

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.

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.

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?g=München,DE&appid=b6907d289e10d714a6e88b30761fae22)

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:

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

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

By city ID

scription:

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

List of city ID city.list.json.gz can be downloaded here 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:

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

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 respond:

```
{"coord":{"lon":139,"lat":35},
    "sys":{"country":"JP","sunrise":1369769524,"sunset":1369821049},
    "weather":[{"id":804,"main":"clouds","description":"overcast clouds","icon":"04n"}],
    "main":{"temp":289.5,"humidity":89,"pressure":1013,"temp_min":287.04,"temp_max":292.04},
    "wind":{"speed":7.31,"deg":187.002},
    "rain":{"3h":0},
    "clouds":{"all":92},
    "dt":1369824698,
    "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}

amples of API calls:

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

Parameters:

zip zip code

API respond:

```
{"coord":{"lon":-122.09,"lat":37.39},
    "sys":{"type":3,"id":168940,"message":0.0297,"country":"US","sunrise":1427723751,"sunset":142776890
    "weather":[{"id":800,"main":"Clear","description":"Sky is Clear","icon":"01n"}],
    "base":"stations",
    "main":{"temp":285.68,"humidity":74,"pressure":1016.8,"temp_min":284.82,"temp_max":286.48},
    "wind":{"speed":0.96,"deg":285.001},
    "clouds":{"all":0},
    "dt":1427700245,
    "id":0,
    "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]

lang language [ru, en ...]

Examples of API calls:

http://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)

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:

t latitude

Ion 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.

NOTE: A single ID counts as a one API call! So, the above example is treated as a 3 API calls.

Bulk downloading

Description:

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

Bulk downloading is available not for all accounts. To get more information please refer to the price. (/price)

Examples of bulk files:

http://bulk.openweathermap.org/sample/ (http://bulk.openweathermap.org/sample/)

Weather parameters in API respond

If you do not see some of the parameters in your API respond 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 respond.

JSON

Example of API respond:

```
{"coord":
{"lon":145.77,"lat":-16.92},
"weather":[{"id":803,"main":"Clouds","description":"broken clouds","icon":"04n"}],
"base":"cmc stations",
"main":{"temp":293.25,"pressure":1019,"humidity":83,"temp_min":289.82,"temp_max":295.37},
"wind":{"speed":5.1,"deg":150},
"clouds":{"all":75},
"rain":{"3h":3},
"dt":1435658272,
"sys":{"type":1,"id":8166,"message":0.0166,"country":"AU","sunrise":1435610796,"sunset":1435650870
"id":2172797,
"name":"Cairns",
"cod":200}
```

Parameters:

- coord
 - coord.lon City geo location, longitude
 - o 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 Weathericonid
- · base Internal parameter
- main
 - main.temp Temperature. 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
 - o clouds.all Cloudiness, %
- rain
 - rain.3h Rain volume for the last 3 hours
- snow
 - snow.3h Snow volume for the last 3 hours
- 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
- id City ID
- name City name
- cod Internal parameter

XML

Example of API respond:

```
<current>
    <city id="2643741" name="City of London">
    <coord lon="-0.09" lat="51.51">
    <country>GB</country>
     <sun rise="2015-06-30T03:46:57" set="2015-06-30T20:21:12">
    <temperature value="72.34" min="66.2" max="79.88" unit="fahrenheit"/>
    <humidity value="43" unit="%">
    sure value="1020" unit="hPa">
    <wind>
    <speed value="7.78" name="Moderate breeze">
    <direction value="140" code="SE" name="SouthEast">
    </wind>
    <clouds value="0" name="clear sky">
    <visibility value="10000">
    <precipitation mode="no">
    <weather number="800" value="Sky is Clear" icon="01d">
    <lastupdate value="2015-06-30T08:36:14">
</current>
```

Parameters:

- city
 - city.id City ID
 - city.name City name
 - o city.coord

- city.coord.lon City geo location, longitude
- city.coord.lat City geo location, latitude
- city.country Country code (GB, JP etc.)
- 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.
- humidity
 - humidity.value Humidity value
 - humidity.unit %
- pressure
 - pressure.value Pressure value
 - pressure.unit hPa
- wind
 - wind.speed
 - wind.speed.value Wind speed, mps
 - 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
 - o 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

st of <u>weather condition codes (/weather-conditions)</u> 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 current weather API and forecast API. In current weather API **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.

Example of current weather API respond:

```
"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 respond:

```
"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:

BON api.openweathermap.org/data/2.5/weather?q=London

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

XML <u>api.openweathermap.org/data/2.5/weather?q=London&mode=xml</u>

(http://samples.openweathermap.org/data/2.5/weather?

<u>q=London&mode=xml&appid=b6907d289e10d714a6e88b30761fae22)</u>

HTML api.openweathermap.org/data/2.5/weather?q=London&mode=html

(http://samples.openweathermap.org/data/2.5/weather?

<u>q=London&mode=html&appid=b6907d289e10d714a6e88b30761fae22)</u>

Search accuracy

Description:

You can use our geocoding system to find cities by name, country, zip-code or geographic coordinates. You can call also by part of the city name. To make the result more accurate just put the city name and country divided by comma.

To set the accuracy level either use the 'accurate' or 'like' type parameter. 'accurate' returns exact match values. 'like' returns results by searching for that substring.

Call API by city ID instead of city name, city coordinates or zip code. In this case you get precise respond exactly for your city.

Parameters:

like close result

accurate accurate result

Examples of API calls:

Like <u>api.openweathermap.org/data/2.5/find?q=London&type=like&mode=xml (http://samples.openweathermap.org/data/2.5/find?q=London&type=like&mode=xml&appid=b6907d289e10d714a6e88b30761fae22)</u>

Accurate <u>api.openweathermap.org/data/2.5/find?q=London&type=accurate&mode=xml (http://samples.openweathermap.org/data/2.5/find?q=London&type=accurate&mode=xml&appid=b6907d289e10d714a6e88b30761fae22)</u>

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 <u>openweathermap.org/weather-data</u> (http://openweathermap.org/weather-data)

Examples of API calls:

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

metric <u>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)</u>

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

Multilingual support

Description:

You can use lang parameter to get the output in your language. We support the following languages that you can use with the corresponded lang values:

Arabic - ar, Bulgarian - bg, Catalan - ca, Czech - cz, German - de, Greek - el, English - en, Persian (Farsi) - fa, Finnish - fi, French - fr, Galician - gl, Croatian - hr, Hungarian - hu, Italian - it, Japanese - ja, Korean - kr, Latvian - la, Lithuanian - lt, Macedonian - mk, Dutch - nl, Polish - pl, Portuguese - pt, Romanian - ro, Russian - ru, Swedish - se, Slovak - sk, Slovenian - sl, Spanish - es, Turkish - tr, Ukrainian - ua, Vietnamese - vi, Chinese Simplified - zh_cn, Chinese Traditional - zh_tw.

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

Examples 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)

Call back function for JavaScript code

Description:

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

Examples of API calls:

<u>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)</u>

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- 1. Click 'Get Weather'
- 2. Add Extension
- 3. Get Weather!

Get Weather



- 1. Click to "Get Weather"
- 2. Run and Install
- 3. Open new Tab



Weather in your city

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Found a bug? Have a question or idea? Welcome to <u>Support center</u> (<u>https://openweathermap.desk.com/customer/portal/emails/new</u>)

Weather station network

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

About

- <u>Team (/team)</u>
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