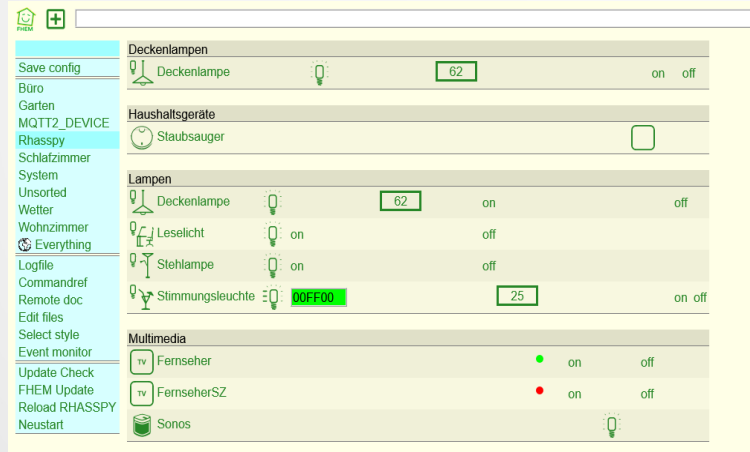


# fhem-rhasspy

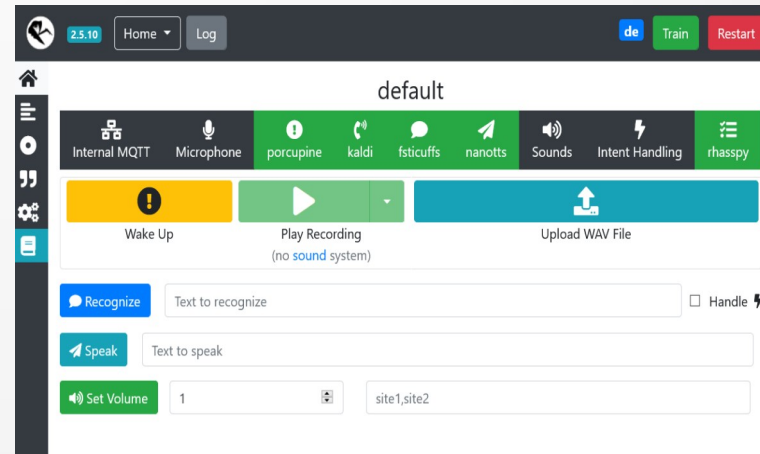


# RHASSPY

## Sprachsteuerung von FHEM mit Rhasspy



Jörg (Beta-User)  
Stefan (drhirn)

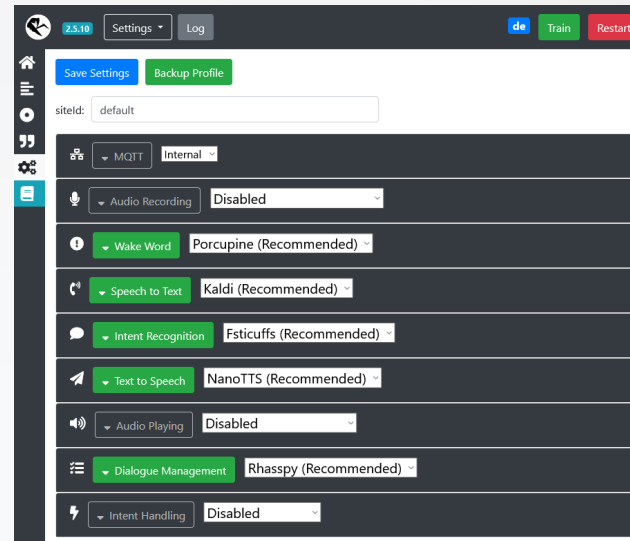


# Über Rhasspy (ɹ'æspi)



# RHASSPY

- Open-Source
- Offline
- Hermes Protokoll kompatibel
- Viele unterstützte Sprachen
- Besteht aus voneinander unabhängigen Services
- Anbindung externer Services via MQTT, HTTP und Websockets
- Vordefinierte Sprachkommandos mittels eigener „Grammatik“
- Sprachkommandos mit unüblichen Worten oder Aussprache
- Konfiguration über Web-Interface



# Rhasspy – Hardware Anforderungen

Mindestens eine „Base“ inkl. Audio-Hardware

## Base-Hardware:

- Raspberry Pi
- Desktop / Laptop
- Server

## Audio-Hardware:

- Mikrofon / Lautsprecher
- ReSpeaker RPi Hat
- Android App

# Rhasspy - Beispielkonfiguration

- Base
  - Docker-Container auf potenter Hardware/VM
- Satellit
  - Raspberry Pi 3A+
  - ReSpeaker 2-MIC Pi Hat
  - Lautsprecher

# Rhasspy - Installation

- Docker
- Debian-basierte Distributionen (Ubuntu, Pi OS, etc)
- Virtual Environment
- Windows Subsystem for Linux (WSL)

• (Hass.io)

# Rhasspy - Installation

- nur Base
  - Raspberry Pi (Docker)
- Base + Satellit
  - Raspberry Pi + Android App
  - Server + Raspberry Pi
  - Server mit 2 Rhasspy Installationen
  - Beliebige Kombination aus den genannten

# Über them-rhasspy

- Weiterentwicklung von Tobias (Thyraz) Snips-Modul
- Abonniert MQTT Topics von Rhasspy
- Interpretiert MQTT-Payload
- Führt gewünschte Befehle aus
- Sendet Antwort an Rhasspy zurück
- Erstellt Slots (u. Sentences) in Rhasspy

# fhem-rhasspy - Intents

- SetOnOff
- SetOnOffGroup
- GetOnOff
- SetNumeric
- SetNumericGroup
- GetNumeric
- GetState
- MediaControls
- MediaChannels
- SetColor
- GetTime
- GetWeekDay
- SetTimer
- SetMute
- ReSpeak



# fhem-rhasspy – Einbindung in FHEM

- MQTT2\_CLIENT

```
define rhasspyMQTT2 MQTT2_CLIENT <ip:port>

attr rhasspyMQTT2 clientOrder
RHASSPY
MQTT_GENERIC_BRIDGE
MQTT2_DEVICE

attr rhasspyMQTT2 subscriptions
hermes/intent/+
hermes/dialogueManager/sessionStarted
hermes/dialogueManager/sessionEnded
```

# fhem-rhasspy – Einbindung in FHEM

## Definition des Devices

```
define <name> RHASSPY
    <baseUrl>
    <devspec>
    <defaultRoom>
    <language>
    <fhemId>
    <prefix>
    <useGenericAttrs>
    <encoding>
```

# fhem-rhasspy – Einbindung in FHEM

## Einfache Definition

```
define Rhasspy RHASSPY
```

## Ausführliche Definition

```
define Rhasspy RHASSPY baseUrl=http://192.160.2.122:12101  
devspec=genericDeviceType=.+ defaultRoom=wohnzimmer language=de  
fhemId=fhem1 prefix=rhasspy2 useGenericAttrs=1 encoding=cp-1252
```

# fhem-rhasspy – Einbindung in FHEM

## Einfache Definition

```
"Internals": {  
  "CFGFN": "",  
  "FUUID": "607e84f9-f33f-a3a6-66cc-1024f48ef03cc0f7",  
  "IODev": "RhasspyMQTT2",  
  "LANGUAGE": "en",  
  "MODULE_VERSION": "0.4.9",  
  "NAME": "Rhasspy",  
  "NR": "92",  
  "STATE": "127.0.0.1: Connection refused (111)",  
  "TYPE": "RHASSPY",  
  "baseUrl": "http://127.0.0.1:12101",  
  "devspec": "room=Rhasspy",  
  "encoding": "null",  
  "fhemId": "fhem",  
  "prefix": "rhasspy",  
  "useGenericAttrs": "1"  
},
```

## Ausführliche Definition

```
"Internals": {  
  "CFGFN": "",  
  "DEF": "baseUrl=http://192.160.2.122:12101 devspec=genericDeviceType=.",  
  "FUUID": "607e874f-f33f-a3a6-2bb2-eb75ac329fe80d73",  
  "IODev": "RhasspyMQTT2",  
  "LANGUAGE": "de",  
  "MODULE_VERSION": "0.4.9",  
  "NAME": "Rhasspy",  
  "NR": "187",  
  "STATE": "192.160.2.122: Connection refused (111)",  
  "TYPE": "RHASSPY",  
  "baseUrl": "http://192.160.2.122:12101",  
  "devspec": "genericDeviceType=.",  
  "encoding": "cp-1252",  
  "fhemId": "fhem1",  
  "prefix": "rhasspy2",  
  "useGenericAttrs": "1"  
},
```

# fhem-rhasspy – Einbindung Gerät

- Traditionelle RHASSPY Attribute

- rhasspyName
- rhasspyRoom
- rhasspyGroup
- rhasspyMapping
- rhasspyChannels
- rhasspyColors

rhasspyGroup	Lampen
rhasspyMapping	SetOnOff:cmdOn=on,cmdOff=off GetOnOff:currentVal=state,valueOff=off
rhasspyName	Leselicht
rhasspyRoom	Büro

```
Leselicht:
  alias      leselicht
  groups     lampen
  rooms      büro
  intents:
    GetOnOff:
      GetOnOff:
        currentVal state
        type        GetOnOff
        valueOff    off
    SetOnOff:
      SetOnOff:
        cmdOff      off
        cmdOn       on
        type         SetOnOff
```

# fhem-rhasspy – Einbindung Gerät

- genericDeviceType
  - switch
  - light
  - thermostat
  - blind
  - media

alias	Nachtlicht
genericDeviceType	switch
group	Lampen
room	Rhasspy,Schlafzimmer

```
NachtlichtKZ:
alias      Nachtlicht
groups     lampen
rooms      rhasspy,schlafzimmer
intents:
  GetOnOff:
    GetOnOff:
      currentVal state
      type        GetOnOff
      valueOff    off
  SetOnOff:
    SetOnOff:
      cmdOff      off
      cmdOn       on
      type        SetOnOff
```

# fhem-rhasspy – Links

- Rhasspy
  - GitHub: <https://github.com/rhasspy>
  - Doku: <https://rhasspy.readthedocs.io/en/latest/>
  - Community: <https://community.rhasspy.org/>
- fhem-rhasspy:
  - <https://github.com/drhirn/fhem-rhasspy>