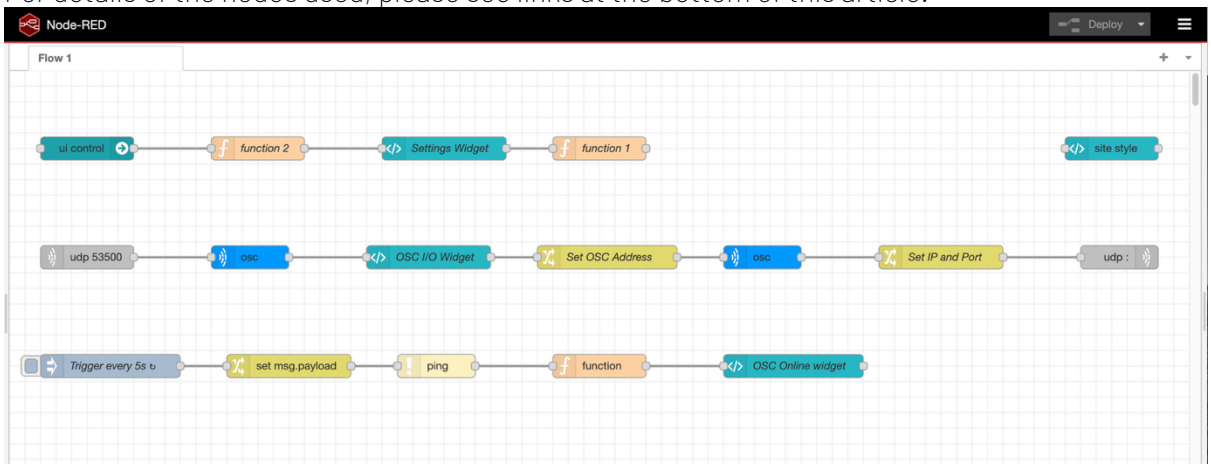
OSCA Remote Control-8 Node-RED OSC messaging

Overview

This document outlines how Node-RED can be used to send messages to the Remote Control-8 TFT screen, receive messages from the RC8, and monitor its status. Node-RED is an open-source, cross-platform low-code visual programming tool used to connect hardware devices, APIs, and online services.

Node-RED flow

For details of the nodes used, please see links at the bottom of this article.



The top nodes are used to read settings from a global variable, display them on a widget and store them.

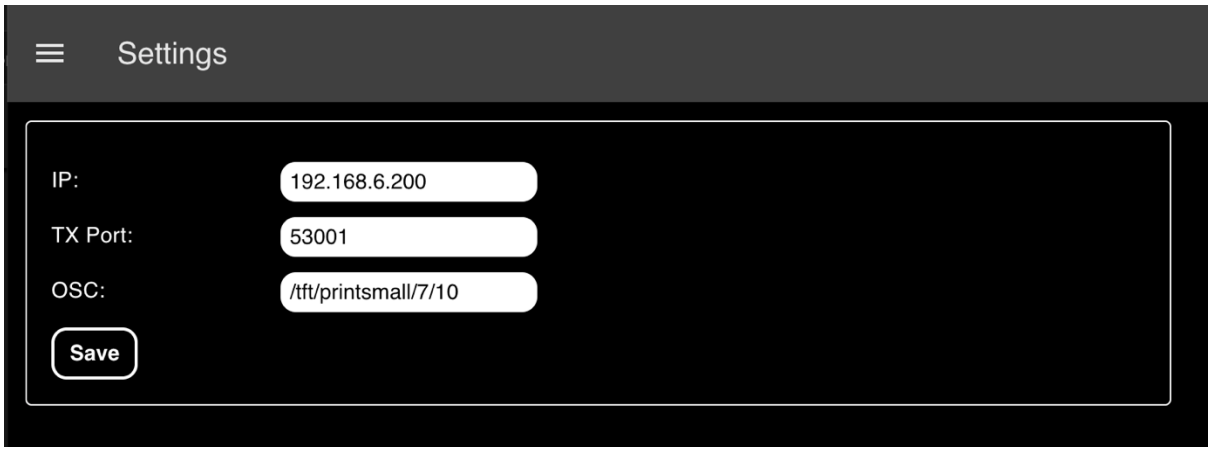
The middle flow will receive OSC and display it on the OSC messaging page and send OSC UDP messages.

The bottom flow will send Ping requests to the Remote Control-8 and update the status on the dashboard.

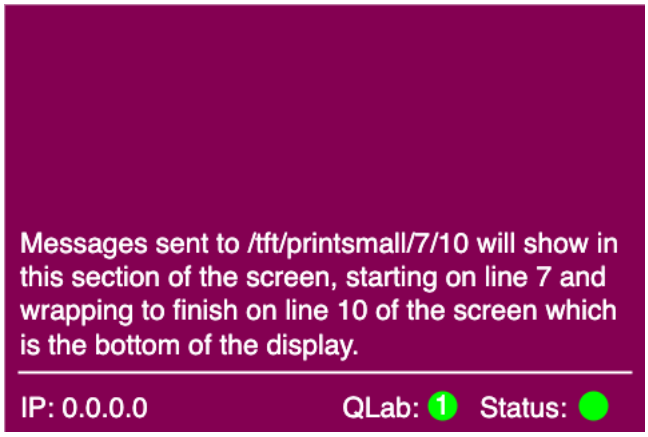
Node-RED flow

The dashboard has two simple pages, Settings and OSC Messaging

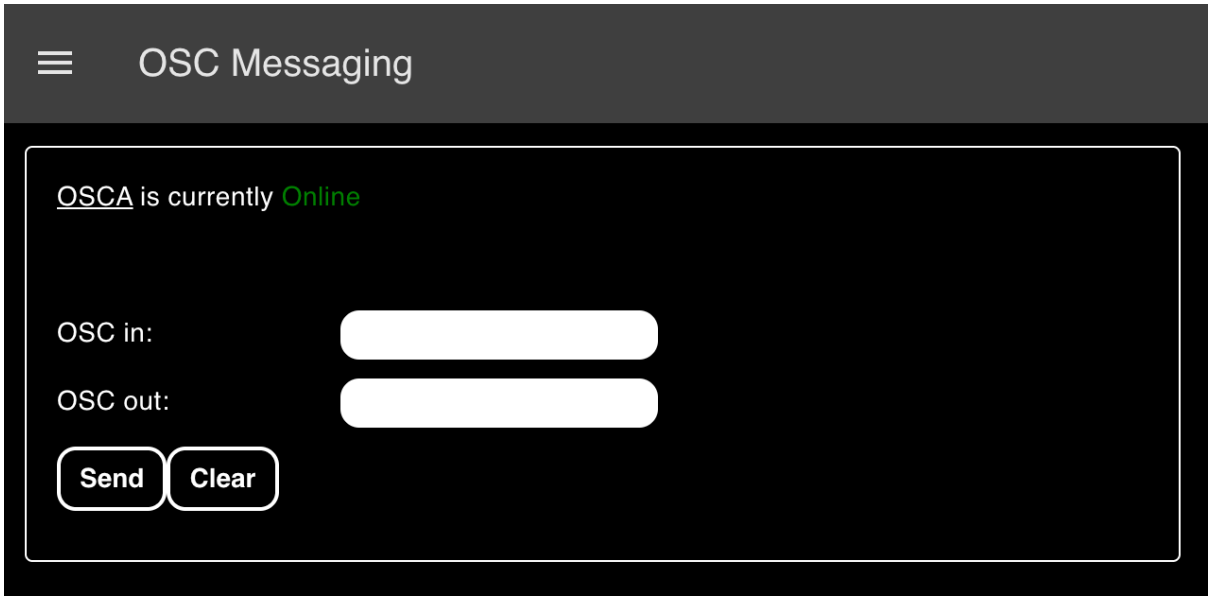
Settings



IP – The IP address of the OSCA-RC8
TX Port – To match the RX port setup on the OSCA-RC8 often 53500 or 53001
OSC – The OSC address to send messages to. If using OSCA-RC8 with QLab, the lower section of the screen is less used. This will send messages to the lower section of the screen.



OSC Messaging



Follow the OSCA link to access the Remote Control-8 config pages when shown as Online.

String argument of OSC message sent to any address show in OSC in:

To send an OSC message enter it in OSC out and click send. It will send as a string argument to the address specified on settings page. Click clear to send a single space to clear the RC8 screen.

Notes:

Ensure that the required ports are open on the computer running node-RED server.

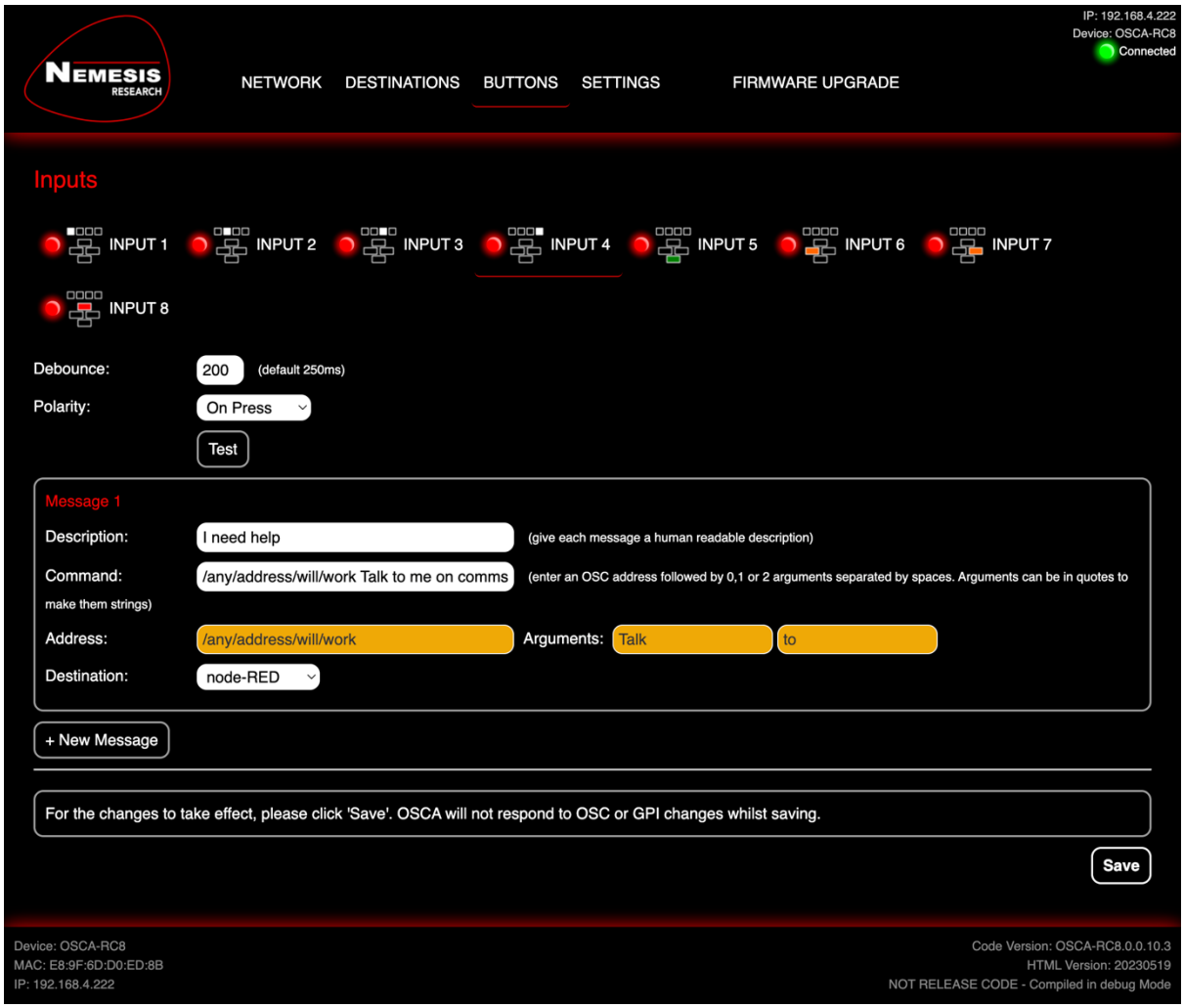
The OSC is sent to/from the IP address of the computer running node-RED not the computer viewing the dashboard.

By default, node-RED stores global variable in memory, so settings will be lost when node-RED restarts. To keep the settings in persistant storage, uncomment (remove //) from the bottom 5 lines of this section of node-RED settings.js

```
// Context Storage
// The following property can be used to enable context storage. The configuration
// provided here will enable file-based context that flushes to disk every 30 seconds.
// Refer to the documentation for further options: https://nodered.org/docs/api/context/
//
//contextStorage: {
//    default: {
//        module:"localfilesystem"
//    },
//},
```

Remote Control-8 setup

No specific set up is required for this example. A button on Remote Control-8 could be configured to send a message to node-RED as below:



Resources

https://nodered.org/
https://flows.nodered.org/node/node-red-node-ping
https://flows.nodered.org/node/node-red-contrib-osc
https://flows.nodered.org/node/@flowfuse/node-red-dashboard

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