Current weather data

Access current weather data for any location on Earth including over 200,000 cities!
Current weather is frequently updated based on global models and data from more than 40,000 weather stations.
Data is available in JSON, XML, or HTML format.

> We provide 40-year Historical weather data for ANY location. The price is highly competitive - only 10$ per location!
> Learn more (/history-bulk)

Call current weather data for one location

> Please remember that all Examples of API calls that listed on this page are just samples and do not have any connection to the real API service!

By city name

Description:

You can call by city name or city name and country code. API responds with a list of results that match a searching word.

API call:

api.openweathermap.org/data/2.5/weather?q={city name}

api.openweathermap.org/data/2.5/weather?q={city name},{country code}

Parameters:

q city name and country code divided by comma, use ISO 3166 country codes

Examples of API calls:

api.openweathermap.org/data/2.5/weather?q=London (http://samples.openweathermap.org/data/2.5/weather?q=London,uk&appid=b6907d289e10d714a6e88b30761fae22)

api.openweathermap.org/data/2.5/weather?q=London,uk (http://samples.openweathermap.org/data/2.5/weather?q=London,uk&appid=b6907d289e10d714a6e88b30761fae22)

> There is a possibility to receive a central district of the city/town with its own parameters (geographic coordinates/id/name) in API response. Example (http://samples.openweathermap.org/data/2.5/forecast?q=München,DE&appid=b6907d289e10d714a6e88b30761fae22)

By city ID

Description:

You can call by city ID. API responds with exact result.

☐st of city ID city.list.json.gz can be downloaded here http://bulk.openweathermap.org/sample/ (http://bulk.openweathermap.org/sample/)

> We recommend to call API by city ID to get unambiguous result for your city.

Parameters:

id City ID

Examples of API calls:

api.openweathermap.org/data/2.5/weather?id=2172797 (http://samples.openweathermap.org/data/2.5/weather?id=2172797&appid=b6907d289e10d714a6e88b30761fae22)

By geographic coordinates

API call:

api.openweathermap.org/data/2.5/weather?lat={lat}&lon={lon}

Parameters:

lat, lon coordinates of the location of your interest

Examples of API calls:

api.openweathermap.org/data/2.5/weather?lat=35&lon=139 (http://samples.openweathermap.org/data/2.5/weather?lat=35&lon=139&appid=b6907d289e10d714a6e88b30761fae22)

API response:

```
{"coord": { "lon": 139,"lat": 35},
  "weather": [
    {
      "id": 800,
      "main": "Clear",
      "description": "clear sky",
      "icon": "01n"
    }
  ],
  "base": "stations",
  "main": {
    "temp": 281.52,
    "feels_like": 278.99,
    "temp_min": 280.15,
    "temp_max": 283.71,
    "pressure": 1016,
    "humidity": 93
  },
  "wind": {
    "speed": 0.47,
    "deg": 107.538
  },
  "clouds": {
    "all": 2
  },
  "dt": 1560350192,
  "sys": {
    "type": 3,
    "id": 2019346,
    "message": 0.0065,
    "country": "JP",
    "sunrise": 1560281377,
    "sunset": 1560333478
  },
  "timezone": 32400,
  "id": 1851632,
  "name": "Shuzenji",
  "cod": 200
}
```

By ZIP code

Description:

Please note if country is not specified then the search works for USA as a default.

API call:

api.openweathermap.org/data/2.5/weather?zip={zip code},{country code}

Examples of API calls:

api.openweathermap.org/data/2.5/weather?zip=94040,us (http://samples.openweathermap.org/data/2.5/weather?zip=94040,us&appid=b6907d289e10d714a6e88b30761fae22)

Parameters:

zip zip code

API response:

```
{
  "coord": {"lon": -122.08,"lat": 37.39},
  "weather": [
    {
      "id": 800,
      "main": "Clear",
      "description": "clear sky",
      "icon": "01d"
    }
  ],
  "base": "stations",
  "main": {
    "temp": 282.55,
    "feels_like": 281.86,
    "temp_min": 280.37,
    "temp_max": 284.26,
    "pressure": 1023,
    "humidity": 100
  },
  "visibility": 16093,
  "wind": {
    "speed": 1.5,
    "deg": 350
  },
  "clouds": {
    "all": 1
  },
  "dt": 1560350645,
  "sys": {
    "type": 1,
    "id": 5122,
    "message": 0.0139,
    "country": "US",
    "sunrise": 1560343627,
    "sunset": 1560396563
  },
  "timezone": -25200,
  "id": 420006353,
  "name": "Mountain View",
  "cod": 200
}
```

Call current weather data for several cities

Cities within a rectangle zone

Description:

JSON returns the data from cities within the defined rectangle specified by the geographic coordinates.

Parameters:

bbox bounding box [lon-left,lat-bottom,lon-right,lat-top,zoom]

callback javascript functionName

cluster use server clustering of points. Possible values are [yes, no]

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Examples of API calls:
    Allow all

Manage cookies(/cookies-settings)

tp://api.openweathermap.org/data/2.5/box/city?bbox=12,32,15,37,10 (http://samples.openweathermap.org/data/2.5/box/city?bbox=12,32,15,37,10&appid=b6907d289e10d714a6e88b30761fae22)

> There is a limit of 25 square degrees for **Free** and **Startup plans**.

Cities in cycle

Description:

JSON returns data from cities laid within definite circle that is specified by center point ('lat', 'lon') and expected number of cities ('cnt') around this point. The default number of cities is 10, the maximum is 50.

Parameters:

lat latitude

lon longitude

callback functionName for JSONP callback.

cluster use server clustering of points. Possible values are [yes, no]

lang language [en , ru ...]

cnt number of cities around the point that should be returned

Examples of API calls:

http://api.openweathermap.org/data/2.5/find?lat=55.5&lon=37.5&cnt=10 (//samples.openweathermap.org/data/2.5/find?lat=55.5&lon=37.5&cnt=10&appid=b6907d289e10d714a6e88b30761fae22)

Call for several city IDs

Parameters:

id City ID

Examples of API calls:

http://api.openweathermap.org/data/2.5/group?id=524901,703448,2643743&units=metric (//samples.openweathermap.org/data/2.5/group?id=524901,703448,2643743&units=metric&appid=b6907d289e10d714a6e88b30761fae22)

> The limit of locations is 20.
> If you request weather data for several ID, then you will get the response only in JSON format (XML and HTML formats are not available for this case).
> **NOTE:** A single ID counts as a one API call! So, the above example is treated as a 3 API calls.

Bulk downloading

We provide number of bulk files with current weather and forecasts.
More information is on the Bulk page (/bulk).

> Bulk downloading is available not for all accounts.

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Examples of bulk files:

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Weather parameters in API response

> If you do not see some of the parameters in your API response it means that these weather phenomena are just not happened for the time of measurement for the city or location chosen. Only really measured or calculated data is displayed in API response.

JSON

Example of API response:

```
{
  "coord": {
    "lon": -122.08,
    "lat": 37.39
  },
  "weather": [
    {
      "id": 800,
      "main": "Clear",
      "description": "clear sky",
      "icon": "01d"
    }
  ],
  "base": "stations",
  "main": {
    "temp": 282.55,
    "feels_like": 281.86,
    "temp_min": 280.37,
    "temp_max": 284.26,
    "pressure": 1023,
    "humidity": 100
  },
  "visibility": 16093,
  "wind": {
    "speed": 1.5,
    "deg": 350
  },
  "clouds": {
    "all": 1
  },
  "dt": 1560350645,
  "sys": {
    "type": 1,
    "id": 5122,
    "message": 0.0139,
    "country": "US",
    "sunrise": 1560343627,
    "sunset": 1560396563
  },
  "timezone": -25200,
  "id": 420006353,
  "name": "Mountain View",
  "cod": 200
}
```

Parameters:

- `coord`
  - `coord.lon` City geo location, longitude
  - `coord.lat` City geo location, latitude
- `weather` (more info Weather condition codes)
  - `weather.id` Weather condition id
  - `weather.main` Group of weather parameters (Rain, Snow, Extreme etc.)
  - `weather.description` Weather condition within the group
  - `weather.icon` Weather icon id
- `base` Internal parameter
- `main`
  - `main.temp` Temperature. Unit Default: Kelvin, Metric: Celsius, Imperial: Fahrenheit.
  - `main.feels_like` Temperature. This temperature parameter accounts for the human perception of weather. Unit Default: Kelvin, Metric: Celsius, Imperial: Fahrenheit.

- `main.pressure` Atmospheric pressure (on the sea level, if there is no sea_level or grnd_level data), hPa
- `main.humidity` Humidity, %
- `main.temp_min` Minimum temperature at the moment. This is deviation from current temp that is possible for large cities and megalopolises geographically expanded (use these parameter optionally). Unit Default: Kelvin, Metric: Celsius, Imperial: Fahrenheit.
- `main.temp_max` Maximum temperature at the moment. This is deviation from current temp that is possible for large cities and megalopolises geographically expanded (use these parameter optionally). Unit Default: Kelvin, Metric: Celsius, Imperial: Fahrenheit.
- `main.sea_level` Atmospheric pressure on the sea level, hPa
- `main.grnd_level` Atmospheric pressure on the ground level, hPa
- `wind`
  - `wind.speed` Wind speed. Unit Default: meter/sec, Metric: meter/sec, Imperial: miles/hour.
  - `wind.deg` Wind direction, degrees (meteorological)
- `clouds`
  - `clouds.all` Cloudiness, %
- `rain`
  - `rain.1h` Rain volume for the last 1 hour, mm
  - `rain.3h` Rain volume for the last 3 hours, mm
- `snow`
  - `snow.1h` Snow volume for the last 1 hour, mm
  - `snow.3h` Snow volume for the last 3 hours, mm
- `dt` Time of data calculation, unix, UTC
- `sys`
  - `sys.type` Internal parameter
  - `sys.id` Internal parameter
  - `sys.message` Internal parameter
  - `sys.country` Country code (GB, JP etc.)
  - `sys.sunrise` Sunrise time, unix, UTC
  - `sys.sunset` Sunset time, unix, UTC
- `timezone` Shift in seconds from UTC
- `id` City ID
- `name` City name
- `cod` Internal parameter

XML

Example of API response:

```
<current>
<city id="0" name="Mountain View">
<coord lon="-122.09" lat="37.39"/>
<country>US</country>
<timezone>-28800</timezone>
<sun rise="2020-01-07T15:22:59" set="2020-01-08T01:05:37"/>
</city>
<temperature value="278.07" min="273.15" max="282.59" unit="kelvin"/>
<feels_like value="275.88" unit="kelvin"/>
<humidity value="86" unit="%"/>
<pressure value="1026" unit="hPa"/>
<wind>
<speed value="0.93" unit="m/s" name="Calm"/>
<gusts/>
<direction value="23" code="NNE" name="North-northeast"/>
</wind>
<clouds value="1" name="clear sky"/>
<visibility value="16093"/>
<precipitation mode="no"/>
<weather number="800" value="clear sky" icon="01n"/>
<lastupdate value="2020-01-07T11:33:40"/>
</current>
```

Parameters:

- city
    - `city.id` City ID
    - `city.name` City name
    - `city.coord`
        - `city.coord.lon` City geo location, longitude
        - `city.coord.lat` City geo location, latitude
    - `city.country` Country code (GB, JP etc.)
    - `timezone` Shift in seconds from UTC
    - `city.sun`
        - `city.sun.rise` Sunrise time
        - `city.sun.set` Sunset time
- temperature
    - `temperature.value` Temperature
    - `temperature.min` Minimum temperature at the moment of calculation. This is deviation from 'temp' that is possible for large cities and megalopolises geographically expanded (use these parameter optionally).
    - `temperature.max` Maximum temperature at the moment of calculation. This is deviation from 'temp' that is possible for large cities and megalopolises geographically expanded (use these parameter optionally).
    - `temperature.unit` Unit of measurements. Possilbe valure is Celsius, Kelvin, Fahrenheit.
- feels_like
    - `feels_like.value` Temperature. This temperature parameter accounts for the human perception of weather.
    - `feels_like.unit` Unit of measurements. Possilbe valure is Celsius, Kelvin, Fahrenheit. Unit Default: Kelvin
- humidity
    - `humidity.value` Humidity value
    - `humidity.unit` Humidity units, %
- pressure
    - `pressure.value` Pressure value
    - `pressure.unit` Pressure units, hPa
- wind
    - `wind.speed`
        - `wind.speed.value` Wind speed
        - wind.speed.units Wind speed units, m/s
        - wind.speed.name Type of the wind
    - `wind.direction`
        - `wind.direction.value` Wind direction, degrees (meteorological)

-          `wind.direction.code`   Code of the wind direction. Possilbe value is WSW, N, S etc.
  -          `wind.direction.name`   Full name of the wind direction.
- `clouds`
  - `clouds.value`   Cloudiness
  - `clouds.name`   Name of the cloudiness
- `visibility`
  - `visibility.value`   Visibility, meter
- `precipitation`
  - `precipitation.value`   Precipitation, mm
  - `precipitation.mode`   Possible values are 'no", name of weather phenomena as 'rain', 'snow'
- `weather`
  - `weather.number`   Weather condition id
  - `weather.value`   Weather condition name
  - `weather.icon`   Weather icon id
- `lastupdate`
  - `lastupdate.value`   Last time when data was updated

List of weather condition codes

List of weather condition codes (/weather-conditions) with icons (range of thunderstorm, drizzle, rain, snow, clouds, atmosphere including extreme conditions like tornado, hurricane etc.)

Min/max temperature in current weather API and forecast API

> Please, do not confuse min/max parameters in our weather APIs.
>
> - In **Current weather API**, Hourly forecast API (/api/hourly-forecast) and 5 day / 3 hour forecast API (/forecast5) - **temp_min** and **temp_max** are optional parameters mean min / max temperature in the city at the current moment to see deviation from current temp just for your reference. For large cities and megalopolises geographically expanded it might be applicable. In most cases both **temp_min** and **temp_max** parameters have the same volume as 'temp'. Please, use **temp_min** and **temp_max** parameters in current weather API optionally.
> - In 16 Day forecast (/forecast16) - **min** and **max** mean maximum and minimum temperature in the day.

Example of current weather API response:

```
"main":{
"temp":306.15, //current temperature
"pressure":1013,
"humidity":44,
"temp_min":306, //min current temperature in the city
"temp_max":306 //max current temperature in the city
},
```

For comparison look at example of daily forecast weather API response:

```
"dt":1406080800,
"temp":{
        "day":297.77,  //daily averaged temperature
        "min":293.52, //daily min temperature
        "max":297.77, //daily max temperature
        "night":293.52, //night temperature
        "eve":297.77, //evening temperature
        "morn":297.77}, //morning temperature
```

☐

Other features

Format

Description:

JSON format is used by default. To get data in XML or HTML formats just set up mode = xml or html.

Parameters:

mode - possible values are xml and html. If mode parameter is empty the format is JSON by default.

Examples of API calls:

JSON api.openweathermap.org/data/2.5/weather?q=London (http://samples.openweathermap.org/data/2.5/weather?q=London&appid=b6907d289e10d714a6e88b30761fae22)

XML api.openweathermap.org/data/2.5/weather?q=London&mode=xml (http://samples.openweathermap.org/data/2.5/weather?q=London&mode=xml&appid=b6907d289e10d714a6e88b30761fae22)

HTML api.openweathermap.org/data/2.5/weather?q=London&mode=html (http://samples.openweathermap.org/data/2.5/weather?q=London&mode=html&appid=b6907d289e10d714a6e88b30761fae22)

Units format

Description:

Standard, metric, and imperial units are available.

Parameters:

units metric, imperial. When you do not use units parameter, format is Standard by default.

> Temperature is available in Fahrenheit, Celsius and Kelvin units.
>
> - For temperature in Fahrenheit use units=imperial
> - For temperature in Celsius use units=metric
> - Temperature in Kelvin is used by default, no need to use units parameter in API call
>
> List of all API parameters with units openweathermap.org/weather-data (http://openweathermap.org/weather-data)

Examples of API calls:

standard api.openweathermap.org/data/2.5/find?q=London (http://samples.openweathermap.org/data/2.5/find?q=London&appid=b6907d289e10d714a6e88b30761fae22)

metric api.openweathermap.org/data/2.5/find?q=London&units=metric (http://samples.openweathermap.org/data/2.5/find?q=London&units=metric&appid=b6907d289e10d714a6e88b30761fae22)

imperial api.openweathermap.org/data/2.5/find?q=London&units=imperial (http://samples.openweathermap.org/data/2.5/find?q=London&units=imperial&appid=b6907d289e10d714a6e88b30761fae22)

Multilingual support

You can use lang parameter to get the output in your language.
NOTE: Translation is only applied for the "description" field.

API call:

http://api.openweathermap.org/data/2.5/forecast/daily?id=524901&lang={lang}

Parameters:

lang language code

∧

Samples of API calls:

http://api.openweathermap.org/data/2.5/forecast/daily?id=524901&lang=zh_cn
(http://samples.openweathermap.org/data/2.5/forecast/daily?
id=524901&lang=zh_cn&appid=b6907d289e10d714a6e88b30761fae22)

We support the following languages that you can use with the corresponded lang values:

#	Language code	Language
1	af	Afrikaans
2	ar	Arabic
3	az	Azerbaijani
4	bg	Bulgarian
5	ca	Catalan
6	cz	Czech
7	da	Danish
8	de	German
9	el	Greek
10	en	English
10	en	English
11	eu	Basque
12	fa	Persian (Farsi)
13	fi	Finnish
14	fr	French
15	gl	Galician
16	he	Hebrew
17	hi	Hindi
18	hr	Croatian
19	hu	Hungarian
20	id	Indonesian
21	it	Italian
22	ja	Japanese
23	kr	Korean
24	la	Latvian
25	lt	Lithuanian

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26	mk	Macedonian
27	no	Norwegian
28	nl	Dutch
29	pl	Polish
30	pt	Portuguese
31	pt_br	Português Brasil
32	ro	Romanian
33	ru	Russian
34	se	Swedish
35	sk	Slovak
36	sl	Slovenian
37	sp, es	Spanish
38	sr	Serbian
39	th	Thai
40	tr	Turkish
41	ua, uk	Ukrainian
42	vi	Vietnamese
43	zh_cn	Chinese Simplified
44	zh_tw	Chinese Traditional
45	zu	Zulu

Call back function for JavaScript code

Description:

To use JavaScript code you can transfer callback functionName to JSONP callback.

Examples of API calls:

api.openweathermap.org/data/2.5/weather?q=London,uk&callback=test (http://samples.openweathermap.org/data/2.5/weather?q=London,uk&callback=test&appid=b6907d289e10d714a6e88b30761fae22)
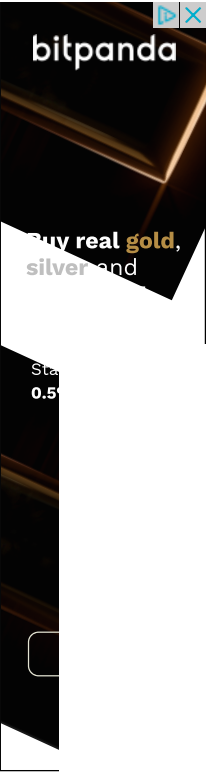
- Call current weather data for one location
  - By city name
  - By city ID
  - By geographic coordinates
  - By ZIP code
- Call current weather data for several cities
  - Cities within a rectangle zone

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  - Cities in cycle
  - Call for several city IDs
- Bulk downloading
  - Allow all   Manage cookies(/cookies-settings)
- Parameters of API response   ^

- JSON
- XML
- List of condition codes
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- Other features
  - Format
  - Units format
  - Multilingual support
  - Call back function for JavaScript code

Software Quality Metrics

Delivering Quality Software with Reliability, Safety, and Security Perforce

Weather in your city

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- Find your city (../find?q=)
- Weather maps (../weathermap)

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Weather APIs

- How to start (../appid)
- Weather APIs for developers (../api)
- Current weather (../current)
- 5 day / 3 hour weather forecast (../forecast5)
- 16 day / daily weather forecast (../forecast16)
- Hourly historical data (../history)
- History bulk (../history-bulk)
- Examples of API use (../examples)

Map layers

- Examples of weather map layers (../api/weathermaps#examples)
- Map styles legend (../api/weathermaps#legend)
- Libraries to connect weather layers (../api/weathermaps#library)

How to subscribe

- Price-list (../price)
- Subscribe to APIs (../price_subscribe)

Found a bug? Have a question or idea? Welcome to **Support center (https://openweathermap.force.com/s/contactsupport)**

Weather station network

- How to connect your weather station (../stations)

About

- About company (/about)
- Team (https://openweather.co.uk/team)
- Weather model (/technology)

Go Social

- Follow OpenWeatherMap on

ok.co(h/ttgrso.u/tpvs:2/16/0t7ui4c8o9e7r3.2c0o9m10/4O3ph)enWeatherMap)voimptarg/ra8m1.6c7o5)/htt(phs:t/t/pwsw:/w/.twoeweteobpaetrhmerampa)p)(https://github.com/s
q=openweathermap&

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Allow all   Manage cookies(/cookies-settings)