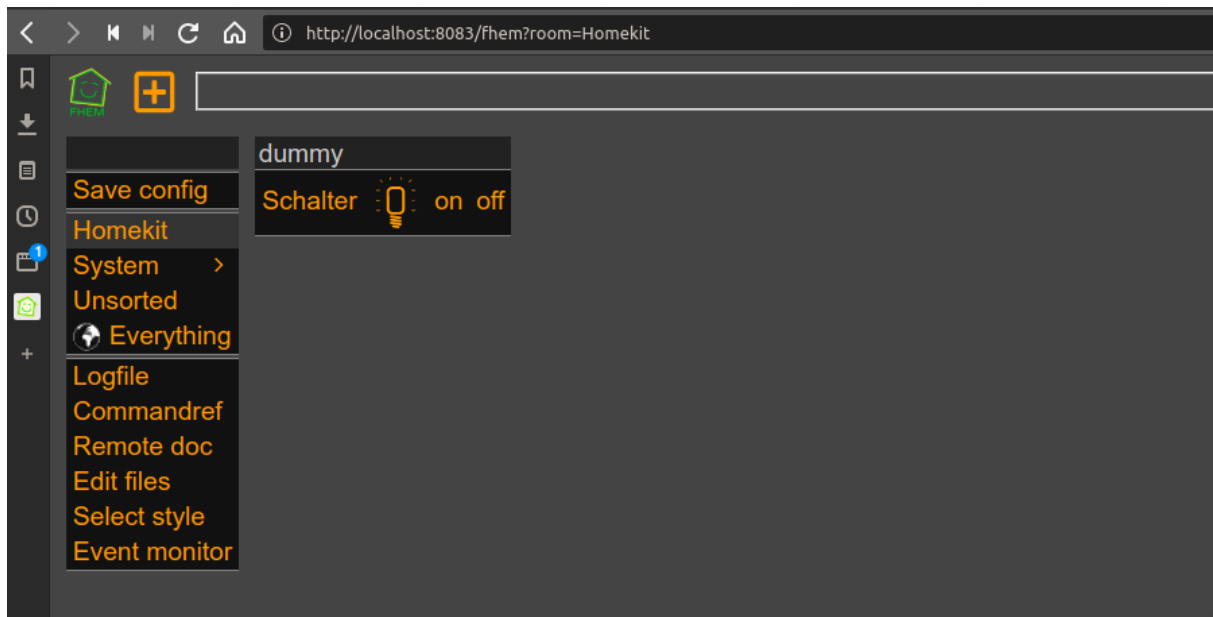


---

## Home Automation Stack



The stack contains everything to run FHEM on a Docker host. Mosquitto is used as message broker. SIRI functions are realized with the help of a homebridge container. The complete stack runs on x86 as well as arm architectures. It is very easy to clone its complete productive environment and has a simple way to build a test system.

### Todo

- deCONZ Image Container Integration
- DBLog Integration

### Requirements

- docker
- docker-compose

### Installation raspberrypi

#### Raspian Download

Download the image of your choice: Raspian Download Unzip the image and install it with:

---

```
1  sudo dd bs=4M if=2019-09-26-raspbian-buster-full.img of=/dev/mmcblk0
   conv=fsync
2  sync
```

Eject the card and insert it again to mount the filesystems boot & rootfs. Touch a blank file ssh to enable

```
1  sudo touch /media/boot/ssh
2  sync
3  umount /media/boot
4  umount /media/rootfs
```

Eject the card and insert into your raspberry. After that power on the rpi and login with the known

```
1  ssh pi@raspberrypi4
```

```
1  pi@raspberrypi:~ $ passwd
2  Changing password for pi.
3  Current password:
4  New password:
5  Retype new password:
6  passwd: password updated successfully
7  pi@raspberrypi:~ $
```

### System Update

```
1  sudo apt-get update
2  sudo apt-get dist-upgrade
```

### Raspberry Config

1) Expand the root filesystem (A1 / Advanced Options)

2) Update raspi-config

```
sudo raspi-config sudo reboot
```

### Intall additional packages

```
1  sudo apt-get install wget git apt-transport-https vim telnet
```

---

## Install docker & docker-compose

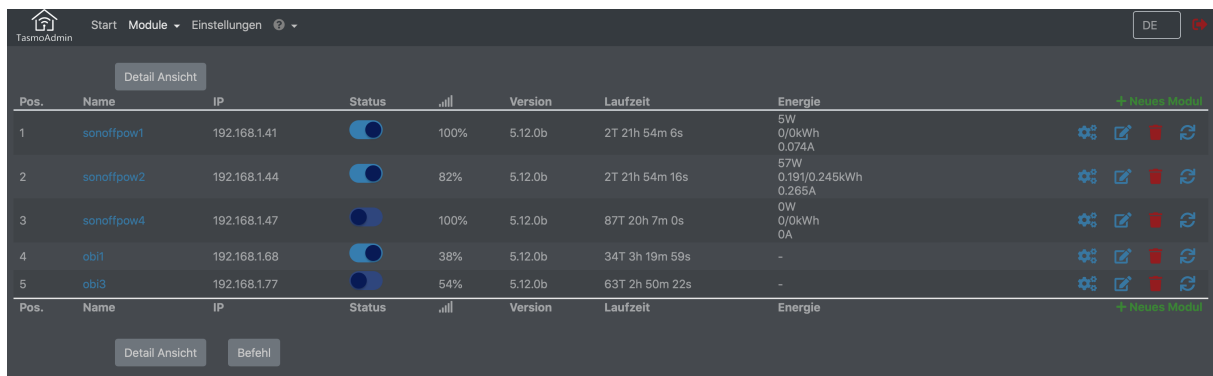
```
1 #curl -sSL https://get.docker.com | sh
2 #sudo systemctl enable docker
3 #sudo systemctl start docker
4 sudo apt-get install docker docker-compose
5 sudo usermod -aG docker pi
6 sudo reboot
```

## git repository export and start all container

```
1 cd
2 git clone https://github.com/stormmurdock/fhemdocker.git
3 cd fhemdocker
4 docker-compose up
```

## Container

### Tasmota Admin



The screenshot shows the Tasmota Admin web interface. At the top, there is a navigation bar with 'Start', 'Module', and 'Einstellungen' (Settings). A 'DE' language selector is in the top right. Below the navigation bar, there is a 'Detail Ansicht' (Detail View) button. The main content area displays a table of modules. The table has columns for 'Pos.', 'Name', 'IP', 'Status', 'Signal', 'Version', 'Laufzeit' (Runtime), and 'Energie' (Energy). There are five modules listed: 'sonoffpow1', 'sonoffpow2', 'sonoffpow4', 'obi1', and 'obi3'. Each module row includes a status toggle, a signal strength indicator, and a set of icons for configuration, edit, delete, and refresh. At the bottom of the table, there are 'Detail Ansicht' and 'Befehl' (Command) buttons.

Pos.	Name	IP	Status	Signal	Version	Laufzeit	Energie	
1	sonoffpow1	192.168.1.41		100%	5.12.0b	2T 21h 54m 6s	5W 0/0kWh 0.074A	
2	sonoffpow2	192.168.1.44		82%	5.12.0b	2T 21h 54m 16s	57W 0.191/0.245kWh 0.265A	
3	sonoffpow4	192.168.1.47		100%	5.12.0b	87T 20h 7m 0s	0W 0/0kWh 0A	
4	obi1	192.168.1.68		38%	5.12.0b	34T 3h 19m 59s	-	
5	obi3	192.168.1.77		54%	5.12.0b	63T 2h 50m 22s	-	

Abbildung 1: "tasmotaadmin"

---

## Tasmota Compiler

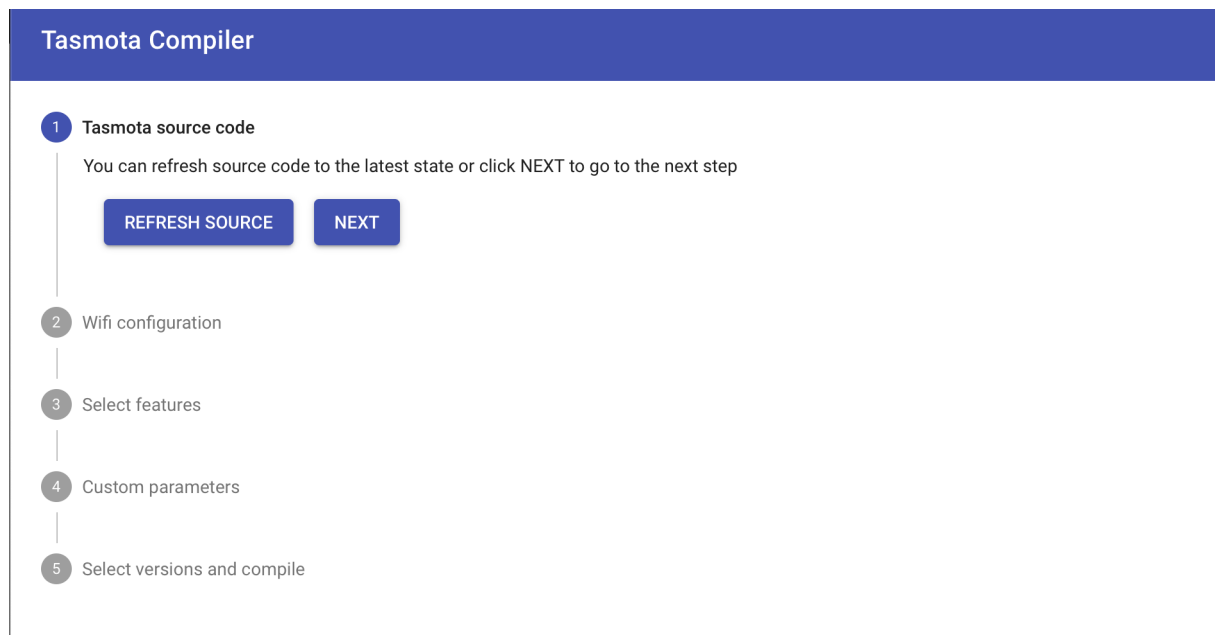


Abbildung 2: "tasmotacompiler"

## Homebridge

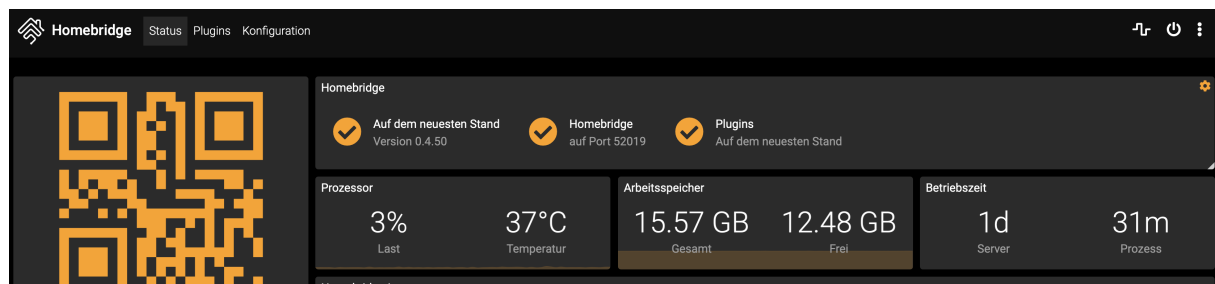


Abbildung 3: "homebridge"

The screenshot shows the Portainer web interface. On the left is a dark sidebar with navigation links: Home, PRIMARY, Dashboard, App Templates, Stacks, Containers, Images, Networks, Volumes, Events, Host, SETTINGS, Extensions, Endpoints, Registries, and Settings. The main area displays the console output of a terminal session executed within a container.

**Portainer**

Containers > themdocker\_them\_1 > Console

> Execute

Exec into container as default user using command bash Disconnect

```
For CVS updates and additional information, see
the CVS home page at http://www.nongnu.org/cvs/ or
the CVSNT home page at http://www.cvsnt.org/

fhem07680499e223d:~$ ls -l
total 792
drwxr-xr-- 1 fhem fhem 324735 Jan 26 19:30 CHANGED
-rw-r----- 1 fhem fhem 18092 Jan 25 10:21 COPYING
drwxr-xr-- 6 fhem fhem 20480 Jan 25 11:32 FHEM
-rw-r----- 1 fhem fhem 28513 Jan 25 10:21 HISTORY
-rw-r----- 1 fhem fhem 42382 Jan 25 10:21 MAINTAINER.txt
-rw-r----- 1 fhem fhem 5061 Jan 25 10:21 Makefile
-rw-r----- 1 fhem fhem 374 Jan 25 10:21 README.SVN
-rw-r----- 1 fhem fhem 935 Jan 25 10:21 README.DEMO.txt
-rw-r----- 1 fhem fhem 1978 Jan 25 10:21 UPGRADE
-rw-r----- 1 fhem fhem 39782 Jan 25 10:21 configDB.pm
drwxr-xr-- 45 fhem fhem 4096 Jan 25 10:21 contrib
drwxr-xr-- 3 fhem fhem 4096 Jan 25 10:21 demolog
drwxr-xr-- 4 fhem fhem 4096 Jan 25 11:32 docs
-rw-r----- 1 fhem fhem 38927 Jan 26 22:21 fhem.cfg
-rw-r----- 1 fhem fhem 38628 Jan 26 19:29 fhem.cfg.bak
-rw-r----- 1 fhem fhem 516 Jan 25 10:21 fhem.cfg.default
-rw-r----- 1 fhem fhem 25544 Jan 25 10:21 fhem.cfg.demo
-rw-r----- 1 fhem fhem 159742 Jan 25 11:32 fhem.pl
drwxr-xr-- 2 fhem fhem 4096 Jan 26 22:21 log
drwxr-xr-- 4 fhem fhem 4096 Jan 25 10:21 restoreDir
-rw-r----- 1 fhem fhem 0 Jan 25 10:21 run
drwxr-xr-- 2 fhem fhem 4096 Jan 26 19:30 unused
drwxr-xr-- 6 fhem fhem 4096 Jan 25 10:21 webfrontend
drwxr-xr-- 8 fhem fhem 4096 Jan 25 10:21 www

fhem07680499e223d:~$
```

**ctop**

## ctop is a commandline monitoring tool for linux containers

ctop - 11:34:11 CET 7 containers							
	NAME	CID	CPU	MEM	NET RX/TX	IO R/W	PIDS
+	fhemdocker_adminer_1	e44706321c50	<div><div></div></div> 0%	<div><div></div></div> 4M / 15.57G	7K / 220B	0B / 0B	1
+	fhemdocker_fhem_1	f020468390c	<div><div></div></div> 5%	<div><div></div></div> 77M / 15.57G	19K / 39K	0B / 276K	4
+	fhemdocker_homebridge_1	b91447962583	<div><div></div></div> 0%	<div><div></div></div> 128M / 15.57G	0B / 0B	0B / 60K	39
+	fhemdocker_portainer_1	857f74666414	<div><div></div></div> 0%	<div><div></div></div> 9M / 15.57G	15K / 1K	0B / 148K	18
+	fhemdocker_tasmocompil...	ffdfed452715	<div><div></div></div> 0%	<div><div></div></div> 41M / 15.57G	7K / 110B	0B / 4K	18
+	fhemdocker_tasmotaadm...	fc63ff98fe7	<div><div></div></div> 0%	<div><div></div></div> 12M / 15.57G	8K / 110B	0B / 8K	10
+	fhemdocker_broker_1	c442b745308f	<div><div></div></div> -	-	-	-	-

## Installation

5

---

## Installation Linux

```
1 sudo wget https://github.com/bcicen/ctop/releases/download/v0.7.3/  
   ctop-0.7.3-linux-amd64 -O /usr/local/bin/ctop  
2 sudo chmod +x /usr/local/bin/ctop
```

```
1 sudo wget https://github.com/bcicen/ctop/releases/download/v0.7.3/  
   ctop-0.7.3-linux-arm -O /usr/local/bin/ctop  
2 sudo chmod +x /usr/local/bin/ctop
```