

# Package: airnow (via r-universe)

August 22, 2024

**Title** Retrieve 'AirNow' Air Quality Observations and Forecasts

**Version** 0.1.0.9000

**Description** Retrieve air quality data via the 'AirNow'  
<<https://www.airnow.gov/>> API.

**License** MIT + file LICENSE

**URL** <https://briandconnelly.github.io/airnow/>,  
<https://github.com/briandconnelly/airnow>

**BugReports** <https://github.com/briandconnelly/airnow/issues>

**Depends** R (>= 4.1.0)

**Imports** cli, glue, httr2, jsonlite, lifecycle, rlang (>= 1.0.0),  
tibble

**Suggests** covr, lintr, testthat (>= 3.0.0), withr

**Config/testthat/edition** 3

**Encoding** UTF-8

**Roxygen** list(markdown = TRUE)

**RoxygenNote** 7.2.1

**Repository** <https://briandconnelly.r-universe.dev>

**RemoteUrl** <https://github.com/briandconnelly/airnow>

**RemoteRef** HEAD

**RemoteSha** 61c07b8a228d4c143f2d5f757239786f9909dbc7

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aqi_color	<i>Label AQI Values</i>
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**Description**

aqi\_color() returns the color that corresponds with the given AQI value.

aqi\_descriptor() converts the given AQI value(s) into a descriptive string.

**Usage**

```
aqi_color(aqi)
```

```
aqi_descriptor(aqi)
```

**Arguments**

aqi                    An AQI value. AQI is an integer between 0 and 500, inclusive.

**Value**

aqi\_color() returns an RGB hex string

aqi\_descriptor() returns a string

**Examples**

```
aqi_color(35)
aqi_descriptor(35)
```

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get_airnow_area	<i>Get air quality data for a given region</i>
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**Description**

get\_airnow\_area() retrieves the most recent air quality readings from sites in a specified region.

**Usage**

```
get_airnow_area(
  box,
  parameters = "pm25",
  start_time = NULL,
  end_time = NULL,
  monitor_type = "both",
  data_type = c("aqi", "concentrations", "both"),
  verbose = FALSE,
```

```

    raw_concentrations = FALSE,
    clean_names = TRUE,
    api_key = get_airnow_token()
  )

```

### Arguments

box	Four-element numeric vector specifying a bounding box for the region of interest. Format is (minX, minY, maxX, maxY), where X and Y are longitude and latitude, respectively.
parameters	Parameter(s) to return data for. Choices are PM_2.5 (pm25: default), ozone, PM_10 (pm10), CO (co), NO2 (no2), and SO2 (so2).
start_time	Optional. The date and time (UTC) at the start of the time period requested. If specified, end_time must also be given. If not specified, the most recent past hour is used.
end_time	Optional. The date and time (UTC) at the end of the time period requested. If specified, start_time must also be given. If not specified, the following hour is used.
monitor_type	Type of monitor to be returned, either "permanent", "mobile", or "both" (default).
data_type	Type of data to be returned, either "aqi" (default), "concentrations", or "both".
verbose	Logical value indicating whether or not to include additional site information including Site Name, Agency Name, AQS ID, and Full AQS ID (default: FALSE)
raw_concentrations	Logical value indicating whether or not raw hourly concentration data should be included (default: FALSE)
clean_names	Whether or not column names should be cleaned (default: TRUE)
api_key	AirNow API key

### Value

A data frame with current air quality conditions

### Examples

```

## Not run:
# Get air quality data around Washington state
get_airnow_area(box = c(-125.394211, 45.295897, -116.736984, 49.172497))

## End(Not run)

```

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get\_airnow\_conditions *Get current air quality conditions*

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### Description

get\_airnow\_conditions() retrieves the most recent air quality readings for the given location. Locations can be specified either by ZIP code (zip), or by latitude/longitude. If no data exist for the specified location, an optional search radius for other sites can be specified using distance.

### Usage

```
get_airnow_conditions(  
  zip = NULL,  
  latitude = NULL,  
  longitude = NULL,  
  distance = NULL,  
  clean_names = TRUE,  
  api_key = get_airnow_token()  
)
```

### Arguments

zip	ZIP code, a 5-digit numeric string (e.g., "90210")
latitude	Latitude in decimal degrees
longitude	Longitude in decimal degrees
distance	Optional. If no reporting area is associated with the given zip code, current observations from a nearby reporting area within this distance (in miles) will be returned, if available.
clean_names	Whether or not column names should be cleaned (default: TRUE)
api_key	AirNow API key

### Value

A data frame with current air quality conditions

### Examples

```
## Not run:  
get_airnow_conditions(zip = "90210")  
  
## End(Not run)
```

---

get\_airnow\_forecast    *Get air quality forecast*

---

### Description

get\_airnow\_forecast() retrieves forecasted air quality conditions for the given location. Locations can be specified either by ZIP code (zip), or by latitude/longitude. If no data exist for the specified location, an optional search radius for other sites can be specified using distance.

### Usage

```
get_airnow_forecast(  
  zip = NULL,  
  latitude = NULL,  
  longitude = NULL,  
  distance = NULL,  
  date = NULL,  
  clean_names = TRUE,  
  api_key = get_airnow_token()  
)
```

### Arguments

zip	ZIP code, a 5-digit numeric string (e.g., "90210")
latitude	Latitude in decimal degrees
longitude	Longitude in decimal degrees
distance	Optional. If no reporting area is associated with the given zip code, current observations from a nearby reporting area within this distance (in miles) will be returned, if available.
date	Optional date of forecast. If this is not specified, the current forecast is returned.
clean_names	Whether or not column names should be cleaned (default: TRUE)
api_key	AirNow API key

### Value

A data frame with current air quality conditions

### Examples

```
## Not run:  
get_airnow_forecast(zip = "90210")  
  
## End(Not run)
```

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get_airnow_token	<i>Manage AirNow API Tokens</i>
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### Description

get\_airnow\_token() returns the configured AirNow API token or errors if it is not set.

set\_airnow\_token() sets the AirNow API token to the given value for the current session. To use this permanently, save it as AIRNOW\_API\_KEY in your ~/.Renvirom file.

### Usage

```
get_airnow_token(ask = is_interactive())
```

```
set_airnow_token(token = NULL, ask = is_interactive())
```

### Arguments

ask	Whether or not to ask for the key if none is provided. Note that this only works for interactive sessions.
token	Token to use

### Value

get\_airnow\_token() returns a string containing the current user or group key or an empty string if not set. If the user is not set but ask is TRUE, the user will be prompted for a key.

### Examples

```
## Not run:  
get_airnow_token()  
  
## End(Not run)  
## Not run:  
set_airnow_token(token = "4d36e978-e325-11cec1-08002be10318")  
  
## End(Not run)
```

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