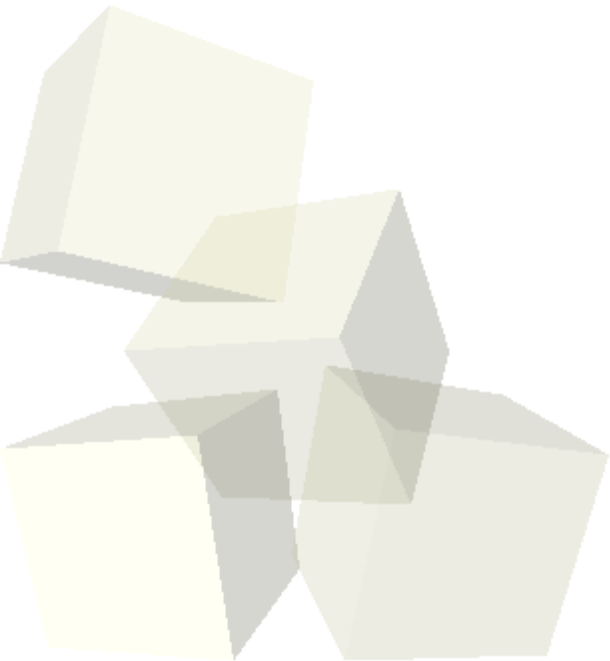




# **OpenGroupware Integration via the Twython API**

Whitemice Consulting





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License: MIT (non-viral!)

Source: <http://github.com/ryanmcgrath/twython>

Forum: <http://groups.google.com/group/twython-talk>

Dependencies: simplejson

Failure, or refusal to perform an operation usually results in an HTTP error (typically 403).

Use the source for GitHub!  
Several bugs have been fixed since 1.0.



```
import twython.core as twython
```

## Anonymous

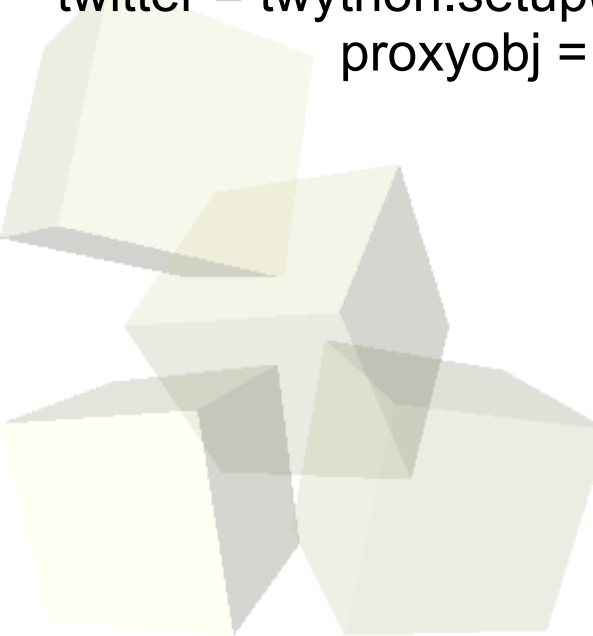
```
twitter = twython.setup()
```

## Basic Authentication

```
twitter = twython.setup(username="username", password="*****")
```

## Basic Authentication w/Proxy

```
twitter = twython.setup(username="username", password="*****",  
                        proxyobj = {"username": "username",  
                                    "password": "password",  
                                    "host": "http://squid.example.com",  
                                    "port": 3128 })
```





# Current Trends

```
pprint.pprint(twitter.getCurrentTrends(excludeHashTags=False))
```

```
{'as_of': 1262646127,  
'trends': {'2010-01-04 23:02:07': [{'name': '#bewareof',  
  'query': '#bewareof'},  
  {'name': '#musicmonday',  
  'query': '#musicmonday'},  
  {'name': '#nowplaying',  
  'query': '#nowplaying'},  
  {'name': '#mm', 'query': '#mm'},  
  {'name': '#cbb7', 'query': '#cbb7'},  
  {'name': 'Apple Tablet',  
  'query': '"Apple Tablet"'},  
  {'name': '#alljokesaside',  
  'query': '#alljokesaside'},  
  {'name': 'Happy New Year',  
  'query': '"Happy New Year"'},  
  {'name': '#IfIWasTravisClark',  
  'query': '#IfIWasTravisClark'},  
  {'name': '#wethekings',  
  'query': '#wethekings'}]}}
```

This is the default, set to True to exclude hashtags from trend results.

Quickly proves that no topic of merit is ever the focus of twitter users.



# Daily Trends

```
pprint.pprint(twitter.getDailyTrends())
{'as_of': 1262646127,
 'trends': { '2010-01-03 22:06': [{'name': '#ThugLife', 'query': '#ThugLife'},
                                  {'name': '#tobehonest', 'query': '#tobehonest'},
                                  {'name': '#tobehonest I', 'query': '"#tobehonest I"'},
                                  {'name': '#cbb7', 'query': '#cbb7'},
                                  {'name': '#nowplaying', 'query': '#nowplaying'},
                                  {'name': 'CBB', 'query': 'CBB'},
                                  {'name': 'Texans', 'query': 'Texans'},
                                  {'name': 'Giants', 'query': 'Giants'},
                                  {'name': 'Steelers', 'query': 'Steelers OR #Steelers'},
                                  {'name': 'Eagles', 'query': 'Eagles OR #Eagles'}],
             .....
             {'name': 'Avatar', 'query': 'Avatar'}],
 '2010-01-03 23:06': [{'name': '#ToBeHonest', 'query': '#ToBeHonest'},
                       {'name': '#thuglife', 'query': '#thuglife'},
                       {'name': '#cbb7', 'query': '#cbb7'},
                       {'name': '#tobehonest I', 'query': '"#tobehonest I"'},
                       {'name': 'Sisqo', 'query': 'Sisqo'}]}.
.... }
```

Hourly trends so far for  
The current day.

There is also a function `getWeeklyTrends`



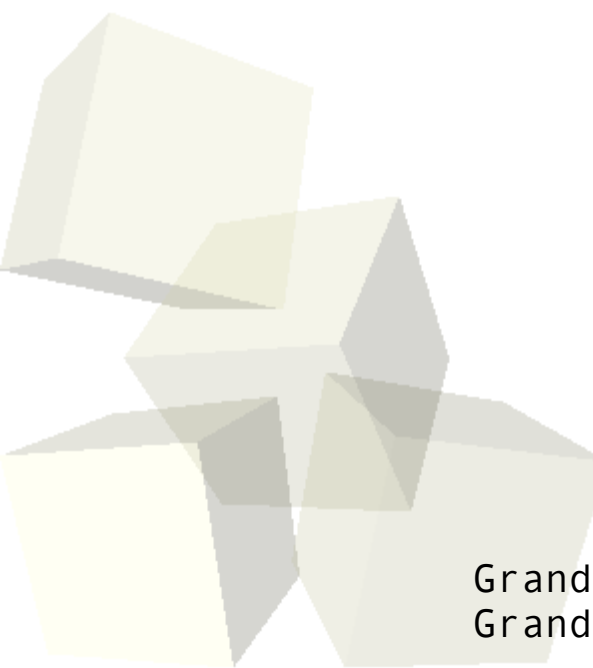
## WOEId

- Where-on-Earth-Id
- A stupid Yahoo psuedo-standard
  - Riddled with duplicates
  - `http://`

`twitter.trendsByLocation('28340757')`

- Always fails with a 403 (Forbidden) error

WOEId for Grand Rapids “Town”



Grand Rapids AP  
Grand Rapids

42 53 ' N  
42.88

85 31 W  
85.52





# Anatomy of a tweet

```
{'created_at': 'Mon Jan 04 23:26:45 +0000 2010',
'favorited': False,
'geo': None,
'id': 7382938351L,
'in_reply_to_screen_name': None,
'in_reply_to_status_id': None,
'in_reply_to_user_id': None,
'source': '<a href="http://www.myspace.com/sync" rel="nofollow">MySpace</a>',
'text': u'I know he smokes and drinks but i still like him no matter what .... u r never to good for someone especially when they \u2026http://lnk.ms/5BLtz',
'truncated': False,
```

Tweet

Tweet text is Unicode!

```
'user': {'created_at': 'Wed Jun 17 18:51:46 +0000 2009',
'description': None,
'favourites_count': 2,
'followers_count': 16,
'following': None,
'friends_count': 32,
'geo_enabled': False,
'id': 48068885,
'location': None,
'name': 'ALEXIS CLARK',
'notifications': None,
'protected': False,
'screen_name': 'ZIG_09',
'statuses_count': 154,
'time_zone': None,
'url': None,
'utc_offset': None,
'verified': False}}]
```

User Information  
(included in every tweet)

```
'profile_background_color': 'FF6699',
'profile_background_image_url': 'http://s.twimg.....
'profile_background_tile': True,
'profile_image_url': 'http://a3.twi.....
'profile_link_color': 'B40B43',
'profile_sidebar_border_color': 'CC3366',
'profile_sidebar_fill_color': 'E5507E',
'profile_text_color': '362720',
```



# Public Timeline

```
x = twitter.getPublicTimeline()
for y in x:
    print u'{0}:{1}'.format(y.get('user').get('screen_name'), y.get('text'))
print
```

**csepic:**@KellyCDB Warm clothing is indeed the secret :) Wearing two pairs of pants right now, in fact

**Nahtuhleexo:**Hot chocolate + my bed + laptop + tv = a good time?

**Camwilson92:**#bringbackmike. RIP mike.

**chancechandler:**This new ubertwatter for crackberry's has got me goin... Damn technology and its integration into our lives. #bewareof my uberbar...

**lilmsreporter:**Putin (finally) has his shirt on in this holiday pic. Shocker! RT @guardiannews Medvedev and Vladimir Putin go skiing <http://bit.ly/8twpsX>

**ShinyBrownEyes:**Lydia has a pet bug. The pet bug's name is Victor. Victor is slow moving. He will stay with Lydia until spring.

**pingmicro:**Bono: ISPs should filter music, Steve Jobs should make cars <http://ow.ly/16gzmq>

**Nosakhare:**"Common loved her, I wish I never met he, they ████████ her out there no left to treasure" Showing Out, The Clipse

**Tyboisosauve:**#notcute when u wearin ur friends pradas actin like there urs





```
x = twitter.searchTwitter("forklift", rpp="10")
pprint.pprint(x)
{'completed_in': 0.024197,
 'max_id': 7385831303L,
 'next_page': '?page=2&max_id=7385831303&rpp=10&q=forklift',
 'page': 1,
 'query': 'forklift',
 'refresh_url': '?since_id=7385831303&q=forklift',
 'results': [{'created_at': 'Tue, 05 Jan 2010 01:00:30 +0000',
              'from_user': 'mentalmarketer',
              'from_user_id': 53735953,
              'geo': None,
              'id': 7385831303L,
              'iso_language_code': 'en',
              'profile_image_url': 'http://a1.twim.....',
              'source': '&lt;a href=&quot;http://ubert.....&quot;',
              'text': 'omg. saw a forklift manually hoisting &amp; positioning a merc in
place; tats hw we roll in taipei.',
              'to_user_id': None},
             ....],
 'results_per_page': 10,
 'since_id': 0}
```

rpp = requests per page  
lang = ISO 639-1 language  
since\_id: Requests more recent tweet id#  
geocode: restrict searches geographically  
showuser – True / False



## Common Options

count: Number of tweets to retrieve

since\_id: Requests more recent tweet id#

max\_id: Requests tweets older than tweet id#

```
twitter.getFriendsTimeline(count="50")
```

```
twitter.getUserTimeline(screen_name='brousch', count='12')
```

```
twitter.getHomeTimeline(count='12')
```

Equivalent to what you see on the  
Twitter.Com homepage.



# Tweeting & Untweeting

```
>>> twitter.updateStatus('OpenGroupware Coils is totally 31337!')
{'favorited': False, 'truncated': False, 'text': 'OpenGroupware Coils is totally 31337!',
 'created_at': 'Sun Jan 10 15:24:24 +0000 2010', 'source': '<a
 href="http://apiwiki.twitter.com/" rel="nofollow">API</a>', 'in_reply_to_status_id':
 None, 'in_reply_to_screen_name': None, 'in_reply_to_user_id': None, 'geo': None,
 'id': 7595278939L, 'user': {'id': 98055184, 'verified': False, 'profile_sidebar_fill_color':
 'e0ff92', 'profile_text_color': '000000', 'followers_count': 1, 'protected': False,
 'location': None, 'profile_background_color': '9ae4e8', 'utc_offset': None,
 'statuses_count': 1, 'description': None, 'friends_count': 0, 'profile_link_color': '0000ff',
 'profile_image_url':
 'http://s.twimg.com/a/1262981812/images/default_profile_3_normal.png',
 'notifications': False, 'geo_enabled': False, 'profile_background_image_url':
 'http://s.twimg.com/a/1262981812/images/themes/theme1/bg.png', 'screen_name':
 'opengroupware', 'profile_background_image_url_https': None, 'profile_background_image_url':
 'http://s.twimg.com/a/1262981812/images/themes/theme1/bg.png', 'profile_background_color': 'e0ff92', 'name':
 'OpenGroupware', 'url': None, 'created_at': 'Sun Dec 20 09:21:11 +0000 2009',
 'time_zone': None, 'profile_sidebar_border_color': '87bc44', 'following': False}}
>>> twitter.showStatus(7595278939L)
{'favorited': False, 'truncated': False, 'text': 'OpenGroupware Coils is totally 31337!'...
>>> twitter.destroyStatus(7595278939L)
```

Retrieve a single tweet by id#

Delete a tweet by id#



# High-end Tweeting

```
twitter.updateStatus(message,  
  in_reply_to_status_id={long},  
  latitude={float: -180 ... +180, (east is positive)},  
  longitude={float: -180 ... +180, (east is positive)})
```

- The id (as in [@username](#)) of the user who created the `in_reply_to_status_id` tweet must be mentioned in the message text or the `in_reply_to_status_id` value will be ignored.
- `latitude` and `longitude` must be numeric and within valid ranges, must both be specified, and `geo_enabled` enabled or these values will be ignored.

“geo\_enabled” is an attribute of your Twitter account, not a tunable of the API. See the “Account” tab [@TWITTER.COM](#)

Location

Where in the world are you?

Enable geotagging [What is Geotagging?](#)

Allow third party applications to annotate your tweets with location information.

Delete all location data

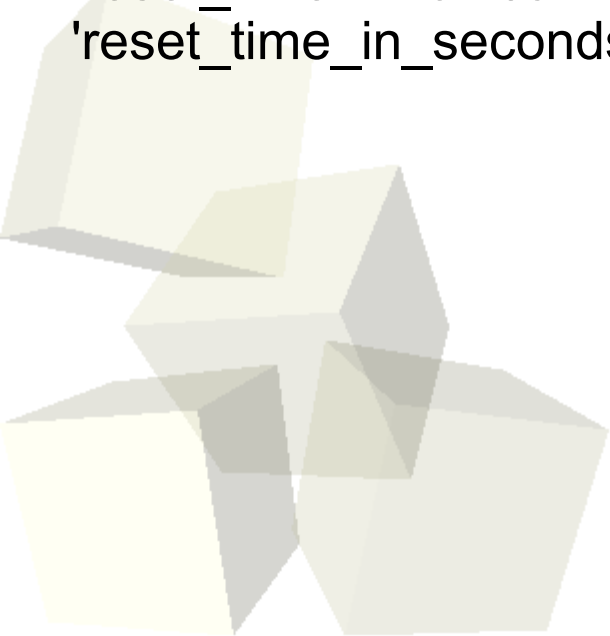
Delete all historical location data from your tweets. The process can take up to 30 minutes.



# Check your limits

Twitter applies rate-limits to accounts; so your 100+ users can't just use your corporate account directly (see OpenGroupware Coils slides later).

```
>>> rateLimit = twitter.getRateLimitStatus()
>>> pprint.pprint(rateLimit)
{'hourly_limit': 150,
 'remaining_hits': 144,
 'reset_time': 'Mon Jan 11 01:37:34 +0000 2010',
 'reset_time_in_seconds': 1263173854}
```





# Who Follows?

```
>>>x = twitter.getFollowersIDs(screen_name='whitemice')
>>>print x
{'previous_cursor': 0, 'ids': [94394652, 98888365, 30067899, 21030604, 33689629,
16617528, 31620726, ....], 'next_cursor': 0}
>>> for y in x.get('ids'):
...   z = twitter.showUser(y)
...   print u'{0}: {1}'.format(z.get('name'), z.get('description'))
...
rickhopkins: Christ Follower. Husband. Father. Son. Brother. Friend. Musician. Web
Geek.
Jerry Albright: 260-347-1715 IT and Engine
of Verbal Summary - easily add audio to your resume!
Atomic Object: We build ridiculously good custom software for startups, huge
companies, and everyone in-between.
Ben Rousch:
tkaefer: Developers, Developers, Developers, Developers, Developers, Developers,
Developers, Developers, Developers ... But Linux
.....
```

Get profile information about the specified user (by id#). Midwest Developer



```
>>> twitter.createFriendship(15372406, follow=True)
{'id': 15372406, 'name': 'whitemice', }
>>> twitter.getFriendsIDs('opengroupware')
{'previous_cursor': 0, 'ids': [15372406], 'next_cursor': 0}
>>> twitter.destroyFriendship(15372406)
{'id': 15372406, 'name': 'whitemice', }
>>> twitter.getFriendsIDs('opengroupware')
{'previous_cursor': 0, 'ids': [], 'next_cursor': 0}
>>>
```



# More Twython...

## Searches

- getSavedSearches
- showSavedSearch
- createSavedSearch
- destroySavedSearch

## Lists

- showLists
- getListMemberships
- createList
- updateList
- deleteList
- getListTimeLine
- getSpecificList
- addListMember
- getListMembers
- removeListMember
- isListMember
- subscribeToList
- unsubscribeFromList
- isListSubscriber

## Trends

- availableTrends
- trendsByLocation

## Messaging

- destroyDirectMessage
- sendDirectMessage
- getSentMessages
- getDirectMessages
- destroyStatus
- updateStatus
- showStatus
- getFriendsStatus
- retweetedToMe
- retweetedByMe
- retweetedOfMe
- reTweet
- getUserTimeline
- getUserMentions

## Users

- showUser
- searchUsers

## Profile

- updateProfileBackgroundImage
- updateProfileImage
- getBlockedIDs
- getBlocking
- checkIfBlockExists
- destroyBlock
- createBlock
- getFollowersIDs
- getFriendsIDs
- notificationLeave
- notificationFollow
- destroyFavorite
- createFavorite
- getFavorites
- updateProfile
- updateDeliveryDevice
- showFriendship
- checkIfFriendshipExists
- createFriendship
- destroyFriendship





# Coils: Configuration

```
$ Defaults write NSGlobalDomain PYTwitterProfiles '{ default = xxxxxxxx;  
xxxxxxx = { password = "*****"; "username" = "*****"; }; }';
```

```
$ Defaults read NSGlobalDomain PYTwitterProfiles
```

```
{  
  default = xxxxxxxx;  
  xxxxxxxx = {  
    password = *****;  
    username = *****;  
  };  
}
```

Name of the profile that will be used by the content plugin.

Define as many profiles as you need.

```
$ Defaults write LSHTTPProxy '{ host = "squid.example.com"; password =  
*****; port = 3128; username = *****; }';
```

```
$ Defaults read NSGlobalDomain LSHTTPProxy
```

```
{  
  host = "squid.mormail.com";  
  password = *****;  
  port = 3128;  
  username = *****;  
}
```

If required, make sure your HTTP proxy server is correctly configured



coils.logic.twitter provides Logic Command objects for performing Twitter operations such as retrieving timelines and posting status updates. Authentication is managed by selecting one of the defined profiles.

```
from coils.core import *
initialize_COILS()
ctx = AdministrativeContext()

ctx.run_command('twitter::get-public-timeline',
                profile='opengroupware')
ctx.run_command('twitter::get-user-timeline',
                profile='opengroupware',
                screenname='whitemice')
ctx.run_command('twitter::tweet',
                profile='opengroupware',
                text=u'And the cow jumper over the moon')
```

Logic caches timelines and user information for performance and to avoid hitting Twitter rate limits.



# Coils: Content Plugin

```
{
  'entityName': 'Contact',
  'objectId': 10100,
  ....
  '_PLUGINDATA': [
    {
      'created': 'Sat Dec 19 01:41:03 +0000 2009',
      'entityName': 'PluginData',
      'pluginName': 'org.opengroupware.coils.twitter',
      'dataType': 'Tweet',
      'id': 6815511180L,
      'inReplyTo': {'UserId': None, 'id': None, 'screenName': None},
      'screenName': 'whitemice',
      'text': 'Almost 40 and Toys-r-Us is still cool. THEY HAVE A REMOTE CONTROL DRAGON! It
walks and roars.... awesome.',
      'userId': 15372406},
    ....
    {
      'description': "",
      'entityName': 'PluginData',
      'pluginName': 'org.opengroupware.coils.twitter',
      'dataType': 'Tweeter',
      'id': 15372406,
      'location': 'Grand Rapids, MI',
      'screenName': 'whitemice',
      'timeZone': 'Eastern Time (US & Canada)',
      'url': 'http://www.whitemiceconsulting.com'}]
  } ]
```

Content plugin automatically adds Twitter data to any **Contact** or **Enterprise** which has a Twitter screen name object property.

Object Property for plugin:

<http://whitemice.consulting.com/coils.twitter> screenName