



# API documentation

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# Introduction

YellowBot exposes some of its functionality via an API. This document is a reference for that functionality.

The YellowBot API is available for non-commercial and commercial use by outside developers by prior arrangement. See

## Concepts

Unless otherwise noted the API uses the following conventions.

### HTTP

All request parameters and request data must be in UTF-8. All responses are in UTF-8.

### Parameters

Parameters are sent as HTTP query parameters. Be sure to URL encode special characters.

### JSON

Response data is sent in JSON (JavaScript Object Notation) format. There are parsers for this format for virtually all programming languages. See <http://json.org/>

### API Versioning

All API requests must have a “version=” parameter specifying the requested version of the API, for example `/api/call?api_version=2` to use “API version 2”.

The version number is changed when response fields are removed or changed. New response fields may be added to an older API version.

Old versions are occasionally deprecated and then obsoleted.

### API Keys

All requests must include an `api_key` parameter with a value assigned to the requesting organization. Some may also require signing of the request with the “`api_secret`”.

# Search API

The YellowBot API provides a fast way to do searches for locations (businesses) in the YellowBot system. The following applies to API version 1.

## Request

The request URL is `/api/search/locations` or

`http://www.yellowbot.com/api/search/locations` for YellowBot and `http://www.weblocal.ca/api/search/locations` for Weblocal.ca.

## Parameters

(The `api_key` and `api_version` parameters are also required, see the introduction)

Name	Example	Description
<code>api_version</code>	1	The API version is currently "1"
<code>lat</code>	34.09165	Latitude of centroid
<code>long</code>	-118.381289	Longitude of centroid
<code>place</code>	Burbank, CA	Place name of centroid (full address, zip code or city, state)
<code>q</code>	pizza	Search parameters, can be found in tags or the business name
<code>name</code>	Sushi Ike	Search for business name
<code>tags</code>	delivery	Search for these tags (space separated)
<code>start</code>	40	Start results at this (default to 0)
<code>limit</code>	20	Return this many results (defaults to 20)
<code>get_tags</code>	10	Return this many tags per location (defaults to 0 for none)
<code>get_ratings</code>	1	Return numeric rating for locations (defaults to 0 for false)

## Notes

Either "lat"/"long" or "place" is required.

Either “q” or a combination of “name” and/or “tags” is required.

Use the “start” and “limit” parameters to page through the results. The search can cover a maximum of 200 locations. The maximum value for “limit” is 50.

## Example

<http://www.yellowbot.com/api/search/locations?q=pizza&place=90069>

## Response format

See below for an example.

The YellowBot ID of each location is in the “uid” field. You might also get a numeric “id” field returned. The “uid” value will continue to work for that location whereas the “id” value might change from time to time, so it’s important to use the “uid” value in your system.

The “rating” field is on a 1-5 scale in 0.5 increments (0 means no ratings/reviews).

When the “get\_tags” parameter is used, the “tags” are returned as an associative array with four fields for each tag. The “get\_tags” parameter specifies how many tags are returned.

- “tag”: tag value, for example “Sidewalk Dining”
- “ntag”: normalized tag value, for example “sidewalkdining”
- “count”: relative weight of this tag compared to other tags on the same location; higher numbers is more weight.
- “lang”: language of the tag.

Contact [ask@solfo.com](mailto:ask@solfo.com) for more details.

## Example

```
{
  "query" : {
    "lat" : "34.091650",
    "long" : "-118.381289"
  },
  "paging" : {
    "total" : 231,
    "start" : 0,
    "limit" : 2
  }
  "locations" : [
```

```

{
  "distance" : "0.3",
  "lat" : "34.0891",
  "name" : "Benvenuto Cafe",
  "phone" : "(310) 659-8635",
  "state" : "CA",
  "zip" : "90069",
  "long" : "-118.376824",
  "url" : "http://ypbot.com/benvenuto-cafe-west-hollywood-ca.html",
  "uid" : "/benvenuto-cafe-west-hollywood-ca.html",
  "address" : "8512 Santa Monica Blvd",
  "city_name" : "West Hollywood"
},
{
  "distance" : "0.3",
  "lat" : "34.0907",
  "name" : "Frankie & Johnnie's",
  "phone" : "(310) 275-7770",
  "state" : "CA",
  "zip" : "90069",
  "long" : "-118.386855",
  "url" : "http://ypbot.com/frankie-johnnies-west-hollywood-
ca.html",
  "id" : "/frankie-johnnies-west-hollywood-ca.html",
  "address" : "8947 W Sunset Blvd",
  "city_name" : "West Hollywood"
}
]
}

```

# Business data API

The business data API provides more details on each listing, including reviews.

The following applies to API version 2.

## Request

The request URL is `/api/location/details` or

`http://www.yellowbot.com/api/location/details`

## Parameters

(The `api_key` and `api_version` parameters are also required, see the introduction)

Name	Example	Description
id	<code>/the-ivy-los-angeles-ca.html</code>	Comma separated list of IDs (typically obtained from the Search API). You can request up to 30 locations per request.
get_reviews	5	Maximum number of reviews to return (defaults to 0)
get_media	5	Return up to this many videos and pictures (defaults to 0)
get_videos	3	Return up to this many videos (defaults to the value of <code>get_media</code> )
get_pictures	10	Return up to this many pictures (defaults to the value of <code>get_media</code> )
get_thumbs	1	Return the number of thumbs up/down (recommendations). If sufficient information is provided, it will also provide the current requesting user's vote for this location.
get_hours_status	1	Returns structured hour data and whether the current open/closed status of the business.

## Notes

You can provide multiple ids in one request by separating them with commas in the `id` parameter.

Average for the location and individual review ratings are returned on a 1-5 scale as in the search API.

The maximum number of videos or pictures returned is 20.

## Example

[http://www.yellowbot.com/api/location/details?id=/frankie-johnnies-west-hollywood-ca.html&api\\_version=1&api\\_key=abc](http://www.yellowbot.com/api/location/details?id=/frankie-johnnies-west-hollywood-ca.html&api_version=1&api_key=abc)

## Response format

Example response below. Feedback is highly encouraged.

```
{
  "locations" : [
    {
      "name" : "weblocal.ca",
      "reviews" : [
        {
          "edited_on" : "April 16, 2009",
          "lang" : "fr",
          "created_on" : "April 13, 2009",
          "content" : "weblocal.ca est composé d'une équipe dynamique et d'idées novatrices!",
          "user" : {
            "url" : "http://www.weblocal.ca/user/zam7hg",
            "name" : "Deborah"
          },
          "title" : "Très bon travail!",
          "rating" : 4.5
        }
      ],
      "phone" : "(514) 932-5622",
      "state" : "QC",
      "zip" : "H2X 2T7",
      "videos" : [
        {
```



```

thumb.jpg",
    "thumbnail" : "http://s3.ypbot.net/videos/2f-1ck1ni-
    "formats" : {
        "ipod" : "http://s3.ypbot.net/videos/2f-1ck1ni.mp4",
        "flv" : "http://s3.ypbot.net/videos/2f-Ug0bB_o.flv"
    },
    "created_on" : "November 06, 2008",
    "user" : {
        "url" : "http://www.weblocal.ca/user/1s35mmn",
        "name" : "Éric Boily"
    },
    "type" : "user"
}
],
"latitude" : 45.51385, "longitude" : -73.572263,
"ratings_count" : "19",
"url" : "http://www.weblocal.ca/weblocal",
"address" : "3575 boul St-Laurent, suite 710",
"pictures" : [
    {
        "created_on" : "November 06, 2008",
        "user" : {
            "url" : "http://www.weblocal.ca/user/1arffad",
            "name" : "Frederic"
        },
        "url" : "http://s3.ypbot.net/photos/2H-3MuPc4_m.jpg"
    },
    {
        "created_on" : "November 06, 2008",
        "user" : {
            "url" : "http://www.weblocal.ca/user/1arffad",
            "name" : "Frederic"
        },
        "url" : "http://s3.ypbot.net/photos/2H-yx2Gc_m.jpg"
    }
]

```

```
        }  
    ],  
    "id" : "/weblocal",  
    "average_rating" : 5  
}  
]  
}
```

# Authentication

Some API requests require user authentication; which is allowed for some API keys (check with Solfo). Three extra parameters are required for authenticated requests.

Name	Example	Description
api_user_identifier	abcd-1234-xyzq	Unique ID for this user. Typically a UUID.
api_ts	1249594694	Unix epoch timestamp (seconds since 1/1/1970); must be within 15 seconds of the time the request is received by the server.
api_sig	fc403...f2ef f01b	sha256 hmac signature (see below)

## Generating the api\_user\_identifier

The api\_user\_identifier parameter must be a unique identifier for the user. If the system is a web application, it could be the primary key id of the user. If it's a mobile application it could be a uuid generated the first time the app is launched and then and stored with the application data.

## Generating the api\_sig parameter

The api\_sig parameter is created using an HMAC of of the parameters and your secret key. The string of parameters is generated by taking all arguments listed in alphabetical order, name then value. For example if the parameters are

- id=123
- api\_ts=1249594694
- api\_user\_identifier=the\_user\_id
- widget=abcd

The parameter string would be

```
id123api_ts1249594694api_user_identifierthe_user_idwidget=abcd
```

All authenticated calls require the api\_ts and api\_user\_identifier parameters. The api\_sig parameter is obviously not part of the parameter string to be signed.

## Signing the parameter string

To sign the parameter string into the signature, an HMAC sha256 is generated (in hex encoding) of the parameter data and the “api secret”.

## Language support

Most programming languages have a library to generate HMACs.

- In Perl these can be generated with the `hmac_sha256_hex` function in the `Digest::SHA` module.
- In the OS X APIs the `CCHmac` library with the `kCCHmacAlgSHA256` algorithm.
- In PHP use `hash_hmac($str, $secret)`
- Python has an ‘hmac’ library, `hmac.new("secret","parameterlist",hashlib.sha256).hexdigest()`
- In Ruby look for `ruby-hmac` or use `OpenSSL::HMAC`

# Thumbs up/down API

The thumbs up/down feature allows users to give feedback that they like or dislike a particular business.

## Parameters

It is called with authentication (requiring the `api_user_identifier`, `api_ts` and `api_sig` parameters). The other parameters for this call are in the following table.

Name	Example	Description
location	/the-ivy-los-angeles-ca.html	Location ID
thumb	up	“up” or “down”. Optional, will return the current “thumb” for the user if not set.

This API will return an associative array with the keys “location” and the current “thumb” up/down

## Response format

```
{
  "location" : "/solfo-burbank-ca.html",
  "thumb" : "up"
}
```

# Top Tags API

The Top Tags API returns the list of “top tags”. Currently it’s a mostly static global list, but in the future it will be expanded to be dynamically updated and localized to a particular area.

The following applies to API version 1.

## Request

The request URL is `/api/tags/top_tags` or  
`http://www.yellowbot.com/api/tags/top_tags`

## Parameters

(The `api_key` and `api_version` parameters are also required, see the introduction)

Name	Example	Description
limit	50	How many tags for each language to return (defaults to 20)
lang	en,fr	Comma separated list of languages to get tags for (all supported languages are returned if no tags are specified).
list	1	Return an ordered list of tags rather than the associative array with “tag values” (defaults to 0)

## Example

`http://www.yellowbot.com/api/tags/top_tags?  
list=0&limit=3&api_version=1&api_key=abc`

## Response format

Example of the returned data with “list format” disabled:

```
{
  "en" : {
    "automobile parts" : "485",
    "doctor" : "500",
    "restaurant" : "1234"
  },
  ...
}
```

```
"fr" : {  
  "pièces d'auto" : "485",  
  "docteur" : "500",  
  "restaurant" : "1234"  
}  
}
```

The second example is the return with just English tags and list format enabled; note that the list is ordered with “most popular tags” first.

```
{  
  "en" : [  
    "restaurant",  
    "doctor",  
    "automobile parts"  
  ]  
}
```

# API Changes

## **Revision 0.7**

Add API authentication and “thumbs up/down” API.

## **Revision 0.6**

Clarify how ratings are returned.

## **Revision 0.5**

Add Top Tags API

Update parameters for business data API.

Include example of business API response.

## **Revision 0.4**

Details for weblocal.ca url. Add language information to tags.

## **Revision 0.3**

API version 1 – get\_tags and get\_ratings options and return format

## **Revision 0.2**

API Version 1 – first version of this documentation.



# Contact Information



## Business development

Contact Erron Silverstein, [erron@solfo.com](mailto:erron@solfo.com) or [bizdev@ypbot.com](mailto:bizdev@ypbot.com) about using the YellowBot API.

## Developer support

For help using the YellowBot API, contact Ask Bjørn Hansen, [ask@solfo.com](mailto:ask@solfo.com) or [support@yellowbot.com](mailto:support@yellowbot.com).

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