

Install Raspi left Unnie Side

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History

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 Resolution
 - 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+rx *.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/jenkins`

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

Preparation for usage as src development

sudo apt install code

sudo apt install git

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-mediatrix-zu-janus-webrtc-server>

Profiles

Other