MHT Technologies

Terminal troubleshooting for Node 90

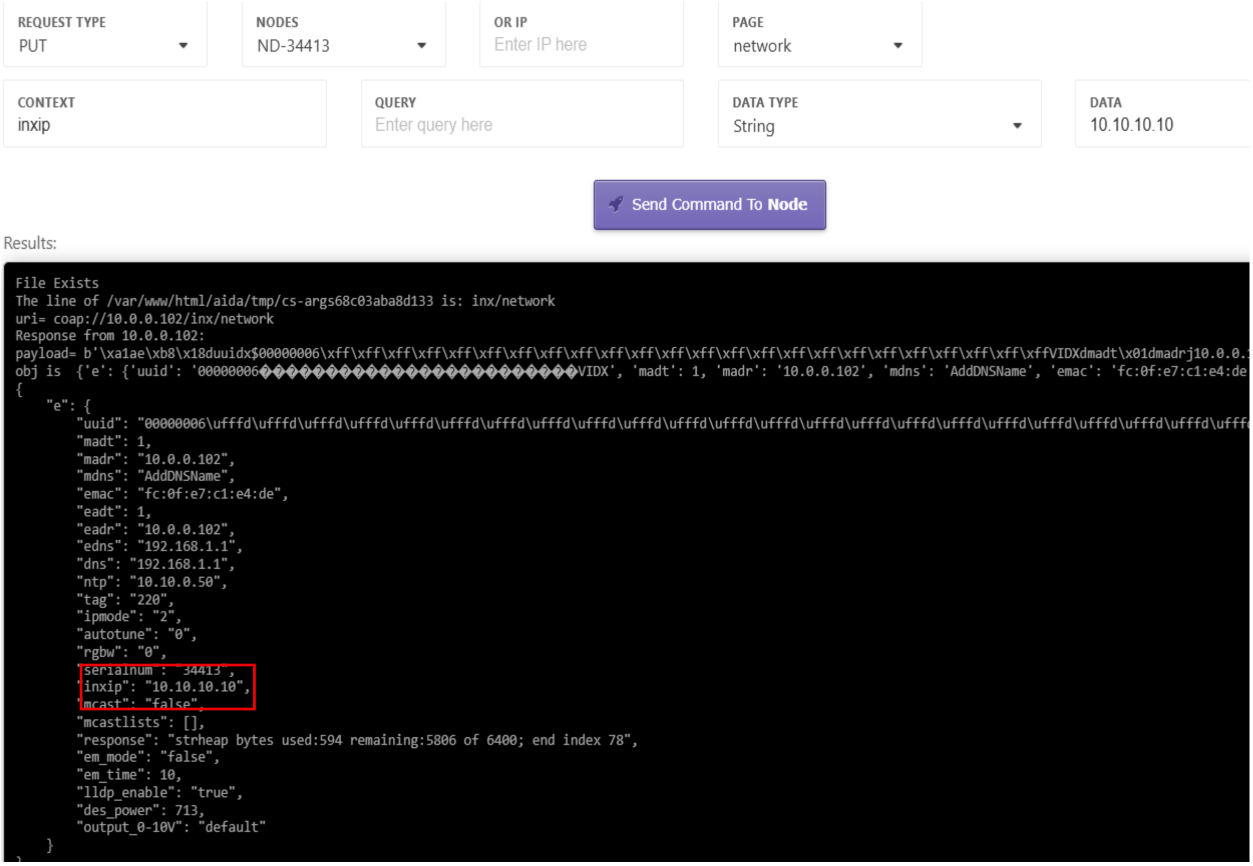
Inxip:

The inxip parameter represents the IP address of Aida. It must be set to the Aida IP where the nodes are connected, ensuring they can be controlled through Aida.

To configure inxip in the terminal:

1. Navigate to Nodes.
2. Select the Node Name/Serial you want to update.
3. Set the Request Type to PUT.
4. In the Data field, enter the Aida IP Address.

After Sending Command to Node, under Request Type, select "Get" to see the update.



REQUEST TYPE: PUT

NODES: ND-34413

OR IP: Enter IP here

PAGE: network

CONTEXT: inxip

QUERY: Enter query here

DATA TYPE: String

DATA: 10.10.10.10

Results:

```
File Exists
The line of /var/www/html/aida/tmp/cs-args68c03aba8d133 is: inx/network
uri= coap://10.0.0.102/inx/network
Response from 10.0.0.102:
payload= b'\xa1ae\xb8\x18duuidx$00000006\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xffVIDXdmadt\x01dmadrj10.0.0.
obj is  {'e': {'uuid': '00000006��������������������������VIDX', 'madt': 1, 'madr': '10.0.0.102', 'mdns': 'AddDNSName', 'emac': 'fc:0f:e7:c1:e4:de
{
    "e": {
        "uuid": "00000006\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufff
        "madt": 1,
        "madr": "10.0.0.102",
        "mdns": "AddDNSName",
        "emac": "fc:0f:e7:c1:e4:de",
        "eadt": 1,
        "eadr": "10.0.0.102",
        "edns": "192.168.1.1",
        "dns": "192.168.1.1",
        "ntp": "10.10.0.50",
        "tag": "220",
        "ipmode": "2",
        "autotune": "0",
        "rgbw": "0",
        "serialnum": "34413",
        "inxip": "10.10.10.10",
        "mcast": "false",
        "mcastlists": [],
        "response": "strheap bytes used:594 remaining:5806 of 6400; end index 78",
        "em_mode": "false",
        "em_time": 10,
        "lldp_enable": "true",
        "des_power": 713,
        "output_0-10V": "default"
    }
```

CCCV:

CCCV Configuration

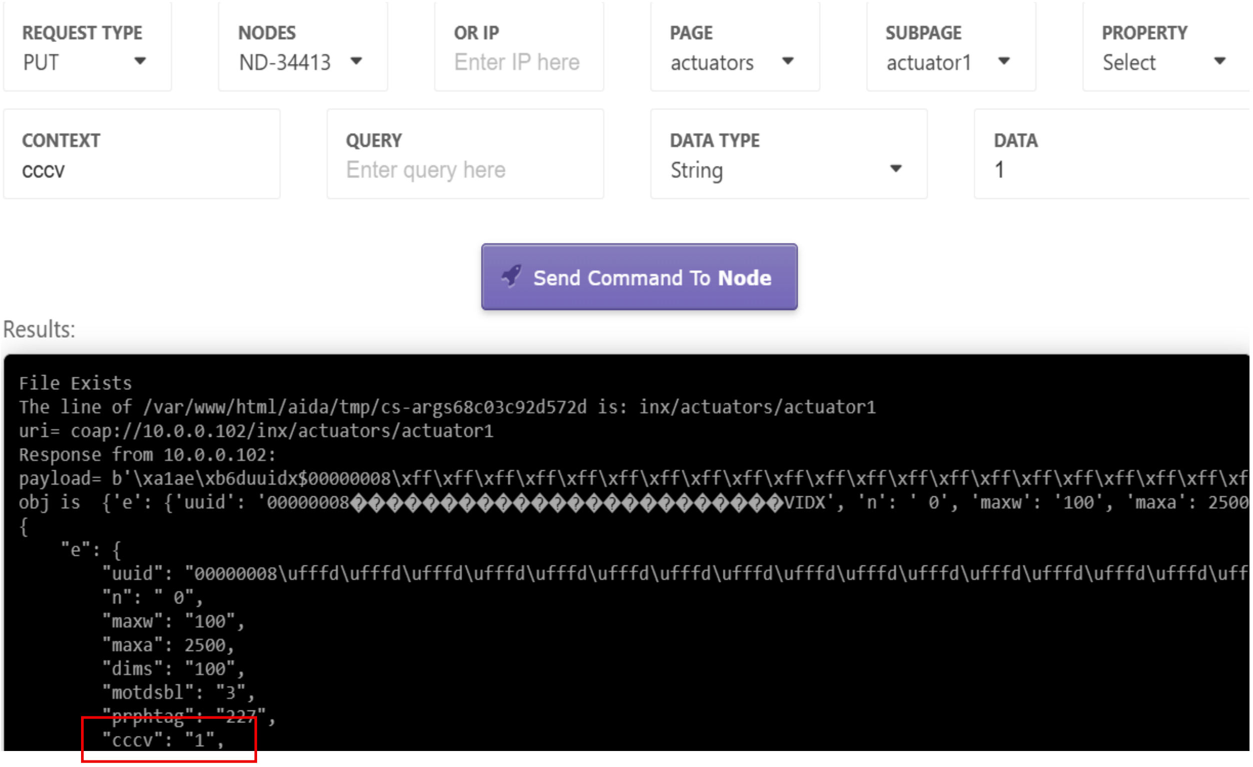
The **CCCV value** represents the node’s voltage in multiples of 12.

- **1** = 12 Volts
- **2** = 24 Volts
- **3** = 36 Volts
- **4** = 48 Volts

To configure **CCCV** in the terminal:

1. Select the **PUT** request type.
2. In the **Data** field, enter the desired **CCCV value**.
3. Under *Actuators*, set the **Subpage** to **Actuator 1** or **Actuator 2** (as shown in the diagram below).

After Sending Command to Node, under Request Type, select “Get” to see the update.



REQUEST TYPE
PUT

NODES
ND-34413

OR IP
Enter IP here

PAGE
actuators

SUBPAGE
actuator1

PROPERTY
Select

CONTEXT
cccv

QUERY
Enter query here

DATA TYPE
String

DATA
1

Results:

```
File Exists
The line of /var/www/html/aida/tmp/cs-args68c03c92d572d is: inx/actuators/actuator1
uri= coap://10.0.0.102/inx/actuators/actuator1
Response from 10.0.0.102:
payload= b'\xa1ae\xb6duuidx$00000008\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xf
obj is  {'e': {'uuid': '00000008������������������������VIDX', 'n': ' 0', 'maxw': '100', 'maxa': 2500
{
    "e": {
        "uuid": "00000008\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\uff
        "n": " 0",
        "maxw": "100",
        "maxa": 2500,
        "dims": "100",
        "motdsbl": "3",
        "prphtag": "227",
        "cccv": "1",
```

Wattage

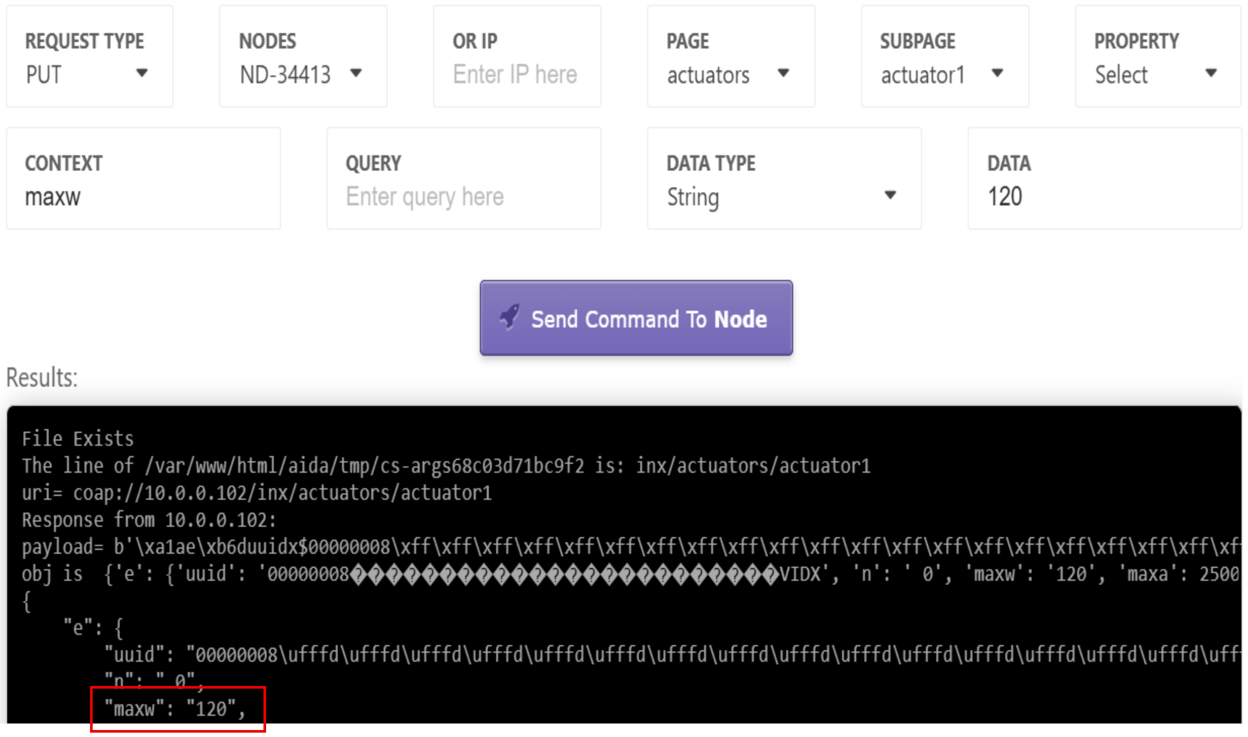
Wattage Configuration

- The Wattage parameter defines the total power delivery (in watts) of a node. Each node has specific power delivery limits, and the output power is distributed across its actuators.
- The wattage values you set must account for both the node's power capacity and the light fixture requirements, so they need to be selected carefully.

To configure wattage:

- Select the parameters for Actuator 1 as shown in the diagram.
- Repeat the same process for Actuator 2 in its subpage.
- In the Data field, enter the desired wattage multiplied by 10.
- Example: To set 12W on Actuator 1, enter 120 in the Data field.

After Sending Command to Node, under Request Type, select “Get” to see the update.



REQUEST TYPE PUT	NODES ND-34413	OR IP Enter IP here	PAGE actuators	SUBPAGE actuator1	PROPERTY Select
CONTEXT maxw	QUERY Enter query here	DATA TYPE String	DATA 120		

Results:

```
File Exists
The line of /var/www/html/aida/tmp/cs-args68c03d71bc9f2 is: inx/actuators/actuator1
uri= coap://10.0.0.102/inx/actuators/actuator1
Response from 10.0.0.102:
payload= b'\xa1ae\xb6duuidx$00000008\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xf
obj is  {'e': {'uuid': '00000008������������������������VIDX', 'n': ' 0', 'maxw': '120', 'maxa': 2500
{
    "e": {
        "uuid": "00000008\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\uff
        "n": " 0",
        "maxw": "120",
```

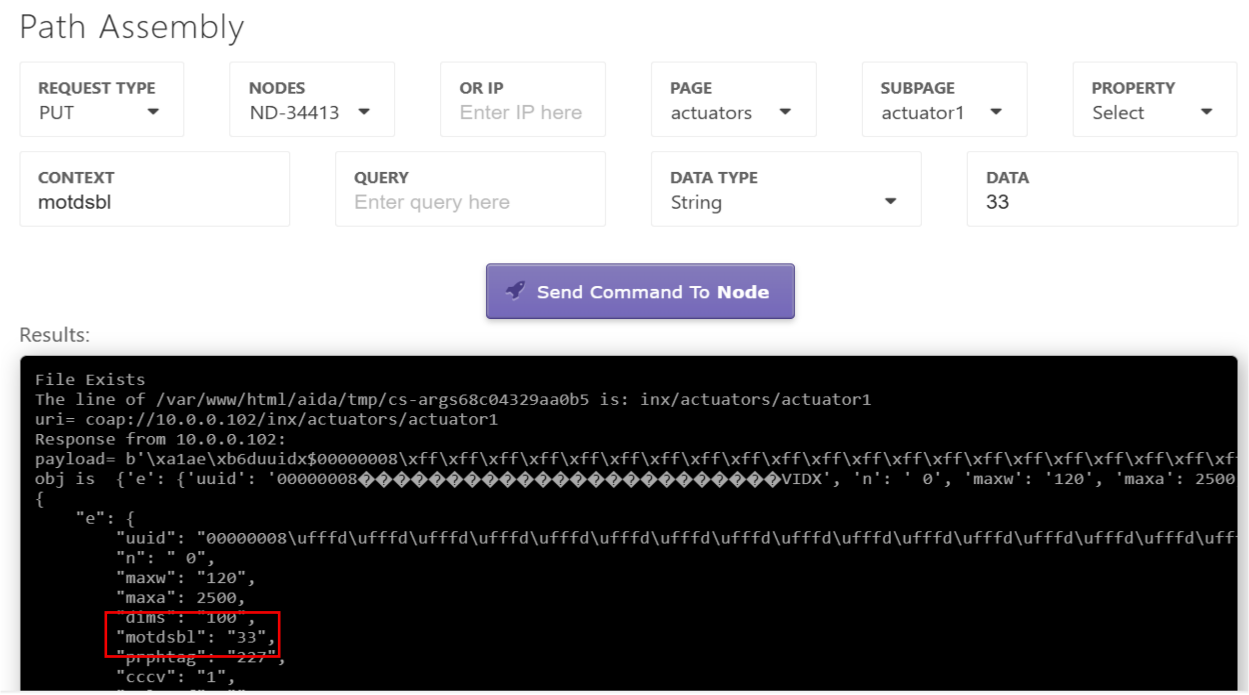
Motion

Motion Enable/Disable Configuration

- You can enable motion on a node when pairing it with an occupancy or motion sensor. The motion variable is motdsbl, which accepts the following values:
- 33 = Motion enabled
- 3 = Motion disabled
- Note: Motion only needs to be enabled on Actuator 1. There is no need to configure it for Actuator 2.

- Refer to the diagram below for setup instructions.

After Sending Command to Node, under Request Type, select “Get” to see the update.



Path Assembly

REQUEST TYPE: PUT
NODES: ND-34413
OR IP: Enter IP here
PAGE: actuators
SUBPAGE: actuator1
PROPERTY: Select
CONTEXT: motdsbl
QUERY: Enter query here
DATA TYPE: String
DATA: 33

Results:

```
File Exists
The line of /var/www/html/aida/tmp/cs-args68c04329aa0b5 is: inx/actuators/actuator1
uri= coap://10.0.0.102/inx/actuators/actuator1
Response from 10.0.0.102:
payload= b'\xa1ae\xb6duuidx$00000008\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xf
obj is  {'e': {'uuid': '00000008������������������������VIDX', 'n': ' 0', 'maxw': '120', 'maxa': 2500
{
    "e": {
        "uuid": "00000008\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\uff
        "n": " 0",
        "maxw": "120",
        "maxa": 2500,
        "dims": "100",
        "motdsbl": "33",
        "prphtag": "227",
        "cccv": "1",
```

FadeTime

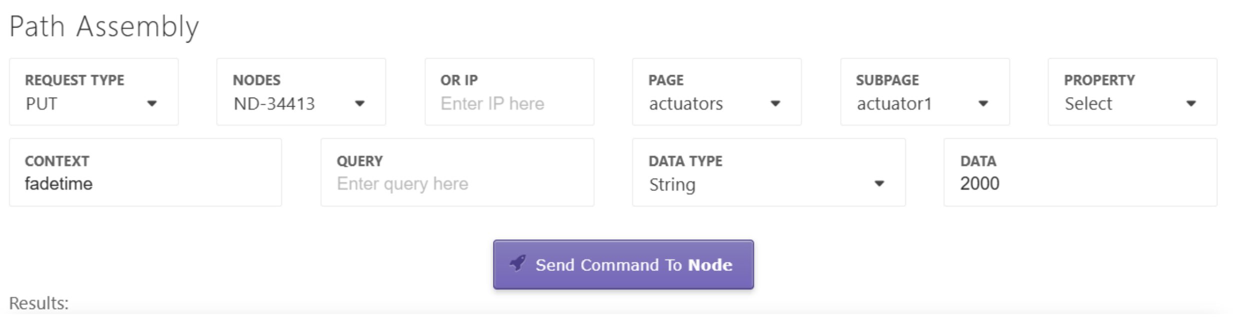
FadeTime determines how long it takes for the lights to turn off:

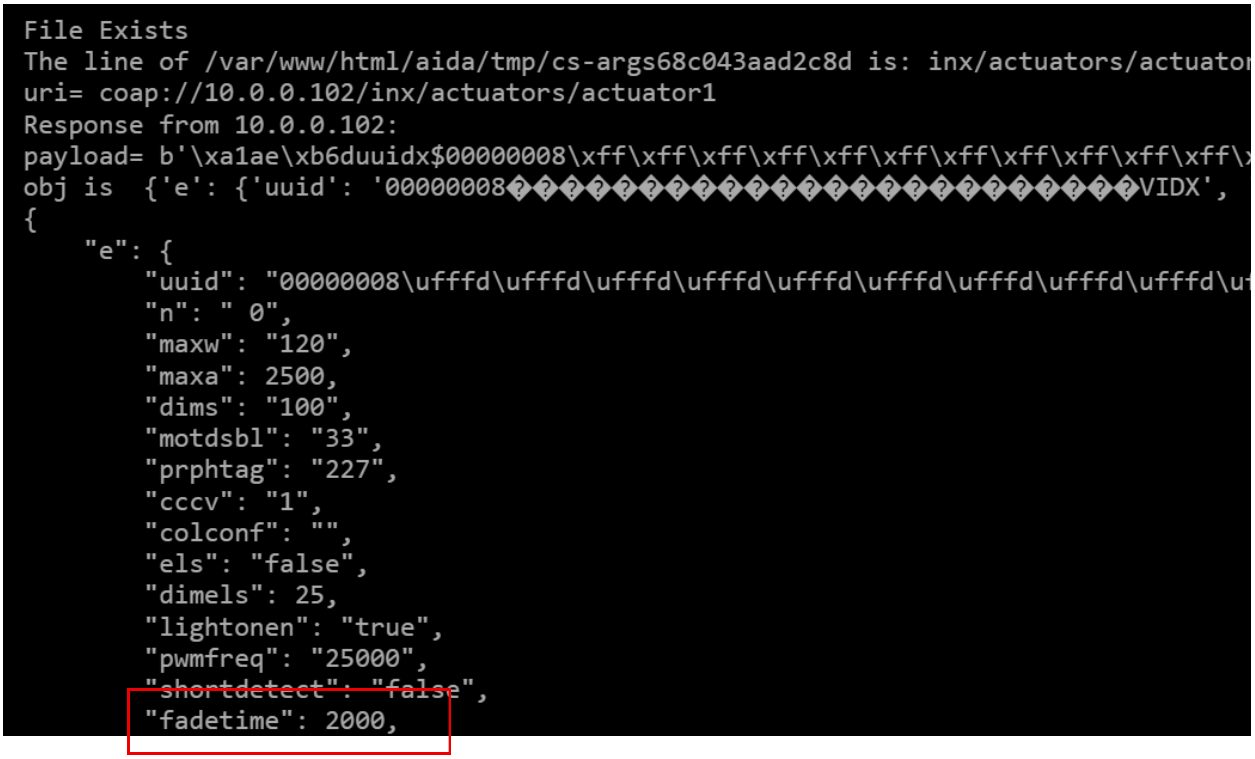
- 0 seconds = instant lights out
- 2 seconds (recommended) = smooth, gradual fade out

To configure FadeTime:

1. Select the parameters as shown in the diagram below.
2. In the Data field, enter the desired fade time in milliseconds (value × 1000).
    - Example: For a 2-second fade, enter 2000.

After Sending Command to Node, under Request Type, select “Get” to see the update.


Path Assembly
REQUEST TYPE
PUT
NODES
ND-34413
OR IP
Enter IP here
PAGE
actuators
SUBPAGE
actuator1
PROPERTY
Select
CONTEXT
fadetime
QUERY
Enter query here
DATA TYPE
String
DATA
2000
Send Command To Node
Results:



```
File Exists
The line of /var/www/html/aida/tmp/cs-args68c043aad2c8d is: inx/actuators/actuator
uri= coap://10.0.0.102/inx/actuators/actuator1
Response from 10.0.0.102:
payload= b'\xa1ae\xb6duuidx$00000008\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\x
obj is  {'e': {'uuid': '00000008������������������������VIDX',
{
    "e": {
        "uuid": "00000008\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\u
        "n": " 0",
        "maxw": "120",
        "maxa": 2500,
        "dims": "100",
        "motdsbl": "33",
        "prphtag": "227",
        "cccv": "1",
        "colconf": "",
        "els": "false",
        "dimels": 25,
        "lightonen": "true",
        "pwmfreq": "25000",
        "shortdetect": "false",
        "fadetime": 2000,
```

Motion policies

Motion sensor Policy Type

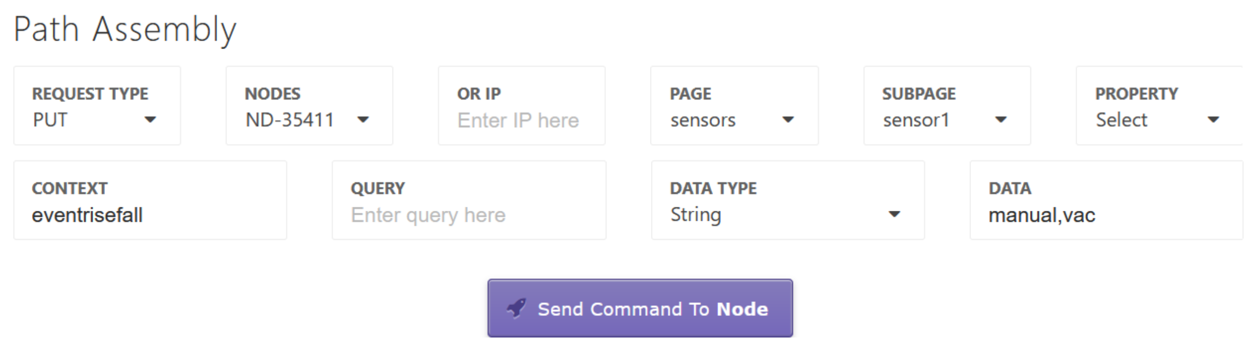
You can configure motion sensor Type on a node to define how lights respond:

- manual,vac = Manual ON / Auto OFF
- mot,vac = Auto ON / Auto OFF

To apply a motion sensor Policy Type:

1. Open the terminal and select the parameters as shown in the diagram below.
2. In the Data field, enter the appropriate policy string (manual,vac or mot,vac).

After Sending Command to Node, under Request Type, select "Get" to see the update.

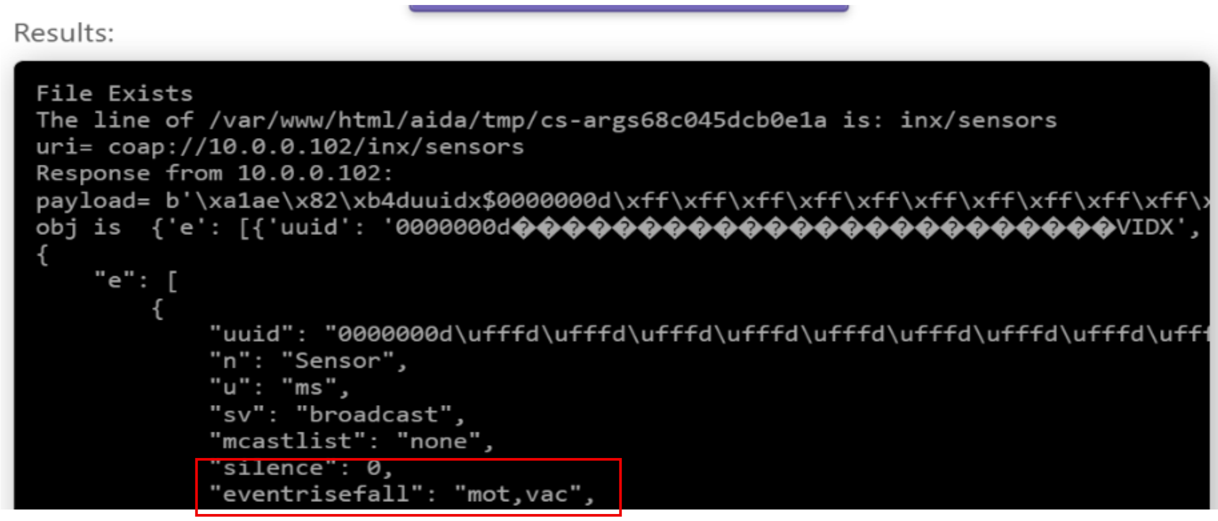


Path Assembly

REQUEST TYPE: PUT
NODES: ND-35411
OR IP: Enter IP here
PAGE: sensors
SUBPAGE: sensor1
PROPERTY: Select
CONTEXT: eventrisefall
QUERY: Enter query here
DATA TYPE: String
DATA: manual,vac

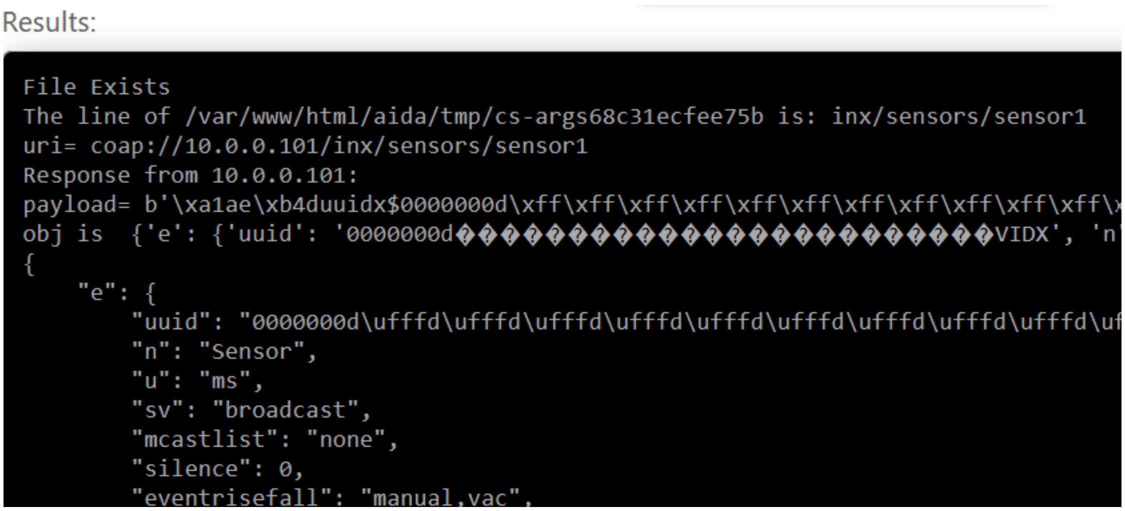
Auto on/ Auto off, 'eventrisefall' must be set to "mot,vac"

Manual on / Auto off, 'eventrisefall' must be set to 'manual,vac'



Results:

```
File Exists
The line of /var/www/html/aida/tmp/cs-args68c045dcb0e1a is: inx/sensors
uri= coap://10.0.0.102/inx/sensors
Response from 10.0.0.102:
payload= b'\xa1ae\x82\xb4duuidx$0000000d\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\x
obj is  {'e': [{'uuid': '0000000d������������������������VIDX',
{
    "e": [
        {
            "uuid": "0000000d\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufff
            "n": "Sensor",
            "u": "ms",
            "sv": "broadcast",
            "mcastlist": "none",
            "silence": 0,
            "eventrisefall": "mot,vac",
```



Results:

```
File Exists
The line of /var/www/html/aida/tmp/cs-args68c31ecfee75b is: inx/sensors/sensor1
uri= coap://10.0.0.101/inx/sensors/sensor1
Response from 10.0.0.101:
payload= b'\xa1ae\xb4duuidx$0000000d\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\
obj is  {'e': {'uuid': '0000000d������������������������VIDX', 'n
{
    "e": {
        "uuid": "0000000d\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\uf
        "n": "Sensor",
        "u": "ms",
        "sv": "broadcast",
        "mcastlist": "none",
        "silence": 0,
        "eventrisefall": "manual,vac",
```

Scene Policies

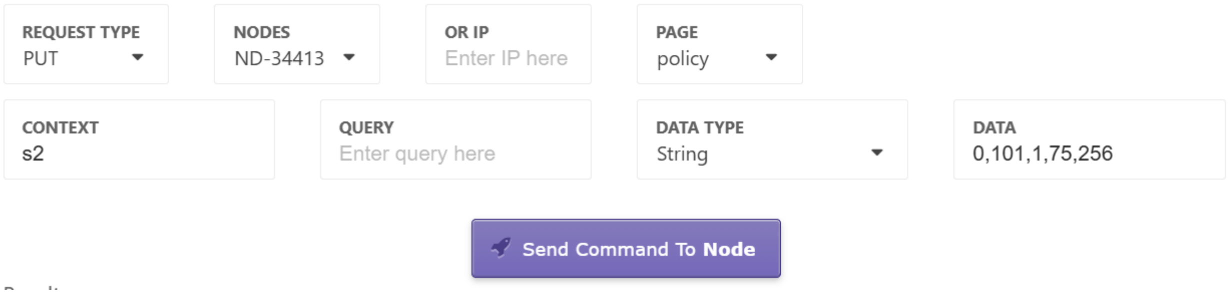
Scene Policy Configuration

Policies can be assigned to scenes 1, 2, and 3 to control settings such as brightness. For example:

- Scene 1 → Brightness = 75
- Scene 2 → Brightness = 50
- Scene 3 → Brightness = 25

Refer to the diagram below for how to configure these scene values.

After Sending Command to Node, under Request Type, select "Get" to see the update.



REQUEST TYPE: PUT

NODES: ND-34413

OR IP: Enter IP here

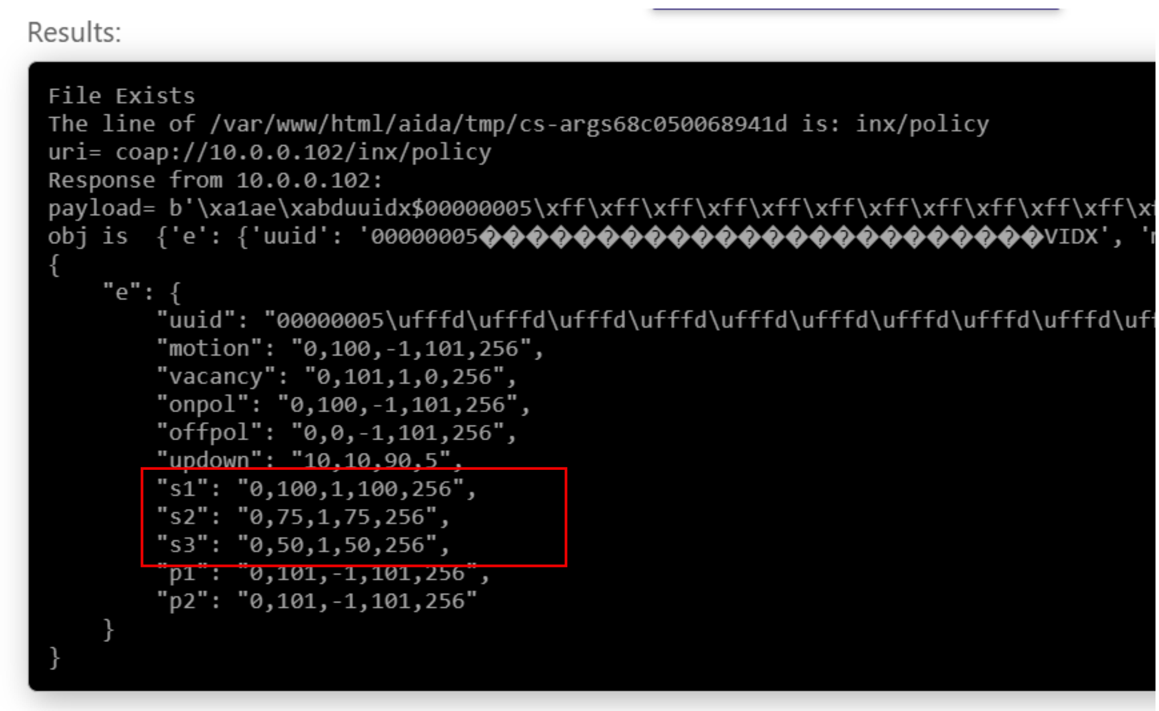
PAGE: policy

CONTEXT: s2

QUERY: Enter query here

DATA TYPE: String

DATA: 0,101,1,75,256



Results:

```
File Exists
The line of /var/www/html/aida/tmp/cs-args68c050068941d is: inx/policy
uri= coap://10.0.0.102/inx/policy
Response from 10.0.0.102:
payload= b'\xa1ae\xabduuidx$00000005\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\x
obj is  {'e': {'uuid': '00000005������������������������VIDX', '
{
    "e": {
        "uuid": "00000005\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\uf
        "motion": "0,100,-1,101,256",
        "vacancy": "0,101,1,0,256",
        "onpol": "0,100,-1,101,256",
        "offpol": "0,0,-1,101,256",
        "updown": "10,10,90,5",
        "s1": "0,100,1,100,256",
        "s2": "0,75,1,75,256",
        "s3": "0,50,1,50,256",
        "p1": "0,101,-1,101,256",
        "p2": "0,101,-1,101,256"
    }
}
```

Motion and Vacancy

Motion & Vacancy Policy Configuration

In the example below:

- When motion is detected, the light brightness is set to 95% (from 0%).
- After 5 minutes of no motion (vacancy), the brightness gradually returns to 0%.

To configure:

1. Set the motion policy so that when motion is triggered, the node reaches 95% brightness.
2. Configure the vacancy timer to reduce brightness to 0 after 5 minutes of inactivity.

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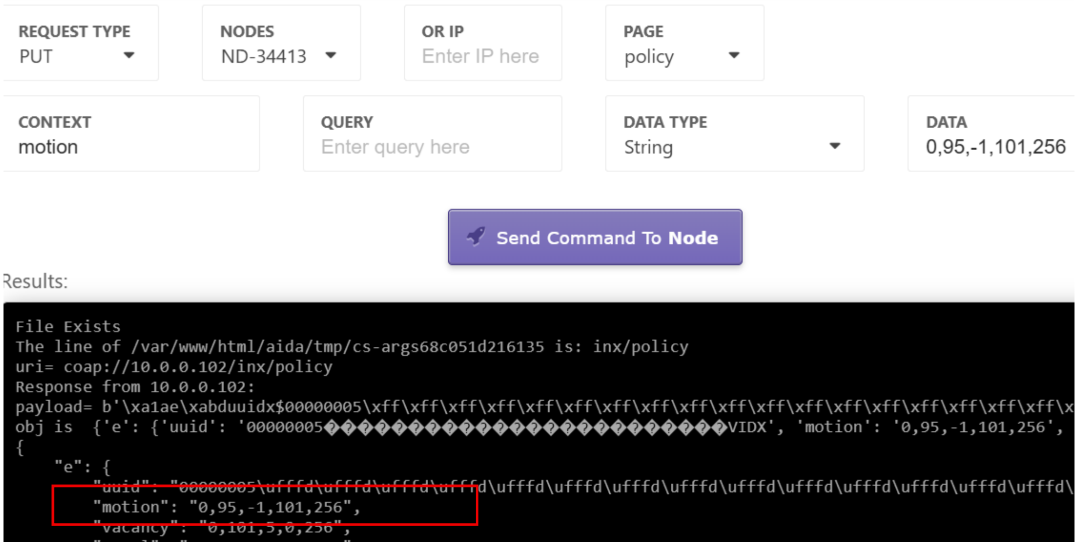
After Sending Command to Node, under Request Type, select "Get" to see the update.



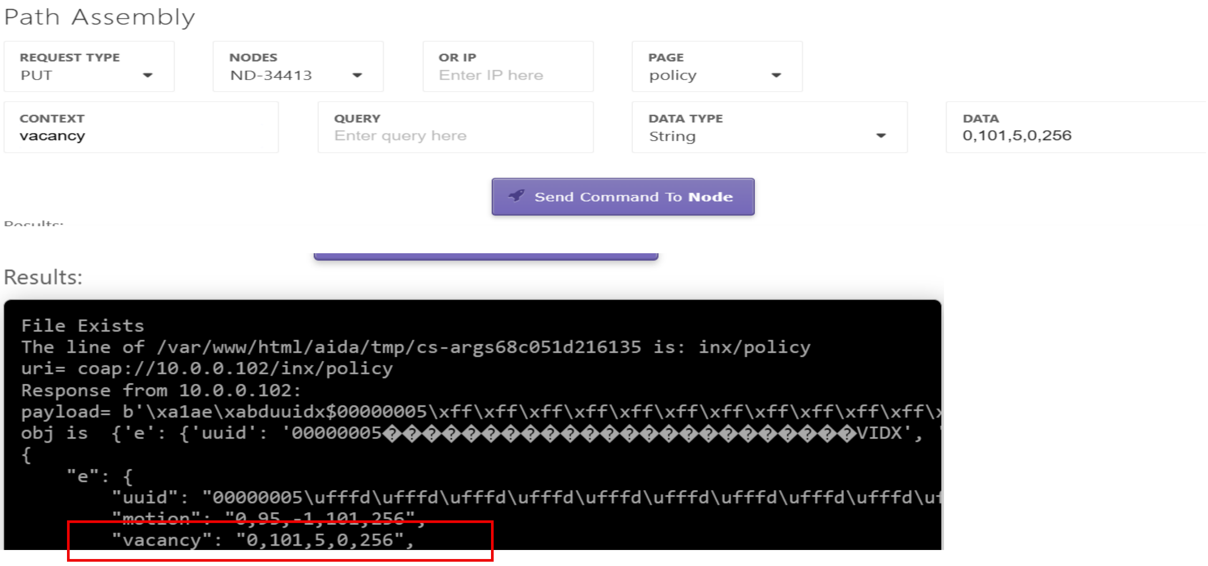
REQUEST TYPE: PUT
NODES: ND-34413
OR IP: Enter IP here
PAGE: policy
CONTEXT: motion
QUERY: Enter query here
DATA TYPE: String
DATA: 0,95,-1,101,256

Results:

```
File Exists
The line of /var/www/html/aida/tmp/cs-args68c051d216135 is: inx/policy
uri= coap://10.0.0.102/inx/policy
Response from 10.0.0.102:
payload= b'\xa1ae\xabduuidx$00000005\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\x
obj is  {'e': {'uuid': '00000005������������������������VIDX', 'motion': '0,95,-1,101,256',
{
    "e": {
        "uuid": "00000005\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\
        "motion": "0,95,-1,101,256",
        "vacancy": "0,101,5,0,256",
```

Set vacancy policy as follows so that after 5 minutes, brightness is 0.

After Sending Command to Node, under Request Type, select "Get" to see the update.



Path Assembly

REQUEST TYPE: PUT
NODES: ND-34413
OR IP: Enter IP here
PAGE: policy
CONTEXT: vacancy
QUERY: Enter query here
DATA TYPE: String
DATA: 0,101,5,0,256

Results:

```
File Exists
The line of /var/www/html/aida/tmp/cs-args68c051d216135 is: inx/policy
uri= coap://10.0.0.102/inx/policy
Response from 10.0.0.102:
payload= b'\xa1ae\xabduuidx$00000005\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\x
obj is  {'e': {'uuid': '00000005������������������������VIDX',
{
    "e": {
        "uuid": "00000005\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\uf
        "motion": "0,95,-1,101,256",
        "vacancy": "0,101,5,0,256",
```

Percentage Power in Brightness

The pp value controls the brightness of the node:

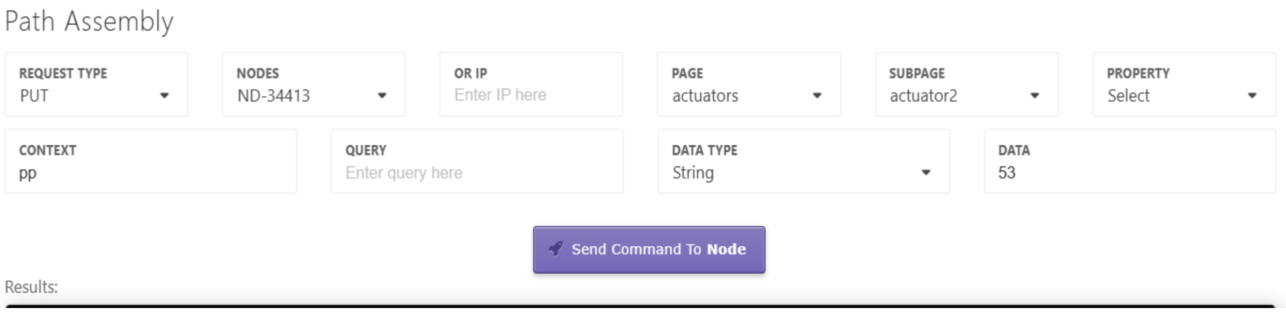
- 100 = Maximum brightness
- 0 = Lights off

You can configure the pp value on Actuator 1, Actuator 2, or both. Follow the steps below:

1. Select the actuator(s) you want to configure.
2. Enter the desired pp value in the Data field.

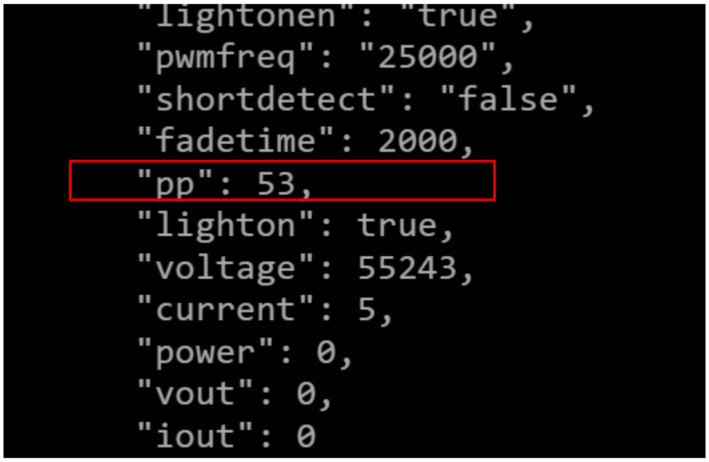
After Sending Command to Node, under Request Type, select "Get" to see the update.

In the below example, pp is set to '53' on Actuator 2.



Path Assembly

REQUEST TYPE: PUT
NODES: ND-34413
OR IP: Enter IP here
PAGE: actuators
SUBPAGE: actuator2
PROPERTY: Select
CONTEXT: pp
QUERY: Enter query here
DATA TYPE: String
DATA: 53



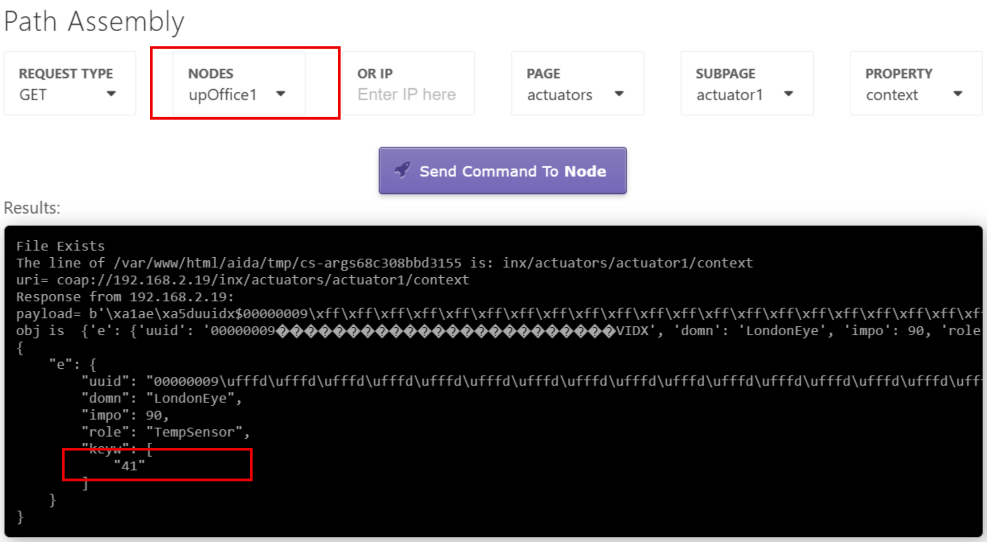
```
      "lightonen": "true",
      "pwmfreq": "25000",
      "shortdetect": "false",
      "fadetime": 2000,
      "pp": 53,
      "lighton": true,
      "voltage": 55243,
      "current": 5,
      "power": 0,
      "vout": 0,
      "iout": 0
```

Clusters:

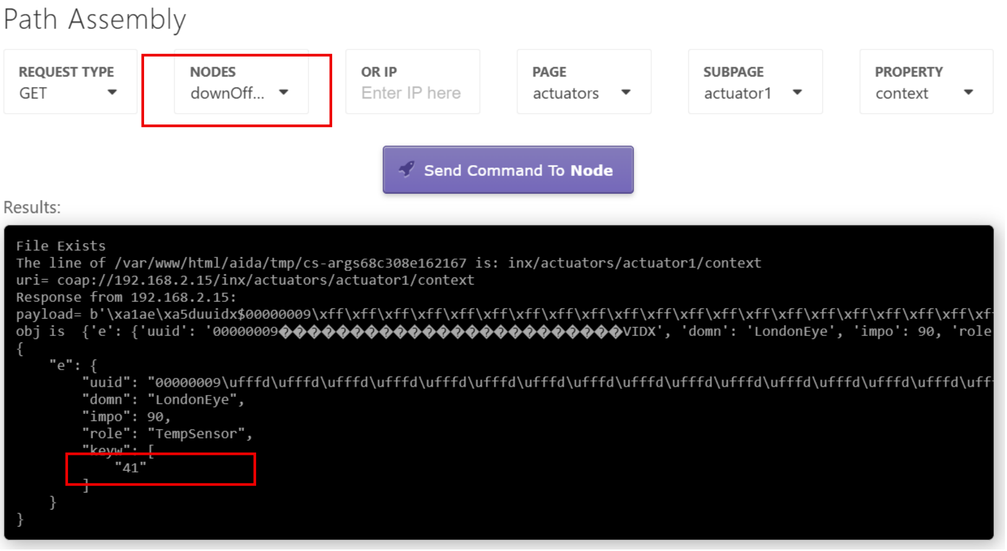
A **cluster** is a group to which a node—or multiple nodes—can belong. You can also assign a **motion sensor** or **wall switch** to a cluster.

- When the **ON** button on a wall switch is pressed, it will control only the nodes within the same cluster.
- This allows different rooms or areas in a building to have separate clusters, each with their own wall switches and motion sensors.

Example: In the terminal below, the nodes **upOffice1** and **downOffice1** belong to the same cluster because they share **Cluster ID “41”**.


Path Assembly
REQUEST TYPE
GET
NODES
upOffice1
OR IP
Enter IP here
PAGE
actuators
SUBPAGE
actuator1
PROPERTY
context
Send Command To Node
Results:

```
File Exists
The line of /var/www/html/aida/tmp/cs-args68c308bbd3155 is: inx/actuators/actuator1/context
uri= coap://192.168.2.19/inx/actuators/actuator1/context
Response from 192.168.2.19:
payload= b'\xa1ae\xa5duuidx$00000009\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xf
obj is  {'e': {'uuid': '00000009������������������������VIDX', 'domn': 'LondonEye', 'impo': 90, 'role
{
    "e": {
        "uuid": "00000009\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\uff
        "domn": "LondonEye",
        "impo": 90,
        "role": "TempSensor",
        "keyw": [
            "41"
        ]
    }
}
```

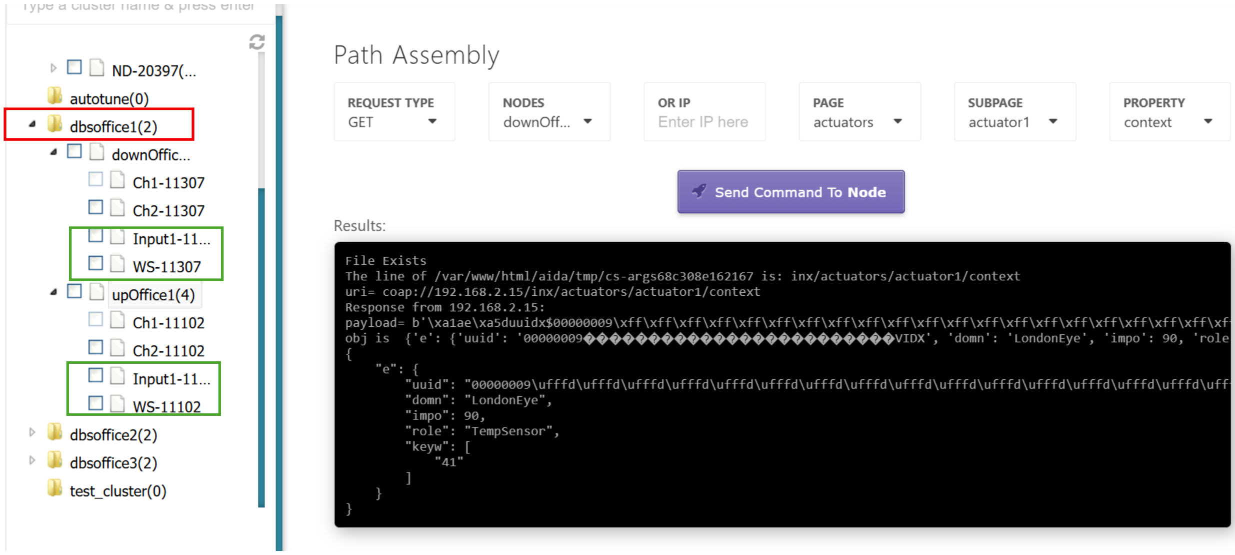

Path Assembly
REQUEST TYPE
GET
NODES
downOff...
OR IP
Enter IP here
PAGE
actuators
SUBPAGE
actuator1
PROPERTY
context
Send Command To Node
Results:

```
File Exists
The line of /var/www/html/aida/tmp/cs-args68c308e162167 is: inx/actuators/actuator1/context
uri= coap://192.168.2.15/inx/actuators/actuator1/context
Response from 192.168.2.15:
payload= b'\xa1ae\xa5duuidx$00000009\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xf
obj is  {'e': {'uuid': '00000009������������������������VIDX', 'domn': 'LondonEye', 'impo': 90, 'role
{
    "e": {
        "uuid": "00000009\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\uff
        "domn": "LondonEye",
        "impo": 90,
        "role": "TempSensor",
        "keyw": [
            "41"
        ]
    }
}
```

In the example below:

- **Cluster ID "41"** corresponds to the cluster name **dbsoffice1**, which was created in the pull schedule.
- The two green boxes in the diagram represent:
    - **WS** = Wall Switch
    - **Input** = Motion Sensor

Both the wall switch and motion sensor are assigned to **Cluster ID 41**.


Type a cluster name & press enter
ND-20397(...
autotune(0)
dbsoffice1(2)
downOffic...
Ch1-11307
Ch2-11307
Input1-11...
WS-11307
upOffice1(4)
Ch1-11102
Ch2-11102
Input1-11...
WS-11102
dbsoffice2(2)
dbsoffice3(2)
test_cluster(0)
Send Command To Node

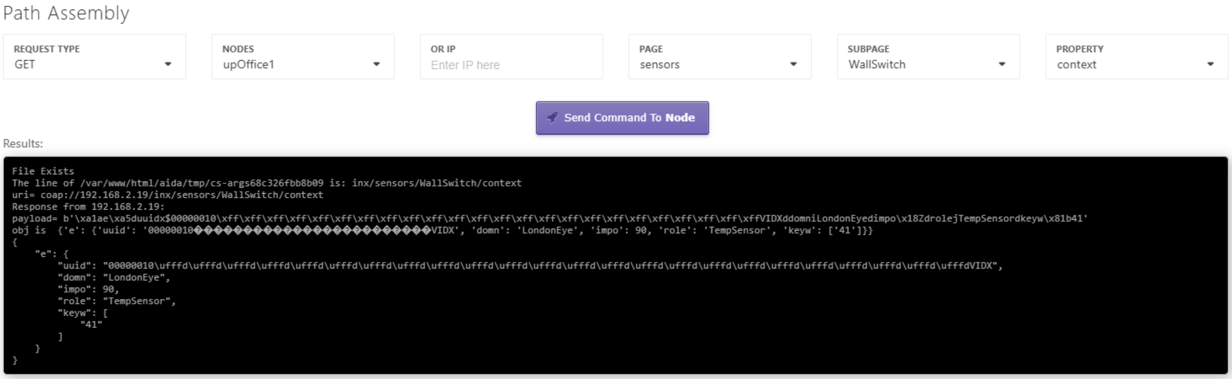
Path Assembly

REQUEST TYPE: GET
NODES: downOff...
OR IP: Enter IP here
PAGE: actuators
SUBPAGE: actuator1
PROPERTY: context

Results:

```
File Exists
The line of /var/www/html/aida/tmp/cs-args68c308e162167 is: inx/actuators/actuator1/context
uri= coap://192.168.2.15/inx/actuators/actuator1/context
Response from 192.168.2.15:
payload= b'\xa1ae\xa5duuidx$00000009\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xf
obj is  {'e': {'uuid': '00000009������������������������VIDX', 'domn': 'LondonEye', 'impo': 90, 'role
{
    "e": {
        "uuid": "00000009\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\uff
        "domn": "LondonEye",
        "impo": 90,
        "role": "TempSensor",
        "keyw": [
            "41"
        ]
    }
}
```

Wall switch cluster ID:


Send Command To Node

Path Assembly

REQUEST TYPE: GET
NODES: upOffice1
OR IP: Enter IP here
PAGE: sensors
SUBPAGE: WallSwitch
PROPERTY: context

Results:

```
File Exists
The line of /var/www/html/aida/tmp/cs-args68c326fbb8b09 is: inx/sensors/WallSwitch/context
uri= coap://192.168.2.19/inx/sensors/WallSwitch/context
Response from 192.168.2.19:
payload= b'\xa1ae\xa5duuidx$00000010\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xffVIDXddomniLondonEyedimpo\x18ZdrolejTempSensordkeyw\x81b41'
obj is  {'e': {'uuid': '00000010������������������������VIDX', 'domn': 'LondonEye', 'impo': 90, 'role': 'TempSensor', 'keyw': ['41']}}
{
    "e": {
        "uuid": "00000010\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffdVIDX",
        "domn": "LondonEye",
        "impo": 90,
        "role": "TempSensor",
        "keyw": [
            "41"
        ]
    }
}
```

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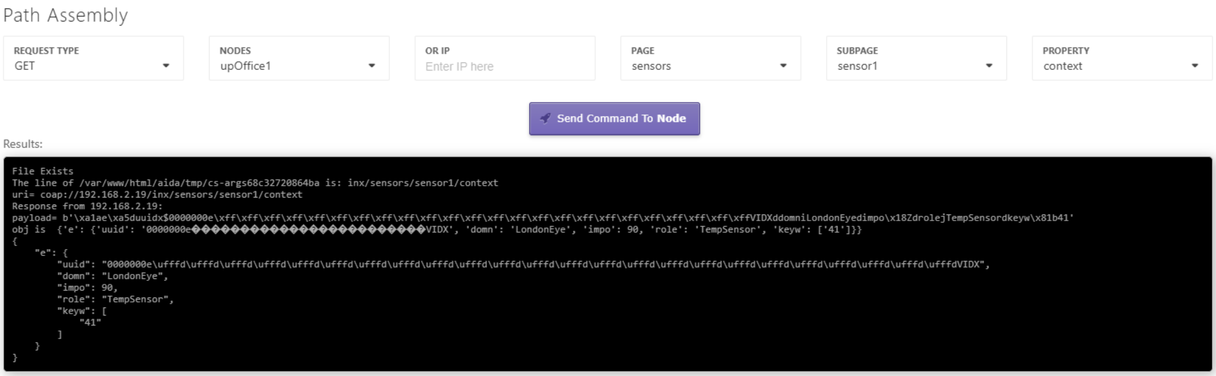
Sensor Cluster ID:


Path Assembly
REQUEST TYPE
NODES
OR IP
Enter IP here
PAGE
SUBPAGE
PROPERTY
Send Command To Node
Results:

REQUEST TYPE: GET
NODES: upOffice1
PAGE: sensors
SUBPAGE: sensor1
PROPERTY: context

```
File Exists
The line of /var/www/html/aida/tmp/cs-args68c32720864ba is: inx/sensors/sensor1/context
uri= coap://192.168.2.19/inx/sensors/sensor1/context
Response from 192.168.2.19:
payload= b'\xa1ae\xa5duuidx$0000000e\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xffVIDXddomniLondonEyedimpo\x18ZdrolejTempSensordkeyw\x81b41'
obj is  {'e': {'uuid': '0000000e������������������������VIDX', 'domn': 'LondonEye', 'impo': 90, 'role': 'TempSensor', 'keyw': ['41']}}
{
    "e": {
        "uuid": "0000000e\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffd\ufffdVIDX",
        "domn": "LondonEye",
        "impo": 90,
        "role": "TempSensor",
        "keyw": [
            "41"
        ]
    }
}
```