



AirSENCE API v4.1 InfluxDB

This guide will cover connecting to InfluxDB and subscribing to AirSENCE pollutant reports over HTTP.

API Reference

Visit InfluxDB's docs for the v2 API at <https://docs.influxdata.com/influxdb/v2.1/reference/api>

Access Info

HTTP Queries can be run against the InfluxDB cloud database to fetch data. Refer to the [Query Data](#) section of the API docs for syntax and usage.

AUG will generate and provide an authentication token for use in apps. See [Token Authentication](#) in the API docs for information.

Usage

InfluxDB supports running database queries using the Flux query language. See [this link](#) for more information on Flux. Examples of using FluxQL are available at [this link](#).

Queries for typical use-cases may already be available with AUG, and implemented for visualization on Grafana dashboards. Please contact us to check.

Example

Here's an example of using the query on AUG's dataset (same as the example shown on Flux docs):

Shell: Query NO2 past 12h

```
curl --request POST \  
  https://us-east-1-  
1.aws.cloud2.influxdata.com/api/v2/query?orgID=7d09b07ae81cf7af \  
  --header 'Authorization: Token YOURAUTHTOKEN' \  
  --header 'Accept: application/csv' \  
  --header 'Content-type: application/vnd.flux' \  
  --data 'from(bucket:"TORONTO")  
    |> range(start: -12h)  
    |> filter(fn: (r) => r.DeviceID == "AirSENCE-Dev1" or r.DeviceID ==  
"AirSENCE-Dev2")  
    |> filter(fn: (r) => r._measurement == "Pollutant")  
    |> filter(fn: (r) => r._field == "NO2")  
    |> aggregateWindow(every: 1h, fn: mean) '
```

Output Structure

Running the above query returns a CSV-formatted text response with values in columns.

```
,result,table,_start,_stop,_time,_value,DeviceID,_field,_measurement
,_result,0,2022-01-18T14:03:36.053984515Z,2022-01-
19T02:03:36.053984515Z,2022-01-18T15:00:00Z,
    28.218311272602403,AirSENCE-0121F9D340075,NO2,Pollutant
,_result,0,2022-01-18T14:03:36.053984515Z,2022-01-
19T02:03:36.053984515Z,2022-01-18T16:00:00Z,
    29.88628517256144,AirSENCE-0121F9D340075,NO2,Pollutant,
,_result,0,2022-01-18T14:03:36.053984515Z,2022-01-19T02:03:36.053984515Z,2022-
01-18T17:00:00Z,
    27.196706447047063,AirSENCE-0121F9D340075,NO2,Pollutant
```

Among all the items returned, the following 4 fields are relevant to our use:

- ***_time:*** contains the UTC timestamp at which the measurement was recorded
- ***_value:*** contains the value of the measurement at the corresponding timestamp
- ***DeviceID:*** contains the identifier for the device that measured this value; this also indicates location as devices are deployed at different places
- ***_field:*** shows the metric/parameter whose value is provided on the row