

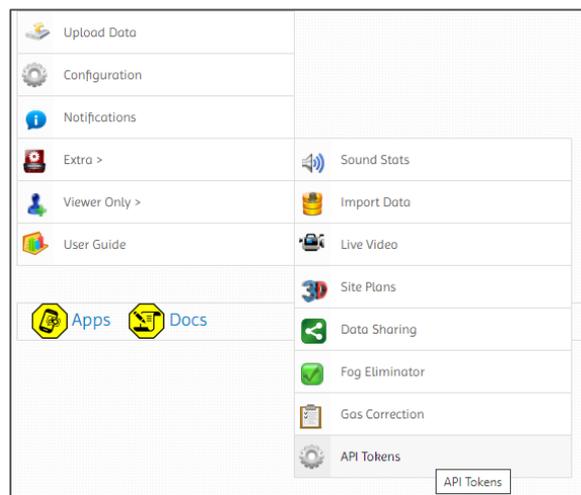


Data Collector API for AirQWeb

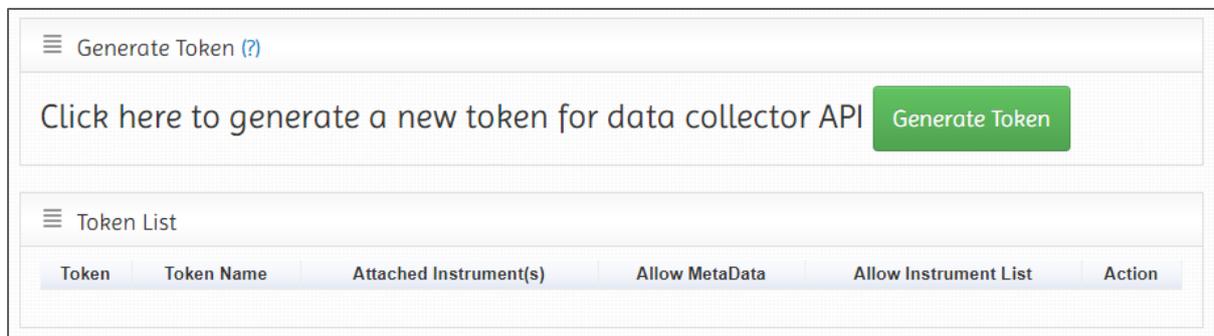
This token-based data collector API allows AirQWeb users to give access to the data from their pollution monitoring instruments to third parties. AirQWeb users can generate tokens from their main account. Each token can be associated with one or multiple instruments. Users can share this unique token with the third parties without sharing their login details. Users can also select additional options for each token such as 'Allow Instrument list' and 'Allow Meta Data' which will allow a third party to get all the instrument details from the account and allow them to access the meta from the attached instruments using the token.

Generate Token

To generate a new token for the data collector API, login to AirQWeb account > Main Panel > Extra > API Token



You will be shown the 'Tokens' list for your account, this page will contain the list of all the previous tokens you have generated with the attached instruments. The list will be empty if you have not generated any token before.



Click on the 'Generate Token' button, this will generate a unique 64-character token as shown in the image below.

☰ Generate Token (?)

Click here to generate a new token for data collector API [Generate Token](#)

☰ Token List

	Token	Token Name	Attached Instrument(s)	Allow MetaData	Allow Instrument List	Action
1	qbd0fDI1JcFOXais0m7Fd6rr8pa2BW7mX3ksE12JW0tPa1sZa5YvFACVYk2mRYIZ			FALSE	FALSE	Update Token

Alert

A new token has been generated, please 'Update Token' to attach instrument(s) to it.

Once the token has been generated, you can update it to attach instruments with it and select other options.

Update Token

Click 'Update Token' button from the token list to attach instruments with it.

☰ Edit Token

Token:

Created At:

Last Updated:

Token Name: *

Allow Meta Data: (?)

Allow Instrument List: (?)

Attached Instruments: (?)

	InstrumentID	Name	Location
1 <input type="checkbox"/>	TNO0000	Osiris	Northwich
2 <input type="checkbox"/>	P0000	iPM	Northwich
3 <input type="checkbox"/>	V0000	iVIBE	Northwich
4 <input type="checkbox"/>	V6	iVIBE	Northwich
5 <input type="checkbox"/>	P0000	iPM	Northwich

Note: Fields marked with (*) are mandatory

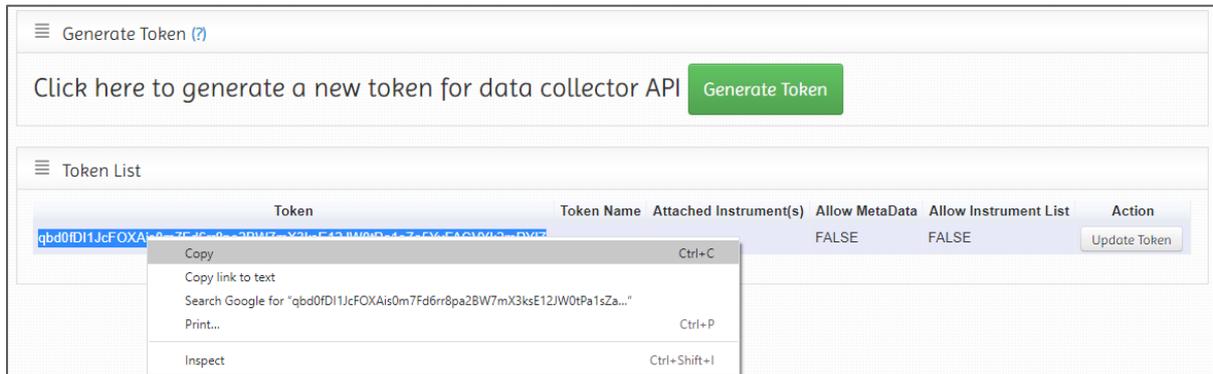
Here, you can set the following options for the token,

- Token Name – Name of the token for identification.
- Allow Meta Data – This option will give access to the meta-data for the attached instruments.
- Allow Instrument List – This option will give access to all the instrument registered within the account.
- Attached Instruments – You can select one or multiple instruments from the list to attach with the token which will allow third parties to access the data from the attached instruments using the token.

You can also delete the token using 'Delete Token' button.

Copy Token

Once you have generated the token and attached instrument(s) with it. You can select the 64-character token from the token list by double clicking on it and right-click to copy it to share with the third party.



API Options

The data collector API for AirQWeb is available at <https://datacollector.airqweb.com/>. The swagger documentation for the API is available [here](#). This API provides 4 options to allow third parties to access data from the database using the tokens. All the following options accept both GET and POST request methods.

Instrument List

This option returns the list of all the instruments registered within the AirQWeb account,

Curl: curl -X POST "https://datacollector.airqweb.com/[instrumentList](#)?userID=**UserID**&token=**TokenHere**" -H "accept: */*"

Request URL: https://datacollector.airqweb.com/[instrumentList](#)?userID=**UserID**&token=**TokenHere**

Output:

```
[
  {
    "instrumentID": "TNT0000",
    "name": "Topas",
    "type": "T",
    "location": "Test Location",
    "city": "Northwich",
    "country": "United Kingdom",
    "latitude": "53.389207",
    "longitude": "-2.615646",
    "ip": "192.168.1.0",
    "port": 10001,
    "timeZone": "Europe/London",
    "status": "Active"
  },
  .
  .
  .
]
```

Latest Data

This option returns the latest data for the given instrument ID,

Curl: curl -X POST "https://datacollector.airqweb.com/[latestData](#)?userID=**UserID**&instrumentID=**TNT0000**&token=**TokenHere**" -H "accept: */*"

Request URL:

https://datacollector.airqweb.com/[latestData](#)?userID=**UserID**&instrumentID=**TNT0000**&token=**TokenHere**

Output:

```
[
  {
    "utc": "2021-01-01T12:00:00.000+00:00",
    "timestamp": "2021-01-01T12:00:00.000+00:00",
    "instrumentID": "TNT0000",
    "location": "Test Location",
    "gpsCoordinates": "53.389207,-2.615646",
    "data": [
      {
        "unit": "ug/m^3",
        "name": "Total particles",
        "value": "0.0"
      },
      {
        "unit": "ug/m^3",

```

```

    "name": "PM10 particles",
    "value": "0.0"
  },
  {
    "unit": "ug/m^3",
    "name": "PM2.5 particles",
    "value": "0.0"
  },
  {
    "unit": "ug/m^3",
    "name": "PM1 particles",
    "value": "0.0"
  },
  {
    "unit": "Celsius",
    "name": "Temperature",
    "value": "0.0"
  },
  {
    "unit": "% RH",
    "name": "Humidity",
    "value": "0.0"
  },
  {
    "unit": "mtr/sec",
    "name": "Wind Speed",
    "value": "0.0"
  },
  {
    "unit": "degrees",
    "name": "Wind Direction",
    "value": "0.0"
  }
]
}
]

```

Latest Meta Data

This option returns the latest meta data for the given instrument ID,

Curl: curl -X POST

```

"https://datacollector.airqweb.com/latestMetaData?userID=UserID&instrumentID=TNT0000&token=TokenHere"
-H "accept: */*"

```

Request URL:

```

https://datacollector.airqweb.com/latestMetaData?userID=UserID&instrumentID=TNT0000&token=TokenHere

```

Output:

```

[
  {
    "lastUpdated": "2021-01-01T12:00:00.000+00:00",
    "calibrationDate": "2020-03-23T15:48:00.000+00:00",
    "filterChangeDate": "2020-12-14T14:10:00.000+00:00",
    "massCollectedOnFilter": "0.08 mg",
    "filterUsage": "90.0 hours",
    "photometerGain": "1550",
    "pumpHours": "6263.0 hours",
    "laser": "32.0 mA",
    "light": "0 mV",
    "flowIndex": "148",
    "setPoint": "45",
    "batteryVoltage": "7.06 volts",
    "caseTemperature": "18.0 Celsius",
  }
]

```

```
"memoryUsage": "768 words",
"inletHeating": "On",
"instrumentID": "TNT0000"
}
]
```

Data for Date

This option returns the data from the given instrument ID for the given date, date should be given as yyyy-MM-dd

Curl: curl -X POST "https://datacollector.airqweb.com/dataForDate?userID=**UserID**&date=**2021-01-01**&instrumentID=**TNT0000**&token=**TokenHere**" -H "accept: */*"

Request URL: https://datacollector.airqweb.com/dataForDate?userID=**UserID**&date=**2021-01-01**&instrumentID=**TNT0000**&token=**TokenHere**

Output:

```
[
{
  "utc": "2021-01-01T00:00:00.000+00:00",
  "timestamp": "2021-01-01T00:00:00.000+00:00",
  "instrumentID": "TNT0000",
  "location": "Test Location",
  "gpsCoordinates": "53.389207,-2.615646",
  "data": [
    {
      "unit": "ug/m^3",
      "name": "Total particles",
      "value": "6.5"
    },
    {
      "unit": "ug/m^3",
      "name": "PM10 particles",
      "value": "5.2"
    },
    {
      "unit": "ug/m^3",
      "name": "PM2.5 particles",
      "value": "5.01"
    },
    {
      "unit": "ug/m^3",
      "name": "PM1 particles",
      "value": "2.04"
    },
    {
      "unit": "Celsius",
      "name": "Temperature",
      "value": "60.3"
    },
    {
      "unit": "% RH",
      "name": "Humidity",
      "value": "100.4"
    },
    {
      "unit": "mtr/sec",
      "name": "Wind Speed",
      "value": "0.0"
    },
    {
      "unit": "degrees",
```

```

    "name": "Wind Direction",
    "value": "180"
  }
]
},
{
  "utc": "2021-01-01T00:15:00.000+00:00",
  "timestamp": "2021-01-01T00:15:00.000+00:00",
  "instrumentID": "TNT0000",
  "location": "Test Location",
  "gpsCoordinates": "53.389207,-2.615646",
  "data": [
    {
      "unit": "ug/m^3",
      "name": "Total particles",
      "value": "6.0"
    },
    {
      "unit": "ug/m^3",
      "name": "PM10 particles",
      "value": "5.1"
    },
    {
      "unit": "ug/m^3",
      "name": "PM2.5 particles",
      "value": "4.9"
    },
    {
      "unit": "ug/m^3",
      "name": "PM1 particles",
      "value": "2.01"
    },
    {
      "unit": "Celsius",
      "name": "Temperature",
      "value": "60.3"
    },
    {
      "unit": "% RH",
      "name": "Humidity",
      "value": "100.4"
    },
    {
      "unit": "mtr/sec",
      "name": "Wind Speed",
      "value": "0.0"
    },
    {
      "unit": "degrees",
      "name": "Wind Direction",
      "value": "180.0"
    }
  ]
},
.
.
.
]

```

Request Limits

Following are the daily limits for each option. These request limits are assigned for each UTC date, once the date has changed the counters are reset.

- Instrument List: You can request the list of instruments **24 times** a day.
- Latest Data: You can request the latest data from one instrument **1440 times** a day. Each instrument has its own limit, which means if you have assigned multiple instruments to a token, each instrument can be queried 1440 times for latest data using the same token.
- Latest Meta Data: You can request the meta data for each instrument **24 times** a day. The meta data for each instrument is updated every 6 hours in AirQWeb.
- Data for Date: You can request data for date for each instrument **30 times** a day.

Once the number of requests has exceeded the daily limit, the API will return the following response.

Output:

```
[
  {
    "Response": "Too many requests!"
  }
]
```

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