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|  | **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** |

### **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 a 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:   |  |  |  |  | | --- | --- | --- | --- | | * e = English units | * m = Metric units | * h = 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 request within 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 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.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| * 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.

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