

Creating Crons

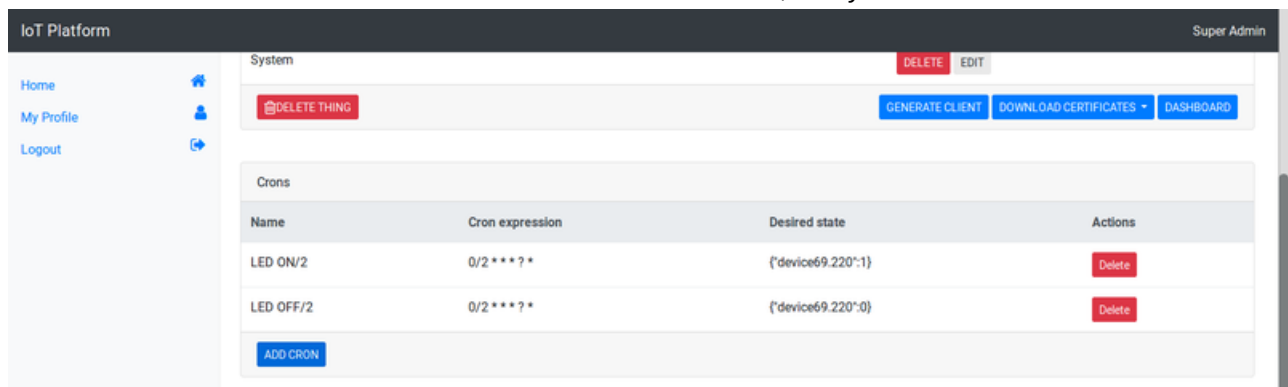
Crons are commands to be executed at a specified time. In IoT Platform, we can setup crons to trigger actuator actions at specified times. For example, if you have an irrigation pump that needs to turn on at 5am everyday and turn off at 5:30am, you can do that using cron rules. For this exact use case, you will write two crons, one to turn on and another one to turn it off. The time and frequencies of scheduling are written using cron expressions.

Prerequisites

1. Creating **organizational units or using-iot-platform.pdf** with actuators in IoT Platform.
2. **Connecting a thing using python or mongoose OS** to IoT Platform and make it trigger actions (like LED on/off, etc).

Steps

1. Login to *e-Yantra IoT Platform*.
2. Select the *thing* you wish to create a cron on.
3. This is the cron section. You can see created crons down here, if any.



4. Click on the *Add Cron* button.
5. You will see the below modal. Following are the explanations for its fields:
 1. **Name** is the identifier you can give to your cron rule.
 2. **Cron Expression** is the format to write your cron. It is derived from the way you write cron in *NIX operating systems.
 3. **Device** is the device whose actuator you want to schedule (like an AC is a device).
 4. **Attribute** is the actuator attribute of the device you want to control (under an AC there can be many actuators for temperature, fan-speed, etc).

5. **Set Value** is a field to set value of the actuator when the cron rule executes.

IoT Platform

System

DELETE THING

Crons

Name

LED ON/2

LED OFF/2

ADD CRON

Rules

Name

temp_rule

humid_test_rul

CREATE RULE

Create a cron

Name: Irrigation Pump Cron

Cron Expression: * * * * *

The cron expression should be of format [specified here](#)

Time here is UTC

Device:

Attribute:

Set Value:

Save Close

6. We will write a simple cron rule that turns on the LED on your device every two minutes starting right now and another one after some time to turn the LED off every two minutes. Fill in the details as shown below.

IoT Platform

System

DELETE THING

Crons

Name

LED ON/2

LED OFF/2

ADD CRON

Rules

Name

temp_rule

humid_test_rul

CREATE RULE

Create a cron

Name: LED ON/2

Cron Expression: 0/2 * * * *

The cron expression should be of format [specified here](#)

Time here is UTC

Device: System

Attribute: LED

Set Value: True

Save Close

IoT Platform

System

DELETE THING

Crons

Name

LED ON/2

LED OFF/2

ADD CRON

Rules

Name

temp_rule

humid_test_rul

CREATE RULE

Create a cron

Name: LED OFF/2

Cron Expression: 0/2 * * * *

The cron expression should be of format [specified here](#)

Time here is UTC

Device: System

Attribute: LED

Set Value: False

Save Close

7. Save the rules and that's it.

Learning to write cron expressions on your own will take time and practise. You can see this [guide](#) on writing crons for more flexible cron expressions.