian X Window System server wrapper configuration file)  
#  
# This file was generated by the post-installation script of the  
# xserver-xorg-legacy package using values from the debconf database.  
#  
# See the Xwrapper.config(5) manual page for more information.  
#  
# This file is automatically updated on upgrades of the xserver-xorg-legacy  
# package *only* if it has not been modified since the last upgrade of that  
# package.  
#  
# If you have edited this file but would like it to be automatically updated  
# again, run the following command as root:  
# dpkg-reconfigure xserver-xorg-legacy
```

```
allowed_users=anybody
needs_root_rights=yes
```

7. Verzeichnis für Client-Config im DOS/Windows-Verzeichnis anlegen (im System /boot)

```
sudo mkdir /boot/client-cfg
cd /boot/client-cfg
```

8. Hostnamen festlegen in hostname.txt

```
joe hostname.txt
```

9. xinitrc festlegen

```
joe xinitrc
```

und in etwas folgenden Inhalt einkopieren:

```
#!/bin/sh

while true; do

    # Clean up previously running apps, gracefully at first then harshly
    killall -TERM chromium 2>/dev/null;
    killall -TERM matchbox-window-manager 2>/dev/null;
    sleep 2;
    killall -9 chromium 2>/dev/null;
    killall -9 matchbox-window-manager 2>/dev/null;

    # Clean out existing profile information
    rm -rf /home/pi/.cache;
    rm -rf /home/pi/.config;
    rm -rf /home/pi/.pki;

    # Generate the bare minimum to keep Chromium happy!
    mkdir -p /home/pi/.config/chromium/Default
    sqlite3 /home/pi/.config/chromium/Default/Web\ Data "CREATE TABLE
meta(key LONGVARCHAR NOT NULL UNIQUE PRIMARY KEY, value LONGVARCHAR); INSERT
INTO meta VALUES('version','46'); CREATE TABLE keywords (foo INTEGER);";

    # Disable DPMS / Screen blanking
    xset -dpms
    xset s off

    # Reset the framebuffer's colour-depth
    fbset -depth $( cat /sys/module/*fb*/parameters/fbdepth );

    # Hide the cursor (move it to the bottom-right, comment out if you want
mouse interaction)
    # xwit -root -warp $( cat /sys/module/*fb*/parameters/fbwidth ) $( cat
```

```
/sys/module/*fb*/parameters/fbheight )

# Start the window manager (remove "-use_cursor no" if you actually want
mouse interaction)
# matchbox-window-manager -use_titlebar no -use_cursor no &
matchbox-window-manager -use_titlebar no &

# Start the browser (See
http://peter.sh/experiments/chromium-command-line-switches/)
chromium-browser --app="http://192.168.0.51:8080/guacamole/"

done;
```



Achtung!
Pfade anpassen!
z.B. /home/pi/ vs. /home/volumio/

10. Die Datei `/etc/rc.local` anpassen, hier werden die Änderungen aus den Client-Config Dateien angewendet:

```
#!/bin/sh -e
#
# rc.local
#
# This script is executed at the end of each multiuser runlevel.
# Make sure that the script will "exit 0" on success or any other
# value on error.
#
# In order to enable or disable this script just change the execution
# bits.
#
# By default this script does nothing.

# Print the IP address
_IP=$(hostname -I) || true
if [ "$_IP" ]; then
    printf "My IP address is %s\n" "$_IP"
fi

# set hostname
if [ -f /boot/client-cfg/hostname.txt ]; then
    hostname --file /boot/client-cfg/hostname.txt
fi

# start X environment
if [ -f /boot/client-cfg/xinitrc ]; then
    ln -fs /boot/client-cfg/xinitrc /home/pi/.xinitrc;
```

```
su -l pi -s /bin/bash -c 'startx' &  
fi  
exit 0
```



Achtung!
Benutzernamen und Pfade anpassen!
z.B. /home/pi/ vs. /home/volumio/
pi vs. volumio

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