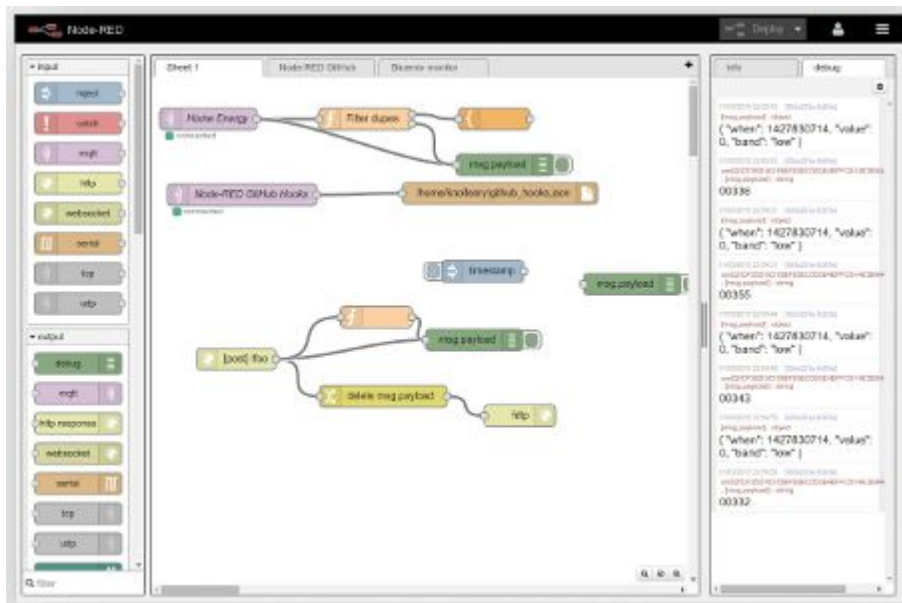
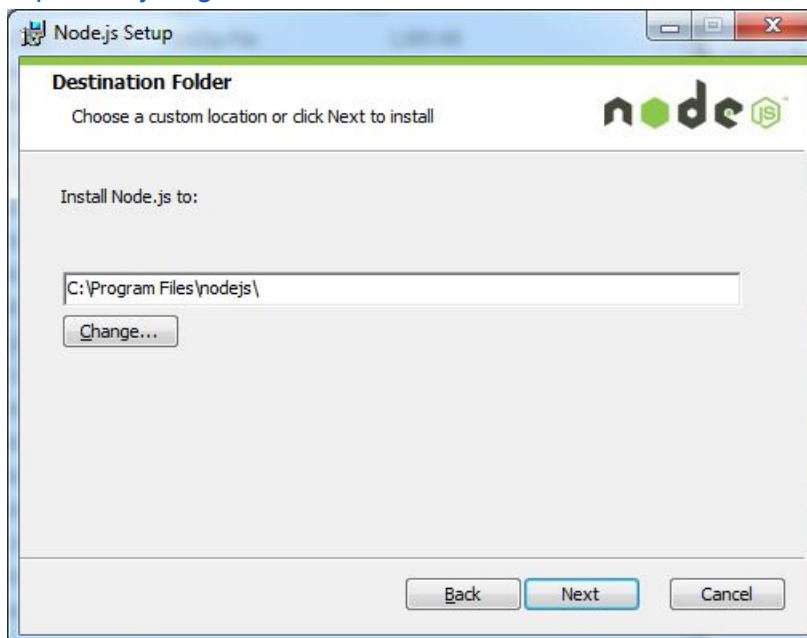


# Node-RED A visual tool for wiring the Internet of Things

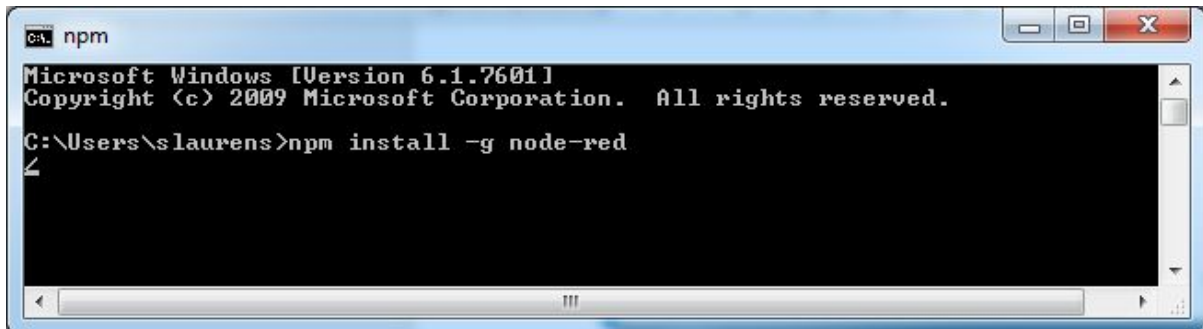


## A. Installation (Windows):

1. <http://nodered.org/docs/getting-started/installation.html>
2. Node-RED requires version 0.10.x of Node.js.  
<https://nodejs.org/en/download/>
3. For windows  
<http://nodejs.org/dist/v0.10.36/x64/node-v0.10.36-x64.msi>



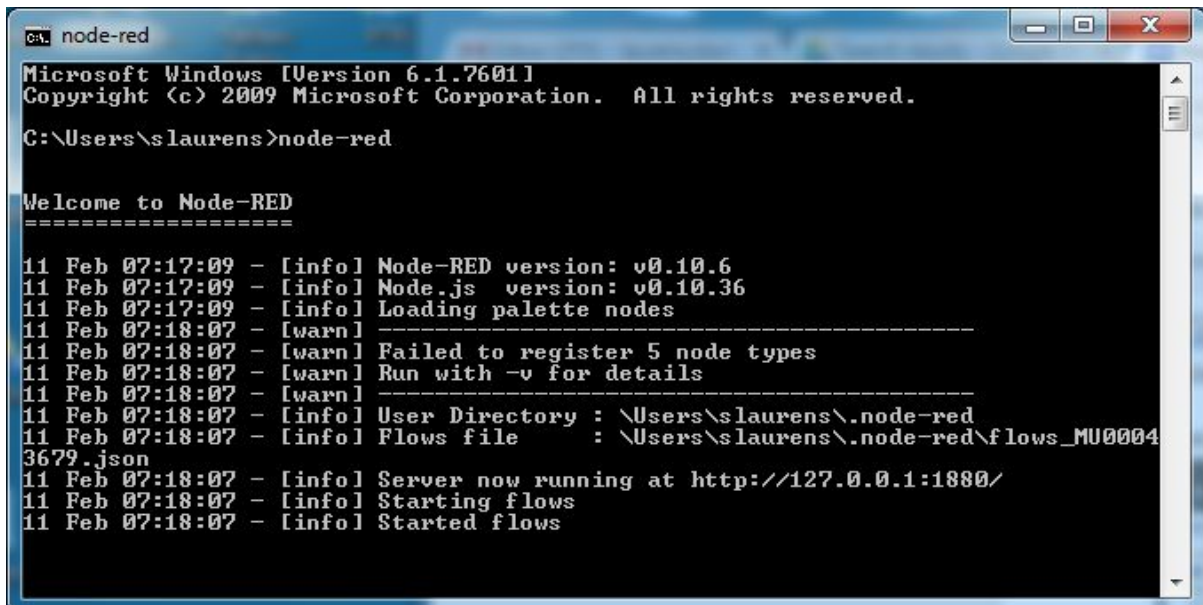
4. Then use npm to install node-red:
- > npm install -g node-red
- (npm is node package manager, but it's in node not node-red)



```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\slaurens>npm install -g node-red
/
```

5. If you have installed Node-RED as a global npm package, you can then use the node-red command:
- > node-red
- (and wait)



```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

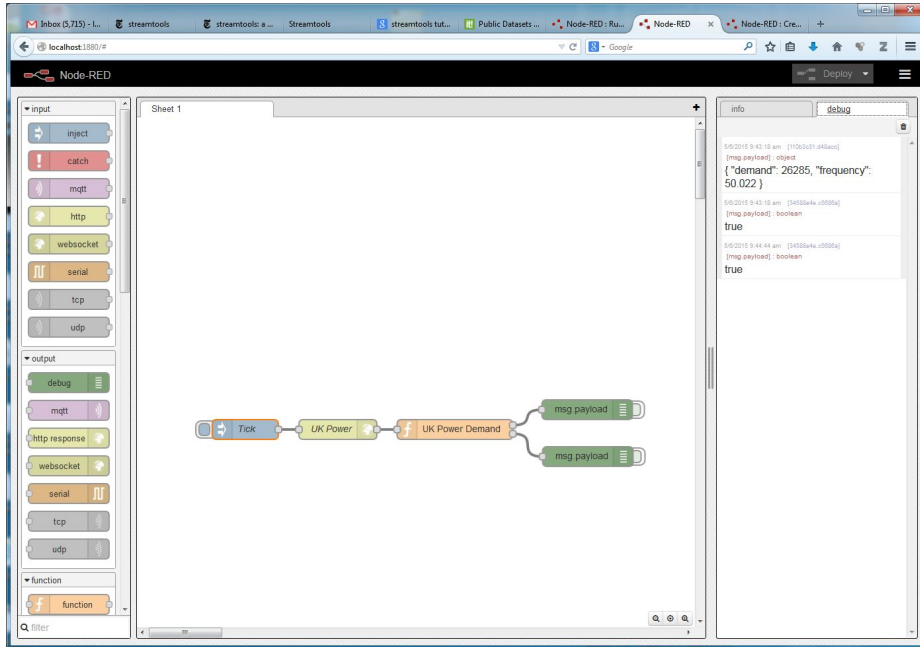
C:\Users\slaurens>node-red

Welcome to Node-RED
=====
11 Feb 07:17:09 - [info] Node-RED version: v0.10.6
11 Feb 07:17:09 - [info] Node.js version: v0.10.36
11 Feb 07:17:09 - [info] Loading palette nodes
11 Feb 07:18:07 - [warn] -----
11 Feb 07:18:07 - [warn] Failed to register 5 node types
11 Feb 07:18:07 - [warn] Run with -v for details
11 Feb 07:18:07 - [warn] -----
11 Feb 07:18:07 - [info] User Directory : \Users\slaurens\.node-red
11 Feb 07:18:07 - [info] Flows file : \Users\slaurens\.node-red\flows_MU0004
3679.json
11 Feb 07:18:07 - [info] Server now running at http://127.0.0.1:1880/
11 Feb 07:18:07 - [info] Starting flows
11 Feb 07:18:07 - [info] Started flows
```

6. 'Allow'



7. Which should launch a browser for you, or you can then access the Node-RED editor at <http://localhost:1880>
8. To see (or similar, that's a pre-existing flow shown):

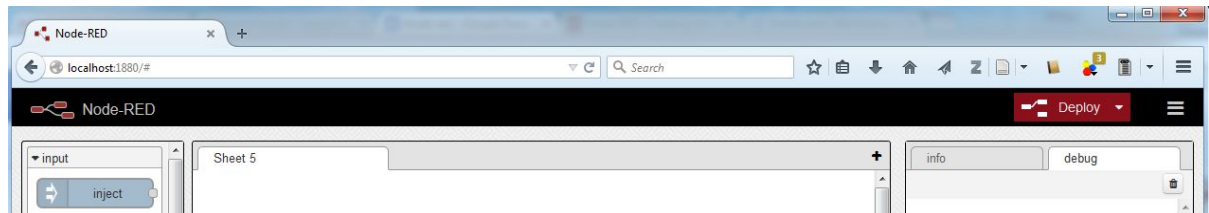


## B. Building flows

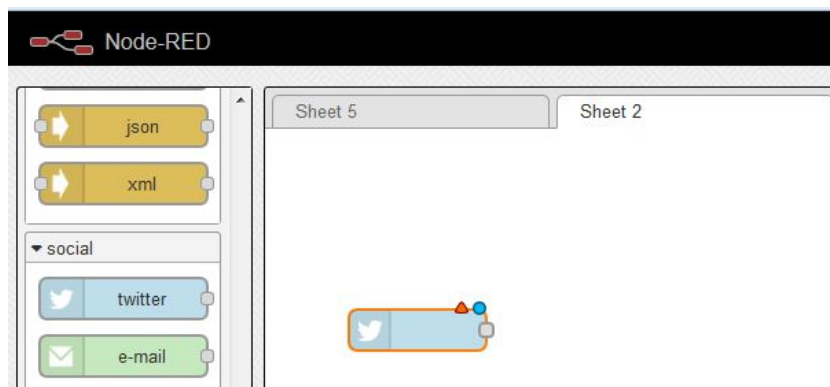
There are examples e.g. <http://nodered.org/docs/creating-nodes/first-node.html>

Or build your own (this one requires a Twitter account)

**Step 1.** Create a New sheet, use the '+' (beside the 'info' tab at right, below)



**Step 2.** From the menu at left find twitter node and drag it onto the new sheet (as below):



The small red arrow is a warning/error, you need to add Twitter credentials to use... so:

**Step 3.** Double click on the node to see:

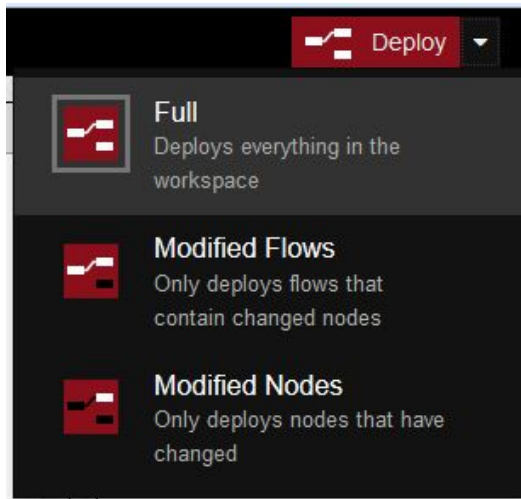
A screenshot of the 'Edit twitter in node' dialog box. It has a title bar 'Edit twitter in node'. Inside, there are four fields: 'Log in as' with a dropdown menu showing '@LaurensSkelly' and an edit icon; 'Search' with a dropdown menu showing 'all public tweets'; 'for' with a text input field containing 'lacuna'; and 'Name' with a text input field containing 'Name'. Below these fields is a yellow tip box with the text: 'Tip: Use commas without spaces between multiple search terms. Comma = OR, Space = AND. The Twitter API WILL NOT deliver 100% of all tweets. Tweets of who you follow will include their retweets and favourites.' At the bottom right are 'Ok' and 'Cancel' buttons.

Enter YOUR Twitter account name and something to search for (neither too popular nor too obscure). Note the big 'NOT' as in you do NOT have access to 100% of tweets (more like 1%).

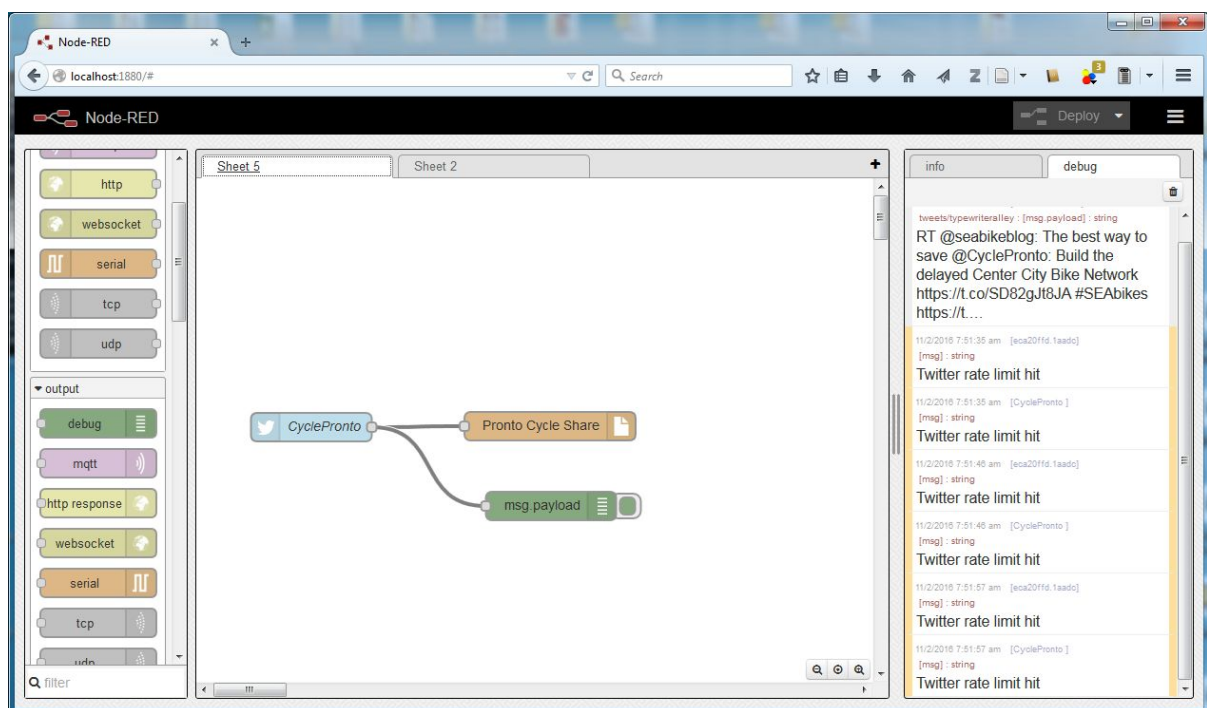
**Step 4.** Connect the node to some processing or output, the easiest is to use debug, drag, drop, connect (the two nodes), move the debug node around to see that they are connected:



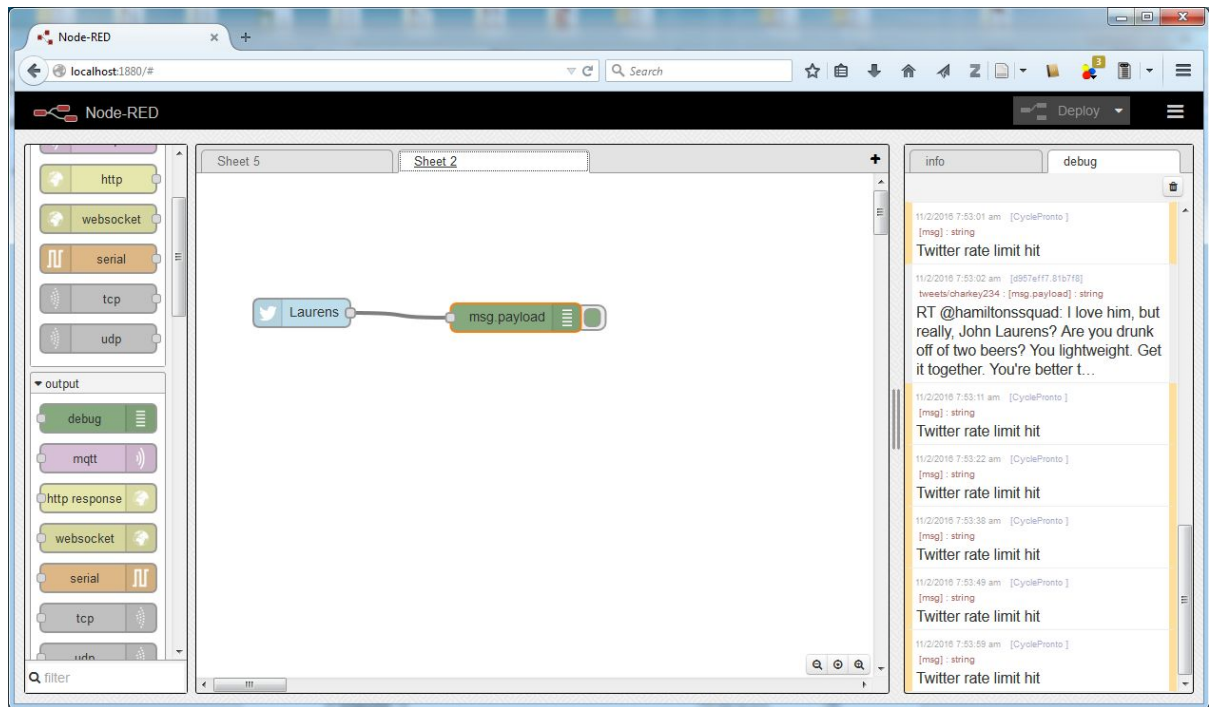
**Step 5.** Now 'deploy'



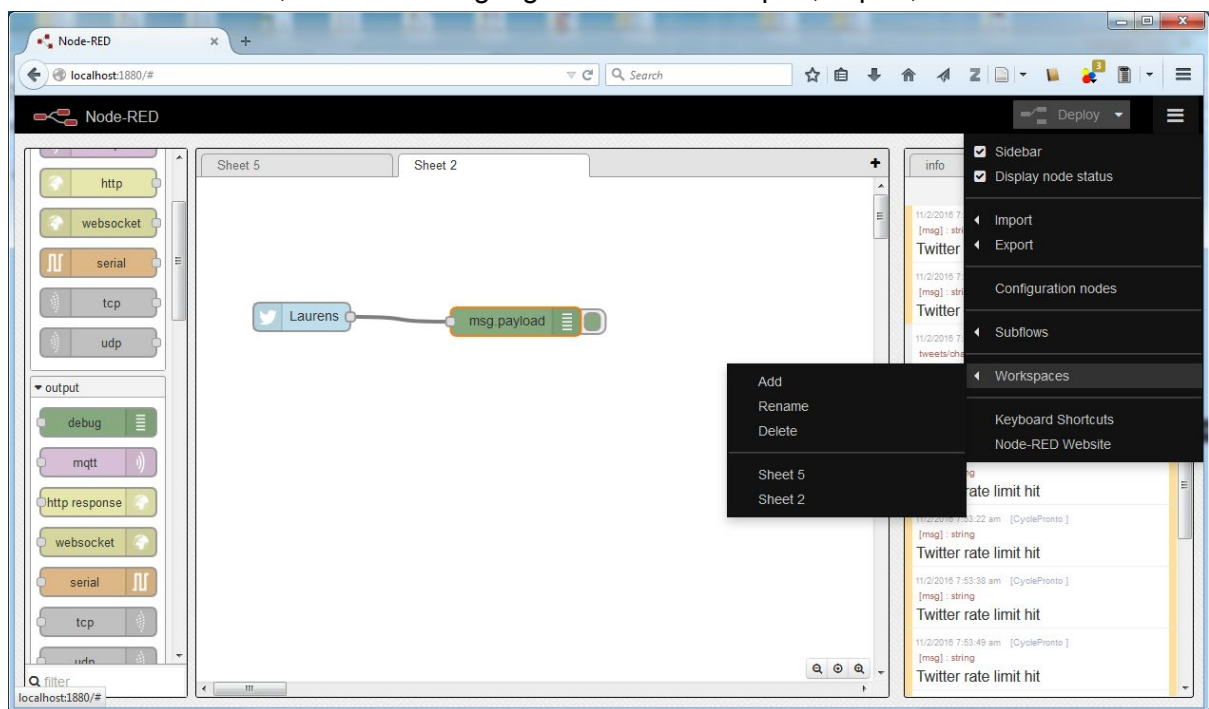
**Step 6.** Activate debug and look at the debug tab (far right) for output:



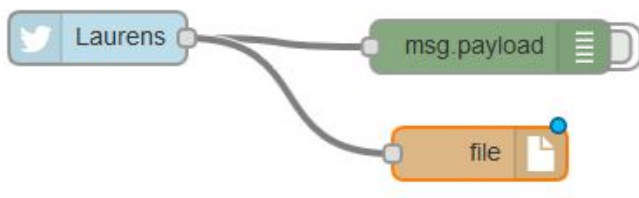
You can see 'Twitter rate limit hit' (sigh), but output from another flow is at top ('Pronto cycle share')... Update, there's one:



But wait there's more, the menu at right gives access to import, export, sheets etc.

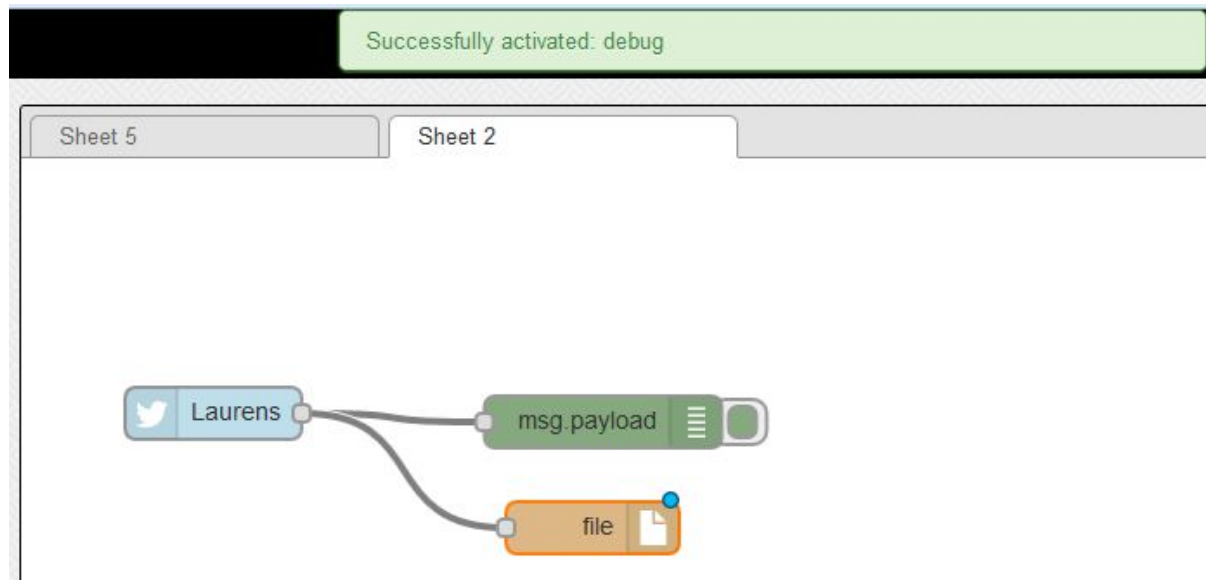


Debug off:





Debug on (the only difference is the small tab at right of 'msg.payload' node)



Now, even with debug off, the node is still running, you can see a pipe to a file node above, it will keep filling up with tweets. You can also see the console still grinding:

The screenshot shows a terminal window titled "node-red". It displays a log of messages from the "Laurens" node. The messages are all "[warn] [twitter in:eca20ffd.1aadcl Twitter rate limit hit" and "[warn] [twitter in:CyclePronto 1 Twitter rate limit hit". The messages are timestamped with "11 Feb" and a time in HH:MM:SS format. The terminal window has a scrollbar on the right side.

It's not obvious how to stop flows, delete or quit node-red are two options.