Install Raspi left Unnie Side

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History

V 0.1.3 08.jan.2026

Rpi Connect

V 0.1.2 21.nov.2025

WebCam Web-Interface with motion

V 0.1.1 30.jul.2025

Ssh keys

V 0.1.0 24.jul.2025

First try/First Creation

Intro

Goal

Use Raspi at master side for camera and Jenkins

Setup 4 Raspi Imager

Setup Standard OS with desktop; without recommended Software.

Before burning image select:

Hostname: aekarina

SSH User: aegiselle

SSH Password: wlwpf1030

WIFI: nothing

TimeZone: Eu/Berlin

Keyboard; de

ssh key pub add
with ssh-rsa at Beginning and without comment at End
Attention: install with ssh key makes access without impossible
Decision: don't use ssh-key here

Installation

Generate keys

(Do it only once)

```
ssh-keygen -N "" -t rsa -f aegiselle_sshkey
```

Raspi-config

- Display options
  - VNC Reslolution
    - 1280x720
- Interface options
  - VNC
    - Enable Yes

Sudo reboot

Preparations inside raspi

Call copy_first.bat or

```
scp -i aegiselle_sshkey install_basics.sh install_jenkins.sh aegiselle_sshkey.pub
watchmen.jar camera1.conf camera2.conf motion.conf
aegiselle@aekarina.kwangya:~
```

Make scripts executable

```
ssh %USER%@%TARGET% chmod a+rwx *.sh
```

Update System

Execute install_basics.sh script (as root)

```
apt update
apt upgrade -y

apt install ca-certificates-java -y
apt install default-jdk -y
apt install libpangoft2-1.0-0 -y
apt install libgles-dev -y

apt install mc -y
```

Jenkins

Follow instructions from

https://pkg.jenkins.io/debian/

Step1

```
sudo wget -O /etc/apt/keyrings/jenkins-keyring.asc https://pkg.jenkins.io/debian/jenkins.io-2023.key
```

Step2

```
echo "deb [signed-by=/etc/apt/keyrings/jenkins-keyring.asc]" https://pkg.jenkins.io/debian binary/ | sudo tee
/etc/apt/sources.list.d/jenkins.list > /dev/null
```

Step3

```
sudo apt-get update

sudo apt-get install fontconfig openjdk-17-jre (already in)

sudo apt-get install jenkins
```

nach reboot erreichbar mit

```
http://aekarina.kwangya:8080/
```

Decision: don’t move the port
nach port Umlegung erreichbar mit

```
http://aekarina.kwangya
```

Found initial password

Paste into browser

Change HTTP Port of jenkins

Edit systemd config file in

```
/lib/systemd/system/jenkins.service
```

Environment="JENKINS_PORT=80"

AmbientCapabilities=CAP_NET_BIND_SERVICE

First start of jenkins

Get initial password

```
sudo cat /var/lib/jenkins/secrets/initialAdminPassword
```

After initial password:
Install suggested plugins

Install first admin account

```
aegiselle
wlwpf1030
```

Not successful editing of

```
/etc/default/jenkinssudo
```

edit as root

HTTP_PORT=80

check

```
netstat -tan
```

Video cameras local

Show with

```
ffplay -fs /dev/video0
ffplay -fs /dev/video2
```

Why not 1 ???

Video cameras Web-If

Install motion with

```
sudo apt install motion
```

create parameter dir

```
mkdir .motion
```

insert create files

```
.motion/motion.conf
.motion/camera0.conf
.motion/camera2.conf
```

activate manually

```
motion
```

by start problems

```
sudo mkdir /var/log/motion
sudo chmod a+rwx /var/log/motion
```

template files after installation

```
/etc/motion/motion.conf
```

template create in

```
~/.motion/motion.conf
```

Performance is weak; activate only manually

Autostart installation

Copy install files to

/etc/motion

RPI Connect

Rpi Connect anmachen (wegen ChromeOSFlex)

Enable in raspi-config
Use local VNC to go on desktop
Sign-in at

```
https://id.raspberrypi.com/sign-in
```

Create a device and sign in as aewinter.kwangya

Check by using a ChromOSFlex device to view

Preparation for usage as src development

sudo apt install code
sudo apt install git

Last Step

Raspi-config

Activate overlay file system

Appendix

OpenSSH in Windows

Location

c:\Windows\System32\OpenSSH

Ssh files:

```
09.04.2025  13:31           430.080 scp.exe
09.04.2025  13:31           457.728 sftp.exe
09.04.2025  13:31           602.624 ssh-add.exe
09.04.2025  13:31           553.984 ssh-agent.exe
09.04.2025  13:31           861.184 ssh-keygen.exe
09.04.2025  13:31           661.504 ssh-keyscan.exe
09.04.2025  13:31           514.048 ssh-pkcs11-helper.exe
09.04.2025  13:31           653.312 ssh-sk-helper.exe
09.04.2025  13:31         1.246.208 ssh.exe
```

SSH to installation

On Computer A the client pack and raspi at kwangya installations are generatet,
More than one client packs a re given users at Computers B and C.
The terninal accesses at B and C must be ready without more ssh actions.
Terminal access with a simple call of a prepared batch file.
Name of user and computer at B and C must be unimportant.
Users must NOT know what is ssh; they got a one click method to get a terminal.
No files at HOME$/.ssh on computers B and C.
Everything what is necessary to get terminal must be usage ready in the prepared client pack.

Fuck

Bad permissions at windows after copying key files

Questions

Jenkins in headless environment

How to know which video channels exists

Options

Telnet server

Install

```
sudo apt install telnetd xinetd
```

Edit create file as root

```
/etc/xinetd.d/telnet
```

content

```
service telnet
{
 disable      = no
 flags        = REUSE
 socket_type     = stream
 user         = root
 wait         = no
 server       = /usr/sbin/telnetd
 log_on_failure  += USERID
 port         = 23
}
```

Check with

```
sudo systemctl restart xinetd
sudo systemctl status xinetd
netstat -tan
```

Info

Locatoion of .desktop files
/usr/share/applications
(created in raspi but empty)

/usr/local/share/applications
(not used in raspi)

~/.local/share/applications
(created in raspi but empty)

Links

https://specifications.freedesktop.org/desktop-entry-spec/desktop-entry-spec-latest.html

https://forums.raspberrypi.com/viewtopic.php?t=324883
Hint for camera motion setup

https://www.raspberrypi.com/documentation/computers/camera_software.html

https://fatvalley.at/blog/videostreaming-von-raspi-mediamtx-zu-janus-webrtc-server

Profiles

Other