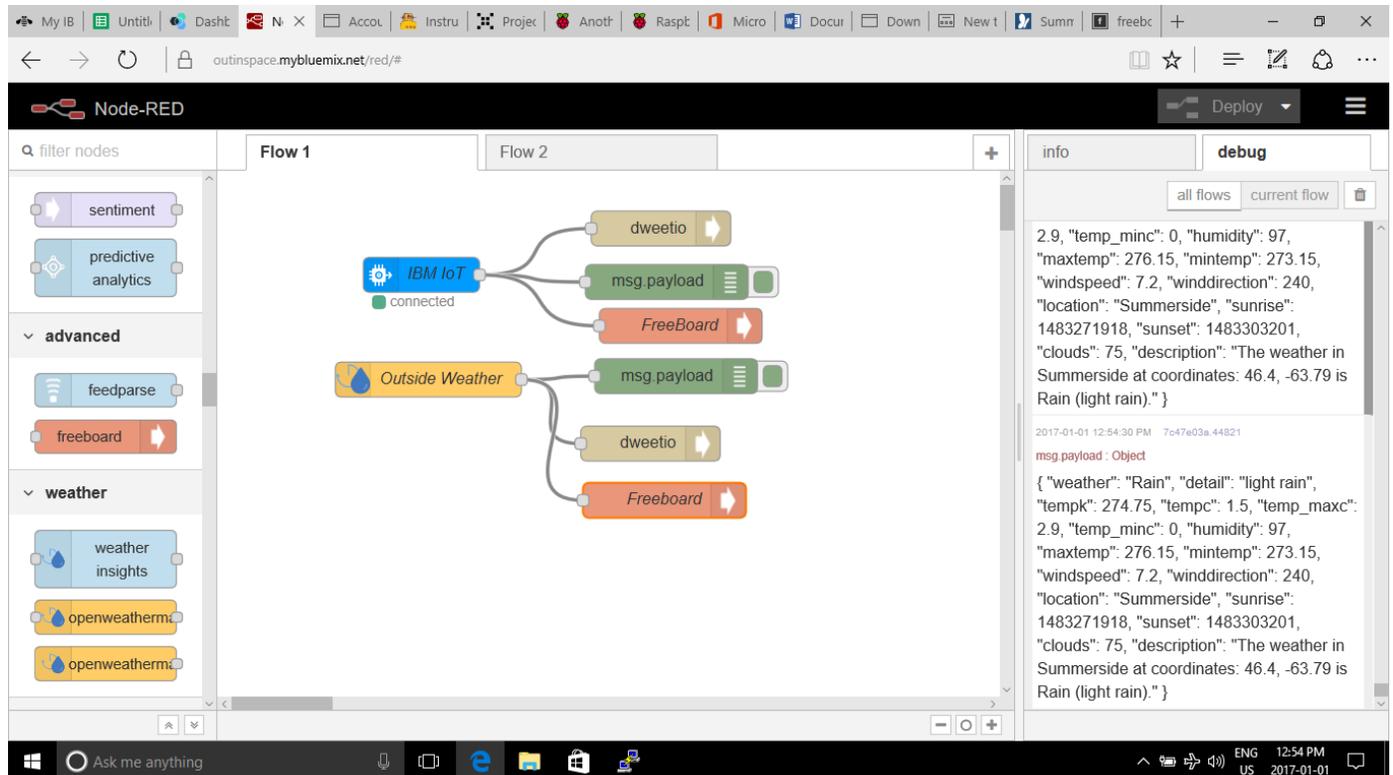


Setting up Node Red and the Dash Board

I'm going through a simple setup and how I got started with measuring and reporting the data. The new version of IBM Node Red makes it so easy now to install nodes. There is probably a node out there for what ever project you are working on. I am experimenting with Alexa on the Raspberry Pi and will include a short video with my questions about conditions within the house. This is out of scope for this competition but the possibilities is intriguing. Here is the link to the [Node Red Library](#).



The screenshot shows the Node-RED web interface in a browser window. The main workspace displays a flow with the following nodes: an IBM IoT node (connected), an Outside Weather node, and two parallel branches. The top branch contains a Dweetio node, a msg payload node, and a FreeBoard node. The bottom branch contains a Dweetio node and a FreeBoard node. The left sidebar shows a search bar and a list of nodes categorized by 'advanced' (feedparse, freeboard) and 'weather' (weather insights, openweatherm). The right sidebar has tabs for 'info' and 'debug'. The 'debug' tab is active, showing a log entry for 'msg.payload' with a JSON object containing weather data: { "weather": "Rain", "detail": "light rain", "tempk": 274.75, "tempc": 1.5, "temp_maxc": 2.9, "temp_min": 0, "humidity": 97, "maxtemp": 276.15, "mintemp": 273.15, "windspeed": 7.2, "winddirection": 240, "location": "Summerside", "sunrise": 1483271918, "sunset": 1483303201, "clouds": 75, "description": "The weather in Summerside at coordinates: 46.4, -63.79 is Rain (light rain)."}.

I installed Outside Weather , Dweetio and Freeboard for the Dashboard. Dweetio will be used to store the incoming data captured from the Sensor Tag and Outside Weather. I used this as a data source for the Dashboard. The Debug Node shows the data being captured.

Dweet.io

This is so easy to use in Node Red. You must assign a unique name for your Node and I'll show you how to use it in Freeboard as a data source. You can find more info at this [website](#). I have assigned two names for the Dweet.io nodes: InsideWeather and OutsideWeather.

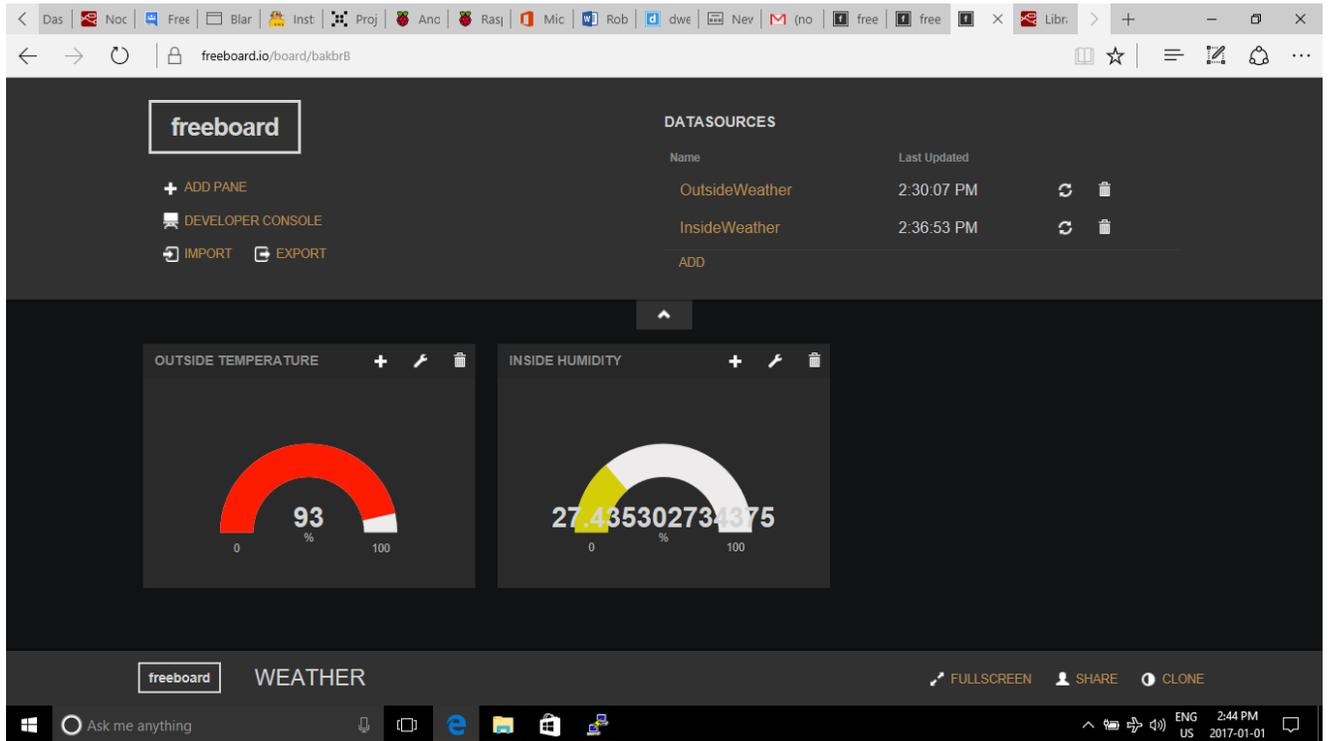
Free Board

This is again a free tool to building amazing dashboards to visual the data. You can access the dashboard with any internet connected device. So if the Green House or Barn is miles away you can access your dashboard at any location. The application is easy to use and you can find more info [here](#). Freeboard

and Node Red seem to partner up in a seamless way to add meaning to you data being sent to the Cloud.

Building a Simple Dashboard

I am using just using a simple example to display our sensor tag data for inside humidity and outside humidity from Outside weather API.



Yes in our part of the world we have a lot of snow and rain so Outside its 93% humidity with light snow. Inside I'm pretty cosy with 27% humidity.