

## Grebe Social Data Aggregator

### RESTful API Version 1.0.4 Documentation

#### Description:

Get tweets for a given date range and province with options to filter by keywords & fields

#### Endpoint (authentication required):

<http://199.116.235.207/grebe/api/?start=&end=&province=>

#### Supported Methods:

GET

#### Required URL Parameters:

[start=dd-mm-yyyy](#)

[end=dd-mm-yyyy](#)

The maximum date range is 30 days

[province=AB](#)

The geo-coordinate data is used to filter by province if needed. Official two-letter abbreviations are supported<sup>1</sup>, and cascading queries are not supported, i.e. only one province can be specified for filtering.

#### Optional URL Parameters:

[keywords=string1+string2|string3|string4](#)

For keywords' search, both OR and AND operations are supported. For OR operations, i.e. string1 OR string2 OR string3, use the | (pipeline) separator, e.g. string1|string2|string3. For AND operations, i.e. string1 AND string2 AND string3, use the encoded space operator (plus) +, e.g. string1+string2+string3. Combined operations are also supported, e.g. string1+string2|string3|string4 implies string1 AND string2 OR string3 OR string4

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<sup>1</sup> Two-Letter Abbreviations for Canadian Provinces <https://www.ncbi.nlm.nih.gov/books/NBK7254/>

## Optional URL Parameters (continued):

[fields=field1,field2,field3](#)

The fields returned can be specified, and the field names need to be separated by commas. A subset of the Twitter Field Guide<sup>2</sup> is mapped to intuitively named Grebe database fields: id, tweet, longitude, latitude, created\_at, collected\_at, lang, place\_name, country\_code, user\_id, user\_name, user\_geoenabled, user\_lang, user\_location, user\_timezone, user\_verified

The following five fields are returned by default when no fields are specified: tweet, longitude, latitude, created\_at, place\_name

[download=1](#)

The output from the API can either be displayed in the browser/client or be available as a downloadable file. Setting this option to 1 will create a downloadable file, while setting to any other value, or omitting this option will return the data in the client.

## Returned Data Format:

All data is returned in JSON format<sup>3</sup>. The returned data is downloadable as plaintext. An example request, and returned JSON are given below (formatted and simplified for clarity).

[http://199.116.235.207/grebe/api/?start=14-09-2016&end=13-10-2016&province=AB&keywords=edm+yeg|oilers&fields=tweet,user\\_location](http://199.116.235.207/grebe/api/?start=14-09-2016&end=13-10-2016&province=AB&keywords=edm+yeg|oilers&fields=tweet,user_location)

```
[
  {
    "tweet": "Rushed it Oilers",
    "user_location": "United States"
  },
  {
    "tweet": "Late Night at the Edmonton yeg @ Alberta",
    "user_location": "Whyte Ave"
  }
]
```

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<sup>2</sup> Twitter Field Guide <https://dev.twitter.com/overview/api/tweets>

<sup>3</sup> Validated JSON RFC-4627, RFC-7159, and ECMA-404 <https://jsonformatter.curiousconcept.com>

## API Change Log:

Version	Date	Changes
1.0.4	2017-09-03	<ul style="list-style-type: none"><li>• Bug fix: new CDN for OpenLayers API to show map demo</li><li>• Bug fix: strict filtering for Canada-only coordinates on map</li><li>• Bug fix: Non-relevant keywords removed when filtering by keyword on graph demo</li><li>• New feature: visual tracker/marker for currently selected date on the time map demo</li></ul>
1.0.3	2017-08-29	<ul style="list-style-type: none"><li>• Move from MongoDB to MariaDB (rationale of more efficient disk usage with comparable performance)</li><li>• Subfield/dot notation support removed, subset of Twitter Field Guide is mapped to MariaDB fields</li><li>• Some fields renamed, e.g. <code>text</code> is now <code>tweet</code>, etc.</li><li>• Added optional output download parameter</li><li>• Documentation &amp; REST API updated to support new fields</li></ul>
1.0.2	2017-06-18	<ul style="list-style-type: none"><li>• Endpoint change due to move from Digital Ocean to Cybera<ul style="list-style-type: none"><li>◦ New value: <code>http://199.116.235.207/grebe/api/</code></li></ul></li><li>• Minor configuration fixes and documentation updates</li></ul>
1.0.1	2017-06-10	<ul style="list-style-type: none"><li>• Changed endpoint, port number no longer needed<ul style="list-style-type: none"><li>◦ Old value: <code>http://159.203.60.220:5000/grebe/api/</code></li><li>◦ New value: <code>http://159.203.60.220/grebe/api/</code></li></ul></li><li>• Province field is now required</li><li>• Removed paging limitations</li><li>• Returned data is now downloaded to text file</li><li>• Resolved field dot notation compatibility issues in returned data</li></ul>
RC 1.0.0	N/A	First stable production version release