

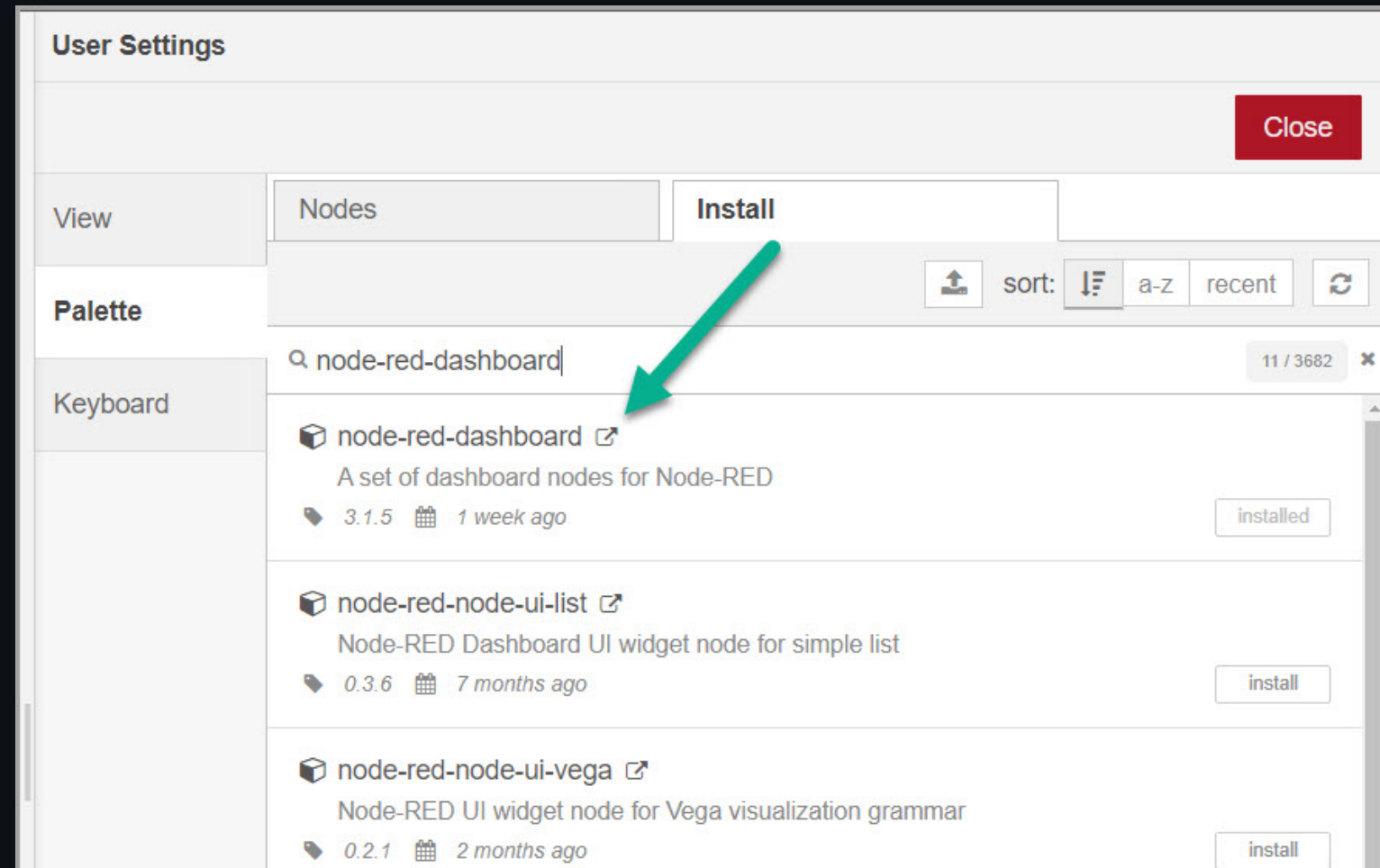
Production Supporting Systems in Factories

ระบบสนับสนุนการผลิตในโรงงานอุตสาหกรรม

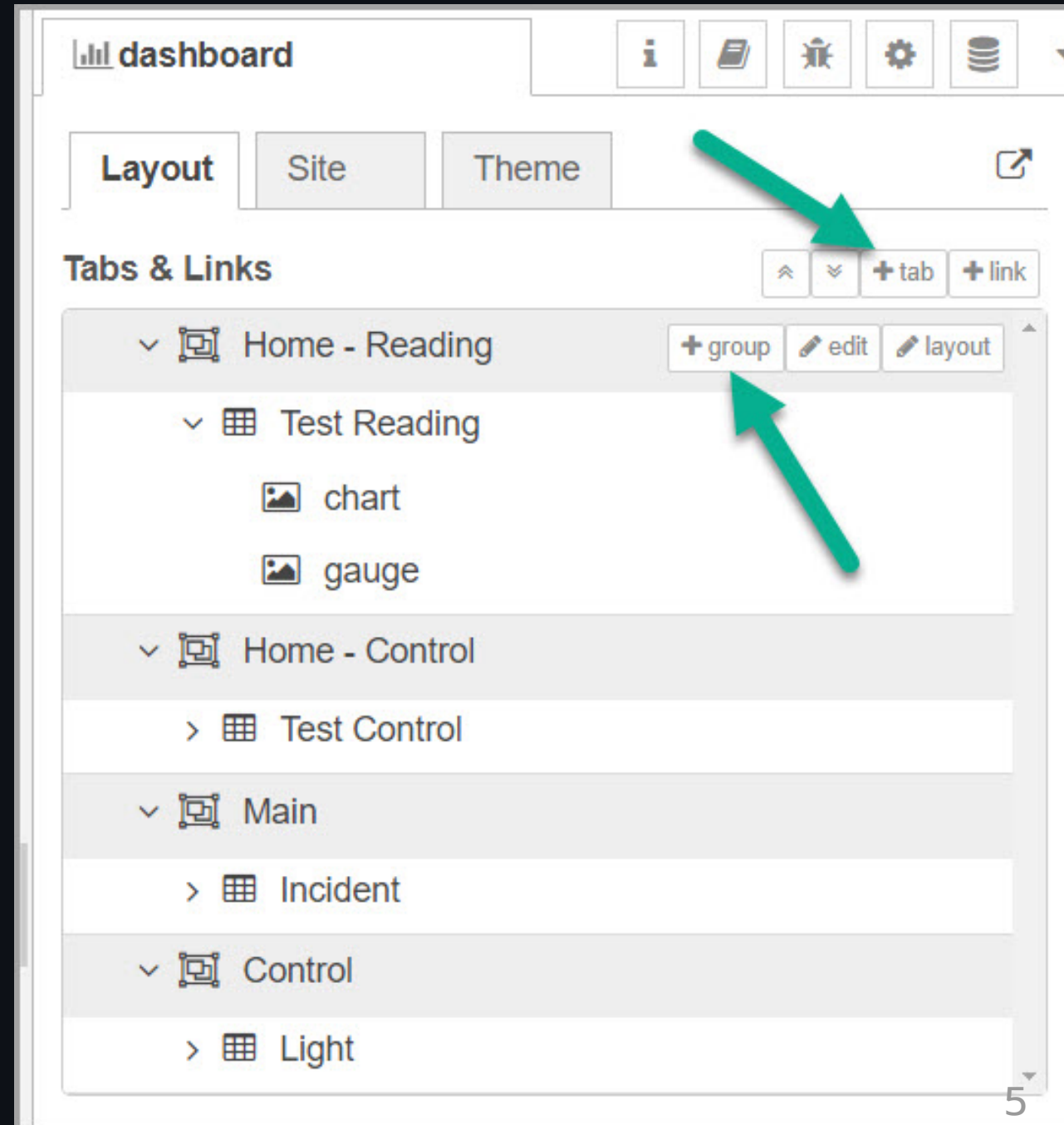
Dashboard

Dashboard display

- Go to **Manage palette**
- **Install node-red-dashboard**

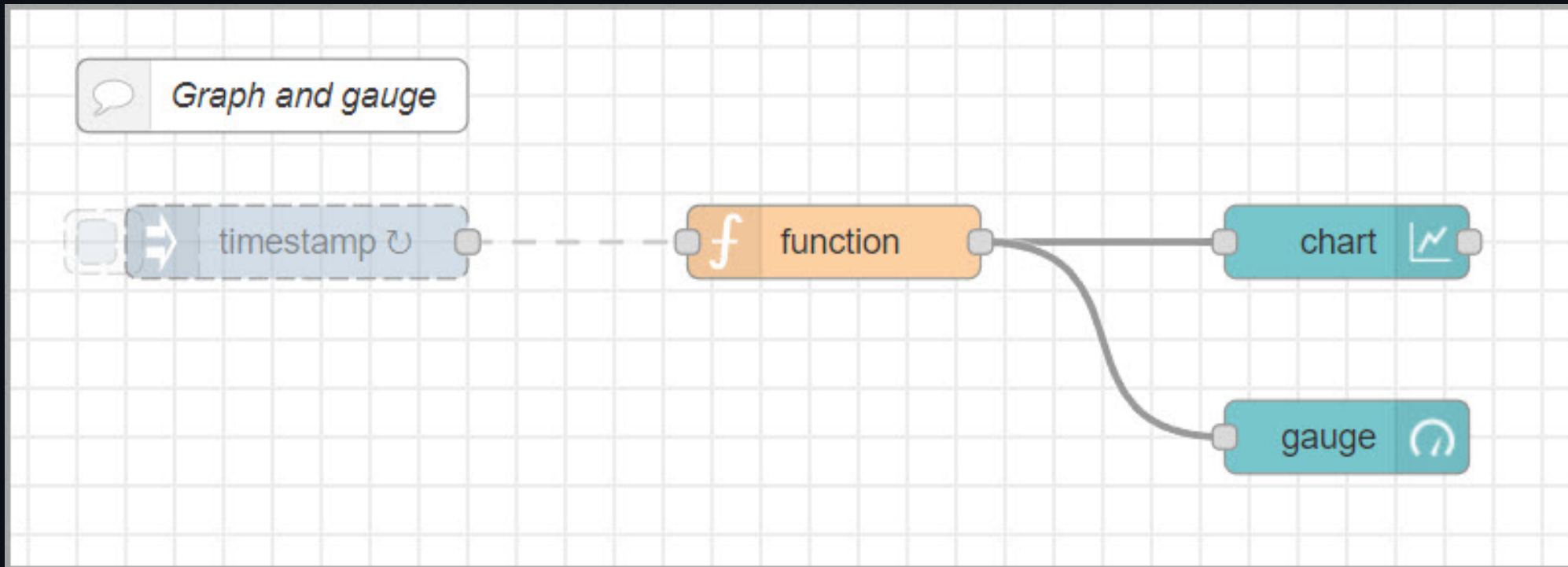


- Go to **Dashboard** tab
- Click **+ tab**
 - Edit tab information
- Click **+ group**
 - Edit group information



- Flow

- inject, function, chart, gauge



- inject node

Edit inject node

Delete Cancel Done

Properties

Name: Name

msg. payload = timestamp

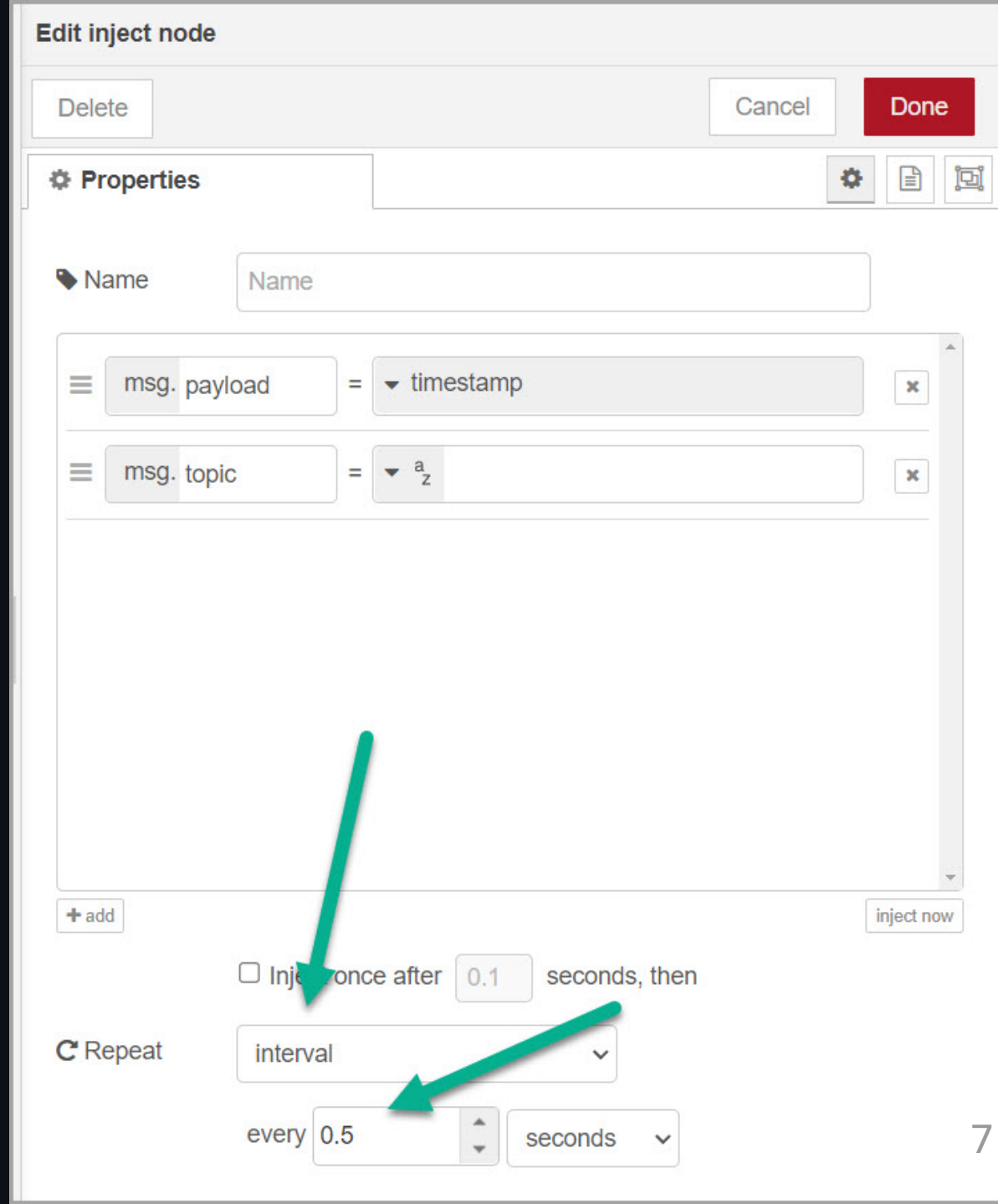
msg. topic = a_z

+ add inject now

☐ Inject once after 0.1 seconds, then

Repeat interval

every 0.5 seconds



- **function** node (code on the next page)

Edit function node

Delete

Cancel

Done

Properties

Name

Setup

On Start

On Message

On Stop

1 `const timestamp = msg.payload`

2 `const period = 10`

3 `msg.payload = Math.sin(timestamp/1000*2*Math.PI/period)`

4 `return msg;`


```
const timestamp = msg.payload;  
const period = 10;  
msg.payload = Math.sin(((timestamp / 1000) * 2 * Math.PI) / period);  
return msg;
```

- **chart node**

Edit chart node

Delete Cancel Done

Properties

Group [Home - Reading] Test Reading

Size auto

Label chart

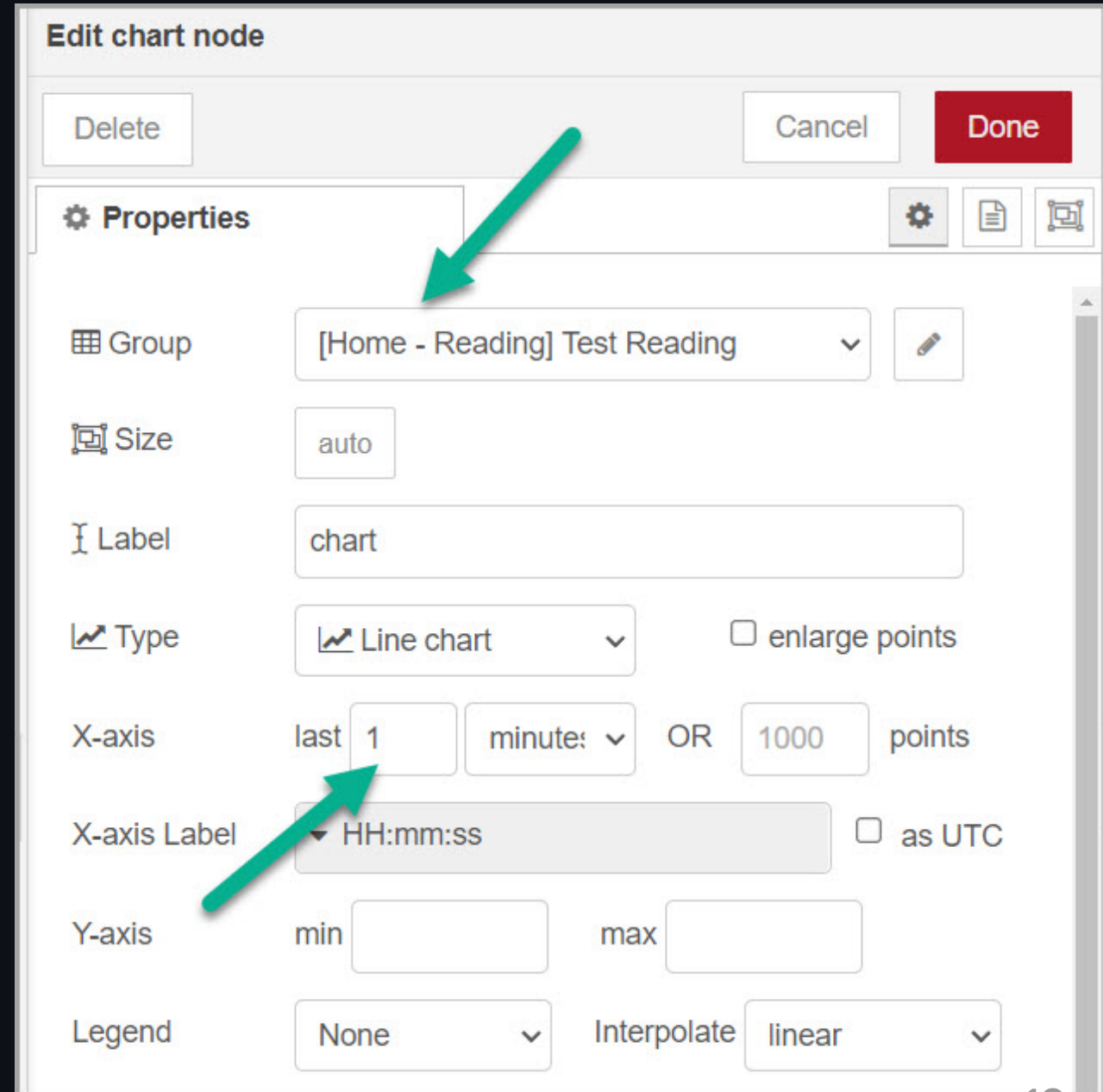
Type Line chart ☐ enlarge points

X-axis last 1 minutes OR 1000 points

X-axis Label HH:mm:ss ☐ as UTC

Y-axis min max

Legend None Interpolate linear



- gauge node

Edit gauge node

Delete Cancel Done

Properties

Group [Home - Reading] Test Reading

Size auto

Type Gauge

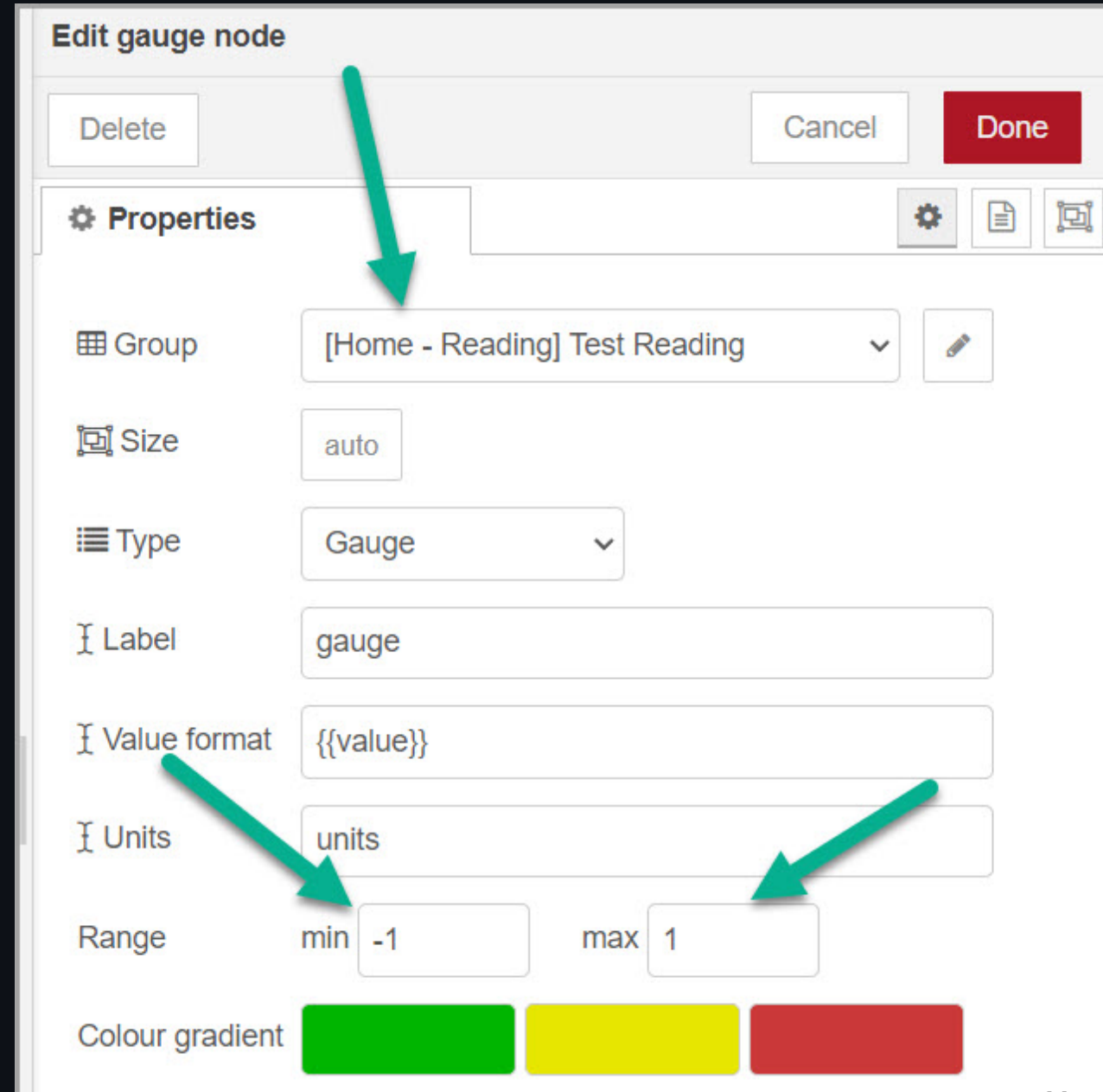
Label gauge

Value format {{value}}

Units units

Range min -1 max 1

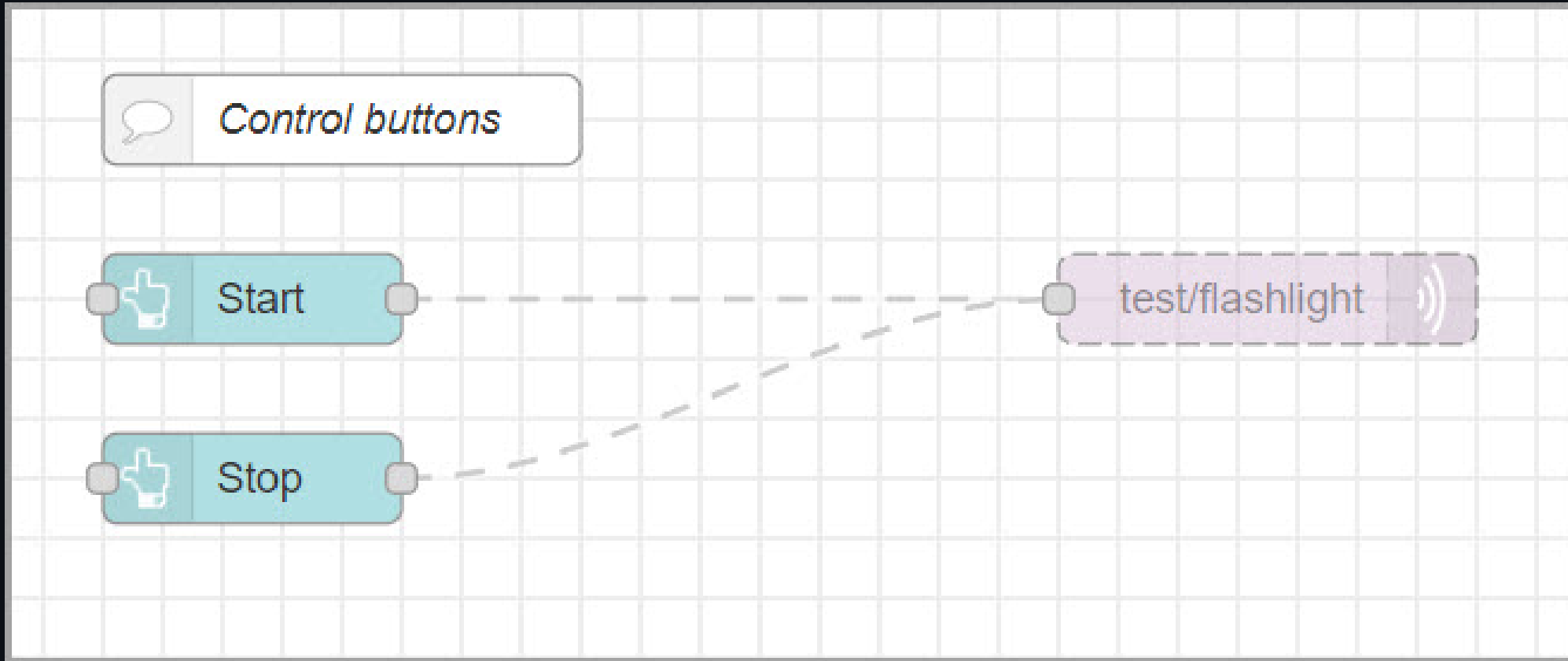
Colour gradient



Control

- Flow

- button, mqtt out



- button Start

Edit button node

Delete Cancel Done

Properties

Group [Home - Control] Test Control

Size auto

Icon optional icon

Label Start

Tooltip optional tooltip

Color optional text/icon color

Background green

When clicked, send:

Payload a_z start

Topic msg. topic

→ If msg arrives on input, emulate a button click: ☐

- button Stop

Edit button node

Delete Cancel Done

Properties

Group [Home - Control] Test Control

Size auto

Icon optional icon

Label Stop

Tooltip optional tooltip

Color optional text/icon color

Background red

When clicked, send:

Payload a_z stop

Topic msg. topic

- mqtt out node

Edit mqtt out node

Delete Cancel Done

⚙ Properties

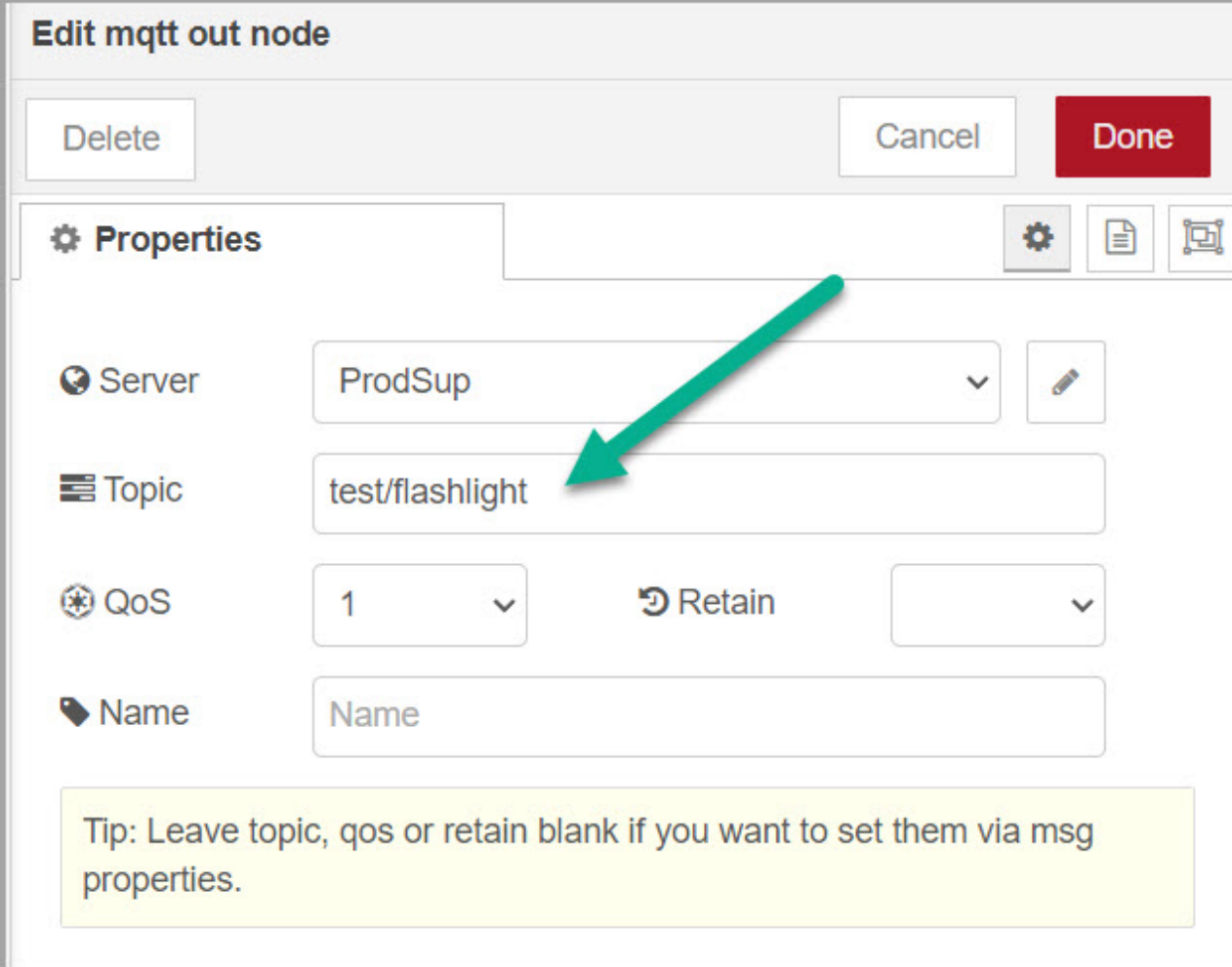
Server ProdSup

Topic test/flashlight

QoS 1 Retain

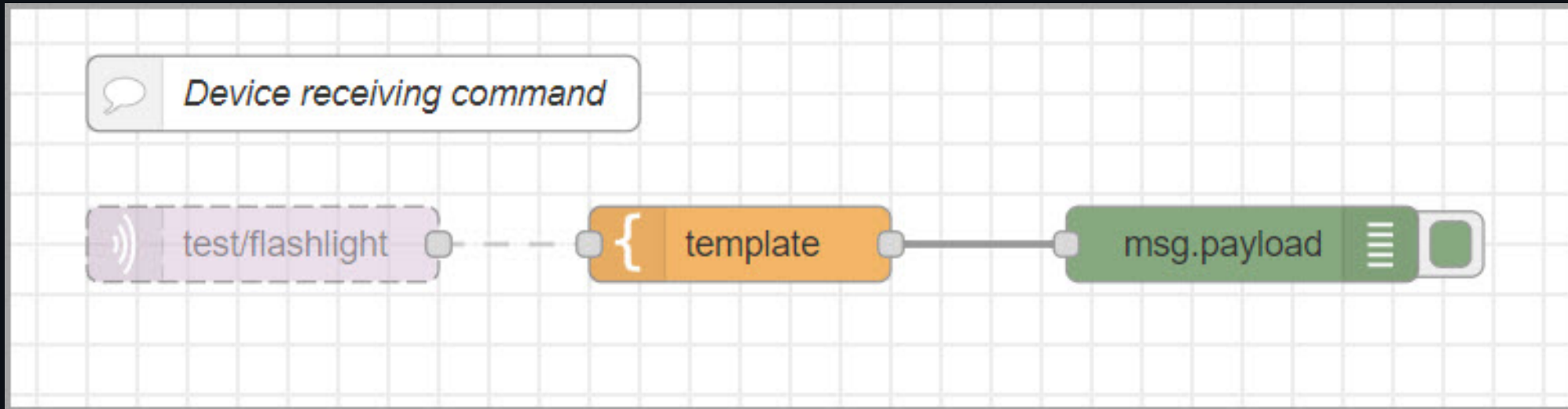
Name Name

Tip: Leave topic, qos or retain blank if you want to set them via msg properties.

The image shows a software interface for editing an MQTT output node. At the top, there's a title bar 'Edit mqtt out node' and three buttons: 'Delete', 'Cancel', and 'Done'. Below this is a 'Properties' section with a gear icon and three sub-icons (gear, document, and a node icon). The main area contains several fields: 'Server' with a dropdown menu showing 'ProdSup' and an edit icon; 'Topic' with a text input field containing 'test/flashlight'; 'QoS' with a dropdown menu showing '1'; 'Retain' with a checkbox and a dropdown menu; and 'Name' with a text input field containing 'Name'. A green arrow points to the 'Topic' field. At the bottom, there's a yellow tip box that says 'Tip: Leave topic, qos or retain blank if you want to set them via msg properties.'

- flow

- mqtt in, template, debug



- mqtt in node

Edit mqtt in node

Delete Cancel Done

Properties

Server ProdSup

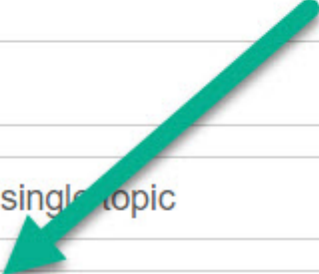
Action Subscribe to single topic

Topic test/flashlight

QoS 1

Output auto-detect (string or buffer)

Name Name



- **template node**

Edit template node

Delete Cancel Done

Properties

Name

Property

Template Syntax Highlight:

```
1 I will {{payload}} now !
```