


# Installation von GNU Debian 8.x aka Jessie auf dem Cubietruck (ARMv7 AllWinner A20)

## Quellen

1. <https://wiki.debian.org/InstallingDebianOn/Allwinner>
2. <http://ftp.uk.debian.org/debian/dists/jessie/main/installer-armhf/current/images/netboot/SD-card-images/>
3. <https://www.debinux.de/2014/12/debian-basics-mit-systemd/>
4. <https://e-tobi.net/blog/2015/09/13/vdr-pakete-fur-raspberrypi>
5. <http://www.milaw.biz/wiki/arch/cubietruck> - Pimp my CubieTruck 

## Debian 8.x Jessie Installation

Installation wie in [1] beschrieben durchführen.

```
wget http://ftp.uk.debian.org/debian/dists/jessie/main/installer-armhf/current/images/netboot/SD-card-images/firmware.Cubietruck.img.gz
wget http://ftp.uk.debian.org/debian/dists/jessie/main/installer-armhf/current/images/netboot/SD-card-images/partition.img.gz
zcat firmware.Cubietruck.img.gz partition.img.gz > /dev/sde
```

- Serielles Kabel (FTDI-Kabel) anschließen um die folgenden Schritte auf der Konsole beobachten zu können
- `sudo minicom -b 115200 -o -D /dev/ttyUSB0`
- Cubietruck mit der neu erstellten SD-Karte booten
- Installation nach [1] fortführen
- Reboot

## Konfiguration des Grundsystems

```
#login als root via serieller Konsole
apt-get update
apt-get upgrade
apt-get install mc apt-transport-https
dpkg-reconfigure locales
[*] de_DE.UTF-8
[*] en_GB.UTF-8
```

## Netzwerkkonfiguration

```
nano /etc/systemd/resolved.conf
[Resolve]
DNS=192.168.100.1
#
ln -sf /run/systemd/resolve/resolv.conf /etc/resolv.conf
#
# falls 'systemd-resolved' schon läuft:
systemctl restart systemd-resolved.service
#
# sonst:
systemctl enable systemd-resolved.service
systemctl start systemd-resolved.service
#
# nach [3]
nano /etc/systemd/network/eth0.network
#
[Match]
Name=eth0
[Network]
Address=192.168.100.3/24
Gateway=192.168.100.1
DNS=192.168.100.1
#
# LAN Schnittstelle abschalten:
ifdown eth0
#
cp /etc/network/{interfaces,interfaces_bak}
cat /dev/null > /etc/network/interfaces
update-rc.d networking remove
systemctl enable systemd-networkd.service
systemctl start systemd-networkd.service
#
# Login für den Benutzer 'root' via SSH ermöglichen:
nano /etc/ssh/sshd_config
...
PermitRootLogin without-password -> PermitRootLogin yes
...
#
```

## Sundtek DVB-C Tuner

### Installation

```
ssh -l root <VDR-IP>
cd /root
wget http://www.sundtek.de/media/sundtek_netinst.sh
chmod +x sundtek_netinst.sh
```

```
./sundtek_netinst.sh
/opt/bin/mediaclient --dtvtransfermode=bulk -d /dev/dvb/adapter0/frontend0
# Reconnect Tuner #1
/opt/bin/mediaclient --dtvtransfermode=bulk -d /dev/dvb/adapter1/frontend0
# Reconnect Tuner #2
#
# VDR erneut starten wenn DVB-Tuner Treiber geladen sind:
echo "device_attach=service vdr restart" >> /etc/sundtek.conf
```

## VDR

Auf keinen Fall die automatisch generierte Kanalkonfiguration (channels.conf für vdr) aus dem Kabel Deutschland Forum verwenden - die Parameter für die HD Sender der Öffentlich-Rechtlichen sind fehlerhaft und bringen den VDR regelmäßig zum Absturz (data stream broken → emergency exit).

```
echo "deb https://packages.e-tobi.net/vdr-experimental jessie base vdr-
multipatch" >> /etc/apt/sources.list
gpg --keyserver keyring.debian.org --recv-keys 041390BC
gpg --armor --export 041390BC | apt-key add -
apt-get update
apt-get install vdr vdr-plugin-streamdev-server vdr-plugin-vnsiserver
vdradmin-am vdr-plugin-epgsearch dvb-apps
#
# VDR und VDRadmin-am Dienst via sytemctl starten:
systemctl start vdr && systemctl start vdradmin-am
#
# VDR und VDRadmin-am Dienst via sytemctl stoppen:
systemctl stop vdr && systemctl stop vdradmin-am
#
```

## Sendersuche

```
sudo su
apt-get install w-scan
w_scan -fc -c DE >> channels.conf
```

## Konfiguration

```
nano /etc/default/vdradmin-am
... ENABLED="1"
#
nano /etc/vdr/setup.conf
# automatische Kanalsuche abschalten:
UpdateChannels = 0
#
nano /etc/vdradmin-am/vdradmin.conf
LANG =
```

```
LANGUAGE = Deutsch
#
nano /etc/vdr/conf.d/00-vdr.conf
#- - lirc
#- - vfat
#
nano /etc/default/vdr
#VDR_CHARSET_OVERRIDE=ISO-8859-9
#
```

## vor und nach Aufnahmen ...

[/etc/vdr/recording-hooks/R90.custom](#)

```
case $1 in
  before)
    # do here whatever you would like to do right BEFORE
    # the recording $2 STARTS
    echo 1 > /sys/class/leds/blue\:ph21\:led1/brightness
    ;;

  started)
    # do here whatever you would like to do right AFTER
    # the recording $2 STARTED
    ;;

  after)
    # do here whatever you would like to do right AFTER
    # the recording $2 ENDED
    echo 0 > /sys/class/leds/blue\:ph21\:led1/brightness
    chmod -R g+w $2/..
    ;;

  edited)
    # do here whatever you would like to do right AFTER
    # the recording $2 has been EDITED
    # $3 is the original recording
    ;;

  deleted)
    # do here whatever you would like to do right AFTER
    # the recording $2 has been DELETED
    ;;

esac
```

# Radiorecorder Web GUI

```
sudo su
apt-get install lighttpd streamripper at
systemctl status lighttpd
usermod -G vdr -a www-data
#chown -R www-data:www-data /var/www/html
#chmod -R 775 /var/www/html
# zuerst lighttpd installieren da sonst auf Grund von Abhängigkeiten evtl.
der apache2 Webserver installiert wird!
apt-get install php5-common php5-cgi php5
lighty-enable-mod fastcgi
lighty-enable-mod fastcgi-php
systemctl restart lighttpd
echo "<?php phpinfo(); ?>" >> /var/www/html/phpinfo.php
# Im Browser öffnen: http://<RASPBERRYPI-IP/phpinfo.php
# www-data aus /etc/at.deny entfernen
sed -i -e '/www-data/d' /etc/at.deny
cd ~
wget
https://netcologne.dl.sourceforge.net/project/radiorecwebgui/0.3.x/radioreco
rder_0.3.1.tar.gz
tar xzf radiorecorder_0.3.1.tar.gz
mkdir -p /var/www/html/radiorecorder
cp -R radiorecorder_0.3.1/* /var/www/html/radiorecorder/
#
echo
"NDR2;http://ndr-ndr2-niedersachsen.cast.addradio.de/ndr/ndr2/niedersachsen/
mp3/128/stream.mp3" > /var/www/html/radiorecorder/res/streams.txt
echo "NDR
Kultur;http://ndr-ndrkultur-live.cast.addradio.de/ndr/ndrkultur/live/mp3/128
/stream.mp3" > /var/www/html/radiorecorder/res/streams.txt
echo "NDR
Info;http://ndr-ndrinfo-niedersachsen.cast.addradio.de/ndr/ndrinfo/niedersac
hsen/mp3/128/stream.mp3" > /var/www/html/radiorecorder/res/streams.txt
echo "N-
Joy;http://ndr-njoy-live.cast.addradio.de/ndr/njoy/live/mp3/128/stream.mp3"
> /var/www/html/radiorecorder/res/streams.txt
echo "NDR
Blue;http://ndr-ndrblue-live.cast.addradio.de/ndr/ndrblue/live/mp3/128/strea
m.mp3" > /var/www/html/radiorecorder/res/streams.txt
echo "NDR
Plus;http://ndr-ndrplus-live.cast.addradio.de/ndr/ndrplus/live/mp3/128/strea
m.mp3" > /var/www/html/radiorecorder/res/streams.txt
#
chown -R www-data:www-data /var/www/html/
mkdir /mnt/video0/radiorecorder
chown -R vdr:vdr /mnt/video0/radiorecorder/
chmod -R g+w /mnt/video0/radiorecorder/
#
```

```
systemctl restart lighttpd  
# Im Browser öffnen: http://<RASPBERRYPI-IP/
```

**/var/www/html/radiorecorder/res/settings.php**

[settings.php](#)

```
<?php  
  
class Settings {  
  
    public static $siteRoot = '/var/www/html/radiorecorder';  
    public static $recordedFilesDestination =  
    '/mnt/video0/radiorecorder';  
    public static $language = 'de'; // "de" for german or "en" for english  
    public static $locale = 'C'; // default is "C"; other possible  
    locales: "de_AT.UTF-8" to enable all corresponding characters for the  
    filename  
    public static $defaultStreamripperParams = ''; // adds streamripper  
    params to each call  
    public static $addDatePrefixToFilename = null; // prefix format  
    (e.g. 'Y-m-d') or null if no prefix to add  
    public static $postCommand = ''; // command to be executed after  
    the recording is finished  
    public static $logThreshold = 3; //Level of log messages, possible  
    values : LEVEL_DEBUG=4, LEVEL_INFO=3, LEVEL_WARN=2, LEVEL_ERROR=1  
  
}  
  
?>
```

## SAMBA installieren und einrichten

```
aptitude install samba  
echo "wins server = eth0:192.168.100.1" > /etc/samba/dhcp.conf  
adduser christoph  
smbpasswd -a christoph  
aptitude install cifs-utils
```

## Samba Konfiguration

[smb.conf](#)

```
#===== Global Settings =====

[global]
    workgroup = WG
    server string = %h server
    wins support = no

    wins server = 192.168.100.1
    dns proxy = no
    name resolve order = lmhosts host wins bcst

#### Networking ####
;   interfaces = 127.0.0.0/8 eth0
;   bind interfaces only = yes

#### Logging ####
    log file = /var/log/samba/log.%m

# Cap the size of the individual log files (in KiB).
    max log size = 1000

    syslog = 0
    panic action = /usr/share/samba/panic-action %d

##### Authentication #####

    security = user
    encrypt passwords = true
    passdb backend = tdbsam
    obey pam restrictions = yes
    unix password sync = yes
    passwd program = /usr/bin/passwd %u
    passwd chat = *Enter\snew\s*\spassword:* %n\n
    *Retype\snew\s*\spassword:* %n\n *password\supdated\ssuccessfully* .
    pam password change = yes
    map to guest = bad user

#===== Share Definitions =====

[homes]
    comment = Home Directories
    browseable = yes
    writeable = yes
    read only = no
    create mask = 0700
    directory mask = 0700
    valid users = %S

[Aufnahmen]
    comment = VDR Aufnahmen
```

```
path = /mnt/video0
browseable = yes
writeable = yes
read only = no
#create mask = 0700
#directory mask = 0700
#valid users = %S
create mask = 0664
directory mask = 0775
force group = users

load printers = no
printing = bsd
printcap name = /dev/null
disable spoolss = yes
```

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