



Weather Company Data | API Common Usage Guide

Overview

This common usage and style guide describes the common elements, error handling, language support and terminology used by the Weather Company Data APIs.

HTTP Headers

The following HTTP headers should be set to the appropriate values:

Header	Documentation	Usage
Accept-Encoding: gzip	* http://www.w3.org/Protocols/rfc2616/rfc2616-sec14.html#sec14.3	REQUIRED: All requests to the API's should request that the response be compressed. Unless noted otherwise; the only supported encoding format is: gzip

HTTPS Access

All TWC APIs support HTTPS. HTTPS is **required** to be used for all requests to the APIs.

Data Lifetime - Caching and Expiration

- Standard HTTP Cache-Control headers are used to define caching length. The TTL (Time To Live) value is provided in the HTTP Header as an absolute time value using the “max-age” directive. Example: “cache-control: max-age=599”.
- The response may also provide a data element ‘expirationTimeUtc’ or ‘Expires’ which can be used to expire and remove a record from your system.

Cross-Origin Resource Sharing

All TWC APIs support Cross-Origin Resource Sharing or CORS. For additional information on this communications mechanism, please refer to the following documents:

Resource	Documentation
W3 CORS Specification	http://www.w3.org/TR/cors/
CORS Tutorial	http://www.html5rocks.com/en/tutorials/cors/

URL Path Components

URL Part	URL Part Type	Description
hostname	host	api.weather.com is the host for these API's
version	Path Part	Current API version (example: "v2")

product	Path Part	Product name (example: “observations/current”)
apiKey	Query Parameter	Your API key for accessing the API
format	Query Parameter	The format of the response (“json”)
geocode	Query Parameter	For API’s which require a location for the data, the geocode is listed in order of latitude and longitude (ex. 34.53,-84.50)
language	Query Parameter	Language to return the response in (ex. en-US, es, es-MX, fr-FR)
units	Query Parameter	The unit of measure for the response. The following values are supported: <ul style="list-style-type: none">e = English unitsm = Metric unitsh = Hybrid units (UK)s = Metric SI units

HTTP Error Status Codes

There are some differences in error status codes between v1 and v2/v3 APIs; the difference in HTTP status codes is noted in the table below for v1 APIs and v2/v3 APIs.

v1 API - HTTP Status Code	Description
200	OK. The request has succeeded.
400	Bad request. The request could not be understood by the server due to malformed syntax or there is no data found for the location requested.
401	Unauthorized. The request requires authentication.
403	Forbidden. The server understood the request but is refusing to fulfill it.
404	Not found. The endpoint requested is not found.
500	Internal server error. The server encountered an unexpected condition which prevented it from fulfilling the request.
v2/v3 API - HTTP Status Code	Description
204	No Data Found for specific query. The 204 status code will have an empty response body.
400	Bad request. The request could not be understood by the server due to malformed syntax. This is implemented for all API’s. API will reject the request if any invalid parameters are supplied.
401	Unauthorized. The request requires authentication.
403	Forbidden. The server understood the request but the API key is not authorized to perform the requested operation.
404	Not found. The endpoint requested is not found.

405	Method Not Allowed. For example, sending a POST instead of a GET.
406	Not Acceptable. For example, not accepting gzip compressed responses.
408	Request Timeout. Client did not produce a request within the time server was willing to wait.
500	Internal server error. The server encountered an unexpected condition which prevented it from fulfilling the request.
502-504	Service Unavailable or Gateway issue. These error codes are returned if the service is temporarily unavailable.

Standard Units of Measure

Data attributes that respond to the ‘units’ parameter follow the pattern below for the different units of measure applied to the data.

Long Name	Imperial (English) - e	Metric - m	Metric SI - s	Hybrid UK - h
Altitude	ft (feet)	m (meters)	m (meters)	ft (feet)
Temperature	f (fahrenheit)	c (celsius)	c (celsius)	c (celsius)
Pressure	hg (inches of mercury)	mb (millibars of mercury)	mb (millibars of mercury)	mb (millibars)
Precipitation Amount	in (inches) - rain/snow	mm (millimeters - rain), cm (centimeters - snow)	mm (millimeters - rain), cm (centimeters - snow)	mm (millimeters - rain), cm (centimeters - snow)
Distance	mi (miles)	km (kilometer)	m (meter)	mi (miles)
Visibility	mi (miles)	km (kilometer)	km (kilometer)	km (kilometer)
Wind Speed	mh (miles/hour)	km (kilometer/hour)	m/s (meters per second)	mph (miles per hour)
Wave Height	ft (feet)	mtr (meter)		ft (feet)

Postal Code and Postal Key Support

Some APIs support requests by postal code. There is limited postal code support for v1 APIs. If a v1 API is noted with postal code support; the following countries postal codes are supported. Further, v3 APIs support requests by postal KEY. Postal Key will always be represented in a query in the camelCase format of ‘postalKey’ and will be formatted as ‘**postalCode:countryCode**’, i.e.: ‘**postalKey=81657:US**’.

Supported countries for v1 postal codes are listed below:

United States Country Code: US	United Kingdom Country Code: GB	France Country Code: FR	Germany Country Code: DE	Italy Country Code: IT
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Language Translations & Language Codes

Some attributes support language translations. Any attribute that supports translated content will be noted as such in the ‘Translated Fields’ section of the API specific documentation. The ‘Translated Fields’ section denotes which fields respond to the valid ‘language’ parameter in the API request. Translated content will only be provided for valid supported languages as noted in the Language Code table.

am-ET	Amharic - (Ethiopia)		hu-HU	Hungarian - (Hungary)		ro-RO	Romanian - (Romania)
ar-AE	Arabic - (United Arab Emirates)		in-ID	Indonesian - (Indonesia)		ru-RU	Russian - (Russia)
az-AZ	Azerbaijani - (Azerbaijan)		is-IS	Icelandic - (Iceland)		si-LK	Sinhalese, Sinhala - (Sri Lanka)
bg-BG	Bulgarian - (Bulgaria)		it-IT	Italian - (Italy)		sk-SK	Slovak - (Slovakia)
bn-BD	Bengali, Bangla - (Bangladesh)		iw-IL	Hebrew - (Israel)		sl-SI	Slovenian - (Slovenia)
bn-IN	Bengali, Bangla - (India)		ja-JP	Japanese - (Japan)		sq-AL	Albanian - (Albania)
bs-BA	Bosnian - (Bosnia and Herzegovina)		jv-ID	Javanese - (Indonesia)		sr-BA	Serbian - (Bosnia and Herzegovina)
ca-ES	Catalan - (Spain)		ka-GE	Georgian - (Georgia)		sr-ME	Serbian - (Montenegro)
cs-CZ	Czech - (Czechia)		kk-KZ	Kazakh - (Kazakhstan)		sr-RS	Serbian - (Serbia)
da-DK	Danish - (Denmark)		km-KH	Khmer - (Cambodia)		sv-SE	Swedish - (Sweden)
de-DE	German - (Germany)		kn-IN	Kannada - (India)		sw-KE	Swahili - (Kenya)
el-GR	Greek (modern) - (Greece)		ko-KR	Korean - (South Korea)		ta-IN	Tamil - (India)
en-GB	English (Great Britain)		lo-LA	Lao - (Laos)		ta-LK	Tamil - (Sri Lanka)
en-IN	English - (India)		lt-LT	Lithuanian - (Lithuania)		te-IN	Telugu - (India)
en-US	English - (United States of America)		lv-LV	Latvian - (Latvia)		ti-ER	Tigrinya - (Eritrea)
es-AR	Spanish - (Argentina)		mk-MK	Macedonian - (Macedonia)		ti-ET	Tigrinya - (Ethiopia)
es-ES	Spanish - (Spain)		mn-MN	Mongolian - (Mongolia)		tg-TJ	Tajik - (Tajikistan)
es-LA	Spanish - (Latin America)		mr-IN	Marathi - (India)		th-TH	Thai - (Thailand)
es-MX	Spanish - (Mexico)		ms-MY	Malay - (Malaysia)		tk-TM	Turkmen - (Turkmenistan)
es-UN	Spanish - (International)		my-MM	Burmese - (Myanmar)		tl-PH	Tagalog - (Philippines)
es-US	Spanish - (United States of America)		ne-IN	Nepali - (India)		tr-TR	Turkish - (Turkey)
et-EE	Estonian - (Estonia)		ne-NP	Nepali - (Nepal)		uk-UA	Ukrainian - (Ukraine)
fa-IR	Persian (Farsi) - (Iran)		nl-NL	Dutch - (Netherlands)		ur-PK	Urdu - (Pakistan)
fi-FI	Finnish - (Finland)		no-NO	Norwegian - (Norway)		uz-UZ	Uzbek - (Uzbekistan)
fr-CA	French - (Canada)		om-ET	Oromo - (Ethiopia)		vi-VN	Vietnamese - (Viet Nam)
fr-FR	French - (France)		pa-IN	Punjabi - (India)		zh-CN	Chinese - (China)
gu-IN	Gujarati - (India)		pa-PK	Punjabi - (Pakistan)		zh-HK	Chinese - (Hong Kong)
he-IL	Hebrew (modern) - (Israel)		pl-PL	Polish - (Poland)		zh-TW	Chinese - (Taiwan)
hi-IN	Hindi - (India)		pt-BR	Portuguese - (Brazil)			
hr-HR	Croatian - (Croatia)		pt-PT	Portuguese - (Portugal)			

