
CampBot Documentation

Release latest

Nov 11, 2020

Contents

1	Installation	3
2	Command line interface	5
3	Python recipes	9
4	API reference	15
	Python Module Index	21
	Index	23

CampBot is a Python framework for build upon camptocamp.org API.

1.1 Requirements

- Working Python 2.7, 3.4, 3.5 or 3.6

and, optionnaly if you need to modify documents :

- a camptocamp.org account for editing documents ;
- a demov6camptocamp.org account for testing editions.

1.2 Installation

```
pip install campbot
```

1.3 Test installation

In command line interface, type :

```
campbot
```

This command will display help for command line API.

In python, simply import CampBot class :

```
from campbot import CampBot
```

Command line interface

Here is the help you get by typing `campbot` in your command line tool :

```
CampBot, Python bot framework for camptocamp.org

Usage:
  campbot clean_rc <days> [--login=<login>] [--password=<password>] [--delay=<seconds>]
↪] [--batch]
  campbot report_rc <days> [--login=<login>] [--password=<password>] [--delay=
↪<seconds>] [--batch]
  campbot clean <url_or_file> <langs> [--login=<login>] [--password=<password>] [--
↪delay=<seconds>] [--batch] [--bbcode]
  campbot contribs [--out=<filename>] [--starts=<start_date>] [--ends=<end_date>] [--
↪delay=<seconds>]
  campbot export <url> [--out=<filename>] [--delay=<seconds>]

Options:
  --login=<login>           Bot login
  --password=<password>    Bot password
  --batch                   Batch mode, means that no confirmation is required before
↪saving
                             Use very carefully!
  --delay=<seconds>        Minimum delay between each request. Default : 3 seconds
  --bbcode                  Clean old BBCode in markdown
  --out=<filename>         Output file name. Default value will depend on process

Commands:
  report_rc                Make quality report on recent changes.
  clean_rc                 Clean recent changes.
  clean                    Clean documents.
                             <url_or_file> is like https://www.camptocamp.org/routes#a=523281, or,
↪simplier, routes#a=523281.
                             filename is also accepted, and must be like :
```

(continues on next page)

(continued from previous page)

```
123 | r
456 | w
<langs> is comma-separated lang identifiers, like fr,de for french_
↪and german.
  contribs      Export all contribution in a CSV file. <start_date> and <end_date>_
↪are like 2018-05-12
  export        Export all documents in a CSV file.
                <url> is like https://www.camptocamp.org/outings#u=2, or, simplier,_
↪outings#u=2
```

2.1 Export a list of document

Export to a csv file all documents given by camptocamp URL

2.1.1 Command line

```
campbot export <url> [--out=<filename>] [--delay=<seconds>]
```

- <url> is a camptocamp url, like <https://www.camptocamp.org/routes#a=523281>
- <filename> is the output file. By default, it will be `outings.csv` for `outings`, `routes.csv` for `routes`...
- <seconds>, numerical, is the delay between each request. 3s by default.

2.1.2 Output

here is a sample of output:

```
date_start;date_end;title;equipement_rating;global_rating;height_diff_up;rock_free_
↪rating;condition_rating;elevation_max;img_count;quality;activities
2017-11-20;2017-11-20;Calanque de Morgiou - Le Cancéou : Aven du Cancéou - Prends moi_
↪sec au-dessus du lagon bleu;;D+;100;5c;excellent;None;0;draft;rock_climbing
2017-11-19;2017-11-19;Calanque de Sormiou - Dièdre Guem : Voie NTD;;TD+;140;6c+;
↪excellent;N
```

2.2 Export whatsnew page

This command will load all contributions made in the last 24 hours

2.2.1 Command line

```
campbot contribs
```

2.2.2 Optional arguments

- `--starts=2017-12-07` : will export all contributions after this date (included)
- `--ends=2017-12-07` : will export all contributions before this date (excluded)
- `--out=data.csv` : out file name, default value is `contributions.csv`

2.2.3 Output

here is a sample of output:

```
timestamp;type;document_id;version_id;document_version;title;quality;username;lang
2017-12-21T21:49:41.363647+00:00;routes;293549;1738922;4;Escalades à Presles;medium;
↳charles b;fr
2017-12-20T21:49:41.363647+00:00;routes;123;123;4;Escalades à Presles;medium;munch;fr
```

2.3 Clean a set of documents

This command line will process all clean processors to objects given by a camptocamp url.

2.3.1 Command line

```
campbot clean <url> <langs> --login=<login> --password=<password> [--delay=<seconds>]
↳[--bbcode]
```

2.3.2 Options and arguments

- `<url>` is like <https://www.camptocamp.org/routes#w=940468> : all routes associated to waypoint 940468 will be cleaned. Shorthand `routes#w=940468` is accepted.
- `<langs>` is a comma-separated list of langs, like `fr,de`. Clean procedure will impacts only this langs.

2.3.3 Clean processors

- <https://www.camptocamp.org/articles/996571>
- Some letter capitalization
- Spaces between numbers and units

2.3.4 Good advice

`--delay` is the time between each API request. By default, it's 3s, which is very low. As it's time consuming, it's preferable to set `--delay` to a low value. As you will have to validate each modification, API won't be overloaded.

2.3.5 Sample

```
campbot clean https://www.camptocamp.org/routes#w=940468 fr --login=rabot --  
↳password=fake_pwd --delay=0.1
```

2.3.6 bbcode

This option clean old good BBCode tags with their markdown equivalents. No more usefull, except for your outings :

```
campbot clean outings#u=123 fr --login=your_login --password=fake_pwd --bbcode
```

Warning: 123 must be your user numerical id, you can find it in your home page's URL.

2.4 Quality report on recent changes

This procedure will check that last day modifications pass these tests

- History is filled
- No big deletions
- Pitch type is set
- Warning for new users
- all patterns present in the first message of topic where report should be posted

Report will be posted on <https://forum.camptocamp.org/t/topoguide-verifications-automatiques/201480>

2.4.1 Command line

```
campbot report_rc <days> [--login=<login>] [--password=<password>] [--delay=<seconds>]
```

2.4.2 Arguments and options

- <days> : Number of day to check Let says that we are on 17 june 2018, 12h. if <days> is 2, the process will run on all contributions made from 2018-06-15 00:00:00 to 2018-06-16 23:59:59
- <login> : your bot login
- <password> : your bot password
- <delay> : delay, in seconds between each request. By default, 3 seconds

Warning: This process is quite long. So, please consider this two points :

- Execute it when camptocamp is not overloaded
- and use a delay of 0.1 seconds.

How to... ?

As a good short example will always be better than a long explanation, here is some code sample. Inspire yourself with them.

3.1 Get documents

Here is a code that load every single documents based on a filter. Corresponding Camptocamp URL is https://www.camptocamp.org/routes#a=14405&act=mountain_climbing%252Crock_climbing

```
from campbot import CampBot

bot = CampBot(use_demo=True)

# Let get all routes inside area 14405 (French Jura),
# AND where activity is rock_climbing OR mountain_climbing

filters = {
    "a": 14405,
    "act":["rock_climbing", "mountain_climbing"]
}

for route in bot.wiki.get_routes(filters):
    print(route)
```

bot.wiki object has also these functions :

- bot.wiki.get_areas(filters)
- bot.wiki.get_outings(filters)
- bot.wiki.get_waypoints(filters)
- bot.wiki.get_xreports(filters)

Warning: Due to Camptcamp database limitations, you won't be able to load more than 10,000 documents with this method. Please use a more precise filter if you need to crawl a big amount of data. On the other hand, it should be more efficient to ask to Camptcamp association a static dump if you need to download a consequent part of C2C data.

3.2 Search documents that contains...

Based on *get document sample*, here is the code to search for text. This code is very slow, but may do the job for a small set of documents

```
from campbot import CampBot

bot = CampBot(use_demo=True)

# Here is the text to search
needle_text = "aiguille dans une botte de foin"

# Use a pre-filter, otherwise, it will never end
filters = {
    "a": 14405,
    "act": ["rock_climbing", "mountain_climbing"]
}

for route in bot.wiki.get_routes(filters):
    locale = route.get_locale("fr") # we will search only french text

    if locale: # document may not contain french version
        for field in locale:
            if locale[field] is not None: # field may be set to None
                if needle_text in locale[field]:
                    print(route)
```

3.3 Add a rock type to a list of document

This script will add limestone rock type ("calcaire in french") on all routes associated to waypoint 107702 (Verdon in France, which is actually a limestone area) :

```
from campbot import CampBot

bot = CampBot(use_demo=True)
bot.login("bot_login", "bot_password")

filters = {"w": 107702}

for route in bot.wiki.get_routes(filters):
    route["rock_types"] = route.get("rock_types", []) or []
    if "calcaire" not in route["rock_types"]:
        route["rock_types"].append("calcaire")
        route.save("Only limestone in Verdon")
```

3.4 Get user from route

It can be useful, when you want to discuss about a point on a route, to mention all users that knows this route. This code will display all forum names, 20 per rows (Discourse limit), with a preceding @.

```
from campbot import CampBot

bot = CampBot(use_demo=True)

users = bot.get_users_from_route(56048)

for sub_users in [users[i:i + 20] for i in range(0, len(users), 20)]:
    print(", ".join(["@" + user["forum_username"] for user in sub_users]))
```

3.5 Update a locale field

This script will update remarks field. Note the coding header, if you're in Python 2.7, and your update contains special characters

```
# coding: utf-8

import sys
from campbot import CampBot

bot = CampBot()
bot.login("botname", "botpass")

remarks="!! VTNO rocks!"
update_comment = "Remarque gestion par VTNO"

filters = {
    "w": 107049,
    "act": ["rock_climbing"]
}

for route in bot.wiki.get_routes(filters):
    locale = route.get_locale("fr")

    if locale: # document may have not fr locale : skip it.
        if not locale.remarks: # remarks is none, or empty string
            locale.remarks = remarks
            route.save(update_comment)

        elif "VTNO" not in locale.remarks:
            # We consider that if remarks field still contains "VTNO",
            # then locale is still processed
            locale.remarks = locale.remarks + "\n\n" + remarks
            route.save(update_comment)
```

3.6 Export data as CSV

CSV (comma separated values) is a convenient way to export data for later analysis on spreadsheet softwares (Excel...). Here is a code that exports some informations from images associated to an article

```
from campbot import CampBot

bot = CampBot(min_delay=0.01)

article = bot.wiki.get_article(1058594) # Concours Photo Sophie 2018

def output(*args):
    print(";".join(map(str, args)))

output("image", "licence", "creator", "creator_id", "Associated route count",
       "Associated waypoint count")

for image in article.associations.images:
    image = bot.wiki.get_image(image.document_id)
    output(image.get_url(), image.image_type, image.creator["name"],
           image.creator["user_id"], len(image.associations.routes),
           len(image.associations.waypoints))
```

3.7 Create an area

There is no UI for adding new areas. But API entry point is up and running!

```
import json
from campbot import CampBot

def create_area(bot, title, geom_detail):
    result = bot.wiki.post(
        "/areas",
        {
            "geometry": {"geom": None, "geom_detail": json.dumps(geom_detail)},
            "type": "a",
            "quality": "medium",
            "area_type": "admin_limits",
            "available_langs": ["fr"],
            "locales": [
                {"lang": "fr", "summary": None, "title": title, "description": None,}
            ],
        },
    )

    print(result)

bot = CampBot()
bot.login("moderator_login", "password")

geom_detail = {
```

(continues on next page)

(continued from previous page)

```

"coordinates": [
  [
    [5012713.121726842, -1417626.9752307558],
    [5014720.969939139, -1419322.4914989625],
    [5016862.674699049, -1421910.3847504659],
    [5012713.121726842, -1417626.9752307558], # this point must be the same_
↪as the first one
  ]
],
"type": "Polygon",
}

create_area(bot, "New area", geom_detail)

```

3.8 Check that Sophie picture contest criteria has been respected

The rules are :

- a picture can't be resubmitted
- a participant cannot submit more than 3 pictures

```

from collections import defaultdict
from campbot import CampBot

bot = CampBot(min_delay=0.01)

article_ids = [
    187913,
    237549,
    300413,
    374949,
    465897,
    555996,
    673796,
    809627,
    937458,
    1058594,
    1058594,
]

print("Load images of previous challenges", end = "")
images_id = {}
for article_id in article_ids:
    article = bot.wiki.get_article(article_id)
    for image in article.associations.images:
        images_id[image.document_id] = article_id
print(" - Ok")

print("Check that no image has been submitted in a previous challenges", end="")
article = bot.wiki.get_article(1251594)
for image in article.associations.images:
    if image.document_id in images_id:
        raise Exception(f"Image {image.document_id} has been submitted on article
↪{images_id[image.document_id]}")

```

(continues on next page)

(continued from previous page)

```
print(" - Ok")

print("Check that no user has submitted more than 3 images:")
users = defaultdict(list)
for image in article.associations.images:
    full_image = bot.wiki.get_image(image.document_id)
    users[full_image.creator['user_id']].append(image.document_id)

for user, images in users.items():
    if len(images) > 3:
        print(f"User {user} has submitted {len(images)} images: {images}")
```

Warning: Normally, all public methods in Python should be named normally, and all private methods should be preceded by an underscore. As `campbot` is quite new, and very moving, please consider that if a object/method is NOT documented in this section, then you must not use it. Or at your own risk.

4.1 CampBot class

class `campbot.CampBot` (*min_delay=None, proxies=None, use_demo=False*)

`CampBot()` object is the main class. You must instantiate only one instance of it. It contains two property :

- `wiki` for interacting with `camptocamp.org` wiki
- `forum` for interacting with `camptocamp.org` forum

login (*login, password*)

Login to `camptocamp.org`, mandatory for write actions. It also sign-in to forum.

Parameters

- **login** – bot login used to sign-in (not the numerical ID)
- **password** – bot password

get_documents (*url_or_filename*)

Get a generator of document, given a filename or a URL.

Parameters `url_or_filename` –

Returns generator

clean (*url_or_filename, langs, ask_before_saving=True, clean_bbcode=False*)

Clean a set of document.

Parameters

- **url_or_filename** – `Camptocamp.org` URL, or filename

- **langs** – comma-separated list of lang identifiers
- **ask_before_saving** – Boolean
- **clean_bbcode** – Boolean

export (*url, filename=None*)

Export all document given by a camptocamp.org url

Parameters

- **url** – Camptocamp.org URL
- **filename** – Output file name. Default : <document_type>.csv

export_contributions (*starts=None, ends=None, filename=None*)

Export all document given by a camptocamp.org url

Parameters

- **starts** – Start date, default is now minus 24 hours
- **ends** – default is now
- **filename** – Output file name. Default : contributions.csv

get_users_from_route (*route_id*)

Get list of user that have done a given route.

Parameters **route_id** – route numerical identifier

4.1.1 Properties

- `bot.wiki` : a *WikiBot instance*
- `bot.forum` : a *ForumBot instance*
- `bot.moderator` : Boolean, True if logged with a moderator account

4.2 WikiBot class

4.2.1 About document_type/constructor parameters

Some function of WikiBot will ask you to specify which kind of object you want to request. There is two way to specify it :

1. Set `document_type` argument with a letter (see bellow the mapping)
2. Set constructor argument, see `campbot.objects` module

Mapping :

- “u”: WikiUser
- “a”: Area
- “w”: Waypoint
- “o”: Outing
- “i”: Image
- “m”: Map

- “x”: Xreport
- “c”: Article
- “b”: Book
- “r”: Route

Example : this two line are equivalents

```
from campbot import Campbot, objects

bot = Campbot(user_demo=True)

bot.wiki.get_documents(filters, document_type='r')
bot.wiki.get_documents(filters, constructor=objects.Route)
```

4.2.2 About filters

Some function that return list of objects have a `filters` argument. It's a key value dictionary. Simply see camp-to-camp URL to understand how to fill it.

4.2.3 API

class `campbot.core.WikiBot` (*campbot, api_url, proxies=None, min_delay=None*)
Get functions for all camp-to-camp.org wiki

get_wiki_object (*item_id, document_type=None, constructor=None*)
Return a wiki object. You must specify `document_type` OR `constructor`

Parameters

- **item_id** – numerical document id
- **document_type** – type letter ('r' for route, 'w' for waypoint...)
- **constructor** – `objects.Route`, `objects.Waypoint`...

Returns a wiki object

get_article (*article_id*)
Get article object

Parameters **article_id** – article numerical id

Returns article object

get_route (*route_id*)
Get route object

Parameters **route_id** – route numerical id

Returns route object

get_waypoint (*waypoint_id*)
Get waypoint object

Parameters **waypoint_id** – waypoint numerical id

Returns waypoint object

`get_routes` (*filters*)

Get list of route. This function is a generator.

Parameters `filters` – key-value dictionary

Returns generator of route objects

`get_documents` (*filters=None, document_type=None, constructor=None*)

Return a list of wiki objects, this function is a generator

Parameters

- **filters** – a key-value dictionary
- **document_type** – type letter, like ‘a’, ‘r’, ‘w’...
- **constructor** – objects.Area, objects.Route ...

4.3 ForumBot class

`class` `campbot.core.ForumBot` (*campbot, api_url, proxies=None, min_delay=None*)

`post_message` (*message, url*)

post a message into an existant forum thread

Parameters

- **message** – message content
- **url** – thread URL

`get_group_members` (*group_name*)

Get all group members

Parameters `group_name` – example : “Association”

Returns list of forum username

4.4 Data objects

This module contains all data objects getted from forum and wiki API. These API provides JSON data, and this module enhances data model by mirroring data attributes to data model. Here is an exemple :

```
from campbot import CampBot

bot = CampBot(use_demo=True)
waypoint = bot.wiki.get_waypoint(107702)

# this two lines are perfectly equivalents
elevation = waypoint["elevation"] # standard way to access data
elevation = waypoint.elevation # and sexier way.

# set values is possible
waypoint.elevation = 1000
assert waypoint["elevation"] == 1000 # it's true!
```

We try to use the second way every times it's possible in this documentation.

```

class campbot.objects.BotObject (campbot, data)
    Base class for all data object

class campbot.objects.Version (campbot, data)
    A historical version of one wiki document.

class campbot.objects.Locale (campbot, data)
    Locale is a set of field, given a lang.

    get_title ()
        Get the title, with prefix if it exists.

        Returns String, pretty title

    get_length ()
        Get text length

        Returns Integer, number of characters

class campbot.objects.WikiObject (campbot, data)
    Base object for all wiki documents

    get_url (lang=None)

        Returns camptocamp.org URL.

    get_history_url (lang)

        Returns camptocamp.org version list URL

    get_locale (lang)

        Parameters lang – fr, en, de ...

        Returns String, or None if locale does not exists in this lang

    search (patterns, lang)
        Search a pattern (regular expression)

        Parameters lang – fr, de, en...

        Returns True if pattern is found, False otherwise

    save (message, ask_before_saving=True)
        Save object to camptocamp.org. Bot must be authenticated.

        Parameters

        • message – Modification comment

        • ask_before_saving – Boolean, ask user before saing document

        Returns raw request response, useless.

    is_valid ()

        Returns True if document can be saved

class campbot.objects.Route (campbot, data)
    Route object : https://www.camptocamp.org/routes

class campbot.objects.Article (campbot, data)
    Article object : https://www.camptocamp.org/articles

class campbot.objects.Image (campbot, data)
    Image object : https://www.camptocamp.org/images

```

```
class campbot.objects.Book (campbot, data)  
    Book object : https://www.camptocamp.org/books  
class campbot.objects.Xreport (campbot, data)  
    Xreport object : https://www.camptocamp.org/xreports  
class campbot.objects.Waypoint (campbot, data)  
    Waypoint object : https://www.camptocamp.org/waypoints  
class campbot.objects.Area (campbot, data)  
    Area object : https://www.camptocamp.org/areas  
class campbot.objects.Map (campbot, data)  
    Map object : https://www.camptocamp.org/maps  
class campbot.objects.Outing (campbot, data)  
    Outings object : https://www.camptocamp.org/outings
```

4.5 Document processors

C

`campbot.objects`, 18

A

Area (*class in campbot.objects*), 20
 Article (*class in campbot.objects*), 19

B

Book (*class in campbot.objects*), 19
 BotObject (*class in campbot.objects*), 18

C

CampBot (*class in campbot*), 15
 campbot.objects (*module*), 18
 clean() (*campbot.CampBot method*), 15

E

export() (*campbot.CampBot method*), 16
 export_contributions() (*campbot.CampBot method*), 16

F

ForumBot (*class in campbot.core*), 18

G

get_article() (*campbot.core.WikiBot method*), 17
 get_documents() (*campbot.CampBot method*), 15
 get_documents() (*campbot.core.WikiBot method*), 18
 get_group_members() (*campbot.core.ForumBot method*), 18
 get_history_url() (*campbot.objects.WikiObject method*), 19
 get_length() (*campbot.objects.Locale method*), 19
 get_locale() (*campbot.objects.WikiObject method*), 19
 get_route() (*campbot.core.WikiBot method*), 17
 get_routes() (*campbot.core.WikiBot method*), 17
 get_title() (*campbot.objects.Locale method*), 19
 get_url() (*campbot.objects.WikiObject method*), 19
 get_users_from_route() (*campbot.CampBot method*), 16

get_waypoint() (*campbot.core.WikiBot method*), 17
 get_wiki_object() (*campbot.core.WikiBot method*), 17

I

Image (*class in campbot.objects*), 19
 is_valid() (*campbot.objects.WikiObject method*), 19

L

Locale (*class in campbot.objects*), 19
 login() (*campbot.CampBot method*), 15

M

Map (*class in campbot.objects*), 20

O

Outing (*class in campbot.objects*), 20

P

post_message() (*campbot.core.ForumBot method*), 18

R

Route (*class in campbot.objects*), 19

S

save() (*campbot.objects.WikiObject method*), 19
 search() (*campbot.objects.WikiObject method*), 19

V

Version (*class in campbot.objects*), 19

W

Waypoint (*class in campbot.objects*), 20
 WikiBot (*class in campbot.core*), 17
 WikiObject (*class in campbot.objects*), 19

X

Xreport (*class in campbot.objects*), 20