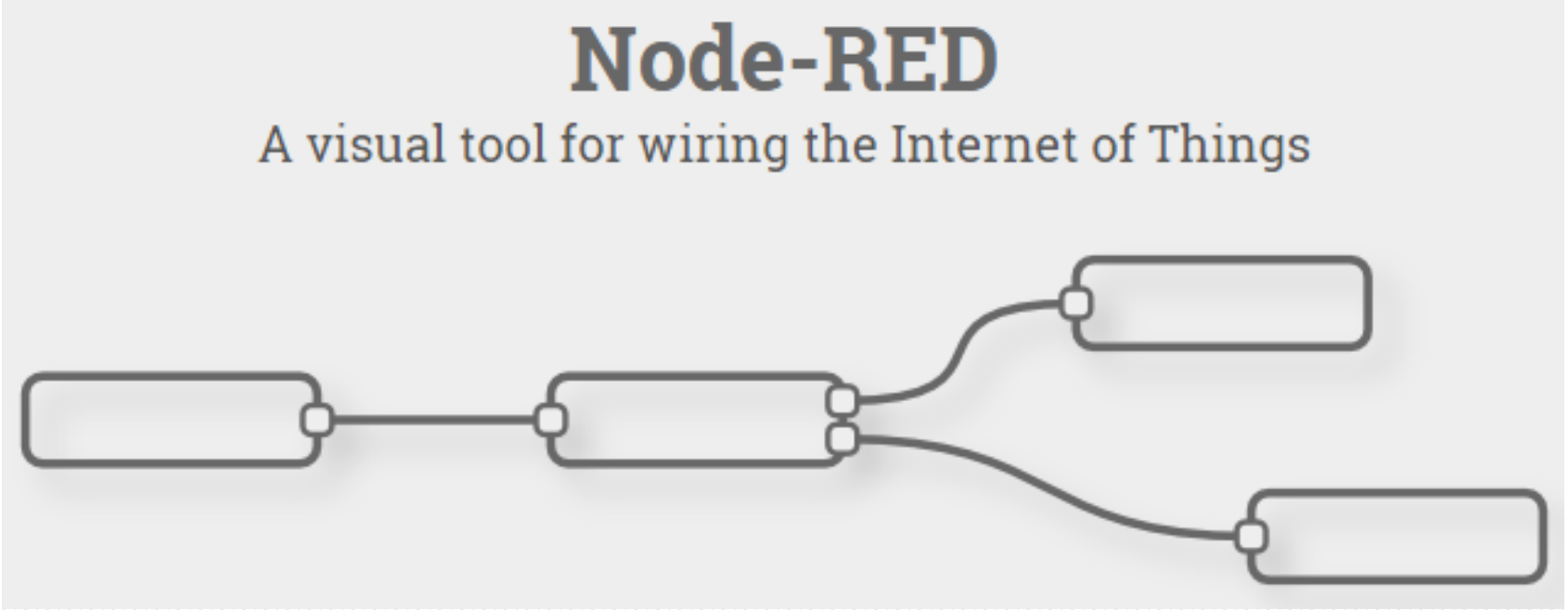
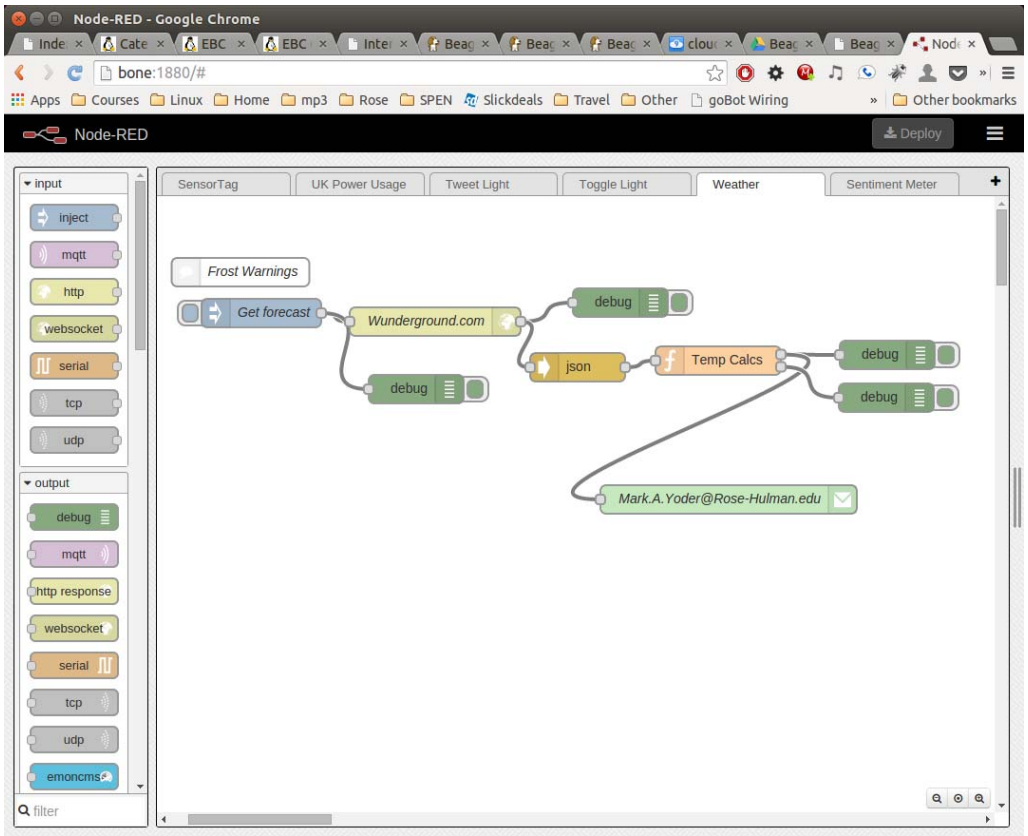
05-2 Node-RED



Node-RED

- Node-RED is a tool for wiring together hardware devices, APIs and online services in new and interesting ways.
- http://nodered.org/



Installing node-RED

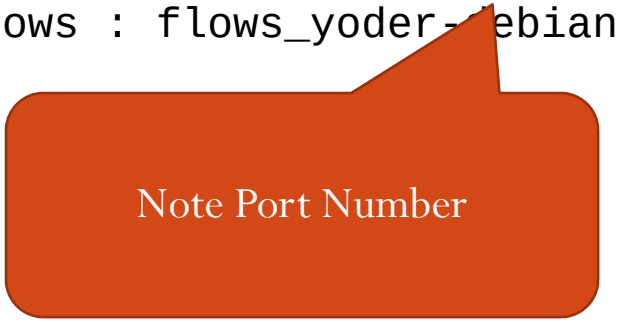
```
bone$ npm install -g node-red
# almost 10 minutes
bone$ cd node-red
bone$ npm install node-red-node-beaglebone
# 2 seconds
```

http://nodered.org/docs/hardware/beagleboneblack.html

http://nodered.org/docs/getting-started/running.html

Running node-RED

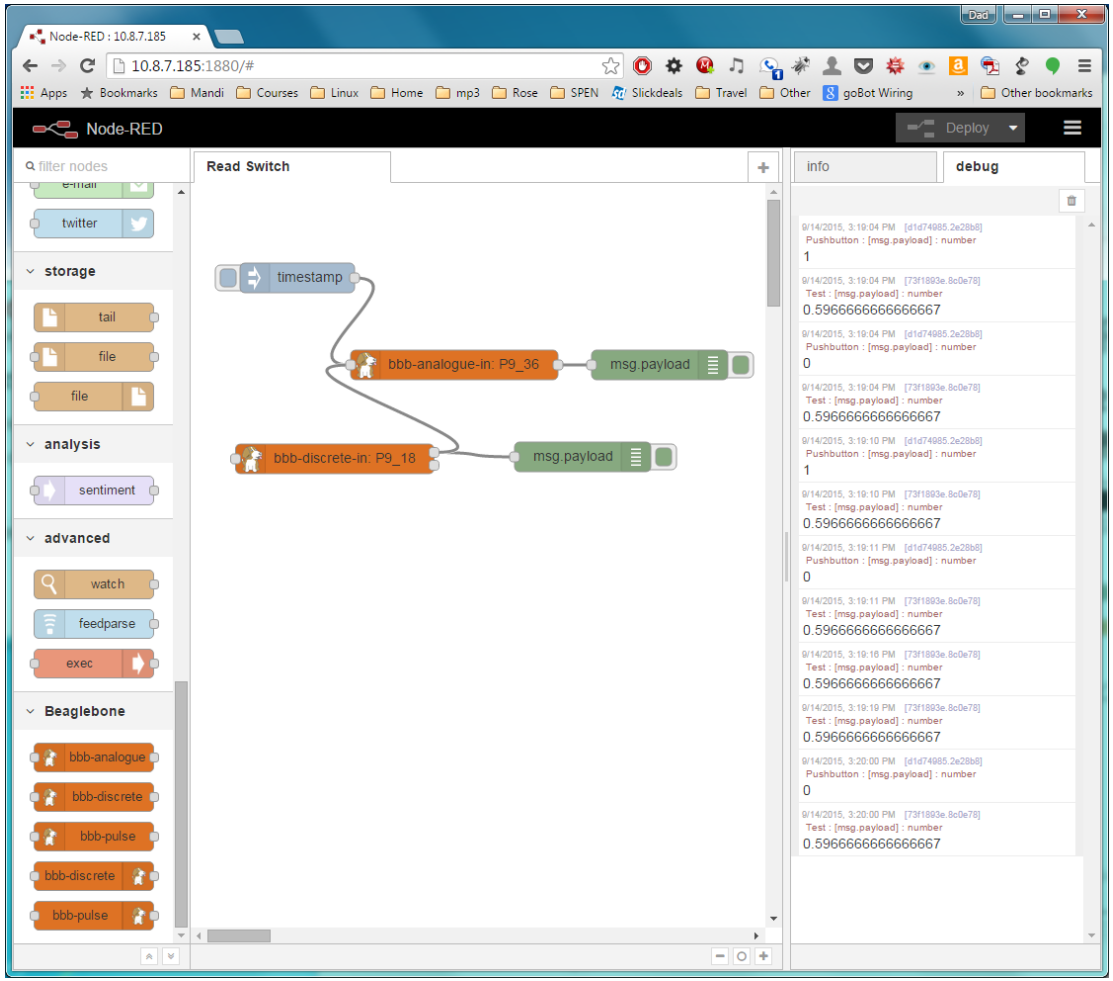
```
bone$ node-red-pi --max-old-space-size=128
Welcome to Node-RED
===================
18 Aug 16:31:43 - [red] Version: 0.8.1.git
18 Aug 16:31:43 - [red] Loading palette nodes
18 Aug 16:31:49 - [26-rawserial.js] Info : only really needed
for Windows boxes without serialport npm module installed.
18 Aug 16:31:56 - ---------------------------------------
18 Aug 16:31:56 - [red] Failed to register 44 node types
18 Aug 16:31:56 - [red] Run with -v for details
18 Aug 16:31:56 - ---------------------------------------
18 Aug 16:31:56 - [red] Server now running at http://127.0.0.1:1880/
18 Aug 16:31:56 - [red] Loading flows : flows_yoder-debian-
bone.json
```

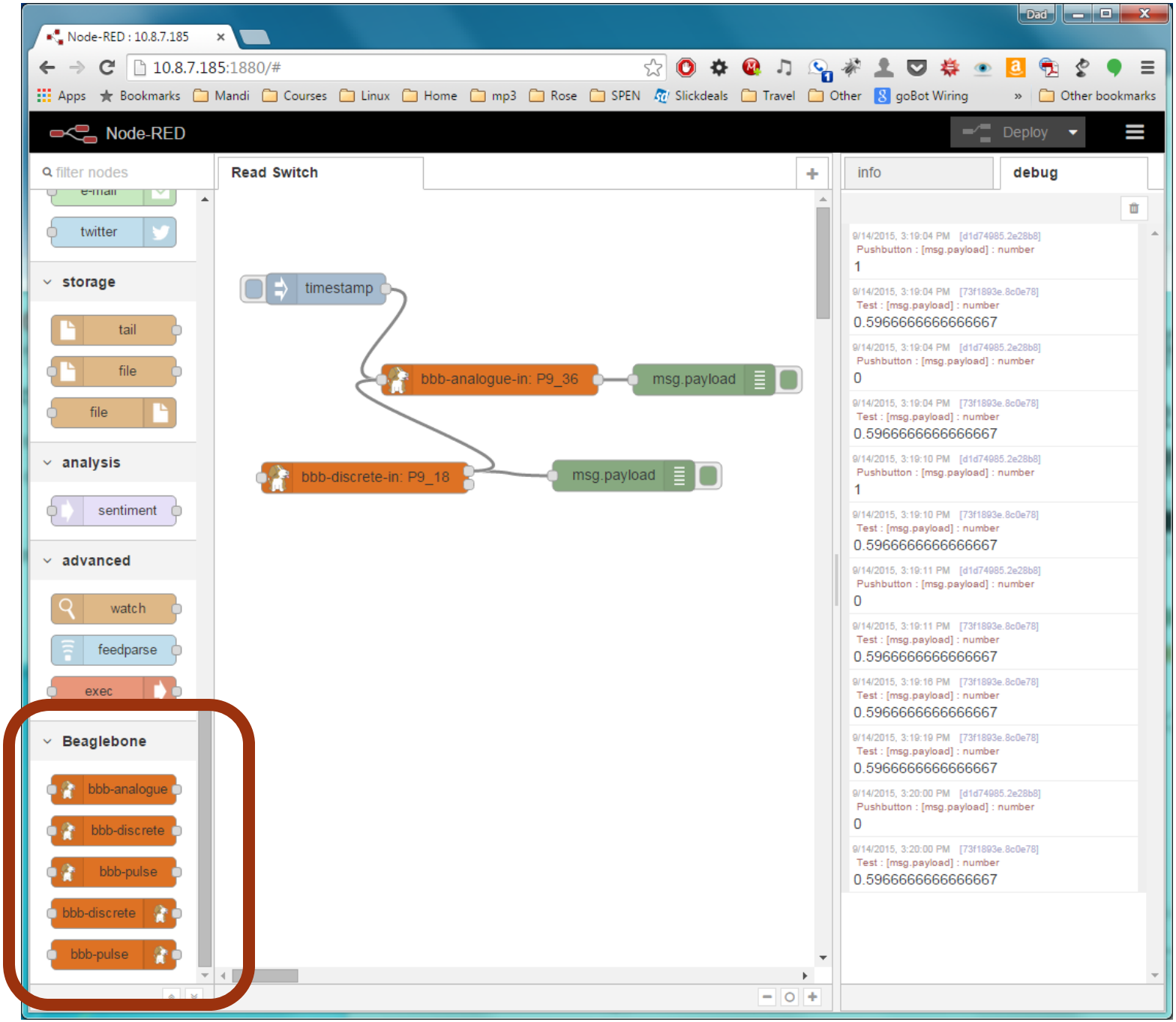


http://nodered.org/docs/hardware/raspberrypi.html#starting-node-red

Accessing node-RED

- Point your browser to **`192.168.7.2:1880`**




Node-RED : 10.8.7.185
10.8.7.185:1880/#
Node-RED
Deploy
filter nodes
Read Switch
info
debug
twitter
storage
tail
file
file
analysis
sentiment
advanced
watch
feedparse
exec
Beaglebone
bbb-analogue
bbb-discrete
bbb-pulse
bbb-discrete
bbb-pulse
timestamp
bbb-analogue-in: P9_36
msg.payload
bbb-discrete-in: P9_18
msg.payload
Pushbutton : [msg.payload] : number
Test : [msg.payload] : number
0.5966666666666667

Node-RED Demo

- See cookbook for installing more nodes

```
bone$ apt-get install libbluetooth-dev
bone$ npm install -g sensortag
bone$ npm install -g badwords ntwitter oauth sentiment wordpos xml2js firmata
bone$ npm install -g fs.notify serialport feedparser pushbullet irc simple-xmpp
bone$ npm install -g redis mongodb node-stringprep
bone$ npm install -g imap js2xmlparser nodemailer arduino-firmata heatmiser wemo
bone$ npm install -g stomp-client wake_on_lan node-dweetio komponist nma growl
bone$ npm install -g node-prowl pusher pushover-notifications snapchat twilio
bone$ npm install -g node-hue-api level pusher-client mysql sqlite3 suncalc
bone$ npm install -g dynamodb-data-types node-postgres-named
```