Node-Red Flow

Diagram

Description automatically generated

Figure – The whole Node-Red flow

Figure 1 shows the node-red flow used to send dummy data to the mqtt broker which will be read and stored into an InfluxDB database.

Text

Description automatically generated

Figure – For Each Site function node

Figure 2 shows the For Each Site function node. This node returns an array of sites in the JSON format.

Diagram

Description automatically generated

Figure – Array Loop 1

Figure 3 shows an array loop which iterates through the array in figure 2 for each object and calls the For Each Antenna function node.

Text

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Figure – For Each Antenna Function Node

Figure 4 shows the For Each Antenna function node which takes the JSON site object from loop 1 (Figure 3) and creates an array of the antennas from that site.

Diagram

Description automatically generated

Figure – Array Loop 2

Figure 5 shows another array loop which iterates over the antennas in the given JSON site object (Seen in figure 2) and calls the Create JSON function node for each antenna.

Text

Description automatically generated

Figure – Create JSON function node

Figure 6 shows the create JSON function node which generates some random values for the dummy data and takes the site name and antenna from the msg received. Then a JSON object is created for the site antenna. The msg topic is then set to reflect the site and antenna e.g Arqiva/Sandale/Antenna1.

Table, calendar

Description automatically generated

Figure – MQTT out node

Figure 7 shows the mqtt out node which sends a message to the mqtt broker and uses the topic from the msg topic set in figure 6.