

# Node-RED: graphical programming fred-for-all

Martin Berka

# What is it?

 [node-red / node-red](#)

 Used by ▼ 3,378

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Code

Issues 145

Pull requests 46

Projects 0

 Wiki Security

Insights

A visual tool for wiring the Internet of Things <http://nodered.org>

node-red

javascript

low-code

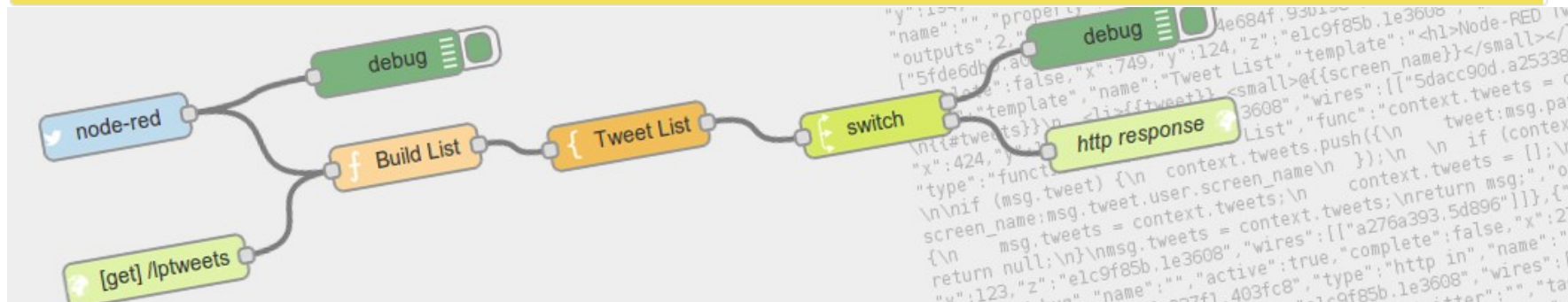
4,538 commits

28 branches

84 releases

 **106** contributors

 Apache-2.0



# Demo

```
sudo npm install -g --unsafe-perm node-red  
node-red
```

[127.0.0.1:1880/#](http://127.0.0.1:1880/#)

From the sidebar: connect http input (path: hello) → function block (add *msg.payload* = '*<h1>Hello Node!<h>*'; before *return msg;*) → http output

Click Deploy to launch, then visit <http://127.0.0.1:1880/hello>

# Demo – next steps

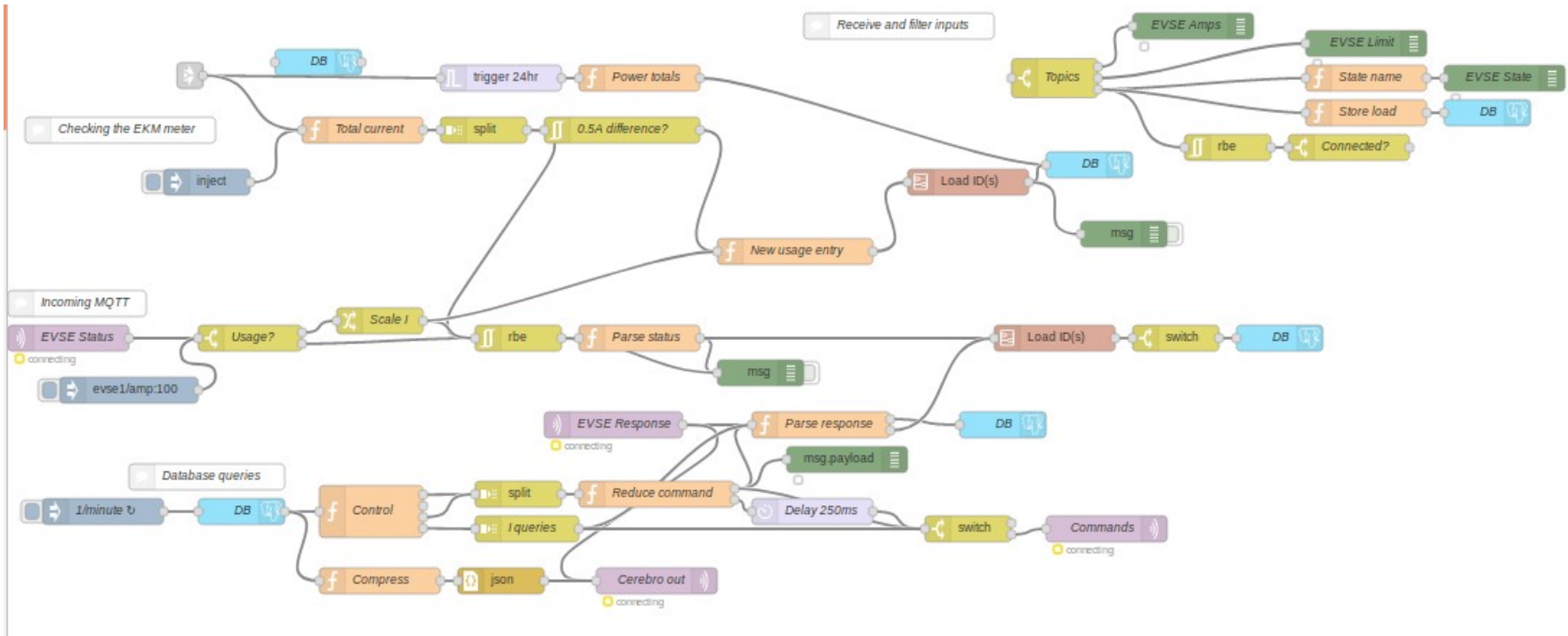
- Add MQTT – subscribe to a topic on test.mosquitto.org port 1883.
- Save any message that comes in: *flow.set('mqtt', `\${msg.payload} from \${msg.topic}`);*
- Use *flow.get('mqtt')* to retrieve it in the function block that produces the content for /hello
- Too few messages coming in? Spice it up by adding a /send http path that sends a message to test/node, and see the same message reflected when you reload /hello.

**Example:** <https://gist.github.com/MBerka/36a08dc2146847fe17cbb9bb843dc8d2>

# When to start: Need a...

- Minimal, quickly customizable API server on any Node system?
- Dashboard that lets you control your Raspberry Pi from your phone on the same network?
- Demo that emails you when a user sends five tweets within five minutes of a certain file on the computer changing and turns on an IoT light?
- Break from looking at text?

# When to stop:



# Resources

Node-RED front page,  
<https://nodered.org/>

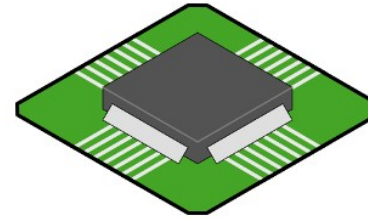
Contribute:  
[github.com/node-red/node-red](https://github.com/node-red/node-red)

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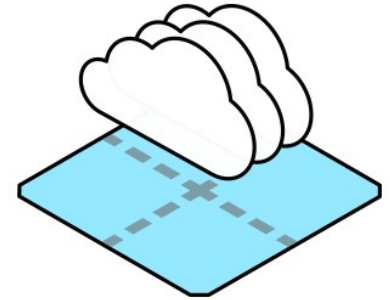
Run locally

- Getting started
- Docker



On a device

- Raspberry Pi
- BeagleBone Black
- Interacting with Arduino
- Android



In the cloud

- IBM Cloud
- SenseTecnica FRED
- Amazon Web Services
- Microsoft Azure