

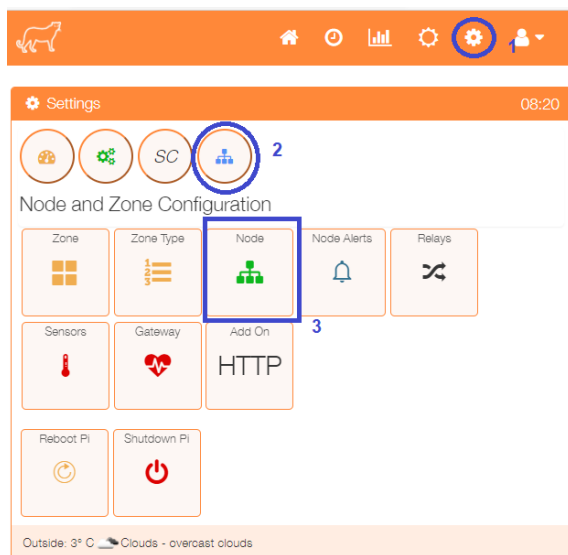
MaxAir Tasmota Lamp Zone Setup Guide

Introduction

The purpose of this guide is to describe the setup of a zone comprised of multiple Tasmota controlled lamps. The configuration is based on the 'standard' four-layer model, where the Tasmota switches are added as nodes and configured as Relay devices.

Schedules
Zones
Devices
Nodes

Step 1 – Layer 1 Configuration - Connect the Nodes



This example configuration will use three Tasmota switched, which will need to be manually added as nodes. Select Node from the Settings/Node and Zone Configuration menu.

Click on 'Add Node'.

Node Setting				
You can Add GPIO, I2C relay board as Node, Wireless Nodes are automatically discovered.				
Type	Node ID	Max Number of Child IDs	Name	
GPIO	0	0	GPIO Controller	

Add Node

You can Add GPIO, I2C relay board as Node, Wireless Nodes are automatically discovered.

Node Type Node you want to make available for Zone and Boiler controller

Tasmota

Node ID I2C board ID or 0 if you want to use Raspberry Pi GPIO

110

Number of Child Devices attached to Node Number of Attached Devices

50

Select Tasmota from the Node type dropdown list

Enter a value of for the Node ID

Enter the last octet of the IP address to be used for this device

Click on the 'Save' button to update the nodes table.

Repeat the process for the remaining two Tasmota switches, allocating a Node ID to each one. The value for Number of Child Devices attached to the Node should represent the last segment of the IP address for the Tasmota switch, e.g. if the switch's IP address is 192.168.0.50, then the value entered would be 50.

Re-displaying the nodes from the Settings/System Configuration menu will show that the Tasmota nodes have been added.

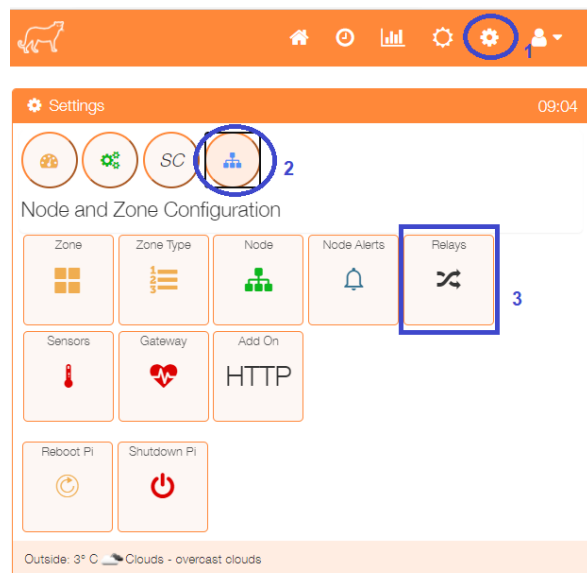
List Nodes			
List of all Nodes and the maximum number of associated Child IDs			
Node ID	Max Number of Child IDs	Name	Type
0	0	GPIO Controller	GPIO
110	50	Tasmota Controller	Tasmota
120	51	Tasmota Controller	Tasmota
130	52	Tasmota Controller	Tasmota
21	0	Temperature Sensor	MySensor
28	0	Temperature Sensor	MySensor
34	0	Temperature Sensor	MySensor

Close

This completes the Layer 1 configuration.

Step 2 – Layer 2 Configuration - Add Devices

This step will add the Tasmota Switches as Relay devices.



Tasmota switch as a relay

Select the Relays menu item from the Settings/Node and Zone Configuration menu to display a list of any currently configured relays.

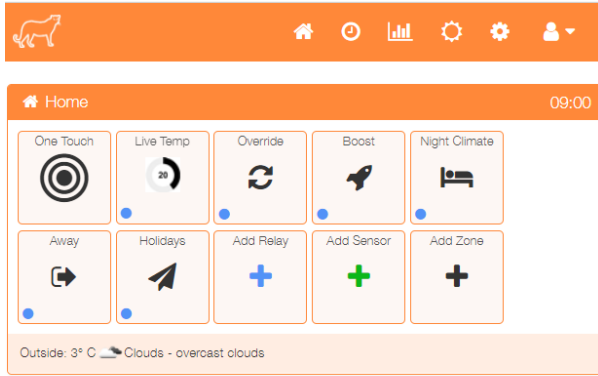
Click on the 'Add Relay' button to configure each

Controller Relay Settings				
Edit or Delete the Relay Configuration. Allocated Relays Cannot be Deleted until removed from the Zone or Controller. Last Seen Date/Time is shown with Controller Relay Name.				
Relay Name	Type	Node ID	Relay Child ID	
Gas Boiler (2021-03-27 08:49:15)	Boiler	0	11	Edit Delete
Central Heating (2021-03-27 08:49:15)	Zone	0	13	Edit Delete
Hot Water (2021-03-27 08:49:15)	Zone	0	15	Edit Delete

Close

Save

Add Relay



MaxAir - Smart Thermostat 0.1 - Build Beta 4.0
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An alternative method to go directly to the Add Relay dialogue, is from the Home screen click on the 'One Touch' button then select the 'Add Relay' menu item.

Select the Controller Type - Zone

Provide a name for this relay device

Select the Relay ID from the dropdown list of available Nodes

Choose the Child ID from the dropdown list, use the last value from the list

Click on 'Submit' to add the device.

Repeat the process to add the remaining Zone Controller relays.

Re-selecting the Relays menu item from the Settings/Node and Zone Configuration menu will display the updated list of currently configured relays.

This dialogue can be used to Add/Delete/Edit the relay configurations.

Relay Name	Type	Node ID	Relay Child ID	
Gas Boiler (2021-03-27 08:49:15)	Boiler	0	11	
Central Heating (2021-03-27 08:49:15)	Zone	0	13	
Hot Water (2021-03-27 08:49:15)	Zone	0	15	
Lamp 1 (2021-03-27 18:34:16)	Zone	110	50	
Lamp 2 (2021-03-27 18:34:42)	Zone	120	51	
Lamp 3 (2021-03-27 18:35:36)	Zone	130	52	

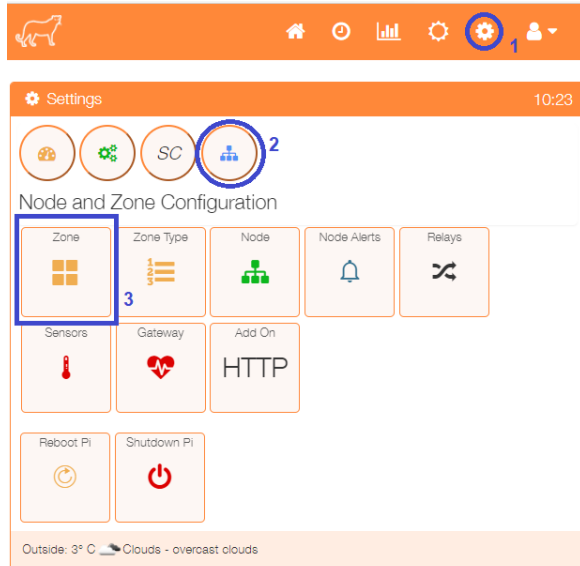
Close Save Add Relay

This completes the Layer 2 configuration.

Layers 1 and 2 define the basic hardware configuration of the system.

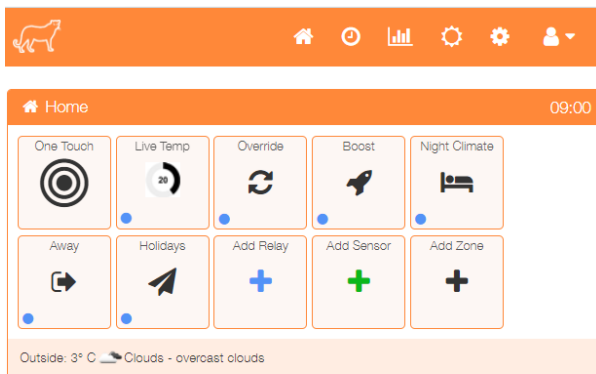
Step 3 – Layer 3 Configuration - Add Zone

The example configuration will have add the three lamps to a single zone, so that they can be controlled by a single schedule. An alternative approach would be to allocate each lamp to a single zone, with an individual schedule for each.



Select the Zone menu item from the Settings/Node and Zone Configuration menu to display a list of any currently configured sensors.

Click on the 'Add Zone' button to configure the first zone.



An alternative method to go directly to the Add Zone dialogue, is from the Home screen click on the 'One Touch' button then select the 'Add Zone' menu item.

There are currently four types of zone, Heating, Water, Immersion and Lamp, the configuration of the Add Zone dialogue will depend on the type of zone selected. Immersion type zones will disable 'System Controller' selection, while Lamp type zones will disable all temperature sensor related selections, together with the 'System Controller' selection, as these parameters do not apply to these zone types.

The example below shows a Lamp zone configuration, with the three Tasmota switches associated.

Use the + located adjacent to the Zone Controller ID selection box to add the second then third Tasmota Relat device.

Once the parameters have been entered, click on the 'Submit' button.

☒ **Enable Zone** Enable this Zone if you want this Zone to be controlled

Index Number In the List of Zones where you want to place this Zone on the home screen

2

Zone Name Zone display name

Lamp

Zone Type Zone type i.e. Heating, Hot Water or Electrical Immersion

Lamp

Maximum Operation Time Maximum operation time in minutes of any continuous time

60

Zone Controller ID Select Zone Controller Type and Number

Lamp 1



Zone Controller ID Select Zone Controller Type and Number

Lamp 2




Zone Controller ID Select Zone Controller Type and Number

Lamp 3



Submit

Cancel

Outside: 3° C  Clouds - overcast clouds

Re-selecting the Zone menu item from the Settings/Node and Zone Configuration menu will display the updated list of currently configured zones.

This dialogue can be used to Add/Delete/Edit the zone configurations.

Zone Settings

Hysteresis (Minimum delay between power off and on)
Maximum operating time
Maximum Zone temperature.

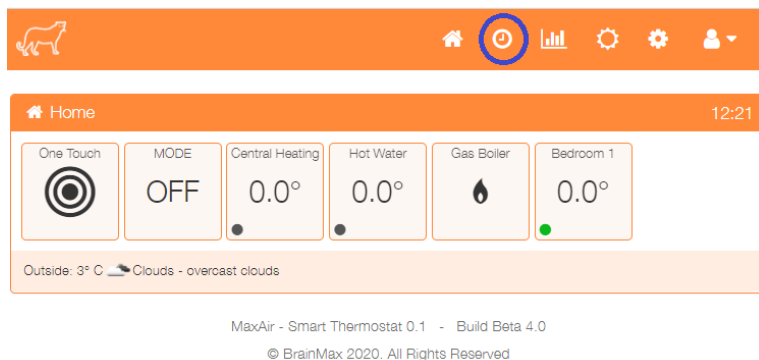
Central Heating	Max 25° - Sensor: 21 - GPIO: 53-13		
Hot Water	Max 42° - Sensor: 28 - GPIO: 53-15		
Lamp	Controller: Tasmota: 57-50 Controller: Tasmota: 58-51 Controller: Tasmota: 59-52		

[Close](#) [Add Zone](#)

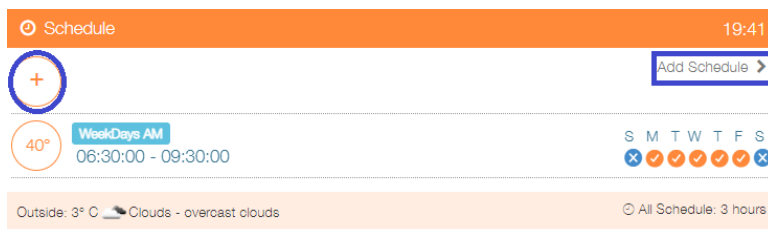
This completes the Layer 3 configuration.

Step 4 – Layer 4 Configuration - Add Schedules

The example configuration will have a single schedule to control the Lamp zone.



Click on the toolbar clock icon to configure the first schedule.



Click on + or 'Add Schedule'

The Add schedule screen will be presented, the example below shows:

- An enabled schedule
- Operated every day of the week
- Titled Lamp
- Operated between 2030 hours and 2330 hours
- Sunset override enabled with an offset of 35 minutes

Sunset Override Function

If enable will use the sunset time from the weather input, an addition offset can be applied to cause start time to be sunset +/- the offset value in minutes.

Add Schedule19:44

☒ Enable Schedule

☒ Sun☒ Mon☒ Tue☒ Wed☒ Thu☒ Fri☐ Sat

Lamp

Start Time20:30

End Time23:30

Select Zone/s

☐ Hot Water

☒ Lamp

☒ Enable Sunset & Set Offset in Minutes-45🌅📘

☐ Central Heating

Cancel

Submit

Outside: 3° C☁️ Clouds - overcast clouds

Once configured, click on the 'Submit' button to add the schedule.

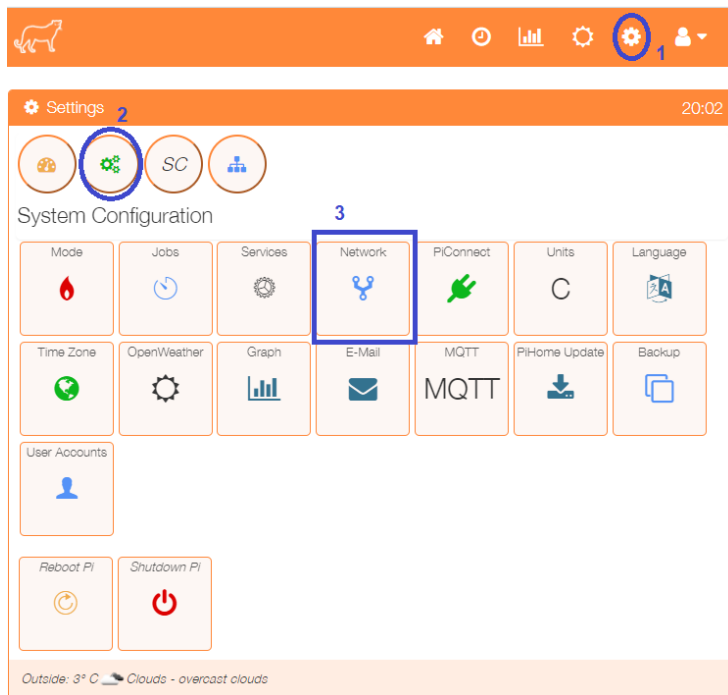
Add any other schedules as required.

This completes the Layer 4 configuration.

Step 5 – Network Configuration

The Tasmota switch devices are allocated an IP address on the same network as is being used by the MaxAir system. The MaxAir system may have multiple network interfaces e.g WiFi and Ethernet, the Tasmota need to be associated to the same IP subnet as the MaxAir system.

For example The MaxAir system as a WiFi interface with a gateway IP address of 192.168.0.1 and an Ethernet interface with a gateway IP address of 10.0.1.1, the three Tasmota switches have IP addresses of 192.168.0.50m 192.168.0.51 and 192.168.0.52.



Select the Network menu item from the Settings/System Configuration menu to add a network configuration.

The configuration shown below shows:

- **Network Interface wlan0 set as the primary interface**
- **MaxAir system IP address is 192.168.0.100**
- **Router gateway IP address is 192.168.0.1**
- **NetMask set to 255.255.255.0**

The other fields can remain blank.

This configuration will ensure that the MaxAir system can communicate with the Tasmota switches.

After entering the parameters click the 'Save' button.

Network Settings

Controller Network Configuration Parameters.

Controller Network Interface

wlan0



Controller Primary Interface

Yes



Operate as Access Point

No



Controller MAC Address

MAC Address

Controller Hostname

Hostname

Controller IP Address

192.168.0.100

Controller Gateway Address

192.168.0.1

Controller Net Mask

255.255.255.0

Controller DNS1 Address

DNS1 Address

Controller DNS2 Address

DNS2 Address

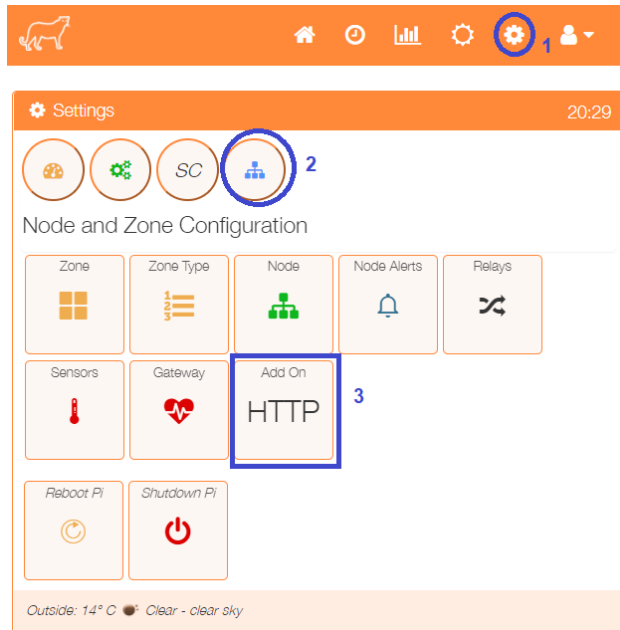
Close

Save

Step 6 – HTTP Messages

MaxAir passes messages to devices by the use of a message queue. The message identifies the target device by the use of a two-field address (node_id and child_id) and passes a single action parameter. In most instances a '0' is used for the OFF state and a '1' for the ON state.

The Tasmota switch device requires a 'Power OFF' message to switch the device OFF and a 'Power ON' message to switch the device ON. A means of translation is required to map '0' to 'Power OFF' and '1' to 'Power ON'.



MaxAir provides functionality to implement this mapping, select the 'HTTP' menu item from the 'Settings/Node and Zone Configuration' menu.

As we have already associated the Tasmota switch to the Lamp zone, click on the 'Add Zone HTTP Msg' button.

Add-On HTTP Messages

Define HTTP Messages TO and FROM the Add-On Controller

Type	Zone Name	Msg Type	Command	Parameter
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[Close](#) [Add Zone HTTP Msg](#) [Add Node HTTP Msg](#)

Create the Power OFF message and click on the 'Save' button, then create the Power ON message and click on the 'Save' button.

Add HTTP Messages

HTTP Messages to be to Sent and Received from Tasmota Controller

Zone Name Select Zone using the Tasmota Controller

Lamp

Msg Type Use 0 for OFF Message or 1 for ON Message

0

HTTP Command HTTP Command to be Sent to the Tasmota Controller

Power

HTTP Parameter HTTP Parameter to be sent with command to Tasmota Controller

OFF

[Close](#) [Save](#)

Add HTTP Messages

HTTP Messages to be to Sent and Received from Tasmota Controller

Zone Name Select Zone using the Tasmota Controller

Lamp

Msg Type Use 0 for OFF Message or 1 for ON Message

1

HTTP Command HTTP Command to be Sent to the Tasmota Controller

Power

HTTP Parameter HTTP Parameter to be sent with command to Tasmota Controller

ON

[Close](#) [Save](#)