# tildee

## Contents

| 1  | Capabilities             | 3  |
|----|--------------------------|----|
| 2  | Missing features         | 5  |
| 3  | Development              | 7  |
| 4  | License 4.1 Client Usage |    |
| In | ndex                     | 21 |

This is Tildee, a Python 3 library for interacting with the https://tildes.net API. Note that this API is not stable and not actually intended for external use, so this could break at any moment.

Source code and issue tracker on Dingenskirchen Systems Git. Available on PyPI.

Contents 1

2 Contents

| CHAPTER 1    |
|--------------|
|              |
| Capabilities |

Currently Tildee can parse posts and their comments, create comments, topics and messages, parse new messages and notifications, edit comment and topic contents, edit topic metadata, delete, remove and lock topics and comments.

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|----|-----|----|---|---|

Missing features

See the relevant label on the issue tracker.

| CHAPTER 3 |
|-----------|
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Development

To install dependencies, run poetry install. You can run a python shell in the environment using poetry run python (I'd recommend using ipython, too). Format your code before committing by running black  $\dots$ 

## CHAPTER 4

License

The project is licensed under the MIT license.

## 4.1 Client Usage

#### 4.1.1 General

All methods of the TildesClient raise if any exception occurs, including unsuccessful HTTP responses from the site.

## 4.1.2 Logging in

You can connect to Tildes and log in by creating a new TildesClient instance and passing the login data to the constructor. If you're not connecting to tildes.net, override the base\_url argument. If you're connecting to a local development instance, which uses self-signed SSL certificates, also pass verify\_ssl = False to avoid errors. The automatic ratelimiting is set to 0.5 seconds between each request, but you can adjust it using the ratelimit parameter. Keep in mind that some actions, like posting topics or comments, are additionally ratelimited, see the Tildes Source Code.

Initializes client and logs in.

### **Parameters**

- **username** (str) The username to log in with.
- password(str) The password to log in with.
- totp\_code (Optional[str]) The 2FA code to use.
- base\_url (str) The site to log in to.

- **verify\_ssl** (bool) Whether to check SSL certificate validity.
- ratelimit (int) The default cooldown between each request, in milliseconds.
- **user\_agent** (str) What to include in the UserAgent string.

## 4.1.3 Posting topics and comments

You can use the <code>create\_topic()</code> and <code>create\_comment()</code> methods for these tasks. They both return the new item's id36, which you can use for further operations or just . . . discard.

```
tildee.TildesClient.create_topic(self, group: str, title: str, tags: Union[str, List[str]], **kwargs) \rightarrow Union[str, List[str]]
```

Post a topic into a group, returns new topic's id36. Either a link or markdown must be passed. If this method returns a list instead of a string, there have been previous topics with this link and posting was therefore canceled. Pass the confirm\_repost=True to force posting anyway.

#### **Parameters**

- **group** (str) The group to post in, without a ~ in front.
- **title** (*str*) The topic's title.
- tags (str or List[str]) Comma separated string or list of tags.
- markdown (str) The topic's content as markdown.
- link (str) The topic's link.
- **confirm\_repost** (bool) Whether to submit the topic even if one with the same link was posted before.

**Return type** Union[str, List[str]]

Returns New topic's id36.

```
tildee.TildesClient.create_comment (self, parent_id36: str, markdown: str, top_level: bool = True) \rightarrow str
```

Post a comment, returns new comment's id36.

#### **Parameters**

- markdown (str) The comment's content as markdown.
- parent\_id36 (str) The parent entity's id36. Can be a topic or comment.
- top\_level (bool) Set this to False if the comment's a reply to another comment.

Return type str

**Returns** The new comment's id36.

## 4.1.4 Fetching topics and comments

If you want to use data from comments or topics, you can use Tildee to fetch them and extract their data from the raw HTML the site returns. For more information and examples on these representations see the *Model Classes* page.

```
tildee.TildesClient.fetch_topic (self, topic\_id36: str) \rightarrow tildee.models.TildesTopic Fetches, parses and returns a topic as an object for further processing.
```

**Parameters** topic\_id36 (str) – The id36 of the topic to fetch.

Return type *TildesTopic* 

**Returns** The requested topic.

tildee.TildesClient.**fetch\_comment** (self,  $comment\_id36$ : str)  $\rightarrow$  tildee.models.TildesComment Fetches, parses and returns a single comment as an object for further processing.

This endpoint doesn't include a comments' children or the applied labels.

**Parameters** comment\_id36 (str) - The id36 of the comment to fetch.

**Return type** *TildesComment* 

**Returns** The requested comment.

## 4.1.5 Fetching topic listings

If you either want to fetch topic listings for tags and/or groups or search for a phrase, use the fetch\_filtered\_topic\_listing or the fetch\_search\_topic\_listing method. Note that they only return the limited data the topic listing page offers.

Fetches a filtered list of topics. Automatically adds per\_page=100 to the query string.

#### **Parameters**

- **group** (str) The group to filter for. Leave empty to search all subscribed groups.
- tag (str) The tag to filter for, Tildes currently only supports filtering for one tag.

**Return type** List[*TildesPartialTopic*]

**Returns** Up to 100 topics matching the filters.

Fetches a search result's list of topics. Automatically adds per\_paqe=100 to the query string.

#### **Parameters**

- **query** (str) The string to search for.
- **group** (str) The group to search in, don't pass the argument to search in all groups.

**Return type** List[*TildesPartialTopic*]

**Returns** Up to 100 topics matching the query string.

## 4.1.6 Interacting with groups

To see what groups your account is subscribed to and which others are available, use fetch\_groups, it returns a list of TildesGroup instances. For details on these see the *Model Classes* page. To (un)subscribe from a group, use the set\_group\_subscription method.

```
tildee.TildesClient.fetch_groups (self)
Fetches groups as a list of objects.
```

**Return type** List[*TildesGroup*]

**Returns** All groups on the site as a list.

tildee.TildesClient.set\_group\_subscription (self, group: str, subscribe: bool = True) (Un)subscribes to/from a group.

#### **Parameters**

4.1. Client Usage

- **group** (str) The group to target.
- **subscribe** (bool) Whether to add (True) or remove (False) your subscription.

## 4.1.7 Interacting with topics

You can use Tildee to edit a topic's metadata, e.g. its tags or title (assuming your account has the permissions for this), edit or delete your account's own topics, and remove or lock topics if your account has admin permissions.

```
tildee.TildesClient.edit_topic (self, topic_id36: str, **kwargs)
```

Interact with a topic in nearly any way possible; permission limits still apply, obviously.

#### **Parameters**

- **topic\_id36** (str) The id36 of the topic to act on.
- tags (str or List[str]) Comma separated string or list of tags.
- old\_tags Optional (Comma separated string or list): Tags to pass to the overwrite protection, if not passed, ignores overwrite protection.
- **group** (str) The new group for the topic, without ~ in front.
- **title** (str) The new title for the topic.
- **link** (*str*) The new link for the topic.
- **content** (str) The new markdown for the topic. Account must be topic author.
- **vote** (bool) Boolean, vote/unvote this topic.
- bookmark (bool) Boolean, bookmark/unbookmark this topic.

```
tildee.TildesClient.delete_topic(self, topic_id36: str)
```

Delete a topic. Account must be topic author.

**Parameters** topic\_id36 (str) - The id36 of the topic to delete.

tildee.TildesClient.moderate\_topic (self, topic\_id36: str, \*\*kwargs)

Moderate a topic, setting its locked/removed status. Account must be admin.

#### **Parameters**

- **topic id36** (str) The id36 of the topic to act on.
- lock (bool) Boolean, lock/unlock comments.
- **remove** (bool) Boolean, remove/unremove this topic.

## 4.1.8 Interacting with comments

You can use Tildee to interact with comments, i.e. editing and deleting your account's own, voting on and labeling other's, bookmarking, and — given admin permissions — removing them.

```
tildee.TildesClient.edit_comment(self, comment_id36: str, **kwargs)
```

Interact with a comment in nearly any way possible; permission limits still apply, obviously.

#### **Parameters**

- **comment\_id36** (str) The id36 of the comment to act on.
- **content** (str) The new markdown for the comment. Account must be comment author.
- **vote** (bool) Boolean, vote/unvote this comment.

• bookmark (bool) - Boolean, bookmark/unbookmark this comment.

tildee.TildesClient.edit\_comment\_labels (self, comment\_id36: str, \*\*kwargs)
Change which labels the account applies to a comment.

#### **Parameters**

- **comment\_id36** (str) The id36 of the comment to edit.
- **str] labelnames** (*Union[bool*,) Keyword Arguments: For offtopic, noise, joke, pass a Boolean to set/unset the label. For exemplary and malice, pass a string to set the label and False to unset it.

```
tildee.TildesClient.delete_comment (self, comment_id36: str)
Delete a comment. Account must be comment author.
```

**Parameters** comment\_id36 (str) – The id36 of the comment to delete.

```
tildee.TildesClient.moderate_comment (self, comment_id36: str, **kwargs)

Moderate a comment, setting its removed status. Account must be admin.
```

#### **Parameters**

- **comment\_id36** (str) The id36 of the comment to act on.
- remove (bool) Boolean, remove/unremove comment.

#### 4.1.9 Notifications

Notifications are created by comments when they're in reply to one of your comments/topics or your account is @-mentioned in their text. You can fetch unread notifications as TildesNotification objects using fetch\_unread\_notifications(), for more on these see the *Model Classes* page. Use the mark\_notification\_as\_read() method to mark a notification as read.

```
tildee.TildesClient.fetch_unread_notifications(self) —:
List[tildee.models.TildesNotification]
```

Fetches, parses and returns a list of unread notifications as objects for further processing.

**Return type** List[*TildesNotification*]

**Returns** The list of unread notifications.

```
tildee.TildesClient.mark_notification_as_read(self, subject_id36: str)
Marks a notification as read.
```

**Parameters** subject\_id36 (str) – The notification subject's id36 to mark.

## 4.1.10 Sending messages

You can send messages in existing conversations using <code>create\_message()</code> or create conversations using the aptly <code>named create\_conversation()</code>.

```
tildee.TildesClient.create_message (self, convo_id36: str, markdown: str)
Creates a message in an existing conversation.
```

#### **Parameters**

- convo\_id36 (str) The target conversation's id36.
- markdown (str) The message's content as markdown.

4.1. Client Usage

tildee.TildesClient.create\_conversation (self, username: str, subject: str, markdown: str)
Creates a new conversation with a user.

#### **Parameters**

- **username** (str) The username of the recipient.
- **subject** (*str*) The conversation's subject.
- markdown (str) The first message's content as markdown.

## 4.1.11 Fetching messages and conversations

To check for new messages, use the fetch\_unread\_message\_ids() method which returns a list of message id36s. You can then use fetch\_conversation() to fetch and process them individually. A conversation is represented by a TildesConversation object, which has a list of children TildesMessage objects. For details on these see the *Model Classes* page.

```
\label{eq:tildesClient.fetch_unread_message_ids} \textbf{(self)} \rightarrow \textbf{List[str]} Fetches IDs of unread messages.
```

**Return type** List[str]

**Returns** The list of unread conversations' id36s.

```
tildee.TildesClient.fetch_conversation(self, convo_id36: str) -
```

tildee.models.TildesConversation Fetches, parses and returns a conversation as TildesConversation object for further processing.

**Parameters** convo\_id36 (str) – The target conversation's id36.

**Return type** *TildesConversation* 

**Returns** The requested conversation.

## 4.1.12 Interacting with group wikis

You can fetch a group wiki page using fetch\_wiki\_page, and, if you have editing permissions, its underlying markdown code using fetch\_wiki\_page\_markdown. Fetch a list of all wiki pages in a group using fetch\_wiki\_page\_list and edit/create new pages using edit\_wiki\_page and create\_wiki\_page, respectively.

```
tildee.TildesClient.fetch_wiki_page_list (self, group: str)
Fetches the slugs of all wiki pages in a group.
```

**Parameters** group (str) – The group to target.

**Return type** List[str]

**Returns** The list of slugs of this group's wiki pages.

```
tildee.TildesClient.fetch_wiki_page (self, group: str, slug: str) Fetches a single group wiki page.
```

### **Parameters**

- **group** (str) The group to target.
- **slug** (str) The wiki site's slug.

**Return type** *TildesWikiPage* 

**Returns** The wiki page.

tildee.TildesClient.**fetch\_wiki\_page\_markdown** (*self*, *group: str*, *slug: str*) Fetches a single group wiki page's markdown. This requires edit permissions.

#### **Parameters**

- **group** (str) The group to target.
- **slug** (str) The wiki page's slug.

#### Return type str

Returns The wiki page's content as markdown.

tildee.TildesClient.edit\_wiki\_page (self, group: str, slug: str, markdown: str, commit: str)
Updates a wiki page's markdown.

#### **Parameters**

- **group** (str) The group to target.
- **slug** (str) The wiki page's slug.
- markdown (str) The new markdown for the page.
- **commit** (str) The commit message/edit summary.

tildee.TildesClient.create\_wiki\_page (self, group: str, title: str, markdown: str)
Creates a wiki page with starting content.

#### **Parameters**

- **group** (str) The group to create a page in.
- **title** (*str*) The new wiki page's title.
- markdown (str) The new wiki page's content.

## 4.2 Model Classes

These are all representations of "things" on Tildes, created from HTML from the site and provide easy access to the interesting parts of that HTML.

## **4.2.1 Topics**

```
class tildee.models.TildesTopic(text)
```

Represents a single topic on Tildes, generated from the entire page.

#### Variables

- **tags** (*List* [*str*]) List of tags this topic has.
- **group** (str) The group this topic was posted in.
- **title** (str) The title of this topic.
- **id36** (*str*) The id36 of the topic.
- status (TildesAccessStatus) Status of this topic. If DELETED or REMOVED, content\_html, link, author, timestamp, comments, log, num\_votes and num comments are unavailable.
- **content\_html** (Optional[str]) The text of this topic as rendered by the site.

4.2. Model Classes 15

- link (Optional[str]) The link of this topic.
- **author** (str) The topic author's username.
- **timestamp** (str) The topic's creation timestamp.
- num\_votes (int) The amount of votes this topic has received.
- num comments (int) The amount of comments on this topic.
- log(List[TildesTopicLogEntry]) The associated topic log in chronological order
- is\_locked (bool) Whether or not the topic is currently locked.
- comments (List [TildesComment]) Top level comments in this topic.

#### class tildee.models.TildesPartialTopic(text)

Represents a topic on Tildes as fetched from the topic listings, generated from its surrounding <article> tag. Has only reduced information available.

#### **Variables**

- **id36** (*str*) The topic's id36.
- **title** (str) The topic's title.
- group (Optional[str]) The topic's group, if provided in the listing.
- **author** (str) The topic's author.
- link (Optional[str]) The topic's link, if available.
- content\_html (Optional[str]) The text of this topic as rendered by the site, if available.
- num\_votes (int) The amount of votes this topic has received.
- num\_comments (int) The amount of comments on this topic.
- **tags** (*List* [*str*]) The tags on this topic. Can be incomplete or missing if you have the "Show topic tags in listing pages" setting disabled.
- timestamp (str) The topic's timestamp.

#### class tildee.models.TildesTopicLogEntry(text)

Represents a single entry from a topic's log, generated from its surrounding <1 i> tag.

#### Variables

- **user** (*str*) The responsible curator's username.
- timestamp (str) The entry's timestamp.
- kind (TildesTopicLogEntryKind) The kind of log entry.
- data (Optional [Dict]) The data associated with this log entry. See below for structure.

#### class tildee.models.TildesTopicLogEntryKind

Enum representing the possible kinds of topic log entry. Documentation includes structure for TildesTopicLogEntry's data attribute.

#### $LINK\_EDIT = 4$

```
Link edit, data contains old and new link.
data: { "old": str, "new": str
```

```
LOCK = 6
          Comments locked, no data.
          data: None
     MOVE = 5
          Group move, data contains old and new group path.
          data: {"old": str, "new": str}
     REMOVE = 8
          Topic removed, no data.
          data: None
     TAG\_EDIT = 2
          Tag edit, data contains added and removed tags.
          data: {"added": List[str], "removed": List[str]}
     TITLE\_EDIT = 3
          Title edit, data contains old and new title. If the program can't decide what is part of the titles and what
          isn't, certain will be set to False.
          data: {"old": str, "new": str, "certain": bool}
     UNKNOWN = 1
          Default option if the entry is unrecognized, no data.
          data: None
     UNLOCK = 7
          Comments unlocked, no data.
          data: None
     UNREMOVE = 9
          Topic unremoved, no data.
          data: None
class tildee.models.TildesAccessStatus
     Enum representing the possible visibility statuses of comments or topics.
     DELETED = 3
          Comment/Topic deleted by its author, only reduced data available.
     FULL = 1
          Full content is available.
     REMOVED = 2
```

4.2. Model Classes 17

Comment/Topic removed by site admin, only reduced data available.

#### 4.2.2 Comments

```
class tildee.models.TildesComment(text)
```

Represents a single comment on Tildes, generated from its surrounding <article> tag.

#### **Variables**

- id36 (str) The id36 of this comment.
- **status** (TildesAccessStatus) **Status** of this comment. If DELETED or REMOVED, no data beyond id36 are available.
- content\_html (str) This comment's content as rendered by the site.
- applied\_labels (List[str]) The labels the account has applied to this comment.
- **author** (*str*) The comment author's username.
- **timestamp** (str) The comment's creation timestamp.
- num\_votes (int) The amount of votes this comment has received.
- **children** (*List* [TildesComment]) Top level replies to this comment.

```
class tildee.models.TildesNotification(text)
```

Represents a single notification on Tildes, generated from its surrounding <1i>tag.

#### Variables

- **subject** (str) The id36 of the comment that triggered the notification.
- kind (TildesNotificationKind) The kind of notification.

#### class tildee.models.TildesNotificationKind

Enum representing the possible kinds of notification.

```
COMMENT_REPLY = 4

MENTION = 2

TOPIC_REPLY = 3

UNKNOWN = 1
```

### **4.2.3 Groups**

```
class tildee.models.TildesGroup(text)
```

Data about a Tildes Group, generated from it's tag on the group listing page.

#### Variables

- name (str) The name of the group.
- $\mathbf{desc}(str)$  The group's description.
- num\_subscribers (int) How many users have subscribed to the group.
- **subscribed** (*bool*) If the current user is subscribed to the group.

#### class tildee.models.TildesWikiPage(text)

Represents a single group wiki page, generated from its entire page.

#### Variables

• **title** (*str*) – The page's title.

- slug(str) The page's slug, i.e. an URL-safe transformation of the title.
- group (str) The group the page is in.
- **content\_html** (str) The content of the page as rendered by the site.

## 4.2.4 Messages

#### class tildee.models.TildesConversation(text)

Represents a conversation on Tildes, generated from the entire page.

#### Variables

- **title** (*str*) The Subject of this conversation.
- entries (List[TildesMessage]) The messages in this conversation in order.

#### class tildee.models.TildesMessage(text)

Represents a message in a conversation on Tildes, generated from its surrounding <article> tag.

#### Variables

- **author** (str) The message author's username.
- **timestamp** (str) The message's creation timestamp.
- **content\_html** (str) The message's content as rendered by the site.

4.2. Model Classes

## Index

| С   | <pre>fetch_unread_notifications() (in module</pre>                             |
|---|--|
|   | tildee.TildesClient), 13   |
| COMMENT_REPLY (tildee.models.TildesNotificationKind attribute), 18                          | <pre>fetch_wiki_page() (in module tildee.TildesClient),</pre>                  |
| <pre>create_comment() (in module tildee.TildesClient),</pre>                                | 14 fetch_wiki_page_list() (in module   |
| create_conversation() (in module tildee.TildesClient), 13                                   | <pre>tildee.TildesClient), 14 fetch_wiki_page_markdown() (in module</pre>      |
| create_message() (in module tildee.TildesClient), 13  | tildee.TildesClient), 14 FULL (tildee.models.TildesAccessStatus attribute), 17 |
| <pre>create_topic() (in module tildee.TildesClient), 10 create_wiki_page() (in module</pre> | L  |
| tildee.TildesClient), 15  | LINK_EDIT (tildee.models.TildesTopicLogEntryKind attribute), 16                |
| D   | LOCK (tildee.models.TildesTopicLogEntryKind attribute),                        |
| delete_comment() (in module tildee.TildesClient),   | 16   |
| delete_topic() (in module tildee.TildesClient), 12  | M  |
| DELETED (tildee.models.TildesAccessStatus attribute),                                       | <pre>mark_notification_as_read() (in module</pre>                              |
| 17  | tildee.TildesClient), 13   |
| E   | MENTION (tildee.models.TildesNotificationKind attribute), 18                   |
| <pre>edit_comment() (in module tildee.TildesClient), 12</pre>                               | moderate_comment() (in module  |
| edit_comment_labels() (in module  | tildee.TildesClient), 13   |
| tildee.TildesClient), 13  | <pre>moderate_topic() (in module tildee.TildesClient),</pre>                   |
| edit_topic() (in module tildee.TildesClient), 12  | 12   |
| edit_wiki_page() (in module tildee.TildesClient), 15  | MOVE (tildee.models.TildesTopicLogEntryKind attribute), 17                     |
| F   | R  |
| <pre>fetch_comment() (in module tildee.TildesClient), 11</pre>                              | REMOVE (tildee.models.TildesTopicLogEntryKind at-                              |
| <pre>fetch_conversation() (in module      tildee.TildesClient), 14</pre>                    | tribute), 17 REMOVED (tildee.models.TildesAccessStatus attribute),             |
| <pre>fetch_filtered_topic_listing() (in module</pre>  | 17   |
| fetch_groups() (in module tildee.TildesClient), 11  | S  |
| <pre>fetch_search_topic_listing() (in module</pre>  | <pre>set_group_subscription() (in module</pre>                                 |
| tildee.TildesClient), 11  | tildee.TildesClient), 11   |
| <pre>fetch_topic() (in module tildee.TildesClient), 10</pre>                                |  |
| <pre>fetch_unread_message_ids() (in module</pre>  |  |

### Т

```
TAG_EDIT (tildee.models.TildesTopicLogEntryKind at-
         tribute), 17
TildesAccessStatus (class in tildee.models), 17
TildesClient (class in tildee), 9
TildesComment (class in tildee.models), 18
TildesConversation (class in tildee.models), 19
TildesGroup (class in tildee.models), 18
TildesMessage (class in tildee.models), 19
TildesNotification (class in tildee.models), 18
TildesNotificationKind (class in tildee.models),
TildesPartialTopic (class in tildee.models), 16
TildesTopic (class in tildee.models), 15
TildesTopicLogEntry (class in tildee.models), 16
TildesTopicLogEntryKind
                                     (class
        tildee.models), 16
TildesWikiPage (class in tildee.models), 18
TITLE_EDIT (tildee.models.TildesTopicLogEntryKind
        attribute), 17
TOPIC_REPLY
                  (tildee.models.TildesNotificationKind
        attribute), 18
U
UNKNOWN
            (tildee. models. Tildes Notification Kind
         tribute), 18
UNKNOWN (tildee.models.TildesTopicLogEntryKind at-
        tribute), 17
UNLOCK (tildee.models.TildesTopicLogEntryKind at-
        tribute), 17
UNREMOVE (tildee.models.TildesTopicLogEntryKind at-
        tribute), 17
```

22 Index