

Neuinstallation ioBroker auf einem Banana Pi M2 Ultra

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Das Grundsystems

Installation

Die Verwendung von InfluxDB 2.x setzt ein 64-bit Betriebssystem voraus.
Ein Desktop bzw. eine vollständige grafische Oberfläche wird nicht benötigt. Daher bezeichnet man ein solches System als „Headless“. Somit basiert dieses Heimautomatisierungsprojekt auf einem Banana Pi M2 Ultra (32bit).

Installation siehe [hier](#).

Konfiguration

Während des Bootvorganges erhält der Raspberry eine IP Adresse vom Router. Diese kann über die entsprechende Weboberfläche des Routers ermittelt werden.

```
# Grundsystem auf den aktuellen Stand bringen:  
ssh -l root <IP>  
# default Passwort: "1234"  
# Passort ändern Dialog abarbeiten!  
  
# System auf der SATA HDD installieren denn der Emmc Flash hat mit 8GB zu  
wenig Platz ;-)  
armbian-install
```

```
apt-get update && sudo apt-get upgrade
apt-get install aptitude mc apt-transport-https software-properties-common
wget

# Feste IP für eth0 einstellen:
mv /etc/netplan/10-dhcp-all-interfaces.yaml /root/
mcedit /etc/netplan/20-static-ip.yaml

network:
  version: 2
  renderer: networkd
  ethernets:
    ens3:
      addresses:
        - 192.168.10.11/24
      routes:
        - to: default
          via: 192.168.10.1
      nameservers:
        addresses:
          - 192.168.10.1
          - 192.168.100.1

reboot
# 

# Die folgenden Schritte sind nicht notwendig, wenn das System auf eine SATA
HDD installiert wird.
mkdir -p /mnt/sda1
# UUID der externen HDD ermitteln:
blkid
# fstab Eintrag erzeugen
echo "UUID="xxxxxxxxxxxxxxxxxxxxx" /mnt/sda1 ext4 defaults 0 1" >>
/etc/fstab
systemctl daemon-reload
mount -a
```

InfluxDB 1.x

Quelle: <https://docs.influxdata.com/influxdb/v1/introduction/install/>

Installation

```
sudo su
# wget -q https://repos.influxdata.com/influxdata-archive_compatible.key
# echo '393e8779c89ac8d958f81f942f9ad7fb82a25e133faddaf92e15b16e6ac9ce4c'
```

```

influxdata-archive_compat.key' | sha256sum -c && cat influxdata-
archive_compat.key | gpg --dearmor | sudo tee
/etc/apt/trusted.gpg.d/influxdata-archive_compat.gpg > /dev/null
#echo 'deb [signed-by=/etc/apt/trusted.gpg.d/influxdata-archive_compat.gpg]
https://repos.influxdata.com/debian stable main' | sudo tee
/etc/apt/sources.list.d/influxdata.list

# influxdata-archive_compat.key GPG Fingerprint:
9D539D90D3328DC7D6C8D3B9D8FF8E1F7DF8B07E
wget -q https://repos.influxdata.com/influxdata-archive_compat.key
echo '393e8779c89ac8d958f81f942f9ad7fb82a25e133faddaf92e15b16e6ac9ce4c
influxdata-archive_compat.key' | sha256sum -c && cat influxdata-
archive_compat.key | gpg --dearmor | sudo tee
/etc/apt/trusted.gpg.d/influxdata-archive_compat.gpg > /dev/null
echo 'deb [signed-by=/etc/apt/trusted.gpg.d/influxdata-archive_compat.gpg]
https://repos.influxdata.com/debian stable main' | sudo tee
/etc/apt/sources.list.d/influxdata.list

apt-get update
apt-get install influxdb

systemctl unmask influxdb.service
systemctl enable influxdb
systemctl start influxdb
systemctl status influxdb

```

Konfiguration

```

sudo su
influx
> CREATE USER "admin" WITH PASSWORD 'influxdbadmin' WITH ALL PRIVILEGES
> CREATE USER "iobroker" WITH PASSWORD 'iobroker'
> CREATE DATABASE "iobroker"
> GRANT ALL ON "iobroker" TO "iobroker"
> exit
#
mcedit /etc/influxdb/influxdb.conf
[http]
enabled = true
bind-address = ":8086"
auth-enabled = true
log-enabled = true
write-tracing = false
pprof-enabled = true
https-enabled = false
#
systemctl restart influxdb

```

Datenbankgröße ermitteln

```
sudo su
du -sh /var/lib/influxdb/data/iobrokerdb/
```

Backups

Quelle:

https://docs.influxdata.com/influxdb/v1/administration/backup_and_restore/#back-up-all-databases

Erstellen

```
sudo su
influxd backup -portable /path/to/backup-destination
# or do it in one line:
cd /; influxd backup -portable /mnt/usb-stick/backup/influxdb/\`date +%Y%m%d\`
```

Wiederherstellen

```
sudo su
influxd restore -portable /path/to/backup-destination
```

InfluxDB 2.x

Installation

```
sudo su
cd ~
wget -q https://repos.influxdata.com/influxdata-archive_compatible.key
echo '393e8779c89ac8d958f81f942f9ad7fb82a25e133faddaf92e15b16e6ac9ce4c
influxdata-archive_compatible.key' | sha256sum -c && cat influxdata-
archive_compatible.key | gpg --dearmor | sudo tee
/etc/apt/trusted.gpg.d/influxdata-archive_compatible.gpg > /dev/null
echo 'deb [signed-by=/etc/apt/trusted.gpg.d/influxdata-archive_compatible.gpg]
https://repos.influxdata.com/debian stable main' | sudo tee
/etc/apt/sources.list.d/influxdata.list
apt-get update
apt-get install influxdb2
systemctl start influxdb
systemctl status influxdb
```

Konfiguration

Die Konfiguration der InfluxDB erfolgt über den Browser via <http://RASPI-IP:8086>.

Grafana

Installation

```
sudo su
# wget -q -O /usr/share/keyrings/grafana.key https://apt.grafana.com/gpg.key
#echo "deb [signed-by=/usr/share/keyrings/grafana.key]
https://apt.grafana.com stable main" | sudo tee -a
/etc/apt/sources.list.d/grafana.list
# wget -q -O - https://packages.grafana.com/gpg.key | sudo apt-key add -
#echo "deb https://packages.grafana.com/oss/deb stable main" | sudo tee -a
/etc/apt/sources.list.d/grafana.list

sudo mkdir -p /etc/apt/keyrings/
wget -q -O - https://apt.grafana.com/gpg.key | gpg --dearmor | sudo tee
/etc/apt/keyrings/grafana.gpg > /dev/null
echo "deb [signed-by=/etc/apt/keyrings/grafana.gpg] https://apt.grafana.com
stable main" | sudo tee -a /etc/apt/sources.list.d/grafana.list

apt-get update
# Install the latest OSS release:
apt-get install -y grafana
# Start System Service aka. Server
systemctl daemon-reload
systemctl start grafana-server
systemctl status grafana-server
systemctl enable grafana-server.service
```

Grafana Server: <http://IP:3000>

Grafana ohne Login

```
mcedit /etc/grafana/grafana.ini
# [auth.anonymous]
enabled = true
systemctl restart grafana-server
```

Backup

Quelle: <http://cactusprojects.com/backup-restore-grafana/>

Erstellen

```
sudo su
cp /var/lib/grafana/grafana.db /path/to/backup-destination
cp /etc/grafana/grafana.ini /path/to/backup-destination
# or do it in one line:
cd /; mkdir /mnt/usb-stick/backup/grafana/`date +%Y%m%d` ; cp
/etc/grafana/grafana.ini /mnt/usb-stick/backup/grafana/`date +%Y%m%d` ; cp
/var/lib/grafana/grafana.db /mnt/usb-stick/backup/grafana/`date +%Y%m%d`
```

Wiederherstellen

```
sudo su
cd /path/to/backup-destination
cp grafana.db /var/lib/grafana/
cp grafana.ini /etc/grafana/
```

ioBroker

Wiederherstellung

Folgende Backup Dateien via Backup Adapter wieder einsoielen:

- iobroker_<TIMESTAMP>_backuiprovider.tar.gz
- influxDB_<TIMESTAMP>_backuiprovider.tar.gz
- grafana_<TIMESTAMP>_backuiprovider.tar.gz
- javascripts_<TIMESTAMP>_backuiprovider.tar.gz

Installation

```
sudo su
# automatische Installation:
curl -sLf https://iobroker.net/install.sh | bash -
```

Nach der Installation ist die ioBroker Instanz erreichbar unter <http://<Raspberry-Pi-IP>:8081>.

Steuerung

```
# ioBroker starten:
iobroker start
# ioBroker stoppen:
iobroker stop
```

```
# ioBroker Infos anzeigen  
ioBroker info
```

Backups

Erstellung

Siehe unten → Script oder per 'Backup' Adapter

Wiederherstellung

- Verzeichniss '/opt/iobroker/backups' anlegen
- Kopieren des Backups dort hinein

Backups die mit dem Backup-Adapter erstellt wurden können nachdem kopieren via Web-Interface wieder eingespielt werden.

Alternativ kann auch die Konsole verwendet werden:

```
sudo su  
cd /opt/iobroker  
iobroker stop  
iobroker restore 0  
iobroker stop
```

Adapter installieren

Als Adapter werden alle Schnittstellen zu externen aber auch zu internen Datenquellen (z.B. Shelly Sensoren, Temperatur, Luftfeuchte, GPIO, 1-Wire, etc.) und Senken (Shelly Aktoren) bezeichnet.

- influxDB (Datenbank zur Speicherung von Messwerten)
- DS18B20 (Auslesen von 1-Wire Temperatursensoren)
- HABpanel (Steuerung von Aktoren via Webseite)
- Jeelink-Geräte (Empfangen von 868MHz LaCrosse Temperatur- und Feuchtesensoren (hier z.B. TX29DTH-IT) mit Hilfe eines Jeelink Klones)
- MQTT Broker (zur Datenverarbeitung von MQTT-fähigen Sensoren und Aktoren)
- Philips Luftreiniger (für die Anbindung eines Philips Air Purifier 4000i Series (Typ: AC4236/10))
- RPI-Monitor (Nutzung von GPIOs z.B. zum Einlesen eines Reed-Kontaktes für den Gaszähler)
- Skriptausführung (Javascript und Blockly)
- WEB-Server (für HABpanel)
- Shelly

The screenshot shows a grid of 12 adapter cards:

- admin**: Admin (5 stars)
- backupup**: BackItUp (5 stars)
- influxdb**: Daten mit InfluxDB protokollieren (5 stars)
- ds18b20**: DS18B20 (5 stars)
- simple-api**: Einfache RESTful API (5 stars)
- discovery**: Gerätesuche (5 stars)
- habpanel**: HABpanel (5 stars)
- jeelink**: Jeelink-Geräte (5 stars)
- mqtt**: MQTT Broker/Client (5 stars)
- philips-air**: Philips Luftreiniger (5 stars)
- rpi2**: RPI-Monitor (5 stars)
- javascript**: Skriptausführung (5 stars)
- socketio**: socket.io (5 stars)
- ws**: Web socket (5 stars)
- web**: WEB-Server (5 stars)

Adapter konfigurieren

Die oben aufgeführten Adapter sind nach der Installation unter **Instanzen** zu finden und müssen dort konfiguriert werden.

1-Wire

DS18B20

The screenshot shows the "Instanzeinstellungen: ds18b20.0" configuration screen. The "SENSOREN" tab is selected. The table lists two sensors:

Adresse	Remote-System-ID	Name	Abfrageintervall	Einheit	Faktor	Offset	Dezimalstellen	Null bei Fehler	Aktiviert	...
10-00080359c712	keins	Vorlauftemperatur	Standard	°C	1	0	2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="button" value="↓"/>
10-00080359e7fe	keins	Rücklauftemperatur	Standard	°C	1	0	2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="button" value="↑"/>

JeeLink

TBC - Empfänger bauen und programmieren → TBC

Jeelink Settings

/dev/ttyUSB0	57600
Serial port	Baud rate
/dev/ttyUSB0 or /dev/ttyACME0	usually 57600

Jeelink Command (trial)

Befehl aktivieren
usually empty

Befehl für Stick-Setup
usually empty

Sensorkonfiguration

gültige Sensortypen:
emonTH, emonWater, LaCrosseDTH, LaCrosseDTT, LaCrosseBMP180, HMS100T, LaCrosseWS, EC3000, EMT7110, level

	GET FROM ADAPTER				
	id	type	uid	Name	Löschen
1	22	LaCrosseDTH	Badezimmer	THS_#03	
2	43	LaCrosseDTH	Küche	THS_#05	
3	21	LaCrosseDTH	Wohnzimmer	THS_#06	
4	11	LaCrosseDTH	Wintergarten	THS_#08	
5	14	LaCrosseDTH	Schlafzimmer	THS_#04	
6	37	LaCrosseDTH	Jonas	THS_#02	
7	40	LaCrosseDTH	IT-Schrank	THS_#09	
8	9	LaCrosseDTH	Lager	THS_#07	
9	8	LaCrosseDTH	Außensensor	THS_#00	

MQTT

Für IKEA Sensoren -> Die angepasste Firmware gibt es [hier](#).

Instanzeinstellungen: mqtt.0 v4.1.1

VERBINDUNG MQTT EINSTELLUNGEN

IP Server/Broker

IP Adresse: [IPv4] 192.168.10.11 - eth0 Port: 1883

Verbindungseinstellungen

Authentifizierungseinstellungen

Benutzer: mqttuser Passwort:
Passwort (wiederholen):

Philips

Geräte-IP
192.168.10.125

Lebenszeitüberschreitung
30000 ms

Wiederverbindungsintervall
30000 ms

Kommunikationsprotokoll
CoAP

Gaszähler

Reedkontakt am GPIO #17 - Name: Gaszähler

Instanzeinstellungen: rpi2.0

Entprellungsperiode (Debounce period)
100 ms

Die Eingänge sind hochgezogen

Die Tasten sind hochgezogen

Abfrageintervall für DHTxx / AM23xx-Geräte (ms)
Empfohlenes Minimum ist 2s. Auf Null setzen, um die Abfrage zu deaktivieren.

Port numbers relate to Broadcom SOC channel, not physical pins.

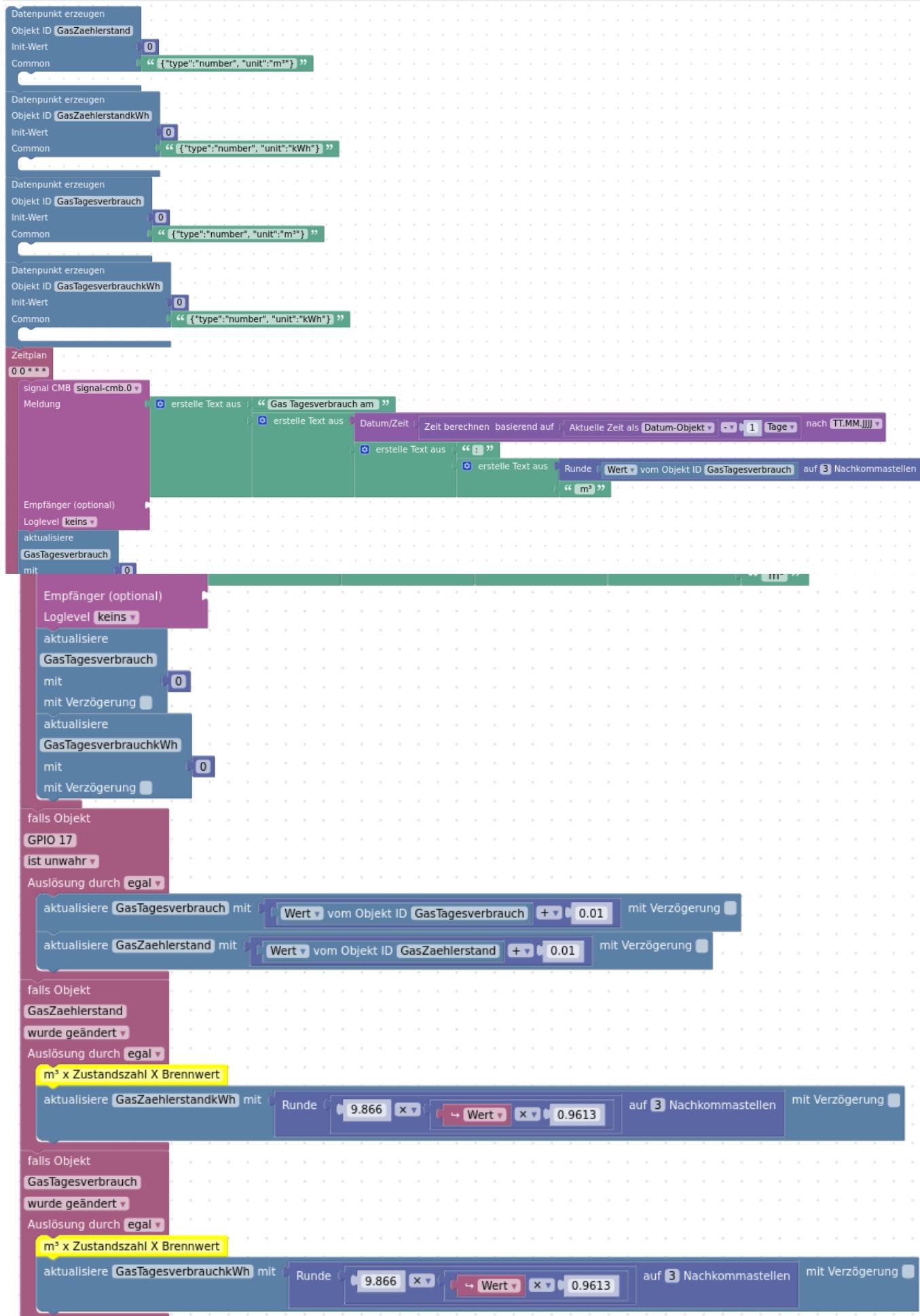
Enable 2
 Typ: Eingang Etikette:

Enable 16
 Typ: Eingang Etikette:

Enable 17
 Typ: Eingang Etikette: Gaszähler

Enable 18
 Typ: Eingang Etikette:

Blockly



Und das ganze als XML:

Title

gaszaehler_blockly.xml

```
<xml xmlns="https://developers.google.com/blockly/xml">
  <block type="create" id="0B{}LlRd,d!Br67@Vlbv" x="113" y="-112">
    <field name="NAME">GasZaehlerstand</field>
    <value name="VALUE">
      <block type="math_number" id="zCMHZ;$=evsZ~g#$%B,d">
        <field name="NUM">0</field>
      </block>
    </value>
    <value name="COMMON">
      <block type="text" id="+waJXiBe~ldn@SNBXD]b">
        <field name="TEXT">{"type": "number", "unit": "m³"}</field>
      </block>
    </value>
    <next>
      <block type="create" id="2[=]D*fweUy]z]fKRb*N">
        <field name="NAME">GasZaehlerstandkWh</field>
        <value name="VALUE">
          <block type="math_number" id="6#vjQv4JhiY|mZ`tva4+">
            <field name="NUM">0</field>
          </block>
        </value>
        <value name="COMMON">
          <block type="text" id="lD}p7.V%=!S:e/(Pj1[e">
            <field name="TEXT">{"type": "number", "unit": "kWh"}</field>
          </block>
        </value>
        <next>
          <block type="create" id="Jt^U$w~,3R~)UPJJP+$c">
            <field name="NAME">GasTagesverbrauch</field>
            <value name="VALUE">
              <block type="math_number" id="ob;_09!^uke_;c@UqtCZ">
                <field name="NUM">0</field>
              </block>
            </value>
            <value name="COMMON">
              <block type="text" id="Br7y=,dGAF9I]mb?z-, :">
                <field name="TEXT">{"type": "number",
"unit": "m³"}</field>
              </block>
            </value>
            <next>
              <block type="create" id="0S(2lth~c|{}uV)aZEoI">
                <field name="NAME">GasTagesverbrauchkWh</field>
```

```

<value name="VALUE">
  <block type="math_number" id="uL]u0d@Q!FgAK,u/~1i0">
    <field name="NUM">0</field>
  </block>
</value>
<value name="COMMON">
  <block type="text" id="?PxPe$PT.{E1el.m,Fl{">
    <field name="TEXT">{"type": "number",
"unit": "kWh"}</field>
  </block>
</value>
<next>
  <block type="schedule" id="#TX=ZX{-w2cu=Uj!nu0*}>
    <field name="SCHEDULE">0 0 * * *</field>
  <statement name="STATEMENT">
    <block type="signal-cmb" id="n4NEdLb^*N-
$c[YJUMw_>
      <field name="INSTANCE">.0</field>
      <field name="LOG"></field>
      <value name="MESSAGE">
        <shadow type="text"
id="F/ePx6FS0r+[BT|h0L68">
          <field name="TEXT">text</field>
        </shadow>
        <block type="text_join"
id="+A!rZ(7aVj!~E{6~WV0m">
          <mutation items="2"></mutation>
          <value name="ADD0">
            <block type="text"
id="8EJ*o[R;:^5;).KbZeh">
              <field name="TEXT">Gas Tagesverbrauch
            </field>
          </value>
          <value name="ADD1">
            <block type="text_join"
id="HeWwloE2zR[^)91A5vLf">
              <mutation items="2"></mutation>
              <value name="ADD0">
                <block type="convert_from_date"
id="s;*kY*B;HuSZ^~w0=Q1B">
                  <mutation
xmlns="http://www.w3.org/1999/xhtml" format="false"
language="false"></mutation>
                  <field
name="OPTION">DD.MM.YYYY</field>
                  <value name="VALUE">
                    <block type="time_calculation"
id="YM!lstPQJsLk~Nr|/C9S">
                      <field name="OPERATION">-
                    </field>

```

```
<field name="UNIT">day</field>
<value name="DATE_TIME">
  <shadow type="time_get"
id="*vxqb!BXG7I/C$mm0(,6">
  <mutation
    xmlns="http://www.w3.org/1999/xhtml" format="false"
    language="false"></mutation>
  <field
    name="OPTION">object</field>
  </shadow>
  <block type="time_get"
id="c7c*a4_Wl/:1^bYj[5Gv">
  <mutation
    xmlns="http://www.w3.org/1999/xhtml" format="false"
    language="false"></mutation>
  <field
    name="OPTION">object</field>
  </block>
  </value>
  <value name="VALUE">
    <shadow type="math_number"
id="|4-%[@-^:5+J56T:106m">
      <field name="NUM">1</field>
      </shadow>
      </value>
      </block>
      </value>
    <value name="ADD1">
      <block type="text_join"
id="=%; ,#+%QHjmLt3hl!=~r">
        <mutation items="2"></mutation>
        <value name="ADD0">
          <block type="text"
id="3:2kP58oTBRcZi2),~ld">
            <field name="TEXT">:</field>
            </block>
          </value>
          <value name="ADD1">
            <block type="text_join"
id="tmVWY7$h@F7sTbDx8RxC">
              <mutation items="2"></mutation>
              <value name="ADD0">
                <block type="math_rndfixed"
id="r$r$dA.ncKJ|_gq606gB">
                  <field name="n">3</field>
                  <value name="x">
                    <shadow
```

```

type="math_number" id="ATHWyAlfX]`^N:24Bj)1">
    <field
name="NUM">3.1234</field>
    </shadow>
<block type="get_value"
id="#R/Z*/!V{2!I`w97g5#$">
    <field
name="ATTR">val</field>
    <field
name="OID">javascript.0.GasTagesverbrauch</field>
    </block>
    </value>
    </block>
    </value>
    <value name="ADD1">
        <block type="text"
id="wPYk)Zw6;xd5M2HRI[=?>
            <field name="TEXT">
m³</field>
        </block>
        </value>
        </block>
        </value>
        <block type="update"
id="@0uFnK3p@d(aFNzT|/lb" inline="false">
            <mutation
xmlns="http://www.w3.org/1999/xhtml" delay_input="false">></mutation>
            <field
name="OID">javascript.0.GasTagesverbrauch</field>
            <field name="WITH_DELAY">FALSE</field>
            <value name="VALUE">
                <block type="math_number"
id="4)r,X`Fg.[q=u_H*lfRk">
                    <field name="NUM">0</field>
                    </block>
                </value>
                <next>
                    <block type="update"
id="TI_1t%q+ZcJ4QYR55c_V" inline="false">
                        <mutation
xmlns="http://www.w3.org/1999/xhtml" delay_input="false">></mutation>
                        <field
name="OID">javascript.0.GasTagesverbrauchkWh</field>
                        <field name="WITH_DELAY">FALSE</field>

```

```
<value name="VALUE">
  <block type="math_number"
    id="r%v}PcT3aL`0u#bfv}2v">
      <field name="NUM">0</field>
    </block>
  </value>
</block>
</next>
</block>
</next>
</block>
</statement>
<next>
  <block type="on" id="4Y-zykZ$Wh;oiRmsNJ5@">
    <field name="OID">rpi2.0 gpio.17.state</field>
    <field name="CONDITION">false</field>
    <field name="ACK_CONDITION"></field>
    <statement name="STATEMENT">
      <block type="update"
        id="9] | sNN!RG]pSo)u[+a:l">
        <mutation
          xmlns="http://www.w3.org/1999/xhtml" delay_input="false"></mutation>
        <field
          name="OID">javascript.0.GasTagesverbrauch</field>
        <field name="WITH_DELAY">FALSE</field>
        <value name="VALUE">
          <block type="math_arithmetic"
            id="6}2q8C; `zJ=g7E_fxS} | ">
            <field name="OP">ADD</field>
            <value name="A">
              <shadow type="math_number"
                id="bh@Wx=0!@N|v#@:zwozA">
                <field name="NUM">1</field>
              </shadow>
            <block type="get_value"
              id="kR$.7#of[0%v[4%` )`qw">
                <field name="ATTR">val</field>
                <field
                  name="OID">javascript.0.GasTagesverbrauch</field>
                </block>
              </value>
              <value name="B">
                <shadow type="math_number"
                  id="U_G`SdC1Ek1L0eD^e0GZ">
                  <field name="NUM">0.01</field>
                </shadow>
              </value>
            </block>
          </value>
        </block>
      </statement>
    </block>
  </next>
</block>
</next>
</block>
</next>
</block>
</statement>
<next>
```

```

        <next>
            <block type="update"
id="KH(0kBhtIn0cIneAPNH$">
                <mutation
xmlns="http://www.w3.org/1999/xhtml" delay_input="false"></mutation>
                <field
name="OID">javascript.0.GasZaehlerstand</field>
                <field name="WITH_DELAY">FALSE</field>
                <value name="VALUE">
                    <block type="math_arithmetic"
id="JllB@rBhaoQ78i!%QiN@"
                        <field name="OP">ADD</field>
                        <value name="A">
                            <shadow type="math_number"
id="bh@Wx=0!@N|v#@:zwozA">
                                <field name="NUM">1</field>
                            </shadow>
                            <block type="get_value"
id=";Rlcv?|LRTX~#Ib;c81n">
                                <field name="ATTR">val</field>
                                <field
name="OID">javascript.0.GasZaehlerstand</field>
                                </block>
                            </value>
                            <value name="B">
                                <shadow type="math_number"
id="vl8GbhNo/:J]~V5.2V5z">
                                    <field name="NUM">0.01</field>
                                    <shadow>
                                    </value>
                                    <block>
                                    </block>
                                    <value>
                                    </value>
                                    <block>
                                    </block>
                                    </next>
                                    <block>
                                    </block>
                                </statement>
                                <next>
                                    <block type="on" id="X7m/%;,l,u[1#P6leH}b">
                                        <field
name="OID">javascript.0.GasZaehlerstand</field>
                                        <field name="CONDITION">ne</field>
                                        <field name="ACK_CONDITION"></field>
                                        <statement name="STATEMENT">
                                            <block type="comment"
id="[Q_/_w^nv` )y#;e4ru1nD">
                                                <field name="COMMENT">m³ x Zustandszahl
X Brennwert</field>
                                            <next>
                                                <block type="update"
id="8.z/}1(PYiq*8X7[Q9Ae">
                                                    <mutation

```

```
xmlns="http://www.w3.org/1999/xhtml" delay_input="false">></mutation>
    <field
        name="OID">javascript.0.GasZaehlerstandkWh</field>
        <field
            name="WITH_DELAY">FALSE</field>
            <value name="VALUE">
                <block type="math_rndfixed"
                    id="+0$=HuhMm)nj7_00c56=>
                    <field name="n">3</field>
                    <value name="x">
                        <shadow type="math_number"
                            id="aeqHXH7yQcf5k2Qn,tC/">
                            <field
                                name="NUM">3.1234</field>
                                <block type="math_arithmetic"
                                    id="(N6Ay,~*P)f+G|I0~!p2">
                                    <field
                                        name="OP">MULTIPLY</field>
                                        <value name="A">
                                            <shadow
                                                type="math_number" id="XwM0.cfs~dYqK@(o/Pc)">
                                                <field
                                                    name="NUM">9.866</field>
                                                    <value name="B">
                                                        <shadow
                                                            type="math_number" id="}/IuLzLcCeHe!b~b/V0~">
                                                            <field
                                                                name="NUM">1</field>
                                                                <block
                                                                    type="math_arithmetic" id="7w-+v.aR0eGiRwfMHXNM">
                                                                    <field
                                                                        name="OP">MULTIPLY</field>
                                                                        <value name="A">
                                                                            <shadow
                                                                                type="math_number" id="%qWr/Hv}vgETQg]nGDE9">
                                                                                <field
                                                                                    name="NUM">1</field>
                                                                                    <block
                                                                                        type="on_source" id="KxNJKuqKY/]s[I!V$Mol">
                                                                                        <field
                                                                                            name="ATTR">state.val</field>
                                                                                            </block>
                                                                                            </value>
                                                                                            <value name="B">
```

```

                                <shadow>
type="math_number" id="M}_)_BoUHL8urPnuw;e9=>
                                <field>
name="NUM">0.9613</field>
                                </shadow>
                                </value>
                                </block>
                                </value>
                                </block>
                                </value>
                                </block>
                                </value>
                                </block>
                                </next>
                                </block>
</statement>
<next>
<block type="on"
id="1,.5mB=(/f/jzm?Qa)50">
                                <field>
name="OID">javascript.0.GasTagesverbrauch</field>
                                <field name="CONDITION">ne</field>
                                <field name="ACK_CONDITION"></field>
                                <statement name="STATEMENT">
                                    <block type="comment" id="-
m! [Gh^zQ_@np0AF3~!!">
                                    <field name="COMMENT">m³ x
Zustandszahl X Brennwert</field>
                                    <next>
                                    <block type="update"
id="8:U}a~4U+pX]:KTxvyW}">
                                    <mutation
xmlns="http://www.w3.org/1999/xhtml" delay_input="false"></mutation>
                                    <field>
name="OID">javascript.0.GasTagesverbrauchkWh</field>
                                    <field>
name="WITH_DELAY">FALSE</field>
                                    <value name="VALUE">
                                    <block type="math_rndfixed"
id="YcCf+;GbSY/PZ.e(zMeH)">
                                    <field name="n">3</field>
                                    <value name="x">
                                    <shadow>
type="math_number" id="aeqHXH7yQcf5k2Qn,tC/">
                                    <field>
name="NUM">3.1234</field>
                                    </shadow>
                                    <block>
type="math_arithmetic" id=".k-kW,6s)i$)d0kK2[Y">
                                    <field>
name="OP">MULTIPLY</field>

```



```

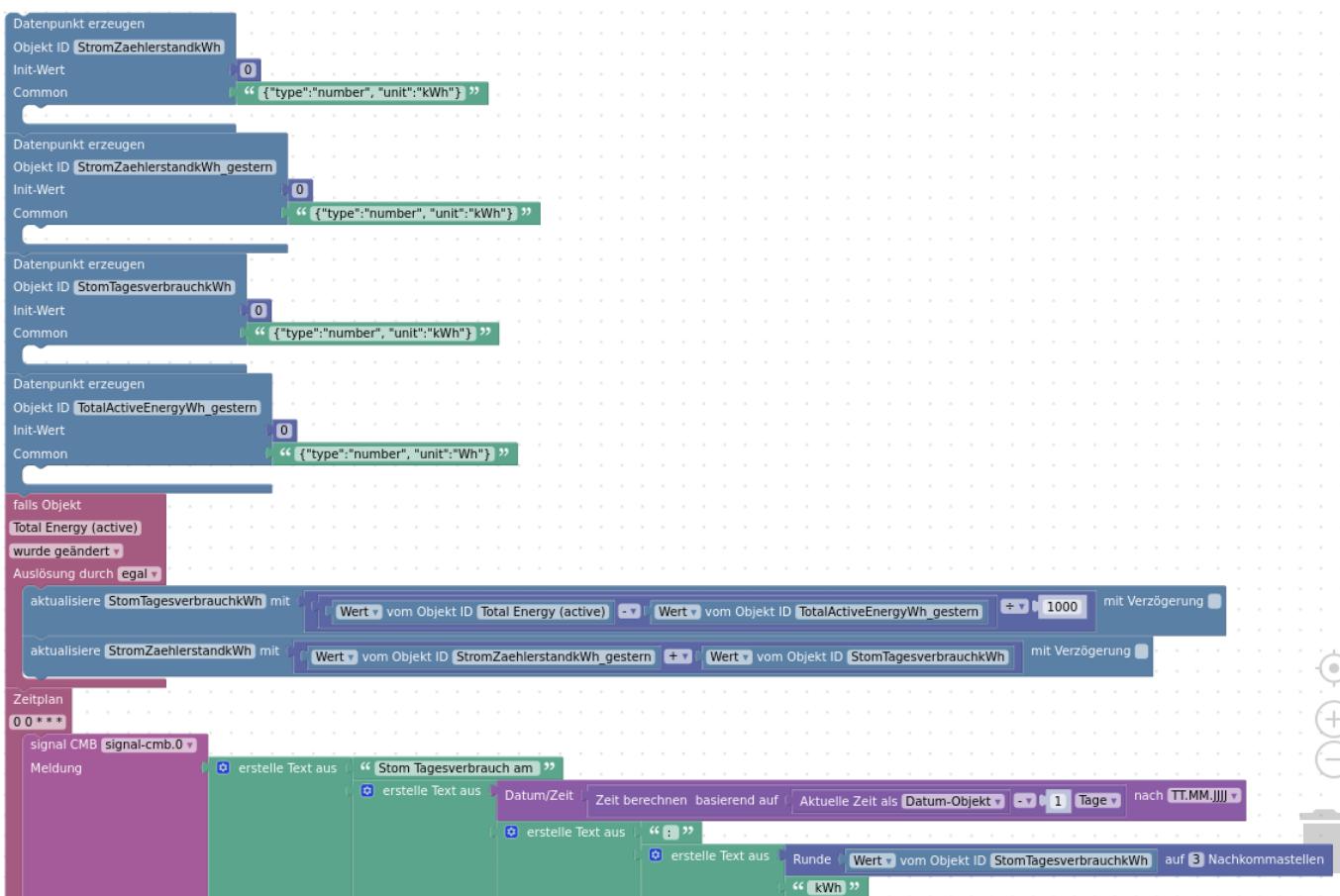
        </next>
      </block>
    </next>
  </block>
</next>
</block>
</next>
</block>
</next>
</block>
</next>
</block>
</xml>

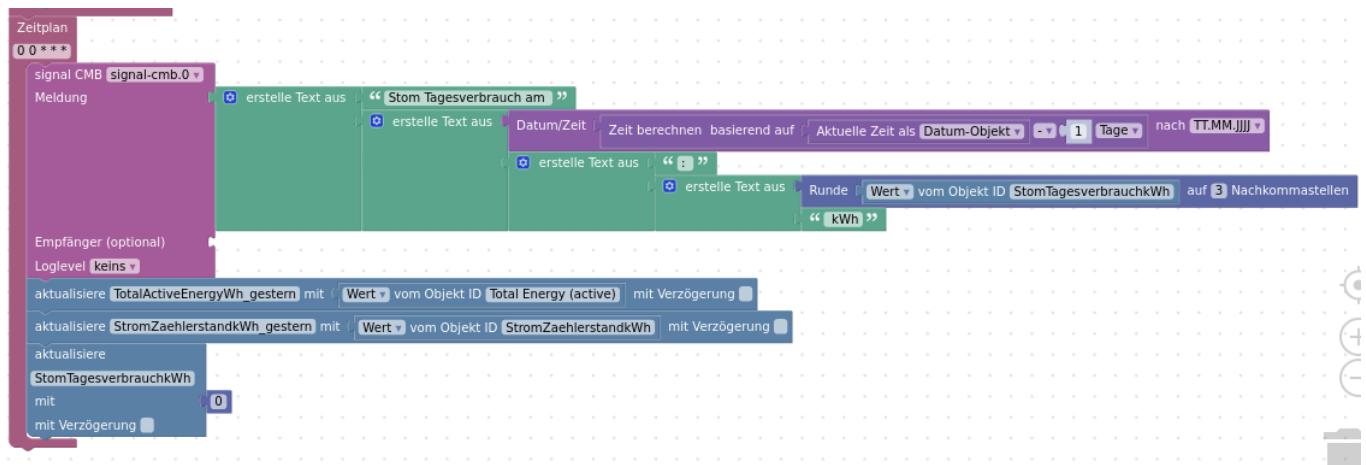
```

Stromzähler

Zur Erfassung des Stromverbrauches meiner Wohnung verwende ich einen [Shelly 3EM Pro](#) den ich via Shelly Adapter eingebunden habe.

Blockly





Und das ganze als XML:

Title

strozaehler_blockly.xml

```
<xml xmlns="https://developers.google.com/blockly/xml">
  <block type="create" id="WNiKV(pYZ3,|L9mDGTHD" x="138" y="-62">
    <field name="NAME">StromZaehlerstandkWh</field>
    <value name="VALUE">
      <block type="math_number" id="0F`c7%Isi~b|@epORR*S">
        <field name="NUM">0</field>
      </block>
    </value>
    <value name="COMMON">
      <block type="text" id="/1(k)0A[2kB~j;PxbH_4">
        <field name="TEXT">{"type": "number", "unit": "kWh"}</field>
      </block>
    </value>
    <next>
      <block type="create" id="2[=]D*fweUy]z]fKRb*N">
        <field name="NAME">StromZaehlerstandkWh_gestern</field>
        <value name="VALUE">
          <block type="math_number" id="6#vjQv4JhiY|mZ`tva4+">
            <field name="NUM">0</field>
          </block>
        </value>
        <value name="COMMON">
          <block type="text" id="lD}p7.V%=!S:e/(Pj1[e">
            <field name="TEXT">{"type": "number", "unit": "kWh"}</field>
          </block>
        </value>
        <next>
          <block type="create" id="0S(2lTH~c|{}uV)aZEoI">
            <field name="NAME">StomTagesverbrauchkWh</field>
            <value name="VALUE">
```

```

<block type="math_number" id="uL]u0d@Q!FgAK,u/~li0">
    <field name="NUM">0</field>
</block>
</value>
<value name="COMMON">
    <block type="text" id="?PxPe$PT.{E1el.m,Fl{">
        <field name="TEXT">{"type": "number",
"unit":"kWh"}</field>
        </block>
    </value>
    <next>
        <block type="create" id="rss(Q.udF1BQD5Bz@T7~">
            <field name="NAME">TotalActiveEnergyWh_gestern</field>
            <value name="VALUE">
                <block type="math_number" id="tx?^zyUsJqm}GHq-b.f3">
                    <field name="NUM">0</field>
                </block>
            </value>
            <value name="COMMON">
                <block type="text" id="xDII{fs[B3khS-DSylb8">
                    <field name="TEXT">{"type": "number",
"unit":"Wh"}</field>
                    </block>
            </value>
            <next>
                <block type="on" id="?c^.iN$6fj256L#A8Ql">
                    <field
name="OID">shelly.0.shellypro3em#c8f09e8314fc#1.EMData0.TotalActiveEner
gy</field>
                    <field name="CONDITION">ne</field>
                    <field name="ACK_CONDITION"></field>
                    <statement name="STATEMENT">
                        <block type="update" id="g+V`|DyKF[]Pmy=+sl;0">
                            <mutation xmlns="http://www.w3.org/1999/xhtml"
delay_input="false"></mutation>
                        <field
name="OID">javascript.0.StomTagesverbrauchkWh</field>
                        <field name="WITH_DELAY">FALSE</field>
                        <value name="VALUE">
                            <block type="math_arithmetic"
id="11dXVHhW_NGn{g;5pw_+">
                                <field name="OP">DIVIDE</field>
                                <value name="A">
                                    <shadow type="math_number" id="v-
*1r6*(074YeD/hDb~_">
                                        <field name="NUM">1</field>
                                    </shadow>
                                    <block type="math_arithmetic"
id=";nKGmG#8.~l5j0A,gp[o">
                                        <field name="OP">MINUS</field>
                                        <value name="A">

```

```
<shadow type="math_number"
id="@8B(02U-tIrBZ2qRS*QM">
    <field name="NUM">1</field>
</shadow>
<block type="get_value"
id="]jZ_e/iQou/04%E2EUcM">
    <field name="ATTR">val</field>
    <field
name="OID">shelly.0.shellypro3em#c8f09e8314fc#1.EMData0.TotalActiveEner
gy</field>
    </block>
</value>
<value name="B">
    <shadow type="math_number"
id="b6Bt(ksp=pv)Rge1D{;r">
        <field name="NUM">1</field>
</shadow>
<block type="get_value"
id="l+nL:/(/S=]UY|M2-#7M">
        <field name="ATTR">val</field>
        <field
name="OID">javascript.0.TotalActiveEnergyWh_gestern</field>
        </block>
</value>
</block>
</value>
<value name="B">
    <shadow type="math_number"
id="nkI`PVg;I,we%ojJ,TA*>
        <field name="NUM">1000</field>
</shadow>
</value>
</block>
</value>
<next>
    <block type="update"
id="SJ~Ys@X?5pv50XP=wqj">
        <mutation
xmlns="http://www.w3.org/1999/xhtml" delay_input="false"></mutation>
        <field
name="OID">javascript.0.StromZaehlerstandkWh</field>
        <field name="WITH_DELAY">FALSE</field>
        <value name="VALUE">
            <block type="math_arithmetic"
id="},ExWVJxj)o(5=vmy1.e">
                <field name="OP">ADD</field>
                <value name="A">
                    <shadow type="math_number"
id="@8B(02U-tIrBZ2qRS*QM">
```

```

                <field name="NUM">1</field>
            </shadow>
            <block type="get_value"
id="_#ZSu=g6=)eF7:(ey4Bh">
                <field name="ATTR">val</field>
                <field
name="OID">javascript.0.StromZaehlerstandkWh_gestern</field>
                </block>
                </value>
                <value name="B">
                    <shadow type="math_number" id="H-
iY+5=={P}IKvpkKUi;">
                        <field name="NUM">1</field>
                    </shadow>
                    <block type="get_value"
id="?DIB~Cgt]yKCn?Eau4?j">
                        <field name="ATTR">val</field>
                        <field
name="OID">javascript.0.StomTagesverbrauchkWh</field>
                        </block>
                        </value>
                    </block>
                    </value>
                </block>
                </next>
            </block>
        </statement>
        <next>
            <block type="schedule" id="#TX=ZX{-w2cu=Uj!nu0*">
                <field name="SCHEDULE">0 0 * * *</field>
                <statement name="STATEMENT">
                    <block type="signal-cmb" id="n4NEdLb^*N-
$c[YJUMw_">
                        <field name="INSTANCE">.0</field>
                        <field name="LOG"></field>
                        <value name="MESSAGE">
                            <shadow type="text"
id="F/ePx6FS0r+[BT|h0L68">
                                <field name="TEXT">text</field>
                            </shadow>
                            <block type="text_join"
id="+A!rZ(7aVj!~E{6~WV0m">
                                <mutation items="2"></mutation>
                                <value name="ADD0">
                                    <block type="text"
id="8EJ*o[R;:^=5;).KbZeh">
                                        <field name="TEXT">Stom
Tagesverbrauch am </field>
                                    </block>
                                </value>
                                <value name="ADD1">

```

```
<block type="text_join"
  id="HeWwloE2zR[^)91A5vLf">
  <mutation items="2"></mutation>
  <value name="ADD0">
    <block type="convert_from_date"
      id="s ; *kY*B ; HuSZ^~w0=Q1B">
      <mutation
        xmlns="http://www.w3.org/1999/xhtml" format="false"
        language="false"></mutation>
      <field
        name="OPTION">DD.MM.YYYY</field>
      <value name="VALUE">
        <block
          type="time_calculation" id="YM!lstPQJsLk~Nr|/C9S">
          <field name="OPERATION">-
        </field>
      <field
        name="UNIT">day</field>
      <value name="DATE_TIME">
        <shadow type="time_get"
          id="*vxqb!BXG7I/C$mm0( , 6">
          <mutation
            xmlns="http://www.w3.org/1999/xhtml" format="false"
            language="false"></mutation>
          <field
            name="OPTION">object</field>
          </shadow>
          <block type="time_get"
            id="c7c*a4_Wl/:1^bYj[5Gv">
          <mutation
            xmlns="http://www.w3.org/1999/xhtml" format="false"
            language="false"></mutation>
          <field
            name="OPTION">object</field>
          </block>
        </value>
        <value name="VALUE">
          <shadow
            type="math_number" id="|4-%[@-^:5+J56T:106m">
            <field
              name="NUM">1</field>
            </shadow>
          </value>
          </block>
        </value>
        <value name="ADD1">
          <block type="text_join"
```

```

id=="%; ,#+%QHjmLt3hl!=~r">
    <mutation items="2"></mutation>
    <value name="ADD0">
        <block type="text"
            <field name="TEXT">:
        </block>
    </value>
    <value name="ADD1">
        <block type="text_join"
            <mutation
                items="2"></mutation>
                <value name="ADD0">
                    <block
                        <field
                            name="n">3</field>
                            <value name="x">
                                <shadow
                                    type="math_number" id="ATHwyAlfX]`^N:24Bj)1">
                                        <field
                                            name="NUM">3.1234</field>
                                                </shadow>
                                            <block
                                                <field
                                                    type="get_value" id="#R/Z*/!V{2!I`w97g5#"$">
                                                        <field
                                                            name="ATTR">val</field>
                                                            <field
                                                                name="OID">javascript.0.StromTagesverbrauchkWh</field>
                                                                </block>
                                                                </value>
                                                            </block>
                                                            </value>
                                                            <value name="ADD1">
                                                                <block type="text"
                        id="wPYk)Zw6;xd5M2HRI[=?">
                        <field name="TEXT">
                            <value name="ADD0">
                                <block
                                    <field
                                        <block
                                            <value name="ADD1">
                                                <block type="text"
                                                    <next>
                                            </block>
                                        </block>
                                    </value>
                                </block>
                            </value>
                        </block>
                    </value>
                </block>
            </mutation>
        </block>
    </value>
</field>

```

```
<block type="update"
id="Ndg}s0%K1?awGPp}{[ ), )">
    <mutation
xmlns="http://www.w3.org/1999/xhtml" delay_input="false"></mutation>
    <field
name="OID">javascript.0.TotalActiveEnergyWh_gestern</field>
    <field name="WITH_DELAY">FALSE</field>
    <value name="VALUE">
        <block type="get_value"
id="8|m`jKyWKA/LP=!E(Xkw">
            <field name="ATTR">val</field>
            <field
name="OID">shelly.0.shellypro3em#c8f09e8314fc#1.EMData0.TotalActiveEnergy</field>
            </block>
        </value>
        <next>
            <block type="update"
id="05;QEhX_vzA~$gGS^0Q- ">
                <mutation
xmlns="http://www.w3.org/1999/xhtml" delay_input="false"></mutation>
                <field
name="OID">javascript.0.StromZaehlerstandkWh_gestern</field>
                <field
name="WITH_DELAY">FALSE</field>
                <value name="VALUE">
                    <block type="get_value"
id="Zb6figE|CI],mV=zy!AK">
                        <field name="ATTR">val</field>
                        <field
name="OID">javascript.0.StromZaehlerstandkWh</field>
                        </block>
                    </value>
                    <next>
                        <block type="update"
id="@0uFnK3p@d(aFNzT|/lb" inline="false">
                            <mutation
xmlns="http://www.w3.org/1999/xhtml" delay_input="false"></mutation>
                            <field
name="OID">javascript.0.StomTagesverbrauchkWh</field>
                            <field
name="WITH_DELAY">FALSE</field>
                            <value name="VALUE">
                                <block type="math_number"
id="4)r,X`Fg.[q=u_H*lfRk">
                                    <field name="NUM">0</field>
                                    </block>
                                </value>
                            </block>
                        </next>
                    </block>
                </value>
            </block>
        </next>
    </block>
</value>
</block>
```

```

        </next>
    </block>
    </next>
    </block>
    </next>
    </block>
    </statement>
    </block>
</next>
</block>
</next>
</block>
</next>
</block>
</next>
</block>
</next>
</block>
</next>
</block>
</xml>
```

InfluxDB

The screenshot shows the 'Instanzeinstellungen' (Instance Settings) page for influxdb.0. The top navigation bar includes tabs for DB SETTINGS, STANDARDEINSTELLUNGEN, EXPERTENEINSTELLUNGEN, and a save/pencil icon. Below the tabs, the DB Version is set to 1.x. The Protokoll (Protocol) is set to http, and the Server is localhost. The Port is set to 8086. The Benutzer (User) is admin, and the Passwort (Password) and Passwort (wiederholen) (Repeat Password) fields both contain masked entries. The DB Name is iobroker. Request Timeout is set to 30000 milliseconds. Under 'Runden Sie bei der Abfrage die Zahlen auf' (Round numbers in queries to), there is a dropdown set to 4 and a checked checkbox for 'Protokollieren Sie den letzten Wert erneut beim Start' (Log the last value again at start). The 'Schreibaktionen zusammenfassen' (Combine write actions) field is set to 0, and the 'Schreibintervall' (Write interval) is set to 60 seconds. A note below states 'Wert 0 schreibt Werte direkt' (Value 0 writes values directly). At the bottom are two buttons: 'DIE VERBINDUNG ZUM SERVER TESTEN' (Test connection to server) and 'ALLE DATEN IN DATENBANK LÖSCHEN' (Delete all data in database).

Backup durch Script

The screenshot shows the iobroker interface with a sidebar containing 'Übersicht', 'Adapter', 'Instanzen', 'Objekte', 'Aufzählungen', 'Protokolle', 'Benutzer', 'Hosts', 'Dateien', 'Backup', and 'Skripte'. The 'Skripte' tab is selected. In the main area, there is a script titled 'JS BACKUP_TO_USB-S...'. The code is as follows:

```
// Täglich um 03:00 Uhr Nachts wird das Backup ausgeführt. Anpassbar unter "schedule"
var usbstick = "/mnt/usb-stick/backup/"; /*Hier den Pfad zum USB-Stick eintragen*/

function backup() {
    exec('ioBroker backup',
        function (error, stdout, stderr) {console.log('stdout: ' + stdout);});
    setTimeout( function() {
        exec('mv -v /opt/ioBroker/backups/* ' + usbstick,
            function (error, stdout, stderr) {console.log('stdout: ' + stdout);});
    }, 180000);
}

schedule("0 3 * * *", function(obj){
    backup();
});
```

```
// Täglich um 03:00 Uhr Nachts wird das Backup ausgeführt. Anpassbar unter "schedule"
var usbstick = "/mnt/usb-stick/backup/"; /*Hier den Pfad zum USB-Stick eintragen*/


function backup() {
    exec('ioBroker backup',
        function (error, stdout, stderr) {console.log('stdout: ' + stdout);});
    setTimeout( function() {
        exec('mv -v /opt/ioBroker/backups/* ' + usbstick,
            function (error, stdout, stderr) {console.log('stdout: ' + stdout);});
    }, 180000);
}

schedule("0 3 * * *", function(obj){
    backup();
});
```

Update und Bugfixing

```
ioBroker stop
ioBroker update
ioBroker fix
# oder curl -sL https://ioBroker.net/fix.sh | bash -
ioBroker upgrade self
ioBroker start
```

From:

<https://www.von-thuelen.de/> - Christophs DokuWiki



Permanent link:

https://www.von-thuelen.de/doku.php/wiki/projekte/iobroker_banana_pi_m2u/uebersicht

Last update: **2024/11/10 16:43**