

Python Telegram Bot Documentation

Release 12.0.0

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Dec 31, 2020

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CHAPTER 1

Guides and tutorials

If you're just starting out with the library, we recommend following our "Your first Bot" tutorial that you can find on our wiki. On our wiki you will also find guides like how to use handlers, webhooks, emoji, proxies and much more.

CHAPTER 2

Examples

A great way to learn is by looking at examples. Ours can be found at our github in the examples folder.

CHAPTER 3

Reference

Below you can find a reference of all the classes and methods in python-telegram-bot. Apart from the telegram.ext package the objects should reflect the types defined in the official telegram bot api documentation

3.1 telegram.ext package

3.1.1 telegram.ext.Updater

class telegram.ext.**Updater**(*token=None*, *base_url=None*, *workers=4*, *bot=None*, *private_key=None*, *private_key_password=None*, *user_sig_handler=None*, *request_kwargs=None*, *persistence=None*, *use_context=False*)

Bases: object

This class, which employs the *telegram.ext.Dispatcher*, provides a frontend to *telegram.Bot* to the programmer, so they can focus on coding the bot. Its purpose is to receive the updates from Telegram and to deliver them to said dispatcher. It also runs in a separate thread, so the user can interact with the bot, for example on the command line. The dispatcher supports handlers for different kinds of data: Updates from Telegram, basic text commands and even arbitrary types. The updater can be started as a polling service or, for production, use a webhook to receive updates. This is achieved using the WebhookServer and WebhookHandler classes.

bot
The bot used with this Updater.

Type *telegram.Bot*

user_sig_handler
signals the updater will respond to.

Type signal

update_queue
Queue for the updates.

Type Queue

job_queue
Jobqueue for the updater.

Type *telegram.ext.JobQueue*

dispatcher
Dispatcher that handles the updates and dispatches them to the handlers.

Type *telegram.ext.Dispatcher*

running
Indicates if the updater is running.

Type bool

persistence
Optional. The persistence class to store data that should be persistent over restarts.

Type *telegram.ext.BasePersistence*

use_context
True if using context based callbacks.

Type bool, optional

Parameters

- **token** (str, optional) – The bot's token given by the @BotFather.
- **base_url** (str, optional) – Base_url for the bot.
- **workers** (int, optional) – Amount of threads in the thread pool for functions decorated with @run_async.
- **bot** (*telegram.Bot*, optional) – A pre-initialized bot instance. If a pre-initialized bot is used, it is the user's responsibility to create it using a *Request* instance with a large enough connection pool.
- **private_key** (bytes, optional) – Private key for decryption of telegram passport data.
- **private_key_password** (bytes, optional) – Password for above private key.
- **user_sig_handler** (function, optional) – Takes signum, frame as positional arguments. This will be called when a signal is received, defaults are (SIGINT, SIGTERM, SIGABRT) setable with *idle*.
- **request_kwargs** (dict, optional) – Keyword args to control the creation of a *telegram.utils.request.Request* object (ignored if *bot* argument is used). The request_kwargs are very useful for the advanced users who would like to control the default timeouts and/or control the proxy used for http communication.
- **use_context** (bool, optional) – If set to True Use the context based callback API. During the deprecation period of the old API the default is False. **New users**: set this to True.
- **persistence** (*telegram.ext.BasePersistence*, optional) – The persistence class to store data that should be persistent over restarts.

Note: You must supply either a *bot* or a token argument.

Raises ValueError – If both token and *bot* are passed or none of them.

idle(*stop_signals=(<Signals.SIGINT: 2>, <Signals.SIGTERM: 15>, <Signals.SIGABRT: 6>)*)
Blocks until one of the signals are received and stops the updater.

Parameters **stop_signals** (iterable) – Iterable containing signals from the signal module that should be subscribed to. Updater.stop() will be called on receiving one of those signals. Defaults to (SIGINT, SIGTERM, SIGABRT).

start_polling(*poll_interval=0.0*, *timeout=10*, *clean=False*, *bootstrap_retries=-1*, *read_latency=2.0*, *allowed_updates=None*)

Starts polling updates from Telegram.

Parameters

- **poll_interval** (`float`, optional) – Time to wait between polling updates from Telegram in seconds. Default is 0.0.
- **timeout** (`float`, optional) – Passed to *telegram.Bot.get_updates*.
- **clean** (`bool`, optional) – Whether to clean any pending updates on Telegram servers before actually starting to poll. Default is False.
- **bootstrap_retries** (`int`, optional) – Whether the bootstrapping phase of the *Updater* will retry on failures on the Telegram server.
  - < 0 - retry indefinitely (default)
  - 0 - no retries
  - > 0 - retry up to X times
- **allowed_updates** (List[`str`], optional) – Passed to *telegram.Bot.get_updates*.
- **read_latency** (`float` | `int`, optional) – Grace time in seconds for receiving the reply from server. Will be added to the *timeout* value and used as the read timeout from server (Default: 2).

Returns The update queue that can be filled from the main thread.

Return type `Queue`

start_webhook(*listen='127.0.0.1'*, *port=80*, *url_path=''*, *cert=None*, *key=None*, *clean=False*, *bootstrap_retries=0*, *webhook_url=None*, *allowed_updates=None*)

Starts a small http server to listen for updates via webhook. If cert and key are not provided, the webhook will be started directly on http://listen:port/url_path, so SSL can be handled by another application. Else, the webhook will be started on https://listen:port/url_path

Parameters

- **listen** (`str`, optional) – IP-Address to listen on. Default `127.0.0.1`.
- **port** (`int`, optional) – Port the bot should be listening on. Default `80`.
- **url_path** (`str`, optional) – Path inside url.
- **cert** (`str`, optional) – Path to the SSL certificate file.
- **key** (`str`, optional) – Path to the SSL key file.
- **clean** (`bool`, optional) – Whether to clean any pending updates on Telegram servers before actually starting the webhook. Default is `False`.
- **bootstrap_retries** (`int`, optional) – Whether the bootstrapping phase of the *Updater* will retry on failures on the Telegram server.
  - < 0 - retry indefinitely (default)
  - 0 - no retries
  - > 0 - retry up to X times
- **webhook_url** (`str`, optional) – Explicitly specify the webhook url. Useful behind NAT, reverse proxy, etc. Default is derived from *listen*, *port* & *url_path*.
- **allowed_updates** (List[`str`], optional) – Passed to *telegram.Bot.set_webhook*.

Returns The update queue that can be filled from the main thread.

Return type Queue

stop()
Stops the polling/webhook thread, the dispatcher and the job queue.

3.1.2 telegram.ext.Dispatcher

class telegram.ext.**Dispatcher**(*bot*, *update_queue*, *workers=4*, *exception_event=None*, *job_queue=None*, *persistence=None*, *use_context=False*)
Bases: object

This class dispatches all kinds of updates to its registered handlers.

bot
The bot object that should be passed to the handlers.

Type *telegram.Bot*

update_queue
The synchronized queue that will contain the updates.

Type Queue

job_queue
Optional. The *telegram.ext.JobQueue* instance to pass onto handler callbacks.

Type *telegram.ext.JobQueue*

workers
Number of maximum concurrent worker threads for the @run_async decorator.

Type int

user_data
A dictionary handlers can use to store data for the user.

Type defaultdict

chat_data
A dictionary handlers can use to store data for the chat.

Type defaultdict

persistence
Optional. The persistence class to store data that should be persistent over restarts

Type *telegram.ext.BasePersistence*

Parameters

- **bot** (*telegram.Bot*) – The bot object that should be passed to the handlers.
- **update_queue** (Queue) – The synchronized queue that will contain the updates.
- **job_queue** (*telegram.ext.JobQueue*, optional) – The *telegram.ext.JobQueue* instance to pass onto handler callbacks.
- **workers** (int, optional) – Number of maximum concurrent worker threads for the @run_async decorator. defaults to 4.
- **persistence** (*telegram.ext.BasePersistence*, optional) – The persistence class to store data that should be persistent over restarts
- **use_context** (bool, optional) – If set to True Use the context based callback API. During the deprecation period of the old API the default is False. **New users**: set this to True.

add_error_handler(*callback*)
Registers an error handler in the Dispatcher. This handler will receive every error which happens in your bot.

Warning: The errors handled within these handlers won't show up in the logger, so you need to make sure that you reraise the error.

Parameters **callback** (callable) – The callback function for this error handler. Will be called when an error is raised. Callback signature for context based API:

```
def callback(update: Update, context: CallbackContext)
```

The error that happened will be present in context.error.

Note: See https://git.io/fxJuV for more info about switching to context based API.

---

add_handler(*handler*, *group=0*)
Register a handler.

TL;DR: Order and priority counts. 0 or 1 handlers per group will be used.

A handler must be an instance of a subclass of *telegram.ext.Handler*. All handlers are organized in groups with a numeric value. The default group is 0. All groups will be evaluated for handling an update, but only 0 or 1 handler per group will be used. If telegram.ext.DispatcherHandlerStop is raised from one of the handlers, no further handlers (regardless of the group) will be called.

The priority/order of handlers is determined as follows:

- Priority of the group (lower group number == higher priority)
- The first handler in a group which should handle an update (see *telegram.ext.Handler.check_update*) will be used. Other handlers from the group will not be used. The order in which handlers were added to the group defines the priority.

Parameters

- **handler** (*telegram.ext.Handler*) – A Handler instance.
- **group** (int, optional) – The group identifier. Default is 0.

dispatch_error(*update*, *error*)
Dispatches an error.

Parameters

- **update** (str | *telegram.Update* | None) – The update that caused the error
- **error** (Exception) – The error that was raised.

error_handlers = None
A list of errorHandlers.

Type List[callable]

classmethod get_instance()
Get the singleton instance of this class.

Returns *telegram.ext.Dispatcher*

Raises RuntimeError

groups = None
A list with all groups.

Type List[int]

handlers = None
Holds the handlers per group.

Type Dict[int, List[*telegram.ext.Handler*]]

process_update(*update*)
Processes a single update.

Parameters **update** (str | *telegram.Update* | telegram.TelegramError) – The update to process.

remove_error_handler(*callback*)
Removes an error handler.

Parameters **callback** (callable) – The error handler to remove.

remove_handler(*handler*, *group=0*)
Remove a handler from the specified group.

Parameters

- **handler** (*telegram.ext.Handler*) – A Handler instance.
- **group** (object, optional) – The group identifier. Default is 0.

run_async(*func*, **args*, ***kwargs*)
Queue a function (with given args/kwargs) to be run asynchronously.

> **Warning:** If you're using @run_async you cannot rely on adding custom attributes to *telegram.ext.CallbackContext*. See its docs for more info.

Parameters

- **func** (callable) – The function to run in the thread.
- ***args** (tuple, optional) – Arguments to *func*.
- ****kwargs** (dict, optional) – Keyword arguments to *func*.

Returns Promise

running = None
Indicates if this dispatcher is running.

Type bool

start(*ready=None*)
Thread target of thread 'dispatcher'.

Runs in background and processes the update queue.

Parameters **ready** (threading.Event, optional) – If specified, the event will be set once the dispatcher is ready.

stop()
Stops the thread.

update_persistence()
Update *user_data* and *chat_data* in *persistence*.

user_data = None
A dictionary handlers can use to store data for the user.

Type dict

3.1.3 telegram.ext.filters Module

This module contains the Filters for use with the MessageHandler class.

class telegram.ext.filters.**Filters**
Bases: object

Predefined filters for use as the *filter* argument of *telegram.ext.MessageHandler*.

Examples

Use `MessageHandler(Filters.video, callback_method)` to filter all video messages. Use `MessageHandler(Filters.contact, callback_method)` for all contacts. etc.

---

all = Filters.all
All Messages.

animation = Filters.animation
Messages that contain *telegram.Animation*.

audio = Filters.audio
Messages that contain *telegram.Audio*.

class caption_entity(*entity_type*)
Bases: *telegram.ext.filters.BaseFilter*

Filters media messages to only allow those which have a *telegram.MessageEntity* where their *type* matches *entity_type*.

Examples

Example `MessageHandler(Filters.caption_entity("hashtag"), callback_method)`

Parameters **entity_type** – Caption Entity type to check for. All types can be found as constants in *telegram.MessageEntity*.

class chat(*chat_id=None*, *username=None*)
Bases: *telegram.ext.filters.BaseFilter*

Filters messages to allow only those which are from specified chat ID.

Examples

`MessageHandler(Filters.chat(-1234), callback_method)`

Parameters

- **chat_id** (`int` | List[`int`], optional) – Which chat ID(s) to allow through.
- **username** (`str` | List[`str`], optional) – Which username(s) to allow through. If username start swith '@' symbol, it will be ignored.

Raises `ValueError` – If chat_id and username are both present, or neither is.

command = Filters.command
Messages starting with `/`.

contact = Filters.contact
Messages that contain *telegram.Contact*.

document = Filters.document
Subset for messages containing a document/file.

Examples

Use these filters like: `Filters.document.mp3`, `Filters.document.mime_type("text/plain")` etc. Or use just `Filters.document` for all document messages.

category
This Filter filters documents by their category in the mime-type attribute.

Example

`Filters.documents.category('audio/')` filters all types of audio sent as file, for example 'audio/mpeg' or 'audio/x-wav'. The following attributes can be used as a shortcut like: `Filters.document.audio`

application

audio

image

video

text

mime_type
This Filter filters documents by their mime-type attribute.

Example

`Filters.documents.mime_type('audio/mpeg')` filters all audio in mp3 format. The following attributes can be used as a shortcut like: `Filters.document.jpg`

apk

doc

docx

exe

gif

jpg

mp3

pdf

py

svg

txt

targz

wav

xml

zip

category
This Filter filters documents by their category in the mime-type attribute

---

Note: This Filter only filters by the mime_type of the document, it doesn't check the validity of the document. The user can manipulate the mime-type of a message and send media with wrong types that don't fit to this handler.

Example

`Filters.documents.category('audio/')` filters all types of audio sent as file, for example 'audio/mpeg' or 'audio/x-wav'

---

application
Same as `Filters.document.category("application")`.

audio
Same as `Filters.document.category("audio")`.

image
Same as `Filters.document.category("image")`.

video
Same as `Filters.document.category("video")`.

text
Same as `Filters.document.category("text")`.

mime_type
This Filter filters documents by their mime-type attribute

Note: This Filter only filters by the mime_type of the document, it doesn't check the validity of document.

The user can manipulate the mime-type of a message and send media with wrong types that don't fit to this handler.

Example

`Filters.documents.mime_type('audio/mpeg')` filters all audio in mp3 format.

---

apk
Same as `Filters.document.mime_type("application/vnd.android.package-archive")`-

doc
Same as `Filters.document.mime_type("application/msword")`-

docx
Same as `Filters.document.mime_type("application/vnd.openxmlformats-officedocument.wordprocessingml.document")`-

exe
Same as `Filters.document.mime_type("application/x-ms-dos-executable")`-

gif
Same as `Filters.document.mime_type("video/mp4")`-

jpg
Same as `Filters.document.mime_type("image/jpeg")`-

mp3
Same as `Filters.document.mime_type("audio/mpeg")`-

pdf
Same as `Filters.document.mime_type("application/pdf")`-

py
Same as `Filters.document.mime_type("text/x-python")`-

svg
Same as `Filters.document.mime_type("image/svg+xml")`-

txt
Same as `Filters.document.mime_type("text/plain")`-

targz
Same as `Filters.document.mime_type("application/x-compressed-tar")`-

wav
Same as `Filters.document.mime_type("audio/x-wav")`-

xml
Same as `Filters.document.mime_type("application/xml")`-

zip
Same as `Filters.document.mime_type("application/zip")`-

class entity(*entity_type*)
Bases: *telegram.ext.filters.BaseFilter*

Filters messages to only allow those which have a *telegram.MessageEntity* where their *type* matches *entity_type*.

Examples

Example `MessageHandler(Filters.entity("hashtag"), callback_method)`

Parameters **entity_type** – Entity type to check for. All types can be found as constants in *telegram.MessageEntity*.

forwarded = Filters.forwarded
Messages that are forwarded.

game = Filters.game
Messages that contain *telegram.Game*.

group = Filters.group
Messages sent in a group chat.

invoice = Filters.invoice
Messages that contain *telegram.Invoice*.

class language(*lang*)
Bases: *telegram.ext.filters.BaseFilter*

Filters messages to only allow those which are from users with a certain language code.

Note: According to official telegram api documentation, not every single user has the *language_code* attribute. Do not count on this filter working on all users.

Examples

```
MessageHandler(Filters.language("en"), callback_method)
```

Parameters **lang** (str | List[str]) – Which language code(s) to allow through. This will be matched using `.startswith` meaning that 'en' will match both 'en_US' and 'en_GB'.

location = Filters.location
Messages that contain *telegram.Location*.

passport_data = Filters.passport_data
Messages that contain a *telegram.PassportData*

photo = Filters.photo
Messages that contain *telegram.PhotoSize*.

private = Filters.private
Messages sent in a private chat.

class regex(*pattern*)
Bases: *telegram.ext.filters.BaseFilter*

Filters updates by searching for an occurrence of `pattern` in the message text. The `re.search` function is used to determine whether an update should be filtered.

Refer to the documentation of the `re` module for more information.

To get the groups and groupdict matched, see *telegram.ext.CallbackContext.matches*.

Examples

Use `MessageHandler(Filters.regex(r'help'), callback)` to capture all messages that contain the word help. You can also use `MessageHandler(Filters.regex(re.compile(r'help', re.IGNORECASE), callback)` if you want your pattern to be case insensitive. This approach is recommended if you need to specify flags on your pattern.

Note: Filters use the same short circuiting logic that pythons *and*, *or* and *not*. This means that for example:

```
>>> Filters.regex(r'(a?x)') | Filters.regex(r'(b?x)')
```

With a message.text of *x*, will only ever return the matches for the first filter, since the second one is never evaluated.

Parameters **pattern** (str | Pattern) – The regex pattern.

reply = Filters.reply
Messages that are a reply to another message.

status_update = Filters.status_update
Subset for messages containing a status update.

Examples

Use these filters like: `Filters.status_update.new_chat_members` etc. Or use just `Filters.status_update` for all status update messages.

chat_created
Messages that contain *telegram.Message.group_chat_created*,

telegram.Message.supergroup_chat_created or telegram.Message.channel_chat_created.

delete_chat_photo
Messages that contain telegram.Message.delete_chat_photo.

left_chat_member
Messages that contain telegram.Message.left_chat_member.

migrate
Messages that contain telegram.Message.migrate_from_chat_id or :attr: *telegram.Message.migrate_from_chat_id*.

new_chat_members
Messages that contain telegram.Message.new_chat_members.

new_chat_photo
Messages that contain telegram.Message.new_chat_photo.

new_chat_title
Messages that contain telegram.Message.new_chat_title.

pinned_message
Messages that contain telegram.Message.pinned_message.

sticker = Filters.sticker
Messages that contain telegram.Sticker.

successful_payment = Filters.successful_payment
Messages that confirm a telegram.SuccessfulPayment.

text = Filters.text
Text Messages.

update = _UpdateType
Subset for filtering the type of update.

Examples

Use these filters like: `Filters.update.message` or `Filters.update.channel_posts` etc. Or use just `Filters.update` for all types.

---

message
Updates with telegram.Update.message

edited_message
Updates with telegram.Update.edited_message

messages
Updates with either telegram.Update.message or telegram.Update.edited_message

channel_post
Updates with telegram.Update.channel_post

edited_channel_post
Updates with telegram.Update.edited_channel_post

channel_posts
Updates with either telegram.Update.channel_post or telegram.Update.edited_channel_post

class user(*user_id=None*, *username=None*)
Bases: telegram.ext.filters.BaseFilter

Filters messages to allow only those which are from specified user ID.

Examples

```
MessageHandler(Filters.user(1234), callback_method)
```

Parameters

- **user_id** (int | List[int], optional) – Which user ID(s) to allow through.
- **username** (str | List[str], optional) – Which username(s) to allow through. If username starts with '@' symbol, it will be ignored.

Raises ValueError – If chat_id and username are both present, or neither is.

venue = Filters.venue
Messages that contain *telegram.Venue*.

video = Filters.video
Messages that contain *telegram.Video*.

video_note = Filters.video_note
Messages that contain *telegram.VideoNote*.

voice = Filters.voice
Messages that contain *telegram.Voice*.

class telegram.ext.filters.**BaseFilter**
Bases: object

Base class for all Message Filters.

Subclassing from this class filters to be combined using bitwise operators:

And:

```
>>> (Filters.text & Filters.entity(MENTION))
```

Or:

```
>>> (Filters.audio | Filters.video)
```

Not:

```
>>> ~ Filters.command
```

Also works with more than two filters:

```
>>> (Filters.text & (Filters.entity(URL) | Filters.entity(TEXT_LINK)))
>>> Filters.text & (~ Filters.forwarded)
```

Note: Filters use the same short circuiting logic that pythons *and*, *or* and *not*. This means that for example:

```
>>> Filters.regex(r'(a?x)') | Filters.regex(r'(b?x)')
```

With a message.text of *x*, will only ever return the matches for the first filter, since the second one is never evaluated.

If you want to create your own filters create a class inheriting from this class and implement a *filter* method that returns a boolean: *True* if the message should be handled, *False* otherwise. Note that the filters work only as class instances, not actual class objects (so remember to initialize your filter classes).

By default the filters name (what will get printed when converted to a string for display) will be the class name. If you want to overwrite this assign a better name to the *name* class variable.

name
Name for this filter. Defaults to the type of filter.

Type str

update_filter
Whether this filter should work on update. If False it will run the filter on update.effective_message`. Default is False.

Type bool

data_filter
Whether this filter is a data filter. A data filter should return a dict with lists. The dict will be merged with *telegram.ext.CallbackContext*'s internal dict in most cases (depends on the handler).

Type bool

filter(*update*)
This method must be overwritten.

Note: If *update_filter* is false then the first argument is *message* and of type *telegram.Message*.

Parameters **update** (*telegram.Update*) – The update that is tested.

Returns dict or bool

class telegram.ext.filters.**InvertedFilter**(*f*)
Bases: *telegram.ext.filters.BaseFilter*

Represents a filter that has been inverted.

Parameters **f** – The filter to invert.

filter(*update*)
This method must be overwritten.

Note: If update_filter is false then the first argument is *message* and of type *telegram.Message*.

Parameters **update** (*telegram.Update*) – The update that is tested.

Returns dict or bool

class telegram.ext.filters.**MergedFilter**(*base_filter*, *and_filter=None*, *or_filter=None*)
Bases: *telegram.ext.filters.BaseFilter*

Represents a filter consisting of two other filters.

Parameters

- **base_filter** – Filter 1 of the merged filter
- **and_filter** – Optional filter to "and" with base_filter. Mutually exclusive with or_filter.
- **or_filter** – Optional filter to "or" with base_filter. Mutually exclusive with and_filter.

filter(*update*)
This method must be overwritten.

Note: If `update_filter` is false then the first argument is *message* and of type *telegram.Message*.

Parameters **update** (*telegram.Update*) – The update that is tested.

Returns `dict` or `bool`

3.1.4 telegram.ext.Job

class `telegram.ext.`**Job**(*callback*, *interval=None*, *repeat=True*, *context=None*, *days=(0, 1, 2, 3, 4, 5, 6)*, *name=None*, *job_queue=None*)

Bases: `object`

This class encapsulates a Job.

callback
The callback function that should be executed by the new job.

Type `callable`

context
Optional. Additional data needed for the callback function.

Type `object`

name
Optional. The name of the new job.

Type `str`

Parameters

- **callback** (`callable`) – The callback function that should be executed by the new job. It should take `bot, job` as parameters, where `job` is the *telegram.ext.Job* instance. It can be used to access it's *context* or change it to a repeating job.
- **interval** (`int | float | datetime.timedelta`, optional) – The interval in which the job will run. If it is an `int` or a `float`, it will be interpreted as seconds. If you don't set this value, you must set *repeat* to `False` and specify `next_t` when you put the job into the job queue.
- **repeat** (`bool`, optional) – If this job should be periodically execute its callback function (`True`) or only once (`False`). Defaults to `True`.
- **context** (`object`, optional) – Additional data needed for the callback function. Can be accessed through `job.context` in the callback. Defaults to `None`.
- **name** (`str`, optional) – The name of the new job. Defaults to `callback.__name__`.
- **days** (Tuple[`int`], optional) – Defines on which days of the week the job should run. Defaults to `Days.EVERY_DAY`
- **job_queue** (*telegram.ext.JobQueue*, optional) – The `JobQueue` this job belongs to. Only optional for backward compatibility with `JobQueue.put()`.

days
Optional. Defines on which days of the week the job should run.

Type Tuple[`int`]

enabled
Whether this job is enabled.

Type `bool`

interval
Optional. The interval in which the job will run.

Type int | float | datetime.timedelta

interval_seconds
The interval for this job in seconds.

Type int

job_queue
Optional. The JobQueue this job belongs to.

Type *telegram.ext.JobQueue*

removed
Whether this job is due to be removed.

Type bool

repeat
Optional. If this job should periodically execute its callback function.

Type bool

run(*dispatcher*)
Executes the callback function.

schedule_removal()
Schedules this job for removal from the JobQueue. It will be removed without executing its callback function again.

3.1.5 telegram.ext.JobQueue

class telegram.ext.**JobQueue**(*bot=None*)
Bases: object

This class allows you to periodically perform tasks with the bot.

_queue
The queue that holds the Jobs.

Type PriorityQueue

bot
The bot instance that should be passed to the jobs. DEPRECATED: Use set_dispatcher instead.

Type *telegram.Bot*

get_jobs_by_name(*name*)
Returns a tuple of jobs with the given name that are currently in the JobQueue

jobs()
Returns a tuple of all jobs that are currently in the JobQueue.

run_daily(*callback*, *time*, *days=(0, 1, 2, 3, 4, 5, 6)*, *context=None*, *name=None*)
Creates a new Job that runs on a daily basis and adds it to the queue.

Parameters

- **callback** (callable) – The callback function that should be executed by the new job. It should take bot, job as parameters, where job is the *telegram.ext.Job* instance. It can be used to access its Job.context or change it to a repeating job.
- **time** (datetime.time) – Time of day at which the job should run.
- **days** (Tuple[int], optional) – Defines on which days of the week the job should run. Defaults to EVERY_DAY

- **context** (object, optional) – Additional data needed for the callback function. Can be accessed through job.context in the callback. Defaults to None.
- **name** (str, optional) – The name of the new job. Defaults to callback.__name__.

Returns The new Job instance that has been added to the job queue.

Return type *telegram.ext.Job*

Notes

Daily is just an alias for "24 Hours". That means that if DST changes during that interval, the job might not run at the time one would expect. It is always recommended to pin servers to UTC time, then time related behaviour can always be expected.

run_once(*callback*, *when*, *context=None*, *name=None*)
Creates a new Job that runs once and adds it to the queue.

Parameters

- **callback** (callable) – The callback function that should be executed by the new job. It should take bot, job as parameters, where job is the *telegram.ext.Job* instance. It can be used to access its job.context or change it to a repeating job.
- **when** (int | float | datetime.timedelta | datetime.datetime | datetime.time) – Time in or at which the job should run. This parameter will be interpreted depending on its type.
  - int or float will be interpreted as "seconds from now" in which the job should run.
  - datetime.timedelta will be interpreted as "time from now" in which the job should run.
  - datetime.datetime will be interpreted as a specific date and time at which the job should run.
  - datetime.time will be interpreted as a specific time of day at which the job should run. This could be either today or, if the time has already passed, tomorrow.
- **context** (object, optional) – Additional data needed for the callback function. Can be accessed through job.context in the callback. Defaults to None.
- **name** (str, optional) – The name of the new job. Defaults to callback.__name__.

Returns The new Job instance that has been added to the job queue.

Return type *telegram.ext.Job*

run_repeating(*callback*, *interval*, *first=None*, *context=None*, *name=None*)
Creates a new Job that runs at specified intervals and adds it to the queue.

Parameters

- **callback** (callable) – The callback function that should be executed by the new job. It should take bot, job as parameters, where job is the *telegram.ext.Job* instance. It can be used to access its Job.context or change it to a repeating job.
- **interval** (int | float | datetime.timedelta) – The interval in which the job will run. If it is an int or a float, it will be interpreted as seconds.

- **first** (int | float | datetime.timedelta | datetime.datetime | datetime.time, optional) – Time in or at which the job should run. This parameter will be interpreted depending on its type.
  - int or float will be interpreted as "seconds from now" in which the job should run.
  - datetime.timedelta will be interpreted as "time from now" in which the job should run.
  - datetime.datetime will be interpreted as a specific date and time at which the job should run.
  - datetime.time will be interpreted as a specific time of day at which the job should run. This could be either today or, if the time has already passed, tomorrow.

  Defaults to interval
- **context** (object, optional) – Additional data needed for the callback function. Can be accessed through job.context in the callback. Defaults to None.
- **name** (str, optional) – The name of the new job. Defaults to callback.__name__.

Returns The new Job instance that has been added to the job queue.

Return type *telegram.ext.Job*

Notes

interval is always respected "as-is". That means that if DST changes during that interval, the job might not run at the time one would expect. It is always recommended to pin servers to UTC time, then time related behaviour can always be expected.

start()
Starts the job_queue thread.

stop()
Stops the thread.

tick()
Run all jobs that are due and re-enqueue them with their interval.

3.1.6 telegram.ext.MessageQueue

class telegram.ext.**MessageQueue**(*all_burst_limit=30*, *all_time_limit_ms=1000*, *group_burst_limit=20*, *group_time_limit_ms=60000*, *exc_route=None*, *autostart=True*)

Bases: object

Implements callback processing with proper delays to avoid hitting Telegram's message limits. Contains two DelayQueue, for group and for all messages, interconnected in delay chain. Callables are processed through *group* DelayQueue, then through *all* DelayQueue for group-type messages. For non-group messages, only the *all* DelayQueue is used.

Parameters

- **all_burst_limit** (int, optional) – Number of maximum *all-type* callbacks to process per time-window defined by all_time_limit_ms. Defaults to 30.
- **all_time_limit_ms** (int, optional) – Defines width of *all-type* time-window used when each processing limit is calculated. Defaults to 1000 ms.
- **group_burst_limit** (int, optional) – Number of maximum *group-type* callbacks to process per time-window defined by group_time_limit_ms. Defaults to 20.

- **group_time_limit_ms** (int, optional) – Defines width of *group-type* time-window used when each processing limit is calculated. Defaults to 60000 ms.
- **exc_route** (callable, optional) – A callable, accepting one positional argument; used to route exceptions from processor threads to main thread; is called on Exception subclass exceptions. If not provided, exceptions are routed through dummy handler, which re-raises them.
- **autostart** (bool, optional) – If True, processors are started immediately after object's creation; if False, should be started manually by *start* method. Defaults to True.

__call__(*promise*, *is_group_msg=False*)

Processes callables in troughput-limiting queues to avoid hitting limits (specified with burst_limit and time_limit.

Parameters

- **promise** (callable) – Mainly the telegram.utils.promise.Promise (see Notes for other callables), that is processed in delay queues.
- **is_group_msg** (bool, optional) – Defines whether promise would be processed in group*+*all* DelayQueue``s (if set to ``True), or only through *all* DelayQueue (if set to False), resulting in needed delays to avoid hitting specified limits. Defaults to False.

Notes

Method is designed to accept telegram.utils.promise.Promise as promise argument, but other callables could be used too. For example, lambdas or simple functions could be used to wrap original func to be called with needed args. In that case, be sure that either wrapper func does not raise outside exceptions or the proper exc_route handler is provided.

Returns Used as promise argument.

Return type callable

__init__(*all_burst_limit=30*, *all_time_limit_ms=1000*, *group_burst_limit=20*, *group_time_limit_ms=60000*, *exc_route=None*, *autostart=True*)

Initialize self. See help(type(self)) for accurate signature.

__weakref__

list of weak references to the object (if defined)

start()

Method is used to manually start the MessageQueue processing.

stop(*timeout=None*)

Used to gently stop processor and shutdown its thread.

Parameters **timeout** (float) – Indicates maximum time to wait for processor to stop and its thread to exit. If timeout exceeds and processor has not stopped, method silently returns. is_alive could be used afterwards to check the actual status. timeout set to None, blocks until processor is shut down. Defaults to None.

3.1.7 telegram.ext.DelayQueue

class telegram.ext.**DelayQueue**(*queue=None*, *burst_limit=30*, *time_limit_ms=1000*, *exc_route=None*, *autostart=True*, *name=None*)

Bases: threading.Thread

Processes callbacks from queue with specified throughput limits. Creates a separate thread to process callbacks with delays.

burst_limit
Number of maximum callbacks to process per time-window.

Type int

time_limit
Defines width of time-window used when each processing limit is calculated.

Type int

exc_route
A callable, accepting 1 positional argument; used to route exceptions from processor thread to main thread;

Type callable

name
Thread's name.

Type str

Parameters

- **queue** (Queue, optional) – Used to pass callbacks to thread. Creates Queue implicitly if not provided.
- **burst_limit** (int, optional) – Number of maximum callbacks to process per time-window defined by time_limit_ms. Defaults to 30.
- **time_limit_ms** (int, optional) – Defines width of time-window used when each processing limit is calculated. Defaults to 1000.
- **exc_route** (callable, optional) – A callable, accepting 1 positional argument; used to route exceptions from processor thread to main thread; is called on *Exception* subclass exceptions. If not provided, exceptions are routed through dummy handler, which re-raises them.
- **autostart** (bool, optional) – If True, processor is started immediately after object's creation; if False, should be started manually by *start* method. Defaults to True.
- **name** (str, optional) – Thread's name. Defaults to 'DelayQueue-N', where N is sequential number of object created.

__call__(*func*, **args*, ***kwargs*)
Used to process callbacks in throughput-limiting thread through queue.

Parameters

- **func** (callable) – The actual function (or any callable) that is processed through queue.
- ***args** (list) – Variable-length *func* arguments.
- ****kwargs** (dict) – Arbitrary keyword-arguments to *func*.

__init__(*queue=None*, *burst_limit=30*, *time_limit_ms=1000*, *exc_route=None*, *autostart=True*, *name=None*)
This constructor should always be called with keyword arguments. Arguments are:

group should be None; reserved for future extension when a ThreadGroup class is implemented.

target is the callable object to be invoked by the run() method. Defaults to None, meaning nothing is called.

name is the thread name. By default, a unique name is constructed of the form "Thread-N" where N is a small decimal number.

args is the argument tuple for the target invocation. Defaults to ().

kwargs is a dictionary of keyword arguments for the target invocation. Defaults to {}.

If a subclass overrides the constructor, it must make sure to invoke the base class constructor (Thread.__init__()) before doing anything else to the thread.

run()
Do not use the method except for unthreaded testing purposes, the method normally is automatically called by autostart argument.

stop(*timeout=None*)
Used to gently stop processor and shutdown its thread.

Parameters **timeout** (`float`) – Indicates maximum time to wait for processor to stop and its thread to exit. If timeout exceeds and processor has not stopped, method silently returns. `is_alive` could be used afterwards to check the actual status. `timeout` set to None, blocks until processor is shut down. Defaults to None.

3.1.8 telegram.ext.CallbackContext

class telegram.ext.**CallbackContext**(*dispatcher*)
This is a context object passed to the callback called by *telegram.ext.Handler* or by the *telegram.ext.Dispatcher* in an error handler added by *telegram.ext.Dispatcher.add_error_handler* or to the callback of a *telegram.ext.Job*.

Note: *telegram.ext.Dispatcher* will create a single context for an entire update. This means that if you got 2 handlers in different groups and they both get called, they will get passed the same *CallbackContext* object (of course with proper attributes like *.matches* differing). This allows you to add custom attributes in a lower handler group callback, and then subsequently access those attributes in a higher handler group callback. Note that the attributes on *CallbackContext* might change in the future, so make sure to use a fairly unique name for the attributes.

Warning: Do not combine custom attributes and @run_async. Due to how @run_async works, it will almost certainly execute the callbacks for an update out of order, and the attributes that you think you added will not be present.

chat_data
A dict that can be used to keep any data in. For each update from the same chat it will be the same `dict`.

Type `dict`, optional

user_data
A dict that can be used to keep any data in. For each update from the same user it will be the same `dict`.

Type `dict`, optional

matches
If the associated update originated from a regex-supported handler or had a `Filters.regex`, this will contain a list of match objects for every pattern where `re.search(pattern, string)` returned a match. Note that filters short circuit, so combined regex filters will not always be evaluated.

Type List[`re match object`], optional

args
Arguments passed to a command if the associated update is handled by *telegram.ext.CommandHandler*, *telegram.ext.PrefixHandler* or *telegram.ext.StringCommandHandler*. It contains a list of the words in the text after the command, using any whitespace string as a delimiter.

Type List[`str`], optional

error
The Telegram error that was raised. Only present when passed to a error handler registered with *telegram.ext.Dispatcher.add_error_handler*.

Type telegram.TelegramError, optional

job
The job that that originated this callback. Only present when passed to the callback of *telegram.ext.Job*.

Type *telegram.ext.Job*

bot
The bot associated with this context.

Type *telegram.Bot*

job_queue
The JobQueue used by the *telegram.ext.Dispatcher* and (usually) the *telegram.ext.Updater* associated with this context.

Type *telegram.ext.JobQueue*

match
The first match from *matches*. Useful if you are only filtering using a single regex filter. Returns *None* if *matches* is empty.

Type *Regex match type*

update_queue
The Queue instance used by the *telegram.ext.Dispatcher* and (usually) the *telegram.ext.Updater* associated with this context.

Type queue.Queue

3.1.9 Handlers

telegram.ext.Handler

class telegram.ext.**Handler**(*callback*, *pass_update_queue=False*, *pass_job_queue=False*, *pass_user_data=False*, *pass_chat_data=False*)

Bases: object

The base class for all update handlers. Create custom handlers by inheriting from it.

callback
The callback function for this handler.

Type callable

pass_update_queue
Determines whether update_queue will be passed to the callback function.

Type bool

pass_job_queue
Determines whether job_queue will be passed to the callback function.

Type bool

pass_user_data
Determines whether user_data will be passed to the callback function.

Type bool

pass_chat_data
Determines whether chat_data will be passed to the callback function.

Type bool

Note: *pass_user_data* and *pass_chat_data* determine whether a dict you can use to keep any data in will be sent to the *callback* function. Related to either the user or the chat that the update was sent in. For each update from the same user or in the same chat, it will be the same dict.

Note that this is DEPRECATED, and you should use context based callbacks. See https://git.io/fxJuV for more info.

Parameters

- **callback** (callable) – The callback function for this handler. Will be called when *check_update* has determined that an update should be processed by this handler. Callback signature for context based API:

  `def callback(update: Update, context: CallbackContext)`

  The return value of the callback is usually ignored except for the special case of *telegram.ext.ConversationHandler*.

- **pass_update_queue** (bool, optional) – If set to True, a keyword argument called update_queue will be passed to the callback function. It will be the Queue instance used by the *telegram.ext.Updater* and *telegram.ext.Dispatcher* that contains new updates which can be used to insert updates. Default is False. DEPRECATED: Please switch to context based callbacks.
- **pass_job_queue** (bool, optional) – If set to True, a keyword argument called job_queue will be passed to the callback function. It will be a *telegram.ext.JobQueue* instance created by the *telegram.ext.Updater* which can be used to schedule new jobs. Default is False. DEPRECATED: Please switch to context based callbacks.
- **pass_user_data** (bool, optional) – If set to True, a keyword argument called user_data will be passed to the callback function. Default is False. DEPRECATED: Please switch to context based callbacks.
- **pass_chat_data** (bool, optional) – If set to True, a keyword argument called chat_data will be passed to the callback function. Default is False. DEPRECATED: Please switch to context based callbacks.

check_update(*update*)

This method is called to determine if an update should be handled by this handler instance. It should always be overridden.

Parameters **update** (str | *telegram.Update*) – The update to be tested.

Returns Either None or False if the update should not be handled. Otherwise an object that will be passed to *handle_update* and *collect_additional_context* when the update gets handled.

collect_additional_context(*context*, *update*, *dispatcher*, *check_result*)

Prepares additional arguments for the context. Override if needed.

Parameters

- **context** (*telegram.ext.CallbackContext*) – The context object.
- **update** (*telegram.Update*) – The update to gather chat/user id from.
- **dispatcher** (*telegram.ext.Dispatcher*) – The calling dispatcher.
- **check_result** – The result (return value) from *check_update*.

collect_optional_args(*dispatcher*, *update=None*, *check_result=None*)
Prepares the optional arguments. If the handler has additional optional args, it should subclass this method, but remember to call this super method.

DEPRECATED: This method is being replaced by new context based callbacks. Please see https://git.io/fxJuV for more info.

Parameters

- **dispatcher** (*telegram.ext.Dispatcher*) – The dispatcher.
- **update** (*telegram.Update*) – The update to gather chat/user id from.
- **check_result** – The result from check_update

handle_update(*update*, *dispatcher*, *check_result*, *context=None*)
This method is called if it was determined that an update should indeed be handled by this instance. Calls `self.callback` along with its respectful arguments. To work with the *telegram.ext.ConversationHandler*, this method returns the value returned from `self.callback`. Note that it can be overridden if needed by the subclassing handler.

Parameters

- **update** (`str` | *telegram.Update*) – The update to be handled.
- **dispatcher** (*telegram.ext.Dispatcher*) – The calling dispatcher.
- **check_result** – The result from *check_update*.

telegram.ext.CallbackQueryHandler

class telegram.ext.**CallbackQueryHandler**(*callback*, *pass_update_queue=False*, *pass_job_queue=False*, *pattern=None*, *pass_groups=False*, *pass_groupdict=False*, *pass_user_data=False*, *pass_chat_data=False*)

Bases: `telegram.ext.handler.Handler`

Handler class to handle Telegram callback queries. Optionally based on a regex.

Read the documentation of the `re` module for more information.

callback
The callback function for this handler.

Type `callable`

pass_update_queue
Determines whether `update_queue` will be passed to the callback function.

Type `bool`

pass_job_queue
Determines whether `job_queue` will be passed to the callback function.

Type `bool`

pattern
Optional. Regex pattern to test *telegram.CallbackQuery.data* against.

Type `str` | *Pattern*

pass_groups
Determines whether `groups` will be passed to the callback function.

Type `bool`

pass_groupdict
Determines whether `groupdict.` will be passed to the callback function.

Type bool

pass_user_data
Determines whether user_data will be passed to the callback function.

Type bool

pass_chat_data
Determines whether chat_data will be passed to the callback function.

Type bool

Note: *pass_user_data* and *pass_chat_data* determine whether a dict you can use to keep any data in will be sent to the *callback* function. Related to either the user or the chat that the update was sent in. For each update from the same user or in the same chat, it will be the same dict.

Note that this is DEPRECATED, and you should use context based callbacks. See https://git.io/fxJuV for more info.

Parameters

- **callback** (callable) – The callback function for this handler. Will be called when *check_update* has determined that an update should be processed by this handler. Callback signature for context based API:

  ```
  def callback(update: Update, context:
  CallbackContext)
  ```

  The return value of the callback is usually ignored except for the special case of *telegram.ext.ConversationHandler*.

- **pass_update_queue** (bool, optional) – If set to True, a keyword argument called update_queue will be passed to the callback function. It will be the Queue instance used by the *telegram.ext.Updater* and *telegram.ext.Dispatcher* that contains new updates which can be used to insert updates. Default is False. DEPRECATED: Please switch to context based callbacks.

- **pass_job_queue** (bool, optional) – If set to True, a keyword argument called job_queue will be passed to the callback function. It will be a *telegram.ext.JobQueue* instance created by the *telegram.ext.Updater* which can be used to schedule new jobs. Default is False. DEPRECATED: Please switch to context based callbacks.

- **pattern** (str | *Pattern*, optional) – Regex pattern. If not None, re.match is used on *telegram.CallbackQuery.data* to determine if an update should be handled by this handler.

- **pass_groups** (bool, optional) – If the callback should be passed the result of re.match(pattern, data).groups() as a keyword argument called groups. Default is False DEPRECATED: Please switch to context based callbacks.

- **pass_groupdict** (bool, optional) – If the callback should be passed the result of re.match(pattern, data).groupdict() as a keyword argument called groupdict. Default is False DEPRECATED: Please switch to context based callbacks.

- **pass_user_data** (bool, optional) – If set to True, a keyword argument called user_data will be passed to the callback function. Default is False. DEPRECATED: Please switch to context based callbacks.

- **pass_chat_data** (bool, optional) – If set to True, a keyword argument called chat_data will be passed to the callback function. Default is False. DEPRECATED: Please switch to context based callbacks.

check_update(*update*)
Determines whether an update should be passed to this handlers *callback*.

Parameters **update** (*telegram.Update*) – Incoming telegram update.

Returns bool

collect_additional_context(*context*, *update*, *dispatcher*, *check_result*)
Prepares additional arguments for the context. Override if needed.

Parameters

- **context** (*telegram.ext.CallbackContext*) – The context object.
- **update** (*telegram.Update*) – The update to gather chat/user id from.
- **dispatcher** (*telegram.ext.Dispatcher*) – The calling dispatcher.
- **check_result** – The result (return value) from *check_update*.

collect_optional_args(*dispatcher*, *update=None*, *check_result=None*)
Prepares the optional arguments. If the handler has additional optional args, it should subclass this method, but remember to call this super method.

DEPRECATED: This method is being replaced by new context based callbacks. Please see https://git.io/fxJuV for more info.

Parameters

- **dispatcher** (*telegram.ext.Dispatcher*) – The dispatcher.
- **update** (*telegram.Update*) – The update to gather chat/user id from.
- **check_result** – The result from check_update

telegram.ext.ChosenInlineResultHandler

class telegram.ext.**ChosenInlineResultHandler**(*callback*, *pass_update_queue=False*, *pass_job_queue=False*, *pass_user_data=False*, *pass_chat_data=False*)

Bases: telegram.ext.handler.Handler

Handler class to handle Telegram updates that contain a chosen inline result.

callback
The callback function for this handler.

Type callable

pass_update_queue
Determines whether update_queue will be passed to the callback function.

Type bool

pass_job_queue
Determines whether job_queue will be passed to the callback function.

Type bool

pass_user_data
Determines whether user_data will be passed to the callback function.

Type bool

pass_chat_data
Determines whether chat_data will be passed to the callback function.

Type bool

Note: *pass_user_data* and *pass_chat_data* determine whether a `dict` you can use to keep any data in will be sent to the *callback* function. Related to either the user or the chat that the update was sent in. For each update from the same user or in the same chat, it will be the same `dict`.

Note that this is DEPRECATED, and you should use context based callbacks. See https://git.io/fxJuV for more info.

Parameters

- **callback** (`callable`) – The callback function for this handler. Will be called when *check_update* has determined that an update should be processed by this handler. Callback signature for context based API:

  `def callback(update: Update, context: CallbackContext)`

  The return value of the callback is usually ignored except for the special case of *telegram.ext.ConversationHandler*.

- **pass_update_queue** (`bool`, optional) – If set to `True`, a keyword argument called `update_queue` will be passed to the callback function. It will be the `Queue` instance used by the *telegram.ext.Updater* and *telegram.ext.Dispatcher* that contains new updates which can be used to insert updates. Default is `False`. DEPRECATED: Please switch to context based callbacks.
- **pass_job_queue** (`bool`, optional) – If set to `True`, a keyword argument called `job_queue` will be passed to the callback function. It will be a *telegram.ext.JobQueue* instance created by the *telegram.ext.Updater* which can be used to schedule new jobs. Default is `False`. DEPRECATED: Please switch to context based callbacks.
- **pass_user_data** (`bool`, optional) – If set to `True`, a keyword argument called `user_data` will be passed to the callback function. Default is `False`. DEPRECATED: Please switch to context based callbacks.
- **pass_chat_data** (`bool`, optional) – If set to `True`, a keyword argument called `chat_data` will be passed to the callback function. Default is `False`. DEPRECATED: Please switch to context based callbacks.

check_update(*update*)

Determines whether an update should be passed to this handlers *callback*.

Parameters **update** (*telegram.Update*) – Incoming telegram update.

Returns `bool`

telegram.ext.ConversationHandler

class telegram.ext.**ConversationHandler**(*entry_points*, *states*, *fallbacks*, *allow_reentry=False*, *per_chat=True*, *per_user=True*, *per_message=False*, *conversation_timeout=None*, *name=None*, *persistent=False*)

Bases: `telegram.ext.handler.Handler`

A handler to hold a conversation with a single user by managing four collections of other handlers. Note that neither posts in Telegram Channels, nor group interactions with multiple users are managed by instances of this class.

The first collection, a `list` named *entry_points*, is used to initiate the conversation, for example with a *telegram.ext.CommandHandler* or *telegram.ext.RegexHandler*.

The second collection, a `dict` named *states*, contains the different conversation steps and one or more associated handlers that should be used if the user sends a message when the conversation with them is currently in that state. Here you can also define a state for *TIMEOUT* to define the behavior when *conversation_timeout* is exceeded, and a state for *WAITING* to define behavior when a new update is received while the previous `@run_async` decorated handler is not finished.

The third collection, a `list` named *fallbacks*, is used if the user is currently in a conversation but the state has either no associated handler or the handler that is associated to the state is inappropriate for the update, for example if the update contains a command, but a regular text message is expected. You could use this for a `/cancel` command or to let the user know their message was not recognized.

The fourth, optional collection of handlers, a `list` named `timed_out_behavior` is used if the wait for `run_async` takes longer than defined in `run_async_timeout`. For example, you can let the user know that they should wait for a bit before they can continue.

To change the state of conversation, the callback function of a handler must return the new state after responding to the user. If it does not return anything (returning `None` by default), the state will not change. If an entry point callback function returns None, the conversation ends immediately after the execution of this callback function. To end the conversation, the callback function must return *END* or `-1`. To handle the conversation timeout, use handler *TIMEOUT* or `-2`.

entry_points
A list of `Handler` objects that can trigger the start of the conversation.

Type List[*telegram.ext.Handler*]

states
A `dict` that defines the different states of conversation a user can be in and one or more associated `Handler` objects that should be used in that state.

Type Dict[`object`, List[*telegram.ext.Handler*]]

fallbacks
A list of handlers that might be used if the user is in a conversation, but every handler for their current state returned `False` on *check_update*.

Type List[*telegram.ext.Handler*]

allow_reentry
Determines if a user can restart a conversation with an entry point.

Type `bool`

per_chat
If the conversationkey should contain the Chat's ID.

Type `bool`

per_user
If the conversationkey should contain the User's ID.

Type `bool`

per_message
If the conversationkey should contain the Message's ID.

Type `bool`

conversation_timeout
Optional. When this handler is inactive more than this timeout (in seconds), it will be automatically ended. If this value is 0 (default), there will be no timeout. when it's triggered. The last received update will be handled by ALL the handler's who's *check_update* method returns True that are in the state *ConversationHandler.TIMEOUT*.

Type `float`|:obj:`datetime.timedelta`

name
Optional. The name for this conversationhandler. Required for persistence

Type str

persistent
Optional. If the conversations dict for this handler should be saved. Name is required and persistence has to be set in *telegram.ext.Updater*

Type bool

Parameters

- **entry_points** (List[*telegram.ext.Handler*]) – A list of Handler objects that can trigger the start of the conversation. The first handler which *check_update* method returns True will be used. If all return False, the update is not handled.
- **states** (Dict[object, List[*telegram.ext.Handler*]]) – A dict that defines the different states of conversation a user can be in and one or more associated Handler objects that should be used in that state. The first handler which *check_update* method returns True will be used.
- **fallbacks** (List[*telegram.ext.Handler*]) – A list of handlers that might be used if the user is in a conversation, but every handler for their current state returned False on *check_update*. The first handler which *check_update* method returns True will be used. If all return False, the update is not handled.
- **allow_reentry** (bool, optional) – If set to True, a user that is currently in a conversation can restart the conversation by triggering one of the entry points.
- **per_chat** (bool, optional) – If the conversationkey should contain the Chat's ID. Default is True.
- **per_user** (bool, optional) – If the conversationkey should contain the User's ID. Default is True.
- **per_message** (bool, optional) – If the conversationkey should contain the Message's ID. Default is False.
- **conversation_timeout** (float | datetime.timedelta, optional) – When this handler is inactive more than this timeout (in seconds), it will be automatically ended. If this value is 0 or None (default), there will be no timeout. The last received update will be handled by ALL the handler's who's *check_update* method returns True that are in the state *ConversationHandler.TIMEOUT*.
- **name** (str, optional) – The name for this conversationhandler. Required for persistence
- **persistent** (bool, optional) – If the conversations dict for this handler should be saved. Name is required and persistence has to be set in *telegram.ext.Updater*

Raises ValueError

END = -1
Used as a constant to return when a conversation is ended.

Type int

TIMEOUT = -2
Used as a constant to handle state when a conversation is timed out.

Type int

WAITING = -3
Used as a constant to handle state when a conversation is still waiting on the previous @run_sync decorated running handler to finish.

Type int

check_update(*update*)
Determines whether an update should be handled by this conversationhandler, and if so in which state the conversation currently is.

Parameters **update** (*telegram.Update*) – Incoming telegram update.

Returns bool

handle_update(*update*, *dispatcher*, *check_result*, *context=None*)
Send the update to the callback for the current state and Handler

Parameters

- **check_result** – The result from check_update. For this handler it's a tuple of key, handler, and the handler's check result.
- **update** (*telegram.Update*) – Incoming telegram update.
- **dispatcher** (*telegram.ext.Dispatcher*) – Dispatcher that originated the Update.

persistence = None
The persistence used to store conversations. Set by dispatcher

Type telegram.ext.BasePersistance

telegram.ext.CommandHandler

class telegram.ext.**CommandHandler**(*command*, *callback*, *filters=None*, *allow_edited=None*, *pass_args=False*, *pass_update_queue=False*, *pass_job_queue=False*, *pass_user_data=False*, *pass_chat_data=False*)
Bases: telegram.ext.handler.Handler

Handler class to handle Telegram commands.

Commands are Telegram messages that start with /, optionally followed by an @ and the bot's name and/or some additional text. The handler will add a list to the *CallbackContext* named *CallbackContext.args*. It will contain a list of strings, which is the text following the command split on single or consecutive whitespace characters.

By default the handler listens to messages as well as edited messages. To change this behavior use ~Filters.update.edited_message in the filter argument.

command
The command or list of commands this handler should listen for. Limitations are the same as described here https://core.telegram.org/bots#commands

Type str | List[str]

callback
The callback function for this handler.

Type callable

filters
Optional. Only allow updates with these Filters.

Type telegram.ext.BaseFilter

allow_edited
Determines Whether the handler should also accept edited messages.

Type bool

pass_args
Determines whether the handler should be passed args.

Type bool

pass_update_queue
Determines whether `update_queue` will be passed to the callback function.

Type `bool`

pass_job_queue
Determines whether `job_queue` will be passed to the callback function.

Type `bool`

pass_user_data
Determines whether `user_data` will be passed to the callback function.

Type `bool`

pass_chat_data
Determines whether `chat_data` will be passed to the callback function.

Type `bool`

Note: *pass_user_data* and *pass_chat_data* determine whether a `dict` you can use to keep any data in will be sent to the *callback* function. Related to either the user or the chat that the update was sent in. For each update from the same user or in the same chat, it will be the same `dict`.

Note that this is DEPRECATED, and you should use context based callbacks. See https://git.io/fxJuV for more info.

Parameters

- **command** (`str` | List[`str`]) – The command or list of commands this handler should listen for. Limitations are the same as described here https://core.telegram.org/bots#commands
- **callback** (`callable`) – The callback function for this handler. Will be called when *check_update* has determined that an update should be processed by this handler. Callback signature for context based API:

  `def callback(update: Update, context: CallbackContext)`

  The return value of the callback is usually ignored except for the special case of *telegram.ext.ConversationHandler*.
- **filters** (`telegram.ext.BaseFilter`, optional) – A filter inheriting from *telegram.ext.filters.BaseFilter*. Standard filters can be found in *telegram.ext.filters.Filters*. Filters can be combined using bitwise operators (& for and, | for or, ~ for not).
- **allow_edited** (`bool`, optional) – Determines whether the handler should also accept edited messages. Default is `False`. DEPRECATED: Edited is allowed by default. To change this behavior use `~Filters.update.edited_message`.
- **pass_args** (`bool`, optional) – Determines whether the handler should be passed the arguments passed to the command as a keyword argument called `args`. It will contain a list of strings, which is the text following the command split on single or consecutive whitespace characters. Default is `False` DEPRECATED: Please switch to context based callbacks.
- **pass_update_queue** (`bool`, optional) – If set to `True`, a keyword argument called `update_queue` will be passed to the callback function. It will be the `Queue` instance used by the *telegram.ext.Updater* and *telegram.ext.Dispatcher* that contains new updates which can be used to insert updates. Default is `False`. DEPRECATED: Please switch to context based callbacks.

- **pass_job_queue** (bool, optional) – If set to True, a keyword argument called job_queue will be passed to the callback function. It will be a *telegram.ext.JobQueue* instance created by the *telegram.ext.Updater* which can be used to schedule new jobs. Default is False. DEPRECATED: Please switch to context based callbacks.
- **pass_user_data** (bool, optional) – If set to True, a keyword argument called user_data will be passed to the callback function. Default is False. DEPRECATED: Please switch to context based callbacks.
- **pass_chat_data** (bool, optional) – If set to True, a keyword argument called chat_data will be passed to the callback function. Default is False. DEPRECATED: Please switch to context based callbacks.

Raises ValueError - when command is too long or has illegal chars.

check_update(*update*)
Determines whether an update should be passed to this handlers *callback*.

Parameters **update** (*telegram.Update*) – Incoming telegram update.

Returns The list of args for the handler

Return type list

collect_additional_context(*context*, *update*, *dispatcher*, *check_result*)
Prepares additional arguments for the context. Override if needed.

Parameters

- **context** (*telegram.ext.CallbackContext*) – The context object.
- **update** (*telegram.Update*) – The update to gather chat/user id from.
- **dispatcher** (*telegram.ext.Dispatcher*) – The calling dispatcher.
- **check_result** – The result (return value) from *check_update*.

collect_optional_args(*dispatcher*, *update=None*, *check_result=None*)
Prepares the optional arguments. If the handler has additional optional args, it should subclass this method, but remember to call this super method.

DEPRECATED: This method is being replaced by new context based callbacks. Please see https://git.io/fxJuV for more info.

Parameters

- **dispatcher** (*telegram.ext.Dispatcher*) – The dispatcher.
- **update** (*telegram.Update*) – The update to gather chat/user id from.
- **check_result** – The result from check_update

telegram.ext.InlineQueryHandler

class telegram.ext.**InlineQueryHandler**(*callback*, *pass_update_queue=False*, *pass_job_queue=False*, *pattern=None*, *pass_groups=False*, *pass_groupdict=False*, *pass_user_data=False*, *pass_chat_data=False*)
Bases: telegram.ext.handler.Handler

Handler class to handle Telegram inline queries. Optionally based on a regex. Read the documentation of the re module for more information.

callback
The callback function for this handler.

Type callable

pass_update_queue
Determines whether `update_queue` will be passed to the callback function.

Type `bool`

pass_job_queue
Determines whether `job_queue` will be passed to the callback function.

Type `bool`

pattern
Optional. Regex pattern to test *telegram.InlineQuery.query* against.

Type `str|Pattern`

pass_groups
Determines whether `groups` will be passed to the callback function.

Type `bool`

pass_groupdict
Determines whether `groupdict`. will be passed to the callback function.

Type `bool`

pass_user_data
Determines whether `user_data` will be passed to the callback function.

Type `bool`

pass_chat_data
Determines whether `chat_data` will be passed to the callback function.

Type `bool`

Note: *pass_user_data* and *pass_chat_data* determine whether a `dict` you can use to keep any data in will be sent to the *callback* function. Related to either the user or the chat that the update was sent in. For each update from the same user or in the same chat, it will be the same `dict`.

Note that this is DEPRECATED, and you should use context based callbacks. See https://git.io/fxJuV for more info.

Parameters

- **callback** (`callable`) – The callback function for this handler. Will be called when *check_update* has determined that an update should be processed by this handler. Callback signature for context based API:

  `def callback(update: Update, context: CallbackContext)`

  The return value of the callback is usually ignored except for the special case of *telegram.ext.ConversationHandler*.

- **pass_update_queue** (`bool`, optional) – If set to `True`, a keyword argument called `update_queue` will be passed to the callback function. It will be the `Queue` instance used by the *telegram.ext.Updater* and *telegram.ext.Dispatcher* that contains new updates which can be used to insert updates. Default is `False`. DEPRECATED: Please switch to context based callbacks.

- **pass_job_queue** (`bool`, optional) – If set to `True`, a keyword argument called `job_queue` will be passed to the callback function. It will be a *telegram.ext.JobQueue* instance created by the *telegram.ext.Updater* which can be used to schedule new jobs. Default is `False`. DEPRECATED: Please switch to context based callbacks.

- **pattern** (`str | Pattern`, optional) – Regex pattern. If not `None`, `re.match` is used on *telegram.InlineQuery.query* to determine if an update should be handled by this handler.
- **pass_groups** (`bool`, optional) – If the callback should be passed the result of `re.match(pattern, data).groups()` as a keyword argument called `groups`. Default is `False` DEPRECATED: Please switch to context based callbacks.
- **pass_groupdict** (`bool`, optional) – If the callback should be passed the result of `re.match(pattern, data).groupdict()` as a keyword argument called `groupdict`. Default is `False` DEPRECATED: Please switch to context based callbacks.
- **pass_user_data** (`bool`, optional) – If set to `True`, a keyword argument called `user_data` will be passed to the callback function. Default is `False`. DEPRECATED: Please switch to context based callbacks.
- **pass_chat_data** (`bool`, optional) – If set to `True`, a keyword argument called `chat_data` will be passed to the callback function. Default is `False`. DEPRECATED: Please switch to context based callbacks.

check_update(*update*)

Determines whether an update should be passed to this handlers *callback*.

Parameters **update** (*telegram.Update*) – Incoming telegram update.

Returns `bool`

collect_additional_context(*context*, *update*, *dispatcher*, *check_result*)

Prepares additional arguments for the context. Override if needed.

Parameters

- **context** (*telegram.ext.CallbackContext*) – The context object.
- **update** (*telegram.Update*) – The update to gather chat/user id from.
- **dispatcher** (*telegram.ext.Dispatcher*) – The calling dispatcher.
- **check_result** – The result (return value) from *check_update*.

collect_optional_args(*dispatcher*, *update=None*, *check_result=None*)

Prepares the optional arguments. If the handler has additional optional args, it should subclass this method, but remember to call this super method.

DEPRECATED: This method is being replaced by new context based callbacks. Please see https://git.io/fxJuV for more info.

Parameters

- **dispatcher** (*telegram.ext.Dispatcher*) – The dispatcher.
- **update** (*telegram.Update*) – The update to gather chat/user id from.
- **check_result** – The result from check_update

telegram.ext.MessageHandler

class telegram.ext.**MessageHandler**(*filters*, *callback*, *pass_update_queue=False*, *pass_job_queue=False*, *pass_user_data=False*, *pass_chat_data=False*, *message_updates=None*, *channel_post_updates=None*, *edited_updates=None*)

Bases: `telegram.ext.handler.Handler`

Handler class to handle telegram messages. They might contain text, media or status updates.

filters
Only allow updates with these Filters. See *telegram.ext.filters* for a full list of all available filters.

Type Filter

callback
The callback function for this handler.

Type callable

pass_update_queue
Determines whether update_queue will be passed to the callback function.

Type bool

pass_job_queue
Determines whether job_queue will be passed to the callback function.

Type bool

pass_user_data
Determines whether user_data will be passed to the callback function.

Type bool

pass_chat_data
Determines whether chat_data will be passed to the callback function.

Type bool

message_updates
Should "normal" message updates be handled? Default is None.

Type bool

channel_post_updates
Should channel posts updates be handled? Default is None.

Type bool

edited_updates
Should "edited" message updates be handled? Default is None.

Type bool

Note: *pass_user_data* and *pass_chat_data* determine whether a dict you can use to keep any data in will be sent to the *callback* function. Related to either the user or the chat that the update was sent in. For each update from the same user or in the same chat, it will be the same dict.

Note that this is DEPRECATED, and you should use context based callbacks. See https://git.io/fxJuV for more info.

Parameters

- **filters** (telegram.ext.BaseFilter, optional) – A filter inheriting from *telegram.ext.filters.BaseFilter*. Standard filters can be found in *telegram.ext.filters.Filters*. Filters can be combined using bitwise operators (& for and, | for or, ~ for not). Default is *telegram.ext.filters.Filters.update*. This defaults to all message_type updates being: message, edited_message, channel_post and edited_channel_post. If you don't want or need any of those pass ~Filters.update.* in the filter argument.
- **callback** (callable) – The callback function for this handler. Will be called when *check_update* has determined that an update should be processed by this handler. Callback signature for context based API:

```
def callback(update: Update, context: CallbackContext)
```

The return value of the callback is usually ignored except for the special case of *telegram.ext.ConversationHandler*.

- **pass_update_queue** (bool, optional) – If set to True, a keyword argument called update_queue will be passed to the callback function. It will be the Queue instance used by the *telegram.ext.Updater* and *telegram.ext.Dispatcher* that contains new updates which can be used to insert updates. Default is False. DEPRECATED: Please switch to context based callbacks.
- **pass_job_queue** (bool, optional) – If set to True, a keyword argument called job_queue will be passed to the callback function. It will be a *telegram.ext.JobQueue* instance created by the *telegram.ext.Updater* which can be used to schedule new jobs. Default is False. DEPRECATED: Please switch to context based callbacks.
- **pass_user_data** (bool, optional) – If set to True, a keyword argument called user_data will be passed to the callback function. Default is False. DEPRECATED: Please switch to context based callbacks.
- **pass_chat_data** (bool, optional) – If set to True, a keyword argument called chat_data will be passed to the callback function. Default is False. DEPRECATED: Please switch to context based callbacks.
- **message_updates** (bool, optional) – Should "normal" message updates be handled? Default is None. DEPRECATED: Please switch to filters for update filtering.
- **channel_post_updates** (bool, optional) – Should channel posts updates be handled? Default is None. DEPRECATED: Please switch to filters for update filtering.
- **edited_updates** (bool, optional) – Should "edited" message updates be handled? Default is None. DEPRECATED: Please switch to filters for update filtering.

Raises ValueError

check_update(*update*)

Determines whether an update should be passed to this handlers *callback*.

Parameters **update** (*telegram.Update*) – Incoming telegram update.

Returns bool

collect_additional_context(*context*, *update*, *dispatcher*, *check_result*)

Prepares additional arguments for the context. Override if needed.

Parameters

- **context** (*telegram.ext.CallbackContext*) – The context object.
- **update** (*telegram.Update*) – The update to gather chat/user id from.
- **dispatcher** (*telegram.ext.Dispatcher*) – The calling dispatcher.
- **check_result** – The result (return value) from *check_update*.

telegram.ext.PreCheckoutQueryHandler

class telegram.ext.**PreCheckoutQueryHandler**(*callback*, *pass_update_queue=False*, *pass_job_queue=False*, *pass_user_data=False*, *pass_chat_data=False*)

Bases: telegram.ext.handler.Handler

Handler class to handle Telegram PreCheckout callback queries.

callback
The callback function for this handler.

Type callable

pass_update_queue
Determines whether update_queue will be passed to the callback function.

Type bool

pass_job_queue
Determines whether job_queue will be passed to the callback function.

Type bool

pass_user_data
Determines whether user_data will be passed to the callback function.

Type bool

pass_chat_data
Determines whether chat_data will be passed to the callback function.

Type bool

Note: *pass_user_data* and *pass_chat_data* determine whether a dict you can use to keep any data in will be sent to the *callback* function. Related to either the user or the chat that the update was sent in. For each update from the same user or in the same chat, it will be the same dict.

Note that this is DEPRECATED, and you should use context based callbacks. See https://git.io/fxJuV for more info.

Parameters

- **callback** (callable) – The callback function for this handler. Will be called when *check_update* has determined that an update should be processed by this handler. Callback signature for context based API:

  ```
  def callback(update: Update, context: CallbackContext)
  ```

  The return value of the callback is usually ignored except for the special case of *telegram.ext.ConversationHandler*.

- **pass_update_queue** (bool, optional) – If set to True, a keyword argument called update_queue will be passed to the callback function. It will be the Queue DEPRECATED: Please switch to context based callbacks. instance used by the *telegram.ext.Updater* and *telegram.ext.Dispatcher* that contains new updates which can be used to insert updates. Default is False.

- **pass_job_queue** (bool, optional) – If set to True, a keyword argument called job_queue will be passed to the callback function. It will be a *telegram.ext.JobQueue* instance created by the *telegram.ext.Updater* which can be used to schedule new jobs. Default is False. DEPRECATED: Please switch to context based callbacks.

- **pass_user_data** (bool, optional) – If set to True, a keyword argument called user_data will be passed to the callback function. Default is False. DEPRECATED: Please switch to context based callbacks.

- **pass_chat_data** (bool, optional) – If set to True, a keyword argument called chat_data will be passed to the callback function. Default is False. DEPRECATED: Please switch to context based callbacks.

check_update(*update*)
Determines whether an update should be passed to this handlers *callback*.

Parameters **update** (*telegram.Update*) – Incoming telegram update.

Returns bool

telegram.ext.PrefixHandler

class telegram.ext.**PrefixHandler**(*prefix*, *command*, *callback*, *filters=None*, *pass_args=False*, *pass_update_queue=False*, *pass_job_queue=False*, *pass_user_data=False*, *pass_chat_data=False*)

Bases: telegram.ext.commandhandler.CommandHandler

Handler class to handle custom prefix commands

This is a intermediate handler between *MessageHandler* and *CommandHandler*. It supports configurable commands with the same options as CommandHandler. It will respond to every combination of *prefix* and *command*. It will add a list to the *CallbackContext* named *CallbackContext.args*. It will contain a list of strings, which is the text following the command split on single or consecutive whitespace characters.

Examples:

```
Single prefix and command:

    PrefixHandler('!', 'test', callback) will respond to '!test'.

Multiple prefixes, single command:

    PrefixHandler(['!', '#'], 'test', callback) will respond to '!test' and
    '#test'.

Miltiple prefixes and commands:

    PrefixHandler(['!', '#'], ['test', 'help`], callback) will respond to '!
↪test',
    '#test', '!help' and '#help'.
```

By default the handler listens to messages as well as edited messages. To change this behavior use ~‘‘Filters.update.edited_message‘‘.

prefix
The prefix(es) that will precede *command*.

Type str | List[str]

command
The command or list of commands this handler should listen for.

Type str | List[str]

callback
The callback function for this handler.

Type callable

filters
Optional. Only allow updates with these Filters.

Type telegram.ext.BaseFilter

pass_args
Determines whether the handler should be passed args.

Type bool

pass_update_queue
Determines whether `update_queue` will be passed to the callback function.

Type `bool`

pass_job_queue
Determines whether `job_queue` will be passed to the callback function.

Type `bool`

pass_user_data
Determines whether `user_data` will be passed to the callback function.

Type `bool`

pass_chat_data
Determines whether `chat_data` will be passed to the callback function.

Type `bool`

Note: *pass_user_data* and *pass_chat_data* determine whether a `dict` you can use to keep any data in will be sent to the *callback* function. Related to either the user or the chat that the update was sent in. For each update from the same user or in the same chat, it will be the same `dict`.

Note that this is DEPRECATED, and you should use context based callbacks. See https://git.io/fxJuV for more info.

Parameters

- **prefix** (`str` | List[`str`]) – The prefix(es) that will precede *command*.
- **command** (`str` | List[`str`]) – The command or list of commands this handler should listen for.
- **callback** (`callable`) – The callback function for this handler. Will be called when *check_update* has determined that an update should be processed by this handler. Callback signature for context based API:

  `def callback(update: Update, context: CallbackContext)`

  The return value of the callback is usually ignored except for the special case of *telegram.ext.ConversationHandler*.
- **filters** (`telegram.ext.BaseFilter`, optional) – A filter inheriting from *telegram.ext.filters.BaseFilter*. Standard filters can be found in *telegram.ext.filters.Filters*. Filters can be combined using bitwise operators (& for and, | for or, ~ for not).
- **pass_args** (`bool`, optional) – Determines whether the handler should be passed the arguments passed to the command as a keyword argument called `args`. It will contain a list of strings, which is the text following the command split on single or consecutive whitespace characters. Default is `False` DEPRECATED: Please switch to context based callbacks.
- **pass_update_queue** (`bool`, optional) – If set to `True`, a keyword argument called `update_queue` will be passed to the callback function. It will be the `Queue` instance used by the *telegram.ext.Updater* and *telegram.ext.Dispatcher* that contains new updates which can be used to insert updates. Default is `False`. DEPRECATED: Please switch to context based callbacks.
- **pass_job_queue** (`bool`, optional) – If set to `True`, a keyword argument called `job_queue` will be passed to the callback function. It will be a *telegram.ext.JobQueue* instance created by the *telegram.ext.Updater* which can be used to schedule new jobs. Default is `False`. DEPRECATED: Please switch to context based callbacks.

- **pass_user_data** (bool, optional) – If set to True, a keyword argument called user_data will be passed to the callback function. Default is False. DEPRECATED: Please switch to context based callbacks.
- **pass_chat_data** (bool, optional) – If set to True, a keyword argument called chat_data will be passed to the callback function. Default is False. DEPRECATED: Please switch to context based callbacks.

check_update(*update*)
Determines whether an update should be passed to this handlers *callback*.

Parameters **update** (*telegram.Update*) – Incoming telegram update.

Returns The list of args for the handler

Return type list

collect_additional_context(*context*, *update*, *dispatcher*, *check_result*)
Prepares additional arguments for the context. Override if needed.

Parameters

- **context** (*telegram.ext.CallbackContext*) – The context object.
- **update** (*telegram.Update*) – The update to gather chat/user id from.
- **dispatcher** (*telegram.ext.Dispatcher*) – The calling dispatcher.
- **check_result** – The result (return value) from *check_update*.

telegram.ext.RegexHandler

class telegram.ext.**RegexHandler**(*pattern*, *callback*, *pass_groups=False*, *pass_groupdict=False*, *pass_update_queue=False*, *pass_job_queue=False*, *pass_user_data=False*, *pass_chat_data=False*, *allow_edited=False*, *message_updates=True*, *channel_post_updates=False*, *edited_updates=False*)
Bases: telegram.ext.messagehandler.MessageHandler

Handler class to handle Telegram updates based on a regex.

It uses a regular expression to check text messages. Read the documentation of the re module for more information. The re.match function is used to determine if an update should be handled by this handler.

pattern
The regex pattern.

Type str|Pattern

callback
The callback function for this handler.

Type callable

pass_groups
Determines whether groups will be passed to the callback function.

Type bool

pass_groupdict
Determines whether groupdict. will be passed to the callback function.

Type bool

pass_update_queue
Determines whether update_queue will be passed to the callback function.

Type bool

pass_job_queue
Determines whether `job_queue` will be passed to the callback function.

Type `bool`

pass_user_data
Determines whether `user_data` will be passed to the callback function.

Type `bool`

pass_chat_data
Determines whether `chat_data` will be passed to the callback function.

Type `bool`

Note: This handler is being deprecated. For the same usecase use: `MessageHandler(Filters.regex(r'pattern'), callback)`

Parameters

- **pattern** (`str | Pattern`) – The regex pattern.
- **callback** (`callable`) – The callback function for this handler. Will be called when `check_update` has determined that an update should be processed by this handler. Callback signature for context based API:

  `def callback(update: Update, context: CallbackContext)`

  The return value of the callback is usually ignored except for the special case of *telegram.ext.ConversationHandler*.
- **pass_groups** (`bool`, optional) – If the callback should be passed the result of `re.match(pattern, data).groups()` as a keyword argument called `groups`. Default is `False`
- **pass_groupdict** (`bool`, optional) – If the callback should be passed the result of `re.match(pattern, data).groupdict()` as a keyword argument called `groupdict`. Default is `False`
- **pass_update_queue** (`bool`, optional) – If set to `True`, a keyword argument called `update_queue` will be passed to the callback function. It will be the `Queue` instance used by the *telegram.ext.Updater* and *telegram.ext.Dispatcher* that contains new updates which can be used to insert updates. Default is `False`.
- **pass_job_queue** (`bool`, optional) – If set to `True`, a keyword argument called `job_queue` will be passed to the callback function. It will be a *telegram.ext.JobQueue* instance created by the *telegram.ext.Updater* which can be used to schedule new jobs. Default is `False`.
- **pass_user_data** (`bool`, optional) – If set to `True`, a keyword argument called `user_data` will be passed to the callback function. Default is `False`.
- **pass_chat_data** (`bool`, optional) – If set to `True`, a keyword argument called `chat_data` will be passed to the callback function. Default is `False`.
- **message_updates** (`bool`, optional) – Should "normal" message updates be handled? Default is `True`.
- **channel_post_updates** (`bool`, optional) – Should channel posts updates be handled? Default is `True`.
- **edited_updates** (`bool`, optional) – Should "edited" message updates be handled? Default is `False`.

Raises `ValueError`

collect_optional_args(*dispatcher*, *update=None*, *check_result=None*)
Prepares the optional arguments. If the handler has additional optional args, it should subclass this method, but remember to call this super method.

DEPRECATED: This method is being replaced by new context based callbacks. Please see https://git.io/fxJuV for more info.

Parameters

- **dispatcher** (*telegram.ext.Dispatcher*) – The dispatcher.
- **update** (*telegram.Update*) – The update to gather chat/user id from.
- **check_result** – The result from check_update

telegram.ext.ShippingQueryHandler

class telegram.ext.**ShippingQueryHandler**(*callback*, *pass_update_queue=False*, *pass_job_queue=False*, *pass_user_data=False*, *pass_chat_data=False*)
Bases: `telegram.ext.handler.Handler`

Handler class to handle Telegram shipping callback queries.

callback
The callback function for this handler.

Type `callable`

pass_update_queue
Determines whether `update_queue` will be passed to the callback function.

Type `bool`

pass_job_queue
Determines whether `job_queue` will be passed to the callback function.

Type `bool`

pass_user_data
Determines whether `user_data` will be passed to the callback function.

Type `bool`

pass_chat_data
Determines whether `chat_data` will be passed to the callback function.

Type `bool`

Note: *pass_user_data* and *pass_chat_data* determine whether a `dict` you can use to keep any data in will be sent to the *callback* function. Related to either the user or the chat that the update was sent in. For each update from the same user or in the same chat, it will be the same `dict`.

Note that this is DEPRECATED, and you should use context based callbacks. See https://git.io/fxJuV for more info.

Parameters

- **callback** (`callable`) – The callback function for this handler. Will be called when *check_update* has determined that an update should be processed by this handler. Callback signature for context based API:

  ```
  def callback(update: Update, context: CallbackContext)
  ```

The return value of the callback is usually ignored except for the special case of *telegram.ext.ConversationHandler*.

- **pass_update_queue** (bool, optional) – If set to True, a keyword argument called update_queue will be passed to the callback function. It will be the Queue instance used by the *telegram.ext.Updater* and *telegram.ext.Dispatcher* that contains new updates which can be used to insert updates. Default is False. DEPRECATED: Please switch to context based callbacks.
- **pass_job_queue** (bool, optional) – If set to True, a keyword argument called job_queue will be passed to the callback function. It will be a *telegram.ext.JobQueue* instance created by the *telegram.ext.Updater* which can be used to schedule new jobs. Default is False. DEPRECATED: Please switch to context based callbacks.
- **pass_user_data** (bool, optional) – If set to True, a keyword argument called user_data will be passed to the callback function. Default is False. DEPRECATED: Please switch to context based callbacks.
- **pass_chat_data** (bool, optional) – If set to True, a keyword argument called chat_data will be passed to the callback function. Default is False. DEPRECATED: Please switch to context based callbacks.

check_update(*update*)

Determines whether an update should be passed to this handlers *callback*.

Parameters **update** (*telegram.Update*) – Incoming telegram update.

Returns bool

telegram.ext.StringCommandHandler

class telegram.ext.**StringCommandHandler**(*command*, *callback*, *pass_args=False*, *pass_update_queue=False*, *pass_job_queue=False*)

Bases: telegram.ext.handler.Handler

Handler class to handle string commands. Commands are string updates that start with /.

Note: This handler is not used to handle Telegram *telegram.Update*, but strings manually put in the queue. For example to send messages with the bot using command line or API.

command

The command this handler should listen for.

Type str

callback

The callback function for this handler.

Type callable

pass_args

Determines whether the handler should be passed args.

Type bool

pass_update_queue

Determines whether update_queue will be passed to the callback function.

Type bool

pass_job_queue

Determines whether job_queue will be passed to the callback function.

Type bool

Parameters

- **callback** (callable) – The callback function for this handler. Will be called when *check_update* has determined that an update should be processed by this handler. Callback signature for context based API:

  def callback(update: Update, context: CallbackContext)

  The return value of the callback is usually ignored except for the special case of *telegram.ext.ConversationHandler*.

- **pass_args** (bool, optional) – Determines whether the handler should be passed the arguments passed to the command as a keyword argument called args. It will contain a list of strings, which is the text following the command split on single or consecutive whitespace characters. Default is False DEPRECATED: Please switch to context based callbacks.

- **pass_update_queue** (bool, optional) – If set to True, a keyword argument called update_queue will be passed to the callback function. It will be the Queue instance used by the *telegram.ext.Updater* and *telegram.ext.Dispatcher* that contains new updates which can be used to insert updates. Default is False. DEPRECATED: Please switch to context based callbacks.

- **pass_job_queue** (bool, optional) – If set to True, a keyword argument called job_queue will be passed to the callback function. It will be a class:*telegram.ext.JobQueue* instance created by the *telegram.ext.Updater* which can be used to schedule new jobs. Default is False. DEPRECATED: Please switch to context based callbacks.

check_update(*update*)

Determines whether an update should be passed to this handlers *callback*.

Parameters **update** (str) – An incoming command.

Returns bool

collect_additional_context(*context*, *update*, *dispatcher*, *check_result*)

Prepares additional arguments for the context. Override if needed.

Parameters

- **context** (*telegram.ext.CallbackContext*) – The context object.
- **update** (*telegram.Update*) – The update to gather chat/user id from.
- **dispatcher** (*telegram.ext.Dispatcher*) – The calling dispatcher.
- **check_result** – The result (return value) from *check_update*.

collect_optional_args(*dispatcher*, *update=None*, *check_result=None*)

Prepares the optional arguments. If the handler has additional optional args, it should subclass this method, but remember to call this super method.

DEPRECATED: This method is being replaced by new context based callbacks. Please see https://git.io/fxJuV for more info.

Parameters

- **dispatcher** (*telegram.ext.Dispatcher*) – The dispatcher.
- **update** (*telegram.Update*) – The update to gather chat/user id from.
- **check_result** – The result from check_update

telegram.ext.StringRegexHandler

class telegram.ext.**StringRegexHandler**(*pattern*, *callback*, *pass_groups=False*, *pass_groupdict=False*, *pass_update_queue=False*, *pass_job_queue=False*)

Bases: telegram.ext.handler.Handler

Handler class to handle string updates based on a regex which checks the update content.

Read the documentation of the re module for more information. The re.match function is used to determine if an update should be handled by this handler.

Note: This handler is not used to handle Telegram *telegram.Update*, but strings manually put in the queue. For example to send messages with the bot using command line or API.

---

pattern
The regex pattern.

Type str|Pattern

callback
The callback function for this handler.

Type callable

pass_groups
Determines whether groups will be passed to the callback function.

Type bool

pass_groupdict
Determines whether groupdict. will be passed to the callback function.

Type bool

pass_update_queue
Determines whether update_queue will be passed to the callback function.

Type bool

pass_job_queue
Determines whether job_queue will be passed to the callback function.

Type bool

Parameters

- **pattern** (str|Pattern) – The regex pattern.
- **callback** (callable) – The callback function for this handler. Will be called when *check_update* has determined that an update should be processed by this handler. Callback signature for context based API:

  ```
  def callback(update: Update, context: CallbackContext)
  ```

  The return value of the callback is usually ignored except for the special case of *telegram.ext.ConversationHandler*.
- **pass_groups** (bool, optional) – If the callback should be passed the result of re.match(pattern, data).groups() as a keyword argument called groups. Default is False DEPRECATED: Please switch to context based callbacks.
- **pass_groupdict** (bool, optional) – If the callback should be passed the result of re.match(pattern, data).groupdict() as a keyword argument called groupdict. Default is False DEPRECATED: Please switch to context based callbacks.

- **pass_update_queue** (bool, optional) – If set to True, a keyword argument called update_queue will be passed to the callback function. It will be the Queue instance used by the *telegram.ext.Updater* and *telegram.ext.Dispatcher* that contains new updates which can be used to insert updates. Default is False. DEPRECATED: Please switch to context based callbacks.
- **pass_job_queue** (bool, optional) – If set to True, a keyword argument called job_queue will be passed to the callback function. It will be a *telegram.ext.JobQueue* instance created by the *telegram.ext.Updater* which can be used to schedule new jobs. Default is False. DEPRECATED: Please switch to context based callbacks.

check_update(*update*)
Determines whether an update should be passed to this handlers *callback*.

Parameters **update** (str) – An incoming command.

Returns bool

collect_additional_context(*context*, *update*, *dispatcher*, *check_result*)
Prepares additional arguments for the context. Override if needed.

Parameters

- **context** (*telegram.ext.CallbackContext*) – The context object.
- **update** (*telegram.Update*) – The update to gather chat/user id from.
- **dispatcher** (*telegram.ext.Dispatcher*) – The calling dispatcher.
- **check_result** – The result (return value) from *check_update*.

collect_optional_args(*dispatcher*, *update=None*, *check_result=None*)
Prepares the optional arguments. If the handler has additional optional args, it should subclass this method, but remember to call this super method.

DEPRECATED: This method is being replaced by new context based callbacks. Please see https://git.io/fxJuV for more info.

Parameters

- **dispatcher** (*telegram.ext.Dispatcher*) – The dispatcher.
- **update** (*telegram.Update*) – The update to gather chat/user id from.
- **check_result** – The result from check_update

telegram.ext.TypeHandler

class telegram.ext.**TypeHandler**(*type*, *callback*, *strict=False*, *pass_update_queue=False*, *pass_job_queue=False*)
Bases: telegram.ext.handler.Handler

Handler class to handle updates of custom types.

type
The type of updates this handler should process.

Type *type*

callback
The callback function for this handler.

Type callable

strict
Use type instead of isinstance. Default is False.

Type bool

pass_update_queue
Determines whether `update_queue` will be passed to the callback function.

Type `bool`

pass_job_queue
Determines whether `job_queue` will be passed to the callback function.

Type `bool`

Parameters

- **type** (*type*) – The `type` of updates this handler should process, as determined by `isinstance`
- **callback** (`callable`) – The callback function for this handler. Will be called when *check_update* has determined that an update should be processed by this handler. Callback signature for context based API:

  `def callback(update: Update, context: CallbackContext)`

  The return value of the callback is usually ignored except for the special case of *telegram.ext.ConversationHandler*.
- **strict** (`bool`, optional) – Use `type` instead of `isinstance`. Default is `False`
- **pass_update_queue** (`bool`, optional) – If set to `True`, a keyword argument called `update_queue` will be passed to the callback function. It will be the `Queue` instance used by the *telegram.ext.Updater* and *telegram.ext.Dispatcher* that contains new updates which can be used to insert updates. Default is `False`. DEPRECATED: Please switch to context based callbacks.
- **pass_job_queue** (`bool`, optional) – If set to `True`, a keyword argument called `job_queue` will be passed to the callback function. It will be a *telegram.ext.JobQueue* instance created by the *telegram.ext.Updater* which can be used to schedule new jobs. Default is `False`. DEPRECATED: Please switch to context based callbacks.

check_update(*update*)
Determines whether an update should be passed to this handlers *callback*.

Parameters **update** (*telegram.Update*) – Incoming telegram update.

Returns `bool`

3.1.10 Persistence

telegram.ext.BasePersistence

class telegram.ext.**BasePersistence**(*store_user_data=True*, *store_chat_data=True*)
Bases: `object`

Interface class for adding persistence to your bot. Subclass this object for different implementations of a persistent bot.

All relevant methods must be overwritten. This means:

- If *store_chat_data* is `True` you must overwrite *get_chat_data()* and *update_chat_data()*.
- If *store_user_data* is `True` you must overwrite *get_user_data()* and *update_user_data()*.
- If you want to store conversation data with *telegram.ext.ConversationHandler*, you must overwrite *get_conversations()* and *update_conversation()*.

- *flush()* will be called when the bot is shutdown.

store_user_data
Optional, Whether user_data should be saved by this persistence class.

Type bool

store_chat_data
Optional. Whether chat_data should be saved by this persistence class.

Type bool

Parameters

- **store_user_data** (bool, optional) – Whether user_data should be saved by this persistence class. Default is True.
- **store_chat_data** (bool, optional) – Whether chat_data should be saved by this persistence class. Default is True .

flush()
Will be called by *telegram.ext.Updater* upon receiving a stop signal. Gives the persistence a chance to finish up saving or close a database connection gracefully. If this is not of any importance just pass will be sufficient.

get_chat_data()
"Will be called by *telegram.ext.Dispatcher* upon creation with a persistence object. It should return the chat_data if stored, or an empty defaultdict(dict).

Returns The restored chat data.

Return type defaultdict

get_conversations(*name*)
"Will be called by *telegram.ext.Dispatcher* when a *telegram.ext.ConversationHandler* is added if *telegram.ext.ConversationHandler.persistent* is True. It should return the conversations for the handler with *name* or an empty dict

Parameters **name** (str) – The handlers name.

Returns The restored conversations for the handler.

Return type dict

get_user_data()
"Will be called by *telegram.ext.Dispatcher* upon creation with a persistence object. It should return the user_data if stored, or an empty defaultdict(dict).

Returns The restored user data.

Return type defaultdict

update_chat_data(*chat_id*, *data*)
Will be called by the *telegram.ext.Dispatcher* after a handler has handled an update.

Parameters

- **chat_id** (int) – The chat the data might have been changed for.
- **data** (dict) – The telegram.ext.dispatcher.chat_data [user_id].

update_conversation(*name*, *key*, *new_state*)
Will be called when a telegram.ext.ConversationHandler.update_state is called. this allows the storeage of the new state in the persistence.

Parameters

- **name** (str) – The handlers name.

- **key** (tuple) – The key the state is changed for.
- **new_state** (tuple | any) – The new state for the given key.

update_user_data(*user_id*, *data*)
Will be called by the *telegram.ext.Dispatcher* after a handler has handled an update.

Parameters

- **user_id** (int) – The user the data might have been changed for.
- **data** (dict) – The telegram.ext.dispatcher.user_data [user_id].

telegram.ext.PicklePersistence

class telegram.ext.**PicklePersistence**(*filename*, *store_user_data=True*, *store_chat_data=True*, *single_file=True*, *on_flush=False*)
Bases: telegram.ext.basepersistence.BasePersistence

Using python's builtin pickle for making you bot persistent.

filename
The filename for storing the pickle files. When *single_file* is false this will be used as a prefix.

Type str

store_user_data
Optional. Whether user_data should be saved by this persistence class.

Type bool

store_chat_data
Optional. Whether user_data should be saved by this persistence class.

Type bool

single_file
Optional. When False will store 3 sperate files of *filename_user_data*, *filename_chat_data* and *filename_conversations*. Default is True.

Type bool

on_flush
When True will only save to file when *flush()* is called and keep data in memory until that happens. When False will store data on any transaction *and* on call fo *flush()*. Default is False.

Type bool, optional

Parameters

- **filename** (str) – The filename for storing the pickle files. When *single_file* is false this will be used as a prefix.
- **store_user_data** (bool, optional) – Whether user_data should be saved by this persistence class. Default is True.
- **store_chat_data** (bool, optional) – Whether user_data should be saved by this persistence class. Default is True.
- **single_file** (bool, optional) – When False will store 3 sperate files of *filename_user_data*, *filename_chat_data* and *filename_conversations*. Default is True.
- **on_flush** (bool, optional) – When True will only save to file when *flush()* is called and keep data in memory until that happens. When False will store data on any transaction *and* on call fo *flush()*. Default is False.

flush()
Will save all data in memory to pickle file(s).

get_chat_data()
Returns the chat_data from the pickle file if it exsists or an empty defaultdict.

Returns The restored chat data.

Return type defaultdict

get_conversations(*name*)
Returns the conversations from the pickle file if it exsists or an empty defaultdict.

Parameters **name** (str) – The handlers name.

Returns The restored conversations for the handler.

Return type dict

get_user_data()
Returns the user_data from the pickle file if it exsists or an empty defaultdict.

Returns The restored user data.

Return type defaultdict

update_chat_data(*chat_id*, *data*)
Will update the chat_data (if changed) and depending on *on_flush* save the pickle file.

Parameters

- **chat_id** (int) – The chat the data might have been changed for.
- **data** (dict) – The telegram.ext.dispatcher.chat_data [chat_id].

update_conversation(*name*, *key*, *new_state*)
Will update the conversations for the given handler and depending on *on_flush* save the pickle file.

Parameters

- **name** (str) – The handlers name.
- **key** (tuple) – The key the state is changed for.
- **new_state** (tuple | any) – The new state for the given key.

update_user_data(*user_id*, *data*)
Will update the user_data (if changed) and depending on *on_flush* save the pickle file.

Parameters

- **user_id** (int) – The user the data might have been changed for.
- **data** (dict) – The telegram.ext.dispatcher.user_data [user_id].

telegram.ext.DictPersistence

class telegram.ext.**DictPersistence**(*store_user_data=True*, *store_chat_data=True*, *user_data_json=''*, *chat_data_json=''*, *conversations_json=''*)
Bases: telegram.ext.basepersistence.BasePersistence

Using python's dicts and json for making you bot persistent.

store_user_data
Whether user_data should be saved by this persistence class.

Type bool

store_chat_data
Whether chat_data should be saved by this persistence class.

Type bool

Parameters

- **store_user_data** (bool, optional) – Whether user_data should be saved by this persistence class. Default is True.
- **store_chat_data** (bool, optional) – Whether user_data should be saved by this persistence class. Default is True.
- **user_data_json** (str, optional) – Json string that will be used to reconstruct user_data on creating this persistence. Default is "".
- **chat_data_json** (str, optional) – Json string that will be used to reconstruct chat_data on creating this persistence. Default is "".
- **conversations_json** (str, optional) – Json string that will be used to reconstruct conversation on creating this persistence. Default is "".

chat_data
The chat_data as a dict

Type dict

chat_data_json
The chat_data serialized as a JSON-string.

Type str

conversations
The conversations as a dict

Type dict

conversations_json
The conversations serialized as a JSON-string.

Type str

get_chat_data()
Returns the chat_data created from the chat_data_json or an empty defaultdict.

Returns The restored user data.

Return type defaultdict

get_conversations(*name*)
Returns the conversations created from the conversations_json or an empty defaultdict.

Returns The restored user data.

Return type defaultdict

get_user_data()
Returns the user_data created from the user_data_json or an empty defaultdict.

Returns The restored user data.

Return type defaultdict

update_chat_data(*chat_id*, *data*)
Will update the chat_data (if changed).

Parameters

- **chat_id** (int) – The chat the data might have been changed for.
- **data** (dict) – The telegram.ext.dispatcher.chat_data [chat_id].

update_conversation(*name*, *key*, *new_state*)
Will update the conversations for the given handler.

Parameters

- **name** (str) – The handlers name.
- **key** (tuple) – The key the state is changed for.
- **new_state** (tuple | any) – The new state for the given key.

update_user_data(*user_id*, *data*)
Will update the user_data (if changed).

Parameters

- **user_id** (int) – The user the data might have been changed for.
- **data** (dict) – The telegram.ext.dispatcher.user_data [user_id].

user_data
The user_data as a dict

Type dict

user_data_json
The user_data serialized as a JSON-string.

Type str

3.2 telegram package

3.2.1 telegram.Animation

class telegram.**Animation**(*file_id*, *width*, *height*, *duration*, *thumb=None*, *file_name=None*, *mime_type=None*, *file_size=None*, ***kwargs*)
Bases: telegram.base.TelegramObject

This object represents an animation file to be displayed in the message containing a game.

file_id
Unique file identifier.

Type str

width
Video width as defined by sender.

Type int

height
Video height as defined by sender.

Type int

duration
Duration of the video in seconds as defined by sender.

Type int

thumb
Optional. Animation thumbnail as defined by sender.

Type *telegram.PhotoSize*

file_name
Optional. Original animation filename as defined by sender.

Type str

mime_type
Optional. MIME type of the file as defined by sender.

Type str

file_size
Optional. File size.

Type int

Parameters

- **file_id** (str) – Unique file identifier.
- **width** (int) – Video width as defined by sender.
- **height** (int) – Video height as defined by sender.
- **duration** (int) – Duration of the video in seconds as defined by sender.
- **thumb** (*telegram.PhotoSize*, optional) – Animation thumbnail as defined by sender.
- **file_name** (str, optional) – Original animation filename as defined by sender.
- **mime_type** (str, optional) – MIME type of the file as defined by sender.
- **file_size** (int, optional) – File size.

3.2.2 telegram.Audio

class telegram.**Audio**(*file_id*, *duration*, *performer=None*, *title=None*, *mime_type=None*, *file_size=None*, *thumb=None*, *bot=None*, ***kwargs*)
Bases: telegram.base.TelegramObject

This object represents an audio file to be treated as music by the Telegram clients.

file_id
Unique identifier for this file.

Type str

duration
Duration of the audio in seconds.

Type int

performer
Optional. Performer of the audio as defined by sender or by audio tags.

Type str

title
Optional. Title of the audio as defined by sender or by audio tags.

Type str

mime_type
Optional. MIME type of the file as defined by sender.

Type str

file_size
Optional. File size.

Type int

thumb
Optional. Thumbnail of the album cover to which the music file belongs

Type *telegram.PhotoSize*

bot
Optional. The Bot to use for instance methods.

Type *telegram.Bot*

Parameters

- **file_id** (str) – Unique identifier for this file.
- **duration** (int) – Duration of the audio in seconds as defined by sender.
- **performer** (str, optional) – Performer of the audio as defined by sender or by audio tags.
- **title** (str, optional) – Title of the audio as defined by sender or by audio tags.
- **mime_type** (str, optional) – MIME type of the file as defined by sender.
- **file_size** (int, optional) – File size.
- **thumb** (*telegram.PhotoSize*, optional) – Thumbnail of the album cover to which the music file belongs
- **bot** (*telegram.Bot*, optional) – The Bot to use for instance methods.
- ****kwargs** (dict) – Arbitrary keyword arguments.

get_file(*timeout=None*, ***kwargs*)
Convenience wrapper over *telegram.Bot.get_file*

Parameters

- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns *telegram.File*

Raises telegram.TelegramError

3.2.3 telegram.Bot

class telegram.**Bot**(*token*, *base_url=None*, *base_file_url=None*, *request=None*, *private_key=None*, *private_key_password=None*)
Bases: telegram.base.TelegramObject

This object represents a Telegram Bot.

Parameters

- **token** (str) – Bot's unique authentication.
- **base_url** (str, optional) – Telegram Bot API service URL.
- **base_file_url** (str, optional) – Telegram Bot API file URL.
- **request** (*telegram.utils.request.Request*, optional) – Pre initialized *telegram.utils.request.Request*.
- **private_key** (bytes, optional) – Private key for decryption of telegram passport data.
- **private_key_password** (bytes, optional) – Password for above private key.

addStickerToSet(*user_id*, *name*, *png_sticker*, *emojis*, *mask_position=None*, *timeout=20*, ***kwargs*)
Alias for *add_sticker_to_set*

add_sticker_to_set(*user_id*, *name*, *png_sticker*, *emojis*, *mask_position=None*, *timeout=20*, ***kwargs*)

Use this method to add a new sticker to a set created by the bot.

Note: The png_sticker argument can be either a file_id, an URL or a file from disk `open(filename, 'rb')`

Parameters

- **user_id** (`int`) – User identifier of created sticker set owner.
- **name** (`str`) – Sticker set name.
- **png_sticker** (`str` | *filelike object*) – Png image with the sticker, must be up to 512 kilobytes in size, dimensions must not exceed 512px, and either width or height must be exactly 512px. Pass a file_id as a String to send a file that already exists on the Telegram servers, pass an HTTP URL as a String for Telegram to get a file from the Internet, or upload a new one using multipart/form-data.
- **emojis** (`str`) – One or more emoji corresponding to the sticker.
- **mask_position** (*telegram.MaskPosition*, optional) – Position where the mask should beplaced on faces.
- **timeout** (`int` | `float`, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (`dict`) – Arbitrary keyword arguments.

Returns On success, `True` is returned.

Return type `bool`

Raises `telegram.TelegramError`

answerCallbackQuery(*callback_query_id*, *text=None*, *show_alert=False*, *url=None*, *cache_time=None*, *timeout=None*, ***kwargs*)

Alias for *answer_callback_query*

answerInlineQuery(*inline_query_id*, *results*, *cache_time=300*, *is_personal=None*, *next_offset=None*, *switch_pm_text=None*, *switch_pm_parameter=None*, *timeout=None*, ***kwargs*)

Alias for *answer_inline_query*

answerPreCheckoutQuery(*pre_checkout_query_id*, *ok*, *error_message=None*, *timeout=None*, ***kwargs*)

Alias for *answer_pre_checkout_query*

answerShippingQuery(*shipping_query_id*, *ok*, *shipping_options=None*, *error_message=None*, *timeout=None*, ***kwargs*)

Alias for *answer_shipping_query*

answer_callback_query(*callback_query_id*, *text=None*, *show_alert=False*, *url=None*, *cache_time=None*, *timeout=None*, ***kwargs*)

Use this method to send answers to callback queries sent from inline keyboards. The answer will be displayed to the user as a notification at the top of the chat screen or as an alert. Alternatively, the user can be redirected to the specified Game URL. For this option to work, you must first create a game for your bot via BotFather and accept the terms. Otherwise, you may use links like t.me/your_bot?start=XXXX that open your bot with a parameter.

Parameters

- **callback_query_id** (`str`) – Unique identifier for the query to be answered.

- **text** (str, optional) – Text of the notification. If not specified, nothing will be shown to the user, 0-200 characters.
- **show_alert** (bool, optional) – If true, an alert will be shown by the client instead of a notification at the top of the chat screen. Defaults to false.
- **url** (str, optional) – URL that will be opened by the user's client. If you have created a Game and accepted the conditions via @Botfather, specify the URL that opens your game - note that this will only work if the query comes from a callback game button. Otherwise, you may use links like t.me/your_bot?start=XXXX that open your bot with a parameter.
- **cache_time** (int, optional) – The maximum amount of time in seconds that the result of the callback query may be cached client-side. Defaults to 0.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns bool On success, True is returned.

Raises telegram.TelegramError

answer_inline_query(*inline_query_id*, *results*, *cache_time=300*, *is_personal=None*, *next_offset=None*, *switch_pm_text=None*, *switch_pm_parameter=None*, *timeout=None*, ***kwargs*)

Use this method to send answers to an inline query. No more than 50 results per query are allowed.

Parameters

- **inline_query_id** (str) – Unique identifier for the answered query.
- **results** (List[*telegram.InlineQueryResult*) – A list of results for the inline query.
- **cache_time** (int, optional) – The maximum amount of time in seconds that the result of the inline query may be cached on the server. Defaults to 300.
- **is_personal** (bool, optional) – Pass True, if results may be cached on the server side only for the user that sent the query. By default, results may be returned to any user who sends the same query.
- **next_offset** (str, optional) – Pass the offset that a client should send in the next query with the same text to receive more results. Pass an empty string if there are no more results or if you don't support pagination. Offset length can't exceed 64 bytes.
- **switch_pm_text** (str, optional) – If passed, clients will display a button with specified text that switches the user to a private chat with the bot and sends the bot a start message with the parameter switch_pm_parameter.
- **switch_pm_parameter** (str, optional) – Deep-linking parameter for the /start message sent to the bot when user presses the switch button. 1-64 characters, only A-Z, a-z, 0-9, _ and - are allowed.
- **timeout** (int | float, optional) – If this value is specified, use it as he read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Example

An inline bot that sends YouTube videos can ask the user to connect the bot to their YouTube account to adapt search results accordingly. To do this, it displays a 'Connect your YouTube account' button above the results, or even before showing any. The user presses the button, switches to a private chat with the bot and, in doing so, passes a start parameter that instructs the bot to return an oauth link.

Once done, the bot can offer a switch_inline button so that the user can easily return to the chat where they wanted to use the bot's inline capabilities.

Returns `bool` On success, `True` is returned.

Raises `telegram.TelegramError`

answer_pre_checkout_query(*pre_checkout_query_id*, *ok*, *error_message=None*, *timeout=None*, ***kwargs*)

Once the user has confirmed their payment and shipping details, the Bot API sends the final confirmation in the form of an Update with the field pre_checkout_query. Use this method to respond to such pre-checkout queries.

Note: The Bot API must receive an answer within 10 seconds after the pre-checkout query was sent.

Parameters

- **pre_checkout_query_id** (`str`) – Unique identifier for the query to be answered.
- **ok** (`bool`) – Specify True if everything is alright (goods are available, etc.) and the bot is ready to proceed with the order. Use False if there are any problems.
- **error_message** (`str`, optional) – Required if ok is False. Error message in human readable form that explains the reason for failure to proceed with the checkout (e.g. "Sorry, somebody just bought the last of our amazing black T-shirts while you were busy filling out your payment details. Please choose a different color or garment!"). Telegram will display this message to the user.
- **timeout** (`int | float`, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (`dict`) – Arbitrary keyword arguments.

Returns On success, `True` is returned.

Return type `bool`

Raises `telegram.TelegramError`

answer_shipping_query(*shipping_query_id*, *ok*, *shipping_options=None*, *error_message=None*, *timeout=None*, ***kwargs*)

If you sent an invoice requesting a shipping address and the parameter is_flexible was specified, the Bot API will send an Update with a shipping_query field to the bot. Use this method to reply to shipping queries.

Parameters

- **shipping_query_id** (`str`) – Unique identifier for the query to be answered.
- **ok** (`bool`) – Specify True if delivery to the specified address is possible and False if there are any problems (for example, if delivery to the specified address is not possible).
- **shipping_options** (List[*telegram.ShippingOption*]) – Required if ok is True. A JSON-serialized array of available shipping options.
- **error_message** (`str`, optional) – Required if ok is False. Error message in human readable form that explains why it is impossible to complete the order (e.g. "Sorry, delivery to your desired address is unavailable"). Telegram will display this message to the user.

- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns bool; On success, True is returned.

Raises telegram.TelegramError

createNewStickerSet(*user_id*, *name*, *title*, *png_sticker*, *emojis*, *contains_masks=None*, *mask_position=None*, *timeout=20*, ***kwargs*)
Alias for *create_new_sticker_set*

create_new_sticker_set(*user_id*, *name*, *title*, *png_sticker*, *emojis*, *contains_masks=None*, *mask_position=None*, *timeout=20*, ***kwargs*)
Use this method to create new sticker set owned by a user.

The bot will be able to edit the created sticker set.

Note: The png_sticker argument can be either a file_id, an URL or a file from disk `open(filename, 'rb')`

Parameters

- **user_id** (int) – User identifier of created sticker set owner.
- **name** (str) – Short name of sticker set, to be used in t.me/addstickers/ URLs (e.g., animals). Can contain only english letters, digits and underscores. Must begin with a letter, can't contain consecutive underscores and must end in "_by_<bot username>". <bot_username> is case insensitive. 1-64 characters.
- **title** (str) – Sticker set title, 1-64 characters.
- **png_sticker** (str | *filelike object*) – Png image with the sticker, must be up to 512 kilobytes in size, dimensions must not exceed 512px, and either width or height must be exactly 512px. Pass a file_id as a String to send a file that already exists on the Telegram servers, pass an HTTP URL as a String for Telegram to get a file from the Internet, or upload a new one using multipart/form-data.
- **emojis** (str) – One or more emoji corresponding to the sticker.
- **contains_masks** (bool, optional) – Pass True, if a set of mask stickers should be created.
- **mask_position** (*telegram.MaskPosition*, optional) – Position where the mask should be placed on faces.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns On success, True is returned.

Return type bool

Raises telegram.TelegramError

deleteChatPhoto(*chat_id*, *timeout=None*, ***kwargs*)
Alias for *delete_chat_photo*

deleteChatStickerSet(*chat_id*, *timeout=None*, ***kwargs*)
Alias for *delete_chat_sticker_set*

deleteMessage(*chat_id*, *message_id*, *timeout=None*, ***kwargs*)
Alias for *delete_message*

deleteStickerFromSet(*sticker*, *timeout=None*, ***kwargs*)
Alias for *delete_sticker_from_set*

deleteWebhook(*timeout=None*, ***kwargs*)
Alias for *delete_webhook*

delete_chat_photo(*chat_id*, *timeout=None*, ***kwargs*)
Use this method to delete a chat photo. Photos can't be changed for private chats. The bot must be an administrator in the chat for this to work and must have the appropriate admin rights.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments

Note: In regular groups (non-supergroups), this method will only work if the 'All Members Are Admins' setting is off in the target group.

Returns Returns True on success.

Return type bool

Raises telegram.TelegramError

delete_chat_sticker_set(*chat_id*, *timeout=None*, ***kwargs*)
Use this method to delete a group sticker set from a supergroup. The bot must be an administrator in the chat for this to work and must have the appropriate admin rights. Use the field *telegram.Chat.can_set_sticker_set* optionally returned in *get_chat* requests to check if the bot can use this method.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target supergroup (in the format @supergroupusername).
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns True on success.

Return type bool

delete_message(*chat_id*, *message_id*, *timeout=None*, ***kwargs*)
Use this method to delete a message, including service messages, with the following limitations:

- A message can only be deleted if it was sent less than 48 hours ago.
- Bots can delete outgoing messages in private chats, groups, and supergroups.
- Bots can delete incoming messages in private chats.
- Bots granted can_post_messages permissions can delete outgoing messages in channels.
- If the bot is an administrator of a group, it can delete any message there.

- If the bot has can_delete_messages permission in a supergroup or a channel, it can delete any message there.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **message_id** (int) – Identifier of the message to delete.
- **timeout** (int | float, optional) – If this value is specified, use it as
- **read timeout** (*the*) – from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns On success, True is returned.

Return type bool

Raises telegram.TelegramError

delete_sticker_from_set(*sticker*, *timeout=None*, ***kwargs*)

Use this method to delete a sticker from a set created by the bot.

Parameters

- **sticker** (str) – File identifier of the sticker.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns On success, True is returned.

Return type bool

Raises telegram.TelegramError

delete_webhook(*timeout=None*, ***kwargs*)

Use this method to remove webhook integration if you decide to switch back to getUpdates. Requires no parameters.

Parameters

- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns bool On success, True is returned.

Raises telegram.TelegramError

editMessageCaption(*chat_id=None*, *message_id=None*, *inline_message_id=None*, *caption=None*, *reply_markup=None*, *timeout=None*, *parse_mode=None*, ***kwargs*)

Alias for *edit_message_caption*

editMessageLiveLocation(*chat_id=None*, *message_id=None*, *inline_message_id=None*, *latitude=None*, *longitude=None*, *location=None*, *reply_markup=None*, *timeout=None*, ***kwargs*)

Alias for *edit_message_live_location*

editMessageMedia(*chat_id=None*, *message_id=None*, *inline_message_id=None*, *media=None*, *reply_markup=None*, *timeout=None*, ***kwargs*)

Alias for *edit_message_media*

editMessageReplyMarkup(*chat_id=None*, *message_id=None*, *inline_message_id=None*, *reply_markup=None*, *timeout=None*, ***kwargs*)

Alias for *edit_message_reply_markup*

editMessageText(*text*, *chat_id=None*, *message_id=None*, *inline_message_id=None*, *parse_mode=None*, *disable_web_page_preview=None*, *reply_markup=None*, *timeout=None*, ***kwargs*)

Alias for *edit_message_text*

edit_message_caption(*chat_id=None*, *message_id=None*, *inline_message_id=None*, *caption=None*, *reply_markup=None*, *timeout=None*, *parse_mode=None*, ***kwargs*)

Use this method to edit captions of messages sent by the bot or via the bot (for inline bots).

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **message_id** (int, optional) – Required if inline_message_id is not specified. Identifier of the sent message.
- **inline_message_id** (str, optional) – Required if chat_id and message_id are not specified. Identifier of the inline message.
- **caption** (str, optional) – New caption of the message.
- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **reply_markup** (*telegram.ReplyMarkup*, optional) – Additional interface options. A JSON-serialized object for an inline keyboard, custom reply keyboard, instructions to remove reply keyboard or to force a reply from the user.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns On success, if edited message is sent by the bot, the edited Message is returned, otherwise True is returned.

Return type *telegram.Message*

Raises telegram.TelegramError

edit_message_live_location(*chat_id=None*, *message_id=None*, *inline_message_id=None*, *latitude=None*, *longitude=None*, *location=None*, *reply_markup=None*, *timeout=None*, ***kwargs*)

Use this method to edit live location messages sent by the bot or via the bot (for inline bots). A location can be edited until its live_period expires or editing is explicitly disabled by a call to *stop_message_live_location*.

Note: You can either supply a latitude and longitude or a location.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **message_id** (int, optional) – Required if inline_message_id is not specified. Identifier of the sent message.

- **inline_message_id** (str, optional) – Required if chat_id and message_id are not specified. Identifier of the inline message.
- **latitude** (float, optional) – Latitude of location.
- **longitude** (float, optional) – Longitude of location.
- **location** (*telegram.Location*, optional) – The location to send.
- **reply_markup** (*telegram.ReplyMarkup*, optional) – Additional interface options. A JSON-serialized object for an inline keyboard, custom reply keyboard, instructions to remove reply keyboard or to force a reply from the user.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).

Returns On success the edited message.

Return type *telegram.Message*

edit_message_media(*chat_id=None*, *message_id=None*, *inline_message_id=None*, *media=None*, *reply_markup=None*, *timeout=None*, ***kwargs*)

Use this method to edit audio, document, photo, or video messages. If a message is a part of a message album, then it can be edited only to a photo or a video. Otherwise, message type can be changed arbitrarily. When inline message is edited, new file can't be uploaded. Use previously uploaded file via its file_id or specify a URL. On success, if the edited message was sent by the bot, the edited Message is returned, otherwise True is returned.

Parameters

- **chat_id** (int | str, optional) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **message_id** (int, optional) – Required if inline_message_id is not specified. Identifier of the sent message.
- **inline_message_id** (str, optional) – Required if chat_id and message_id are not specified. Identifier of the inline message.
- **media** (*telegram.InputMedia*) – An object for a new media content of the message.
- **reply_markup** (*telegram.ReplyMarkup*, optional) – Additional interface options. A JSON-serialized object for an inline keyboard, custom reply keyboard, instructions to remove reply keyboard or to force a reply from the user.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

edit_message_reply_markup(*chat_id=None*, *message_id=None*, *inline_message_id=None*, *reply_markup=None*, *timeout=None*, ***kwargs*)

Use this method to edit only the reply markup of messages sent by the bot or via the bot (for inline bots).

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **message_id** (int, optional) – Required if inline_message_id is not specified. Identifier of the sent message.
- **inline_message_id** (str, optional) – Required if chat_id and message_id are not specified. Identifier of the inline message.

- **reply_markup** (*telegram.ReplyMarkup*, optional) – Additional interface options. A JSON-serialized object for an inline keyboard, custom reply keyboard, instructions to remove reply keyboard or to force a reply from the user.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns On success, if edited message is sent by the bot, the editedMessage is returned, otherwise True is returned.

Return type *telegram.Message*

Raises telegram.TelegramError

edit_message_text(*text*, *chat_id=None*, *message_id=None*, *inline_message_id=None*, *parse_mode=None*, *disable_web_page_preview=None*, *reply_markup=None*, *timeout=None*, ***kwargs*)

Use this method to edit text and game messages sent by the bot or via the bot (for inline bots).

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **message_id** (int, optional) – Required if inline_message_id is not specified. Identifier of the sent message.
- **inline_message_id** (str, optional) – Required if chat_id and message_id are not specified. Identifier of the inline message.
- **text** (str) – New text of the message.
- **parse_mode** (str) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in your bot's message. See the constants in *telegram.ParseMode* for the available modes.
- **disable_web_page_preview** (bool, optional) – Disables link previews for links in this message.
- **reply_markup** (*telegram.ReplyMarkup*, optional) – Additional interface options. A JSON-serialized object for an inline keyboard, custom reply keyboard, instructions to remove reply keyboard or to force a reply from the user.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns On success, if edited message is sent by the bot, the edited Message is returned, otherwise True is returned.

Return type *telegram.Message*

Raises telegram.TelegramError

exportChatInviteLink(*chat_id*, *timeout=None*, ***kwargs*)

Alias for *export_chat_invite_link*

export_chat_invite_link(*chat_id*, *timeout=None*, ***kwargs*)

Use this method to export an invite link to a supergroup or a channel. The bot must be an administrator in the chat for this to work and must have the appropriate admin rights.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).

- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments

Returns Exported invite link on success.

Return type str

Raises telegram.TelegramError

first_name
Bot's first name.

Type str

forwardMessage(*chat_id*, *from_chat_id*, *message_id*, *disable_notification=False*, *timeout=None*, ***kwargs*)
Alias for *forward_message*

forward_message(*chat_id*, *from_chat_id*, *message_id*, *disable_notification=False*, *timeout=None*, ***kwargs*)
Use this method to forward messages of any kind.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **from_chat_id** (int | str) – Unique identifier for the chat where the original message was sent (or channel username in the format @channelusername).
- **disable_notification** (bool, optional) – Sends the message silently. Users will receive a notification with no sound.
- **message_id** (int) – Message identifier in the chat specified in from_chat_id.
- **timeout** (int | float, optional) – If this value is specified, use it as
- **read timeout** (*the*) – from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns On success, the sent Message is returned.

Return type *telegram.Message*

Raises telegram.TelegramError

getChat(*chat_id*, *timeout=None*, ***kwargs*)
Alias for *get_chat*

getChatAdministrators(*chat_id*, *timeout=None*, ***kwargs*)
Alias for *get_chat_administrators*

getChatMember(*chat_id*, *user_id*, *timeout=None*, ***kwargs*)
Alias for *get_chat_member*

getChatMembersCount(*chat_id*, *timeout=None*, ***kwargs*)
Alias for *get_chat_members_count*

getFile(*file_id*, *timeout=None*, ***kwargs*)
Alias for *get_file*

getGameHighScores(*user_id*, *chat_id=None*, *message_id=None*, *inline_message_id=None*, *timeout=None*, ***kwargs*)
Alias for *get_game_high_scores*

getMe(*timeout=None*, ***kwargs*)
Alias for *get_me*

getStickerSet(*name*, *timeout=None*, ***kwargs*)
Alias for *get_sticker_set*

getUpdates(*offset=None*, *limit=100*, *timeout=0*, *read_latency=2.0*, *allowed_updates=None*, ***kwargs*)
Alias for *get_updates*

getUserProfilePhotos(*user_id*, *offset=None*, *limit=100*, *timeout=None*, ***kwargs*)
Alias for *get_user_profile_photos*

getWebhookInfo(*timeout=None*, ***kwargs*)
Alias for *get_webhook_info*

get_chat(*chat_id*, *timeout=None*, ***kwargs*)
Use this method to get up to date information about the chat (current name of the user for one-on-one conversations, current username of a user, group or channel, etc.).

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns *telegram.Chat*

Raises telegram.TelegramError

get_chat_administrators(*chat_id*, *timeout=None*, ***kwargs*)
Use this method to get a list of administrators in a chat. On success, returns an Array of ChatMember objects that contains information about all chat administrators except other bots. If the chat is a group or a supergroup and no administrators were appointed, only the creator will be returned.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns List[*telegram.ChatMember*]

Raises telegram.TelegramError

get_chat_member(*chat_id*, *user_id*, *timeout=None*, ***kwargs*)
Use this method to get information about a member of a chat.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **user_id** (int) – Unique identifier of the target user.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns *telegram.ChatMember*

Raises telegram.TelegramError

get_chat_members_count(*chat_id*, *timeout=None*, ***kwargs*)
Use this method to get the number of members in a chat

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns Number of members in the chat.

Return type int

Raises telegram.TelegramError

get_file(*file_id*, *timeout=None*, ***kwargs*)
Use this method to get basic info about a file and prepare it for downloading. For the moment, bots can download files of up to 20MB in size. The file can then be downloaded with *telegram.File.download*. It is guaranteed that the link will be valid for at least 1 hour. When the link expires, a new one can be requested by calling get_file again.

Parameters

- **file_id** (str | *telegram.Audio* | *telegram.Document* | *telegram.PhotoSize* | *telegram.Sticker* | *telegram.Video* | *telegram.VideoNote* | *telegram.Voice*) – Either the file identifier or an object that has a file_id attribute to get file information about.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns *telegram.File*

Raises telegram.TelegramError

get_game_high_scores(*user_id*, *chat_id=None*, *message_id=None*, *inline_message_id=None*, *timeout=None*, ***kwargs*)
Use this method to get data for high score tables. Will return the score of the specified user and several of his neighbors in a game

Parameters

- **user_id** (int) – User identifier.
- **chat_id** (int | str, optional) – Required if inline_message_id is not specified. Unique identifier for the target chat.
- **message_id** (int, optional) – Required if inline_message_id is not specified. Identifier of the sent message.
- **inline_message_id** (str, optional) – Required if chat_id and message_id are not specified. Identifier of the inline message.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns List[*telegram.GameHighScore*]

Raises telegram.TelegramError

get_me(*timeout=None*, ***kwargs*)
A simple method for testing your bot's auth token. Requires no parameters.

Parameters **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).

Returns A *telegram.User* instance representing that bot if the credentials are valid, None otherwise.

Return type *telegram.User*

Raises telegram.TelegramError

get_sticker_set(*name*, *timeout=None*, ***kwargs*)
Use this method to get a sticker set.

Parameters

- **name** (str) – Short name of the sticker set that is used in t.me/addstickers/ URLs (e.g., animals)
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns *telegram.StickerSet*

Raises telegram.TelegramError

get_updates(*offset=None*, *limit=100*, *timeout=0*, *read_latency=2.0*, *allowed_updates=None*, ***kwargs*)
Use this method to receive incoming updates using long polling.

Parameters

- **offset** (int, optional) – Identifier of the first update to be returned. Must be greater by one than the highest among the identifiers of previously received updates. By default, updates starting with the earliest unconfirmed update are returned. An update is considered confirmed as soon as getUpdates is called with an offset higher than its update_id. The negative offset can be specified to retrieve updates starting from -offset update from the end of the updates queue. All previous updates will forgotten.
- **limit** (int, optional) – Limits the number of updates to be retrieved. Values between 1-100 are accepted. Defaults to 100.
- **timeout** (int, optional) – Timeout in seconds for long polling. Defaults to 0, i.e. usual short polling. Should be positive, short polling should be used for testing purposes only.
- **allowed_updates** (List[str]), optional) – List the types of updates you want your bot to receive. For example, specify ["message", "edited_channel_post", "callback_query"] to only receive updates of these types. See *telegram.Update* for a complete list of available update types. Specify an empty list to receive all updates regardless of type (default). If not specified, the previous setting will be used. Please note that this parameter doesn't affect updates created before the call to the get_updates, so unwanted updates may be received for a short period of time.
- ****kwargs** (dict) – Arbitrary keyword arguments.

Notes

1. This method will not work if an outgoing webhook is set up.
2. In order to avoid getting duplicate updates, recalculate offset after each server response.

3. To take full advantage of this library take a look at *telegram.ext.Updater*

Returns List[*telegram.Update*]

Raises telegram.TelegramError

get_user_profile_photos(*user_id*, *offset=None*, *limit=100*, *timeout=None*, ***kwargs*)
Use this method to get a list of profile pictures for a user.

Parameters

- **user_id** (int) – Unique identifier of the target user.
- **offset** (int, optional) – Sequential number of the first photo to be returned. By default, all photos are returned.
- **limit** (int, optional) – Limits the number of photos to be retrieved. Values between 1-100 are accepted. Defaults to 100.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns *telegram.UserProfilePhotos*

Raises telegram.TelegramError

get_webhook_info(*timeout=None*, ***kwargs*)
Use this method to get current webhook status. Requires no parameters.

If the bot is using getUpdates, will return an object with the url field empty.

Parameters

- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns *telegram.WebhookInfo*

id
Unique identifier for this bot.

Type int

kickChatMember(*chat_id*, *user_id*, *timeout=None*, *until_date=None*, ***kwargs*)
Alias for *kick_chat_member*

kick_chat_member(*chat_id*, *user_id*, *timeout=None*, *until_date=None*, ***kwargs*)
Use this method to kick a user from a group or a supergroup. In the case of supergroups, the user will not be able to return to the group on their own using invite links, etc., unless unbanned first. The bot must be an administrator in the group for this to work.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **user_id** (int) – Unique identifier of the target user.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).

- **until_date** (int | datetime.datetime, optional) – Date when the user will be unbanned, unix time. If user is banned for more than 366 days or less than 30 seconds from the current time they are considered to be banned forever.
- ****kwargs** (dict) – Arbitrary keyword arguments.

Note: In regular groups (non-supergroups), this method will only work if the 'All Members Are Admins' setting is off in the target group. Otherwise members may only be removed by the group's creator or by the member that added them.

Returns bool On success, True is returned.

Raises telegram.TelegramError

last_name
Optional. Bot's last name.

Type str

leaveChat(*chat_id*, *timeout=None*, ***kwargs*)
Alias for *leave_chat*

leave_chat(*chat_id*, *timeout=None*, ***kwargs*)
Use this method for your bot to leave a group, supergroup or channel.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns bool On success, True is returned.

Raises telegram.TelegramError

name
Bot's @username.

Type str

pinChatMessage(*chat_id*, *message_id*, *disable_notification=None*, *timeout=None*, ***kwargs*)
Alias for *pin_chat_message*

pin_chat_message(*chat_id*, *message_id*, *disable_notification=None*, *timeout=None*, ***kwargs*)
Use this method to pin a message in a supergroup. The bot must be an administrator in the chat for this to work and must have the appropriate admin rights.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **message_id** (int) – Identifier of a message to pin.
- **disable_notification** (bool, optional) – Pass True, if it is not necessary to send a notification to all group members about the new pinned message.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).

- ****kwargs** (dict) – Arbitrary keyword arguments

Returns Returns `True` on success.

Return type bool

Raises telegram.TelegramError

promoteChatMember(*chat_id*, *user_id*, *can_change_info=None*, *can_post_messages=None*, *can_edit_messages=None*, *can_delete_messages=None*, *can_invite_users=None*, *can_restrict_members=None*, *can_pin_messages=None*, *can_promote_members=None*, *timeout=None*, ***kwargs*)

Alias for *promote_chat_member*

promote_chat_member(*chat_id*, *user_id*, *can_change_info=None*, *can_post_messages=None*, *can_edit_messages=None*, *can_delete_messages=None*, *can_invite_users=None*, *can_restrict_members=None*, *can_pin_messages=None*, *can_promote_members=None*, *timeout=None*, ***kwargs*)

Use this method to promote or demote a user in a supergroup or a channel. The bot must be an administrator in the chat for this to work and must have the appropriate admin rights. Pass False for all boolean parameters to demote a user

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target supergroup (in the format @supergroupusername).
- **user_id** (int) – Unique identifier of the target user.
- **can_change_info** (bool, optional) – Pass True, if the administrator can change chat title, photo and other settings.
- **can_post_messages** (bool, optional) – Pass True, if the administrator can create channel posts, channels only.
- **can_edit_messages** (bool, optional) – Pass True, if the administrator can edit messages of other users, channels only.
- **can_delete_messages** (bool, optional) – Pass True, if the administrator can delete messages of other users.
- **can_invite_users** (bool, optional) – Pass True, if the administrator can invite new users to the chat.
- **can_restrict_members** (bool, optional) – Pass True, if the administrator can restrict, ban or unban chat members.
- **can_pin_messages** (bool, optional) – Pass True, if the administrator can pin messages, supergroups only.
- **can_promote_members** (bool, optional) – Pass True, if the administrator can add new administrators with a subset of his own privileges or demote administrators that he has promoted, directly or indirectly (promoted by administrators that were appointed by him).
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments

Returns Returns True on success.

Return type bool

Raises telegram.TelegramError

restrictChatMember(*chat_id*, *user_id*, *until_date=None*, *can_send_messages=None*, *can_send_media_messages=None*, *can_send_other_messages=None*, *can_add_web_page_previews=None*, *timeout=None*, ***kwargs*)

Alias for *restrict_chat_member*

restrict_chat_member(*chat_id*, *user_id*, *until_date=None*, *can_send_messages=None*, *can_send_media_messages=None*, *can_send_other_messages=None*, *can_add_web_page_previews=None*, *timeout=None*, ***kwargs*)

Use this method to restrict a user in a supergroup. The bot must be an administrator in the supergroup for this to work and must have the appropriate admin rights. Pass True for all boolean parameters to lift restrictions from a user.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target supergroup (in the format @supergroupusername).
- **user_id** (int) – Unique identifier of the target user.
- **until_date** (int | datetime.datetime, optional) – Date when restrictions will be lifted for the user, unix time. If user is restricted for more than 366 days or less than 30 seconds from the current time, they are considered to be restricted forever.
- **can_send_messages** (bool, optional) – Pass True, if the user can send text messages, contacts, locations and venues.
- **can_send_media_messages** (bool, optional) – Pass True, if the user can send audios, documents, photos, videos, video notes and voice notes, implies can_send_messages.
- **can_send_other_messages** (bool, optional) – Pass True, if the user can send animations, games, stickers and use inline bots, implies can_send_media_messages.
- **can_add_web_page_previews** (bool, optional) – Pass True, if the user may add web page previews to their messages, implies can_send_media_messages.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments

Returns Returns True on success.

Return type bool

Raises telegram.TelegramError

sendAnimation(*chat_id*, *animation*, *duration=None*, *width=None*, *height=None*, *thumb=None*, *caption=None*, *parse_mode=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, ***kwargs*)

Alias for *send_animation*

sendAudio(*chat_id*, *audio*, *duration=None*, *performer=None*, *title=None*, *caption=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *parse_mode=None*, *thumb=None*, ***kwargs*)

Alias for *send_audio*

sendChatAction(*chat_id*, *action*, *timeout=None*, ***kwargs*)

Alias for *send_chat_action*

sendContact(*chat_id*, *phone_number=None*, *first_name=None*, *last_name=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *contact=None*, *vcard=None*, ***kwargs*)

Alias for *send_contact*

sendDocument(*chat_id*, *document*, *filename=None*, *caption=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *parse_mode=None*, *thumb=None*, ***kwargs*)
Alias for *send_document*

sendGame(*chat_id*, *game_short_name*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, ***kwargs*)
Alias for *send_game*

sendInvoice(*chat_id*, *title*, *description*, *payload*, *provider_token*, *start_parameter*, *currency*, *prices*, *photo_url=None*, *photo_size=None*, *photo_width=None*, *photo_height=None*, *need_name=None*, *need_phone_number=None*, *need_email=None*, *need_shipping_address=None*, *is_flexible=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *provider_data=None*, *send_phone_number_to_provider=None*, *send_email_to_provider=None*, *timeout=None*, ***kwargs*)
Alias for *send_invoice*

sendLocation(*chat_id*, *latitude=None*, *longitude=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *location=None*, *live_period=None*, ***kwargs*)
Alias for *send_location*

sendMediaGroup(*chat_id*, *media*, *disable_notification=None*, *reply_to_message_id=None*, *timeout=20*, ***kwargs*)
Alias for *send_media_group*

sendMessage(*chat_id*, *text*, *parse_mode=None*, *disable_web_page_preview=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, ***kwargs*)
Alias for *send_message*

sendPhoto(*chat_id*, *photo*, *caption=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *parse_mode=None*, ***kwargs*)
Alias for *send_photo*

sendPoll(*chat_id*, *question*, *options*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, ***kwargs*)
Alias for *send_poll*

sendSticker(*chat_id*, *sticker*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, ***kwargs*)
Alias for *send_sticker*

sendVenue(*chat_id*, *latitude=None*, *longitude=None*, *title=None*, *address=None*, *foursquare_id=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *venue=None*, *foursquare_type=None*, ***kwargs*)
Alias for *send_venue*

sendVideo(*chat_id*, *video*, *duration=None*, *caption=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *width=None*, *height=None*, *parse_mode=None*, *supports_streaming=None*, *thumb=None*, ***kwargs*)
Alias for *send_video*

sendVideoNote(*chat_id*, *video_note*, *duration=None*, *length=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *thumb=None*, ***kwargs*)
Alias for *send_video_note*

sendVoice(*chat_id*, *voice*, *duration=None*, *caption=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *parse_mode=None*, ***kwargs*)
Alias for *send_voice*

send_animation(*chat_id*, *animation*, *duration=None*, *width=None*, *height=None*, *thumb=None*, *caption=None*, *parse_mode=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, ***kwargs*)

Use this method to send animation files (GIF or H.264/MPEG-4 AVC video without sound).

Parameters

- **chat_id** (`int | str`) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **animation** (`str` | *filelike object* | *telegram.Animation*) – Animation to send. Pass a file_id as String to send an animation that exists on the Telegram servers (recommended), pass an HTTP URL as a String for Telegram to get an animation from the Internet, or upload a new animation using multipart/form-data. Lastly you can pass an existing *telegram.Animation* object to send.
- **duration** (`int`, optional) – Duration of sent animation in seconds.
- **width** (`int`, optional) – Animation width.
- **height** (`int`, optional) – Animation height.
- **thumb** (*filelike object*, optional) – Thumbnail of the file sent. The thumbnail should be in JPEG format and less than 200 kB in size. A thumbnail's width and height should not exceed 90. Ignored if the file is not is passed as a string or file_id.
- **caption** (`str`, optional) – Animation caption (may also be used when resending animations by file_id), 0-1024 characters.
- **parse_mode** (`str`, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **disable_notification** (`bool`, optional) – Sends the message silently. Users will receive a notification with no sound.
- **reply_to_message_id** (`int`, optional) – If the message is a reply, ID of the original message.
- **reply_markup** (*telegram.ReplyMarkup*, optional) – Additional interface options. A JSON-serialized object for an inline keyboard, custom reply keyboard, instructions to remove reply keyboard or to force a reply from the user.
- **timeout** (`int | float`, optional) – Send file timeout (default: 20 seconds).
- ****kwargs** (`dict`) – Arbitrary keyword arguments.

Returns On success, the sent Message is returned.

Return type *telegram.Message*

Raises `telegram.TelegramError`

send_audio(*chat_id*, *audio*, *duration=None*, *performer=None*, *title=None*, *caption=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *parse_mode=None*, *thumb=None*, ***kwargs*)

Use this method to send audio files, if you want Telegram clients to display them in the music player. Your audio must be in the .mp3 format. On success, the sent Message is returned. Bots can currently send audio files of up to 50 MB in size, this limit may be changed in the future.

For sending voice messages, use the sendVoice method instead.

Note: The audio argument can be either a file_id, an URL or a file from disk `open(filename, 'rb')`

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **audio** (str | *filelike object* | *telegram.Audio*) – Audio file to send. Pass a file_id as String to send an audio file that exists on the Telegram servers (recommended), pass an HTTP URL as a String for Telegram to get an audio file from the Internet, or upload a new one using multipart/form-data. Lastly you can pass an existing *telegram.Audio* object to send.
- **caption** (str, optional) – Audio caption, 0-1024 characters.
- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **duration** (int, optional) – Duration of sent audio in seconds.
- **performer** (str, optional) – Performer.
- **title** (str, optional) – Track name.
- **disable_notification** (bool, optional) – Sends the message silently. Users will receive a notification with no sound.
- **reply_to_message_id** (int, optional) – If the message is a reply, ID of the original message.
- **reply_markup** (*telegram.ReplyMarkup*, optional) – Additional interface options. A JSON-serialized object for an inline keyboard, custom reply keyboard, instructions to remove reply keyboard or to force a reply from the user.
- **thumb** (*filelike object*, optional) – Thumbnail of the file sent. The thumbnail should be in JPEG format and less than 200 kB in size. A thumbnail's width and height should not exceed 90. Ignored if the file is not is passed as a string or file_id.
- **timeout** (int | float, optional) – Send file timeout (default: 20 seconds).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns On success, the sent Message is returned.

Return type *telegram.Message*

Raises telegram.TelegramError

send_chat_action(*chat_id*, *action*, *timeout=None*, ***kwargs*)

Use this method when you need to tell the user that something is happening on the bot's side. The status is set for 5 seconds or less (when a message arrives from your bot, Telegram clients clear its typing status).

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **action** (*telegram.ChatAction* | str) – Type of action to broadcast. Choose one, depending on what the user is about to receive. For convenience look at the constants in *telegram.ChatAction*
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns True on success.

Return type bool

Raises telegram.TelegramError

send_contact(*chat_id*, *phone_number=None*, *first_name=None*, *last_name=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *contact=None*, *vcard=None*, ***kwargs*)

Use this method to send phone contacts.

Note: You can either supply `contact` or `phone_number` and *`first_name`* with optionally *`last_name`* and optionally `vcard`.

Parameters

- **chat_id** (`int | str`) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **phone_number** (`str`, optional) – Contact's phone number.
- **first_name** (`str`, optional) – Contact's first name.
- **last_name** (`str`, optional) – Contact's last name.
- **vcard** (`str`, optional) – Additional data about the contact in the form of a vCard, 0-2048 bytes.
- **contact** (*`telegram.Contact`*, optional) – The contact to send.
- **disable_notification** (`bool`, optional) – Sends the message silently. Users will receive a notification with no sound.
- **reply_to_message_id** (`int`, optional) – If the message is a reply, ID of the original message.
- **reply_markup** (*`telegram.ReplyMarkup`*, optional) – Additional interface options. A JSON-serialized object for an inline keyboard, custom reply keyboard, instructions to remove reply keyboard or to force a reply from the user.
- **timeout** (`int | float`, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (`dict`) – Arbitrary keyword arguments.

Returns On success, the sent Message is returned.

Return type *`telegram.Message`*

Raises `telegram.TelegramError`

send_document(*chat_id*, *document*, *filename=None*, *caption=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *parse_mode=None*, *thumb=None*, ***kwargs*)

Use this method to send general files.

Note: The document argument can be either a file_id, an URL or a file from disk `open(filename, 'rb')`

Parameters

- **chat_id** (`int | str`) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **document** (`str` | *filelike object* | *`telegram.Document`*) – File to send. Pass a file_id as String to send a file that exists on the Telegram servers (recommended), pass an HTTP URL as a String for Telegram to get a file from the Internet, or upload

a new one using multipart/form-data. Lastly you can pass an existing *telegram.Document* object to send.

- **filename** (str, optional) – File name that shows in telegram message (it is useful when you send file generated by temp module, for example). Undocumented.
- **caption** (str, optional) – Document caption (may also be used when resending documents by file_id), 0-1024 characters.
- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **disable_notification** (bool, optional) – Sends the message silently. Users will receive a notification with no sound.
- **reply_to_message_id** (int, optional) – If the message is a reply, ID of the original message.
- **reply_markup** (*telegram.ReplyMarkup*, optional) – Additional interface options. A JSON-serialized object for an inline keyboard, custom reply keyboard, instructions to remove reply keyboard or to force a reply from the user.
- **thumb** (*filelike object*, optional) – Thumbnail of the file sent. The thumbnail should be in JPEG format and less than 200 kB in size. A thumbnail's width and height should not exceed 90. Ignored if the file is not is passed as a string or file_id.
- **timeout** (int | float, optional) – Send file timeout (default: 20 seconds).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns On success, the sent Message is returned.

Return type *telegram.Message*

Raises telegram.TelegramError

send_game(*chat_id*, *game_short_name*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, ***kwargs*)

Use this method to send a game.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **game_short_name** (str) – Short name of the game, serves as the unique identifier for the game. Set up your games via Botfather.
- **disable_notification** (bool, optional) – Sends the message silently. Users will receive a notification with no sound.
- **reply_to_message_id** (int, optional) – If the message is a reply, ID of the original message.
- **reply_markup** (*telegram.ReplyMarkup*, optional) – Additional interface options. A JSON-serialized object for an inline keyboard, custom reply keyboard, instructions to remove reply keyboard or to force a reply from the user.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns On success, the sent Message is returned.

Return type *telegram.Message*

Raises telegram.TelegramError

send_invoice(*chat_id*, *title*, *description*, *payload*, *provider_token*, *start_parameter*, *currency*, *prices*, *photo_url=None*, *photo_size=None*, *photo_width=None*, *photo_height=None*, *need_name=None*, *need_phone_number=None*, *need_email=None*, *need_shipping_address=None*, *is_flexible=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *provider_data=None*, *send_phone_number_to_provider=None*, *send_email_to_provider=None*, *timeout=None*, ***kwargs*)

Use this method to send invoices.

Parameters

- **chat_id** (int | str) – Unique identifier for the target private chat.
- **title** (str) – Product name.
- **description** (str) – Product description.
- **payload** (str) – Bot-defined invoice payload, 1-128 bytes. This will not be displayed to the user, use for your internal processes.
- **provider_token** (str) – Payments provider token, obtained via Botfather.
- **start_parameter** (str) – Unique deep-linking parameter that can be used to generate this invoice when used as a start parameter.
- **currency** (str) – Three-letter ISO 4217 currency code.
- **prices** (List[*telegram.LabeledPrice*) – Price breakdown, a list of components (e.g. product price, tax, discount, delivery cost, delivery tax, bonus, etc.).
- **provider_data** (str | object, optional) – JSON-encoded data about the invoice, which will be shared with the payment provider. A detailed description of required fields should be provided by the payment provider. When an object is passed, it will be encoded as JSON.
- **photo_url** (str, optional) – URL of the product photo for the invoice. Can be a photo of the goods or a marketing image for a service. People like it better when they see what they are paying for.
- **photo_size** (str, optional) – Photo size.
- **photo_width** (int, optional) – Photo width.
- **photo_height** (int, optional) – Photo height.
- **need_name** (bool, optional) – Pass True, if you require the user's full name to complete the order.
- **need_phone_number** (bool, optional) – Pass True, if you require the user's phone number to complete the order.
- **need_email** (bool, optional) – Pass True, if you require the user's email to complete the order.
- **need_shipping_address** (bool, optional) – Pass True, if you require the user's shipping address to complete the order.
- **send_phone_number_to_provider** (bool, optional) – Pass True, if user's phone number should be sent to provider.
- **send_email_to_provider** (bool, optional) – Pass True, if user's email address should be sent to provider.
- **is_flexible** (bool, optional) – Pass True, if the final price depends on the shipping method.
- **disable_notification** (bool, optional) – Sends the message silently. Users will receive a notification with no sound.

- **reply_to_message_id** (int, optional) – If the message is a reply, ID of the original message.
- **reply_markup** (*telegram.ReplyMarkup*, optional) – Additional interface options. An inlinekeyboard. If empty, one 'Pay total price' button will be shown. If not empty, the first button must be a Pay button.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns On success, the sent Message is returned.

Return type *telegram.Message*

Raises telegram.TelegramError

send_location(*chat_id*, *latitude=None*, *longitude=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *location=None*, *live_period=None*, ***kwargs*)

Use this method to send point on the map.

Note: You can either supply a latitude and longitude or a location.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **latitude** (float, optional) – Latitude of location.
- **longitude** (float, optional) – Longitude of location.
- **location** (*telegram.Location*, optional) – The location to send.
- **live_period** (int, optional) – Period in seconds for which the location will be updated, should be between 60 and 86400.
- **disable_notification** (bool, optional) – Sends the message silently. Users will receive a notification with no sound.
- **reply_to_message_id** (int, optional) – If the message is a reply, ID of the original message.
- **reply_markup** (*telegram.ReplyMarkup*, optional) – Additional interface options. A JSON-serialized object for an inline keyboard, custom reply keyboard, instructions to remove reply keyboard or to force a reply from the user.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns On success, the sent Message is returned.

Return type *telegram.Message*

Raises telegram.TelegramError

send_media_group(*chat_id*, *media*, *disable_notification=None*, *reply_to_message_id=None*, *timeout=20*, ***kwargs*)

Use this method to send a group of photos or videos as an album.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **media** (List[*telegram.InputMedia*]) – An array describing photos and videos to be sent, must include 2–10 items.
- **disable_notification** (bool, optional) – Sends the message silently. Users will receive a notification with no sound.
- **reply_to_message_id** (int, optional) – If the message is a reply, ID of the original message.
- **timeout** (int | float, optional) – Send file timeout (default: 20 seconds).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns An array of the sent Messages.

Return type List[*telegram.Message*]

Raises telegram.TelegramError

send_message(*chat_id*, *text*, *parse_mode=None*, *disable_web_page_preview=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, ***kwargs*)

Use this method to send text messages.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **text** (str) – Text of the message to be sent. Max 4096 characters. Also found as *telegram.constants.MAX_MESSAGE_LENGTH*.
- **parse_mode** (str) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in your bot's message. See the constants in *telegram.ParseMode* for the available modes.
- **disable_web_page_preview** (bool, optional) – Disables link previews for links in this message.
- **disable_notification** (bool, optional) – Sends the message silently. Users will receive a notification with no sound.
- **reply_to_message_id** (int, optional) – If the message is a reply, ID of the original message.
- **reply_markup** (*telegram.ReplyMarkup*, optional) – Additional interface options. A JSON-serialized object for an inline keyboard, custom reply keyboard, instructions to remove reply keyboard or to force a reply from the user.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns On success, the sent message is returned.

Return type *telegram.Message*

Raises telegram.TelegramError

send_photo(*chat_id*, *photo*, *caption=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *parse_mode=None*, ***kwargs*)

Use this method to send photos.

Note: The photo argument can be either a file_id, an URL or a file from disk `open(filename, 'rb')`

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **photo** (str | *filelike object* | *telegram.PhotoSize*) – Photo to send. Pass a file_id as String to send a photo that exists on the Telegram servers (recommended), pass an HTTP URL as a String for Telegram to get a photo from the Internet, or upload a new photo using multipart/form-data. Lastly you can pass an existing *telegram.PhotoSize* object to send.
- **caption** (str, optional) – Photo caption (may also be used when resending photos by file_id), 0-1024 characters.
- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **disable_notification** (bool, optional) – Sends the message silently. Users will receive a notification with no sound.
- **reply_to_message_id** (int, optional) – If the message is a reply, ID of the original message.
- **reply_markup** (*telegram.ReplyMarkup*, optional) – Additional interface options. A JSON-serialized object for an inline keyboard, custom reply keyboard, instructions to remove reply keyboard or to force a reply from the user.
- **timeout** (int | float, optional) – Send file timeout (default: 20 seconds).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns On success, the sent Message is returned.

Return type *telegram.Message*

Raises telegram.TelegramError

send_poll(*chat_id*, *question*, *options*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, ***kwargs*)

Use this method to send a native poll. A native poll can't be sent to a private chat.

Parameters

- **chat_id** (int | str) – Unique identifier for the target private chat.
- **question** (str) – Poll question, 1-255 characters.
- **options** (List[str]) – List of answer options, 2-10 strings 1-100 characters each.
- **disable_notification** (bool, optional) – Sends the message silently. Users will receive a notification with no sound.
- **reply_to_message_id** (int, optional) – If the message is a reply, ID of the original message.
- **reply_markup** (*telegram.ReplyMarkup*, optional) – Additional interface options. A JSON-serialized object for an inline keyboard, custom reply keyboard, instructions to remove reply keyboard or to force a reply from the user.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).

- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns On success, the sent Message is returned.

Return type *telegram.Message*

Raises telegram.TelegramError

send_sticker(*chat_id*, *sticker*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, ***kwargs*)

Use this method to send .webp stickers.

Note: The sticker argument can be either a file_id, an URL or a file from disk `open(filename, 'rb')`

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **sticker** (str | *filelike object* *telegram.Sticker*) – Sticker to send. Pass a file_id as String to send a file that exists on the Telegram servers (recommended), pass an HTTP URL as a String for Telegram to get a .webp file from the Internet, or upload a new one using multipart/form-data. Lastly you can pass an existing *telegram.Sticker* object to send.
- **disable_notification** (bool, optional) – Sends the message silently. Users will receive a notification with no sound.
- **reply_to_message_id** (int, optional) – If the message is a reply, ID of the original message.
- **reply_markup** (*telegram.ReplyMarkup*, optional) – Additional interface options. A JSON-serialized object for an inline keyboard, custom reply keyboard, instructions to remove reply keyboard or to force a reply from the user.
- **timeout** (int | float, optional) – Send file timeout (default: 20 seconds).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns On success, the sent Message is returned.

Return type *telegram.Message*

Raises telegram.TelegramError

send_venue(*chat_id*, *latitude=None*, *longitude=None*, *title=None*, *address=None*, *foursquare_id=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *venue=None*, *foursquare_type=None*, ***kwargs*)

Use this method to send information about a venue.

Note: you can either supply `venue`, or `latitude`, `longitude`, `title` and `address` and optionally `foursquare_id` and optionally `foursquare_type`.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **latitude** (float, optional) – Latitude of venue.
- **longitude** (float, optional) – Longitude of venue.

- **title** (str, optional) – Name of the venue.
- **address** (str, optional) – Address of the venue.
- **foursquare_id** (str, optional) – Foursquare identifier of the venue.
- **foursquare_type** (str, optional) – Foursquare type of the venue, if known. (For example, "arts_entertainment/default", "arts_entertainment/aquarium" or "food/icecream".)
- **venue** (*telegram.Venue*, optional) – The venue to send.
- **disable_notification** (bool, optional) – Sends the message silently. Users will receive a notification with no sound.
- **reply_to_message_id** (int, optional) – If the message is a reply, ID of the original message.
- **reply_markup** (*telegram.ReplyMarkup*, optional) – Additional interface options. A JSON-serialized object for an inline keyboard, custom reply keyboard, instructions to remove reply keyboard or to force a reply from the user.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns On success, the sent Message is returned.

Return type *telegram.Message*

Raises telegram.TelegramError

send_video(*chat_id*, *video*, *duration=None*, *caption=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *width=None*, *height=None*, *parse_mode=None*, *supports_streaming=None*, *thumb=None*, ***kwargs*)

Use this method to send video files, Telegram clients support mp4 videos (other formats may be sent as Document).

Note: The video argument can be either a file_id, an URL or a file from disk `open(filename, 'rb')`

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **video** (str | *filelike object* | *telegram.Video*) – Video file to send. Pass a file_id as String to send an video file that exists on the Telegram servers (recommended), pass an HTTP URL as a String for Telegram to get an video file from the Internet, or upload a new one using multipart/form-data. Lastly you can pass an existing *telegram.Video* object to send.
- **duration** (int, optional) – Duration of sent video in seconds.
- **width** (int, optional) – Video width.
- **height** (int, optional) – Video height.
- **caption** (str, optional) – Video caption (may also be used when resending videos by file_id), 0-1024 characters.

- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **supports_streaming** (bool, optional) – Pass True, if the uploaded video is suitable for streaming.
- **disable_notification** (bool, optional) – Sends the message silently. Users will receive a notification with no sound.
- **reply_to_message_id** (int, optional) – If the message is a reply, ID of the original message.
- **reply_markup** (*telegram.ReplyMarkup*, optional) – Additional interface options. A JSON-serialized object for an inline keyboard, custom reply keyboard, instructions to remove reply keyboard or to force a reply from the user.
- **thumb** (*filelike object*, optional) – Thumbnail of the file sent. The thumbnail should be in JPEG format and less than 200 kB in size. A thumbnail's width and height should not exceed 90. Ignored if the file is not is passed as a string or file_id.
- **timeout** (int | float, optional) – Send file timeout (default: 20 seconds).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns On success, the sent Message is returned.

Return type *telegram.Message*

Raises telegram.TelegramError

send_video_note(*chat_id*, *video_note*, *duration=None*, *length=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *thumb=None*, ***kwargs*)

Use this method to send video messages.

Note: The video_note argument can be either a file_id or a file from disk `open(filename, 'rb')`

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **video_note** (str | *filelike object* | *telegram.VideoNote*) – Video note to send. Pass a file_id as String to send a video note that exists on the Telegram servers (recommended) or upload a new video using multipart/form-data. Or you can pass an existing *telegram.VideoNote* object to send. Sending video notes by a URL is currently unsupported.
- **duration** (int, optional) – Duration of sent video in seconds.
- **length** (int, optional) – Video width and height
- **disable_notification** (bool, optional) – Sends the message silently. Users will receive a notification with no sound.
- **reply_to_message_id** (int, optional) – If the message is a reply, ID of the original message.
- **reply_markup** (*telegram.ReplyMarkup*, optional) – Additional interface options. A JSON-serialized object for an inline keyboard, custom reply keyboard, instructions to remove reply keyboard or to force a reply from the user.

- **thumb** (*filelike object*, optional) – Thumbnail of the file sent. The thumbnail should be in JPEG format and less than 200 kB in size. A thumbnail's width and height should not exceed 90. Ignored if the file is not is passed as a string or file_id.
- **timeout** (`int | float`, optional) – Send file timeout (default: 20 seconds).
- ****kwargs** (`dict`) – Arbitrary keyword arguments.

Returns On success, the sent Message is returned.

Return type *telegram.Message*

Raises `telegram.TelegramError`

send_voice(*chat_id*, *voice*, *duration=None*, *caption=None*, *disable_notification=False*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *parse_mode=None*, ***kwargs*)

Use this method to send audio files, if you want Telegram clients to display the file as a playable voice message. For this to work, your audio must be in an .ogg file encoded with OPUS (other formats may be sent as Audio or Document).

Note: The voice argument can be either a file_id, an URL or a file from disk `open(filename, 'rb')`

Parameters

- **chat_id** (`int | str`) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **voice** (`str` | *filelike object* | *telegram.Voice*) – Voice file to send. Pass a file_id as String to send an voice file that exists on the Telegram servers (recommended), pass an HTTP URL as a String for Telegram to get an voice file from the Internet, or upload a new one using multipart/form-data. Lastly you can pass an existing *telegram.Voice* object to send.
- **caption** (`str`, optional) – Voice message caption, 0-1024 characters.
- **parse_mode** (`str`, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **duration** (`int`, optional) – Duration of the voice message in seconds.
- **disable_notification** (`bool`, optional) – Sends the message silently. Users will receive a notification with no sound.
- **reply_to_message_id** (`int`, optional) – If the message is a reply, ID of the original message.
- **reply_markup** (*telegram.ReplyMarkup*, optional) – Additional interface options. A JSON-serialized object for an inline keyboard, custom reply keyboard, instructions to remove reply keyboard or to force a reply from the user.
- **timeout** (`int | float`, optional) – Send file timeout (default: 20 seconds).
- ****kwargs** (`dict`) – Arbitrary keyword arguments.

Returns On success, the sent Message is returned.

Return type *telegram.Message*

Raises `telegram.TelegramError`

setChatDescription(*chat_id*, *description*, *timeout=None*, ***kwargs*)

Alias for *set_chat_description*

setChatPhoto(*chat_id*, *photo*, *timeout=20*, ***kwargs*)
Alias for *set_chat_photo*

setChatStickerSet(*chat_id*, *sticker_set_name*, *timeout=None*, ***kwargs*)
Alias for *set_chat_sticker_set*

setChatTitle(*chat_id*, *title*, *timeout=None*, ***kwargs*)
Alias for *set_chat_title*

setGameScore(*user_id*, *score*, *chat_id=None*, *message_id=None*, *inline_message_id=None*, *force=None*, *disable_edit_message=None*, *timeout=None*, ***kwargs*)
Alias for *set_game_score*

setPassportDataErrors(*user_id*, *errors*, *timeout=None*, ***kwargs*)
Alias for *set_passport_data_errors*

setStickerPositionInSet(*sticker*, *position*, *timeout=None*, ***kwargs*)
Alias for *set_sticker_position_in_set*

setWebhook(*url=None*, *certificate=None*, *timeout=None*, *max_connections=40*, *allowed_updates=None*, ***kwargs*)
Alias for *set_webhook*

set_chat_description(*chat_id*, *description*, *timeout=None*, ***kwargs*)
Use this method to change the description of a supergroup or a channel. The bot must be an administrator in the chat for this to work and must have the appropriate admin rights.

Parameters

- **chat_id** (`int | str`) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **description** (`str`) – New chat description, 1-255 characters.
- **timeout** (`int | float`, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (`dict`) – Arbitrary keyword arguments

Returns Returns `True` on success.

Return type `bool`

Raises `telegram.TelegramError`

set_chat_photo(*chat_id*, *photo*, *timeout=20*, ***kwargs*)
Use this method to set a new profile photo for the chat.

Photos can't be changed for private chats. The bot must be an administrator in the chat for this to work and must have the appropriate admin rights.

Parameters

- **chat_id** (`int | str`) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **photo** (*filelike object*) – New chat photo.
- **timeout** (`int | float`, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (`dict`) – Arbitrary keyword arguments

Note: In regular groups (non-supergroups), this method will only work if the 'All Members Are Admins' setting is off in the target group.

Returns Returns True on success.

Return type bool

Raises telegram.TelegramError

set_chat_sticker_set(*chat_id*, *sticker_set_name*, *timeout=None*, ***kwargs*)
Use this method to set a new group sticker set for a supergroup. The bot must be an administrator in the chat for this to work and must have the appropriate admin rights. Use the field *telegram.Chat.can_set_sticker_set* optionally returned in *get_chat* requests to check if the bot can use this method.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target supergroup (in the format @supergroupusername).
- **sticker_set_name** (str) – Name of the sticker set to be set as the group sticker set.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns True on success.

Return type bool

set_chat_title(*chat_id*, *title*, *timeout=None*, ***kwargs*)
Use this method to change the title of a chat. Titles can't be changed for private chats. The bot must be an administrator in the chat for this to work and must have the appropriate admin rights.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **title** (str) – New chat title, 1-255 characters.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments

Note: In regular groups (non-supergroups), this method will only work if the 'All Members Are Admins' setting is off in the target group.

Returns Returns True on success.

Return type bool

Raises telegram.TelegramError

set_game_score(*user_id*, *score*, *chat_id=None*, *message_id=None*, *inline_message_id=None*, *force=None*, *disable_edit_message=None*, *timeout=None*, ***kwargs*)
Use this method to set the score of the specified user in a game. On success, if the message was sent by the bot, returns the edited Message, otherwise returns True. Returns an error, if the new score is not greater than the user's current score in the chat and force is False.

Parameters

- **user_id** (int) – User identifier.
- **score** (int) – New score, must be non-negative.

- **force** (bool, optional) – Pass True, if the high score is allowed to decrease. This can be useful when fixing mistakes or banning cheaters
- **disable_edit_message** (bool, optional) – Pass True, if the game message should not be automatically edited to include the current scoreboard.
- **chat_id** (*int | str, optional*) – Required if inline_message_id is not specified. Unique identifier for the target chat.
- **message_id** (int, optional) – Required if inline_message_id is not specified. Identifier of the sent message.
- **inline_message_id** (str, optional) – Required if chat_id and message_id are not specified. Identifier of the inline message.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns The edited message, or if the message wasn't sent by the bot , True.

Return type *telegram.Message*

Raises

- telegram.TelegramError – If the new score is not greater than the user's
- current score in the chat and force is False.

set_passport_data_errors(*user_id*, *errors*, *timeout=None*, ***kwargs*)

Informs a user that some of the Telegram Passport elements they provided contains errors. The user will not be able to re-submit their Passport to you until the errors are fixed (the contents of the field for which you returned the error must change). Returns True on success.

Use this if the data submitted by the user doesn't satisfy the standards your service requires for any reason. For example, if a birthday date seems invalid, a submitted document is blurry, a scan shows evidence of tampering, etc. Supply some details in the error message to make sure the user knows how to correct the issues.

Parameters

- **user_id** (int) – User identifier
- **errors** (List[*PassportElementError*]) – A JSON-serialized array describing the errors.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns On success, True is returned.

Return type bool

Raises telegram.TelegramError

set_sticker_position_in_set(*sticker*, *position*, *timeout=None*, ***kwargs*)

Use this method to move a sticker in a set created by the bot to a specific position.

Parameters

- **sticker** (str) – File identifier of the sticker.
- **position** (int) – New sticker position in the set, zero-based.

- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns On success, True is returned.

Return type bool

Raises telegram.TelegramError

set_webhook(*url=None*, *certificate=None*, *timeout=None*, *max_connections=40*, *allowed_updates=None*, ***kwargs*)

Use this method to specify a url and receive incoming updates via an outgoing webhook. Whenever there is an update for the bot, we will send an HTTPS POST request to the specified url, containing a JSON-serialized Update. In case of an unsuccessful request, we will give up after a reasonable amount of attempts.

If you'd like to make sure that the Webhook request comes from Telegram, we recommend using a secret path in the URL, e.g. https://www.example.com/<token>. Since nobody else knows your bot's token, you can be pretty sure it's us.

Note: The certificate argument should be a file from disk open(filename, 'rb').

Parameters

- **url** (str) – HTTPS url to send updates to. Use an empty string to remove webhook integration.
- **certificate** (filelike) – Upload your public key certificate so that the root certificate in use can be checked. See our self-signed guide for details. (https://goo.gl/rw7w6Y)
- **max_connections** (int, optional) – Maximum allowed number of simultaneous HTTPS connections to the webhook for update delivery, 1-100. Defaults to 40. Use lower values to limit the load on your bot's server, and higher values to increase your bot's throughput.
- **allowed_updates** (List[str], optional) – List the types of updates you want your bot to receive. For example, specify ["message", "edited_channel_post", "callback_query"] to only receive updates of these types. See *telegram.Update* for a complete list of available update types. Specify an empty list to receive all updates regardless of type (default). If not specified, the previous setting will be used. Please note that this parameter doesn't affect updates created before the call to the set_webhook, so unwanted updates may be received for a short period of time.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Note:

1. You will not be able to receive updates using get_updates for as long as an outgoing webhook is set up.
2. To use a self-signed certificate, you need to upload your public key certificate using certificate parameter. Please upload as InputFile, sending a String will not work.
3. Ports currently supported for Webhooks: 443, 80, 88, 8443.

Returns bool On success, True is returned.

Raises telegram.TelegramError

stopMessageLiveLocation(*chat_id=None*, *message_id=None*, *inline_message_id=None*, *reply_markup=None*, *timeout=None*, ***kwargs*)
Alias for *stop_message_live_location*

stopPoll(*chat_id*, *message_id*, *reply_markup=None*, *timeout=None*, ***kwargs*)
Alias for *stop_poll*

stop_message_live_location(*chat_id=None*, *message_id=None*, *inline_message_id=None*, *reply_markup=None*, *timeout=None*, ***kwargs*)
Use this method to stop updating a live location message sent by the bot or via the bot (for inline bots) before live_period expires.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **message_id** (int, optional) – Required if inline_message_id is not specified. Identifier of the sent message.
- **inline_message_id** (str, optional) – Required if chat_id and message_id are not specified. Identifier of the inline message.
- **reply_markup** (*telegram.ReplyMarkup*, optional) – Additional interface options. A JSON-serialized object for an inline keyboard, custom reply keyboard, instructions to remove reply keyboard or to force a reply from the user.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).

Returns On success the edited message.

Return type *telegram.Message*

stop_poll(*chat_id*, *message_id*, *reply_markup=None*, *timeout=None*, ***kwargs*)
Use this method to stop a poll which was sent by the bot.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **message_id** (int) – Identifier of the original message with the poll.
- **reply_markup** (*telegram.ReplyMarkup*, optional) – Additional interface options. A JSON-serialized object for an inline keyboard, custom reply keyboard, instructions to remove reply keyboard or to force a reply from the user.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns

On success, the stopped Poll with the final results is returned.

Return type *telegram.Poll*

Raises telegram.TelegramError

unbanChatMember(*chat_id*, *user_id*, *timeout=None*, ***kwargs*)
Alias for *unban_chat_member*

unban_chat_member(*chat_id*, *user_id*, *timeout=None*, ***kwargs*)
Use this method to unban a previously kicked user in a supergroup.

The user will not return to the group automatically, but will be able to join via link, etc. The bot must be an administrator in the group for this to work.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **user_id** (int) – Unique identifier of the target user.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns bool On success, True is returned.

Raises telegram.TelegramError

unpinChatMessage(*chat_id*, *timeout=None*, ***kwargs*)
Alias for *unpin_chat_message*

unpin_chat_message(*chat_id*, *timeout=None*, ***kwargs*)
Use this method to unpin a message in a supergroup. The bot must be an administrator in the chat for this to work and must have the appropriate admin rights.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments

Returns Returns True on success.

Return type bool

Raises telegram.TelegramError

uploadStickerFile(*user_id*, *png_sticker*, *timeout=20*, ***kwargs*)
Alias for *upload_sticker_file*

upload_sticker_file(*user_id*, *png_sticker*, *timeout=20*, ***kwargs*)
Use this method to upload a .png file with a sticker for later use in *create_new_sticker_set* and *add_sticker_to_set* methods (can be used multiple times).

Note: The png_sticker argument can be either a file_id, an URL or a file from disk open(filename, 'rb')

Parameters

- **user_id** (int) – User identifier of sticker file owner.
- **png_sticker** (str | *filelike object*) – Png image with the sticker, must be up to 512 kilobytes in size, dimensions must not exceed 512px, and either width or height must be exactly 512px.
- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).

- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns The uploaded File

Return type *telegram.File*

Raises telegram.TelegramError

username
Bot's username.

Type str

3.2.4 telegram.CallbackQuery

class telegram.**CallbackQuery**(*id*, *from_user*, *chat_instance*, *message=None*, *data=None*, *inline_message_id=None*, *game_short_name=None*, *bot=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object represents an incoming callback query from a callback button in an inline keyboard.

If the button that originated the query was attached to a message sent by the bot, the field *message* will be present. If the button was attached to a message sent via the bot (in inline mode), the field *inline_message_id* will be present.

Note:

- In Python *from* is a reserved word, use *from_user* instead.
- Exactly one of the fields *data* or *game_short_name* will be present.

---

id
Unique identifier for this query.

Type str

from_user
Sender.

Type *telegram.User*

message
Optional. Message with the callback button that originated the query.

Type *telegram.Message*

inline_message_id
Optional. Identifier of the message sent via the bot in inline mode, that originated the query.

Type str

chat_instance
Optional. Global identifier, uniquely corresponding to the chat to which the message with the callback button was sent.

Type str

data
Optional. Data associated with the callback button.

Type str

game_short_name
Optional. Short name of a Game to be returned.

Type str

Parameters

- **id** (str) – Unique identifier for this query.
- **from_user** (*telegram.User*) – Sender.
- **message** (*telegram.Message*, optional) – Message with the callback button that originated the query. Note that message content and message date will not be available if the message is too old.
- **inline_message_id** (str, optional) – Identifier of the message sent via the bot in inline mode, that originated the query.
- **chat_instance** (str, optional) – Global identifier, uniquely corresponding to the chat to which the message with the callback button was sent. Useful for high scores in games.
- **data** (str, optional) – Data associated with the callback button. Be aware that a bad client can send arbitrary data in this field.
- **game_short_name** (str, optional) – Short name of a Game to be returned, serves as the unique identifier for the game

---

Note: After the user presses an inline button, Telegram clients will display a progress bar until you call *answer*. It is, therefore, necessary to react by calling *telegram.Bot.answer_callback_query* even if no notification to the user is needed (e.g., without specifying any of the optional parameters).

---

answer(**args*, ***kwargs*)

Shortcut for:

```
bot.answer_callback_query(update.callback_query.id, *args, **kwargs)
```

Returns On success, True is returned.

Return type bool

edit_message_caption(*caption*, **args*, ***kwargs*)

Shortcut for either:

```
bot.edit_message_caption(caption=caption,
                         chat_id=update.callback_query.message.chat_id,
                         message_id=update.callback_query.message.message_id,
                         *args, **kwargs)
```

or:

```
bot.edit_message_caption(caption=caption
                          inline_message_id=update.callback_query.inline_
↪message_id,
                         *args, **kwargs)
```

Returns On success, if edited message is sent by the bot, the edited Message is returned, otherwise True is returned.

Return type *telegram.Message*

edit_message_reply_markup(*reply_markup*, **args*, ***kwargs*)

Shortcut for either:

```
bot.edit_message_replyMarkup(chat_id=update.callback_query.message.chat_id,
                             message_id=update.callback_query.message.
↪message_id,
                             reply_markup=reply_markup,
                             *args, **kwargs)
```

or:

```
bot.edit_message_reply_markup(inline_message_id=update.callback_query.
↪inline_message_id,
                              reply_markup=reply_markup,
                             *args, **kwargs)
```

Returns On success, if edited message is sent by the bot, the edited Message is returned, otherwise `True` is returned.

Return type *telegram.Message*

edit_message_text(*text*, **args*, ***kwargs*)

Shortcut for either:

```
bot.edit_message_text(text, chat_id=update.callback_query.message.chat_id,
                      message_id=update.callback_query.message.message_id,
                      *args, **kwargs)
```

or:

```
bot.edit_message_text(text, inline_message_id=update.callback_query.inline_
↪message_id,
                      *args, **kwargs)
```

Returns On success, if edited message is sent by the bot, the edited Message is returned, otherwise `True` is returned.

Return type *telegram.Message*

3.2.5 telegram.Chat

class telegram.**Chat**(*id*, *type*, *title=None*, *username=None*, *first_name=None*, *last_name=None*, *all_members_are_administrators=None*, *bot=None*, *photo=None*, *description=None*, *invite_link=None*, *pinned_message=None*, *sticker_set_name=None*, *can_set_sticker_set=None*, ***kwargs*)

Bases: `telegram.base.TelegramObject`

This object represents a chat.

id

Unique identifier for this chat.

Type `int`

type

Type of chat.

Type `str`

title

Optional. Title, for supergroups, channels and group chats.

Type `str`

username

Optional. Username.

Type str

first_name
Optional. First name of the other party in a private chat.

Type str

last_name
Optional. Last name of the other party in a private chat.

Type str

all_members_are_administrators
Optional.

Type bool

photo
Optional. Chat photo.

Type *telegram.ChatPhoto*

description
Optional. Description, for supergroups and channel chats.

Type str

invite_link
Optional. Chat invite link, for supergroups and channel chats.

Type str

pinned_message
Optional. Pinned message, for supergroups. Returned only in get_chat.

Type *telegram.Message*

sticker_set_name
Optional. For supergroups, name of Group sticker set.

Type str

can_set_sticker_set
Optional. True, if the bot can change group the sticker set.

Type bool

Parameters

- **id** (int) – Unique identifier for this chat. This number may be greater than 32 bits and some programming languages may have difficulty/silent defects in interpreting it. But it is smaller than 52 bits, so a signed 64 bit integer or double-precision float type are safe for storing this identifier.
- **type** (str) – Type of chat, can be either ‘private’, ‘group’, ‘supergroup’ or ‘channel’.
- **title** (str, optional) – Title, for supergroups, channels and group chats.
- **username** (str, optional) – Username, for private chats, supergroups and channels if available.
- **first_name** (str, optional) – First name of the other party in a private chat.
- **last_name** (str, optional) – Last name of the other party in a private chat.
- **all_members_are_administrators** (bool, optional) – True if a group has *All Members Are Admins* enabled.
- **photo** (*telegram.ChatPhoto*, optional) – Chat photo. Returned only in getChat.
- **description** (str, optional) – Description, for supergroups and channel chats. Returned only in get_chat.

- **invite_link** (str, optional) – Chat invite link, for supergroups and channel chats. Returned only in get_chat.
- **pinned_message** (*telegram.Message*, optional) – Pinned message, for supergroups. Returned only in get_chat.
- **bot** (*telegram.Bot*, optional) – The Bot to use for instance methods.
- **sticker_set_name** (str, optional) – For supergroups, name of Group sticker set. Returned only in get_chat.
- **can_set_sticker_set** (bool, optional) – True, if the bot can change group the sticker set. Returned only in get_chat.
- ****kwargs** (dict) – Arbitrary keyword arguments.

CHANNEL = 'channel'
'channel'

Type str

GROUP = 'group'
'group'

Type str

PRIVATE = 'private'
'private'

Type str

SUPERGROUP = 'supergroup'
'supergroup'

Type str

get_administrators(**args*, ***kwargs*)
Shortcut for:

```
bot.get_chat_administrators(update.message.chat.id, *args, **kwargs)
```

Returns A list of administrators in a chat. An Array of *telegram.ChatMember* objects that contains information about all chat administrators except other bots. If the chat is a group or a supergroup and no administrators were appointed, only the creator will be returned

Return type List[*telegram.ChatMember*]

get_member(**args*, ***kwargs*)
Shortcut for:

```
bot.get_chat_member(update.message.chat.id, *args, **kwargs)
```

Returns *telegram.ChatMember*

get_members_count(**args*, ***kwargs*)
Shortcut for:

```
bot.get_chat_members_count(update.message.chat.id, *args, **kwargs)
```

Returns int

kick_member(**args*, ***kwargs*)
Shortcut for:

```
bot.kick_chat_member(update.message.chat.id, *args, **kwargs)
```

Returns If the action was sent succesfully.

Return type `bool`

Note: This method will only work if the *All Members Are Admins* setting is off in the target group. Otherwise members may only be removed by the group's creator or by the member that added them.

leave(**args*, ***kwargs*)
Shortcut for:

```
bot.leave_chat(update.message.chat.id, *args, **kwargs)
```

Returns `bool` If the action was sent successfully.

link
Convenience property. If the chat has a *username*, returns a t.me link of the chat.

Type `str`

send_action(**args*, ***kwargs*)
Shortcut for:

```
bot.send_chat_action(update.message.chat.id, *args, **kwargs)
```

Returns If the action was sent successfully.

Return type `bool`

send_animation(**args*, ***kwargs*)
Shortcut for:

```
bot.send_animation(Chat.id, *args, **kwargs)
```

Where Chat is the current instance.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

send_audio(**args*, ***kwargs*)
Shortcut for:

```
bot.send_audio(Chat.id, *args, **kwargs)
```

Where Chat is the current instance.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

send_document(**args*, ***kwargs*)
Shortcut for:

```
bot.send_document(Chat.id, *args, **kwargs)
```

Where Chat is the current instance.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

send_message(**args*, ***kwargs*)
Shortcut for:

```
bot.send_message(Chat.id, *args, **kwargs)
```

Where Chat is the current instance.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

send_photo(**args*, ***kwargs*)
Shortcut for:

```
bot.send_photo(Chat.id, *args, **kwargs)
```

Where Chat is the current instance.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

send_poll(**args*, ***kwargs*)
Shortcut for:

```
bot.send_poll(Chat.id, *args, **kwargs)
```

Where Chat is the current instance.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

send_sticker(**args*, ***kwargs*)
Shortcut for:

```
bot.send_sticker(Chat.id, *args, **kwargs)
```

Where Chat is the current instance.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

send_video(**args*, ***kwargs*)
Shortcut for:

```
bot.send_video(Chat.id, *args, **kwargs)
```

Where Chat is the current instance.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

send_video_note(**args*, ***kwargs*)
Shortcut for:

```
bot.send_video_note(Chat.id, *args, **kwargs)
```

Where Chat is the current instance.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

send_voice(**args*, ***kwargs*)
Shortcut for:

```
bot.send_voice(Chat.id, *args, **kwargs)
```

Where Chat is the current instance.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

unban_member(**args*, ***kwargs*)
Shortcut for:

```
bot.unban_chat_member(update.message.chat.id, *args, **kwargs)
```

Returns If the action was sent successfully.

Return type bool

3.2.6 telegram.ChatAction

class telegram.**ChatAction**
Bases: object

Helper class to provide constants for different chatactions.

FIND_LOCATION = 'find_location'
'find_location'

Type str

RECORD_AUDIO = 'record_audio'
'record_audio'

Type str

RECORD_VIDEO = 'record_video'
'record_video'

Type str

RECORD_VIDEO_NOTE = 'record_video_note'
'record_video_note'

Type str

TYPING = 'typing'
'typing'

Type str

UPLOAD_AUDIO = 'upload_audio'
'upload_audio'

Type str

UPLOAD_DOCUMENT = 'upload_document'
'upload_document'

Type str

UPLOAD_PHOTO = 'upload_photo'
'upload_photo'

Type str

UPLOAD_VIDEO = 'upload_video'
'upload_video'

Type str

UPLOAD_VIDEO_NOTE = 'upload_video_note'
'upload_video_note'

Type str

3.2.7 telegram.ChatMember

class telegram.**ChatMember**(*user*, *status*, *until_date=None*, *can_be_edited=None*, *can_change_info=None*, *can_post_messages=None*, *can_edit_messages=None*, *can_delete_messages=None*, *can_invite_users=None*, *can_restrict_members=None*, *can_pin_messages=None*, *can_promote_members=None*, *can_send_messages=None*, *can_send_media_messages=None*, *can_send_other_messages=None*, *can_add_web_page_previews=None*, *is_member=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object contains information about one member of the chat.

user
Information about the user.

Type *telegram.User*

status
The member's status in the chat.

Type str

until_date
Optional. Date when restrictions will be lifted for this user.

Type datetime.datetime

can_be_edited
Optional. If the bot is allowed to edit administrator privileges of that user.

Type bool

can_change_info
Optional. If the administrator can change the chat title, photo and other settings.

Type bool

can_post_messages
Optional. If the administrator can post in the channel.

Type bool

can_edit_messages
Optional. If the administrator can edit messages of other users.

Type bool

can_delete_messages
Optional. If the administrator can delete messages of other users.

Type bool

can_invite_users
Optional. If the administrator can invite new users to the chat.

Type bool

can_restrict_members
Optional. If the administrator can restrict, ban or unban chat members.

Type bool

can_pin_messages
Optional. If the administrator can pin messages.

Type bool

can_promote_members
Optional. If the administrator can add new administrators.

Type bool

is_member
Optional. Restricted only. True, if the user is a member of the chat at the moment of the request.

Type bool

can_send_messages
Optional. If the user can send text messages, contacts, locations and venues.

Type bool

can_send_media_messages
Optional. If the user can send media messages, implies can_send_messages.

Type bool

can_send_other_messages
Optional. If the user can send animations, games, stickers and use inline bots, implies can_send_media_messages.

Type bool

can_add_web_page_previews
Optional. If user may add web page previews to his messages, implies can_send_media_messages

Type bool

Parameters

- **user** (*telegram.User*) – Information about the user.
- **status** (str) – The member's status in the chat. Can be 'creator', 'administrator', 'member', 'restricted', 'left' or 'kicked'.
- **until_date** (datetime.datetime, optional) – Restricted and kicked only. Date when restrictions will be lifted for this user.
- **can_be_edited** (bool, optional) – Administrators only. True, if the bot is allowed to edit administrator privileges of that user.
- **can_change_info** (bool, optional) – Administrators only. True, if the administrator can change the chat title, photo and other settings.
- **can_post_messages** (bool, optional) – Administrators only. True, if the administrator can post in the channel, channels only.
- **can_edit_messages** (bool, optional) – Administrators only. True, if the administrator can edit messages of other users, channels only.
- **can_delete_messages** (bool, optional) – Administrators only. True, if the administrator can delete messages of other user.
- **can_invite_users** (bool, optional) – Administrators only. True, if the administrator can invite new users to the chat.
- **can_restrict_members** (bool, optional) – Administrators only. True, if the administrator can restrict, ban or unban chat members.
- **can_pin_messages** (bool, optional) – Administrators only. True, if the administrator can pin messages, supergroups only.

- **can_promote_members** (bool, optional) – Administrators only. True, if the administrator can add new administrators with a subset of his own privileges or demote administrators that he has promoted, directly or indirectly (promoted by administrators that were appointed by the user).
- **is_member** (bool, optional) – Restricted only. True, if the user is a member of the chat at the moment of the request.
- **can_send_messages** (bool, optional) – Restricted only. True, if the user can send text messages, contacts, locations and venues.
- **can_send_media_messages** (bool, optional) – Restricted only. True, if the user can send audios, documents, photos, videos, video notes and voice notes, implies can_send_messages.
- **can_send_other_messages** (bool, optional) – Restricted only. True, if the user can send animations, games, stickers and use inline bots, implies can_send_media_messages.
- **can_add_web_page_previews** (bool, optional) – Restricted only. True, if user may add web page previews to his messages, implies can_send_media_messages.

ADMINISTRATOR = 'administrator'
'administrator'

Type str

CREATOR = 'creator'
'creator'

Type str

KICKED = 'kicked'
'kicked'

Type str

LEFT = 'left'
'left'

Type str

MEMBER = 'member'
'member'

Type str

RESTRICTED = 'restricted'
'restricted'

Type str

3.2.8 telegram.ChatPhoto

class telegram.**ChatPhoto**(*small_file_id*, *big_file_id*, *bot=None*, ***kwargs*)
Bases: telegram.base.TelegramObject

This object represents a chat photo.

small_file_id
Unique file identifier of small (160x160) chat photo.

Type str

big_file_id
Unique file identifier of big (640x640) chat photo.

Type str

Parameters

- **small_file_id** (str) – Unique file identifier of small (160x160) chat photo. This file_id can be used only for photo download.
- **big_file_id** (str) – Unique file identifier of big (640x640) chat photo. This file_id can be used only for photo download.
- **bot** (*telegram.Bot*, optional) – The Bot to use for instance methods
- ****kwargs** (dict) – Arbitrary keyword arguments.

3.2.9 telegram.constants Module

Constants in the Telegram network.

The following constants were extracted from the Telegram Bots FAQ.

telegram.constants.**MAX_MESSAGE_LENGTH**
4096

Type int

telegram.constants.**MAX_CAPTION_LENGTH**
1024

Type int

telegram.constants.**SUPPORTED_WEBHOOK_PORTS**
[443, 80, 88, 8443]

Type List[int]

telegram.constants.**MAX_FILESIZE_DOWNLOAD**
In bytes (20MB)

Type int

telegram.constants.**MAX_FILESIZE_UPLOAD**
In bytes (50MB)

Type int

telegram.constants.**MAX_MESSAGES_PER_SECOND_PER_CHAT**
1. Telegram may allow short bursts that go over this limit, but eventually you'll begin receiving 429 errors.

Type int

telegram.constants.**MAX_MESSAGES_PER_SECOND**
30

Type int

telegram.constants.**MAX_MESSAGES_PER_MINUTE_PER_GROUP**
20

Type int

telegram.constants.**MAX_INLINE_QUERY_RESULTS**
50

Type int

The following constant have been found by experimentation:

telegram.constants.**MAX_MESSAGE_ENTITIES**
100 (Beyond this cap telegram will simply ignore further formatting styles)

Type int

3.2.10 telegram.Contact

class telegram.**Contact**(*phone_number*, *first_name*, *last_name=None*, *user_id=None*, *vcard=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object represents a phone contact.

phone_number
Contact's phone number.

Type str

first_name
Contact's first name.

Type str

last_name
Optional. Contact's last name.

Type str

user_id
Optional. Contact's user identifier in Telegram.

Type int

vcard
Optional. Additional data about the contact in the form of a vCard.

Type str

Parameters

- **phone_number** (str) – Contact's phone number.
- **first_name** (str) – Contact's first name.
- **last_name** (str, optional) – Contact's last name.
- **user_id** (int, optional) – Contact's user identifier in Telegram.
- **vcard** (str, optional) – Additional data about the contact in the form of a vCard.
- ****kwargs** (dict) – Arbitrary keyword arguments.

3.2.11 telegram.Document

class telegram.**Document**(*file_id*, *thumb=None*, *file_name=None*, *mime_type=None*, *file_size=None*, *bot=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object represents a general file (as opposed to photos, voice messages and audio files).

file_id
Unique file identifier.

Type str

thumb
Optional. Document thumbnail.

Type *telegram.PhotoSize*

file_name
Original filename.

Type str

mime_type
Optional. MIME type of the file.

Type str

file_size
Optional. File size.

Type int

bot
Optional. The Bot to use for instance methods.

Type *telegram.Bot*

Parameters

- **file_id** (str) – Unique file identifier
- **thumb** (*telegram.PhotoSize*, optional) – Document thumbnail as defined by sender.
- **file_name** (str, optional) – Original filename as defined by sender.
- **mime_type** (str, optional) – MIME type of the file as defined by sender.
- **file_size** (int, optional) – File size.
- **bot** (*telegram.Bot*, optional) – The Bot to use for instance methods.
- ****kwargs** (dict) – Arbitrary keyword arguments.

get_file(*timeout=None*, ***kwargs*)
Convenience wrapper over *telegram.Bot.get_file*

Parameters

- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns *telegram.File*

Raises telegram.TelegramError

3.2.12 telegram.error module

This module contains an object that represents Telegram errors.

exception telegram.error.**BadRequest**(*message*)
Bases: *telegram.error.NetworkError*

exception telegram.error.**ChatMigrated**(*new_chat_id*)
Bases: *telegram.error.TelegramError*

Parameters **new_chat_id** (int) –

exception telegram.error.**Conflict**(*msg*)
Bases: *telegram.error.TelegramError*

Raised when a long poll or webhook conflicts with another one.

Parameters **msg** (str) – The message from telegrams server.

exception telegram.error.**InvalidToken**
Bases: *telegram.error.TelegramError*

exception telegram.error.**NetworkError**(*message*)
Bases: *telegram.error.TelegramError*

exception telegram.error.**RetryAfter**(*retry_after*)
Bases: *telegram.error.TelegramError*

Parameters **retry_after** (int) –

exception telegram.error.**TelegramError**(*message*)
Bases: Exception

exception telegram.error.**TimedOut**
Bases: *telegram.error.NetworkError*

exception telegram.error.**Unauthorized**(*message*)
Bases: *telegram.error.TelegramError*

3.2.13 telegram.File

class telegram.**File**(*file_id*, *bot=None*, *file_size=None*, *file_path=None*, ***kwargs*)
Bases: telegram.base.TelegramObject

This object represents a file ready to be downloaded. The file can be downloaded with *download*. It is guaranteed that the link will be valid for at least 1 hour. When the link expires, a new one can be requested by calling getFile.

Note: Maximum file size to download is 20 MB

file_id
Unique identifier for this file.

Type str

file_size
Optional. File size.

Type str

file_path
Optional. File path. Use *download* to get the file.

Type str

Parameters

- **file_id** (str) – Unique identifier for this file.
- **file_size** (int, optional) – Optional. File size, if known.
- **file_path** (str, optional) – File path. Use *download* to get the file.
- **bot** (*telegram.Bot*, optional) – Bot to use with shortcut method.
- ****kwargs** (dict) – Arbitrary keyword arguments.

Note: If you obtain an instance of this class from *telegram.PassportFile.get_file*, then it will automatically be decrypted as it downloads when you call *download()*.

download(*custom_path=None*, *out=None*, *timeout=None*)
Download this file. By default, the file is saved in the current working directory with its original filename as reported by Telegram. If a custom_path is supplied, it will be saved to that path instead. If out is defined, the file contents will be saved to that object using the out.write method.

Note: `custom_path` and `out` are mutually exclusive.

Parameters

- **`custom_path`** (`str`, optional) – Custom path.
- **`out`** (`io.BufferedWriter`, optional) – A file-like object. Must be opened for writing in binary mode, if applicable.
- **`timeout`** (`int | float`, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).

Returns The same object as `out` if specified. Otherwise, returns the filename downloaded to.

Return type `str|io.BufferedWriter`

Raises `ValueError` – If both `custom_path` and `out` are passed.

`download_as_bytearray`(*buf=None*)

Download this file and return it as a bytearray.

Parameters **`buf`** (`bytearray`, optional) – Extend the given bytearray with the downloaded data.

Returns The same object as `buf` if it was specified. Otherwise a newly allocated `bytearray`.

Return type `bytearray`

3.2.14 telegram.ForceReply

class `telegram.`**`ForceReply`**(*force_reply=True*, *selective=False*, ***kwargs*)

Bases: `telegram.replymarkup.ReplyMarkup`

Upon receiving a message with this object, Telegram clients will display a reply interface to the user (act as if the user has selected the bot's message and tapped 'Reply'). This can be extremely useful if you want to create user-friendly step-by-step interfaces without having to sacrifice privacy mode.

`force_reply`

Shows reply interface to the user.

Type `True`

`selective`

Optional. Force reply from specific users only.

Type `bool`

Parameters

- **`selective`** (`bool`, optional) – Use this parameter if you want to force reply from specific users only. Targets:

  1) users that are @mentioned in the text of the Message object

  2) if the bot's message is a reply (has reply_to_message_id), sender of the original message.

- **`**kwargs`** (`dict`) – Arbitrary keyword arguments.

3.2.15 telegram.InlineKeyboardButton

class telegram.**InlineKeyboardButton**(*text*, *url=None*, *callback_data=None*, *switch_inline_query=None*, *switch_inline_query_current_chat=None*, *callback_game=None*, *pay=None*, *login_url=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object represents one button of an inline keyboard.

Note: You must use exactly one of the optional fields. Mind that *callback_game* is not working as expected. Putting a game short name in it might, but is not guaranteed to work.

---

text
Label text on the button.

Type str

url
Optional. HTTP url to be opened when button is pressed.

Type str

login_url
authorize the user.

Type telegram.LoginUrl

callback_data
Optional. Data to be sent in a callback query to the bot when button is pressed, UTF-8 1-64 bytes.

Type str

switch_inline_query
Optional. Will prompt the user to select one of their chats, open that chat and insert the bot's username and the specified inline query in the input field.

Type str

switch_inline_query_current_chat
Optional. Will insert the bot's username and the specified inline query in the current chat's input field.

Type str

callback_game
Optional. Description of the game that will be launched when the user presses the button.

Type *telegram.CallbackGame*

pay
Optional. Specify True, to send a Pay button.

Type bool

Parameters

- **text** (str) – Label text on the button.
- **url** (str) – HTTP url to be opened when button is pressed.
- **login_url** (telegram.LoginUrl, optional) – authorize the user.
- **callback_data** (str, optional) – Data to be sent in a callback query to the bot when button is pressed, 1-64 UTF-8 bytes.

- **switch_inline_query** (str, optional) – If set, pressing the button will prompt the user to select one of their chats, open that chat and insert the bot's username and the specified inline query in the input field. Can be empty, in which case just the bot's username will be inserted. This offers an easy way for users to start using your bot in inline mode when they are currently in a private chat with it. Especially useful when combined with switch_pm* actions - in this case the user will be automatically returned to the chat they switched from, skipping the chat selection screen.
- **switch_inline_query_current_chat** (str, optional) – If set, pressing the button will insert the bot's username and the specified inline query in the current chat's input field. Can be empty, in which case only the bot's username will be inserted. This offers a quick way for the user to open your bot in inline mode in the same chat - good for selecting something from multiple options.
- **callback_game** (*telegram.CallbackGame*, optional) – Description of the game that will be launched when the user presses the button. This type of button must always be the first button in the first row.
- **pay** (bool, optional) – Specify True, to send a Pay button. This type of button must always be the first button in the first row.
- ****kwargs** (dict) – Arbitrary keyword arguments.

3.2.16 telegram.InlineKeyboardMarkup

class telegram.**InlineKeyboardMarkup**(*inline_keyboard*, ***kwargs*)

Bases: telegram.replymarkup.ReplyMarkup

This object represents an inline keyboard that appears right next to the message it belongs to.

inline_keyboard

Array of button rows, each represented by an Array of InlineKeyboardButton objects.

Type List[List[*telegram.InlineKeyboardButton*]]

Parameters

- **inline_keyboard** (List[List[*telegram.InlineKeyboardButton*]]) – Array of button rows, each represented by an Array of InlineKeyboardButton objects.
- ****kwargs** (dict) – Arbitrary keyword arguments.

classmethod from_button(*button*, ***kwargs*)

Shortcut for:

```
InlineKeyboardMarkup([[button]], **kwargs)
```

Return an InlineKeyboardMarkup from a single InlineKeyboardButton

Parameters

- **button** (*telegram.InlineKeyboardButton*) – The button to use in the markup
- ****kwargs** (dict) – Arbitrary keyword arguments.

classmethod from_column(*button_column*, ***kwargs*)

Shortcut for:

```
InlineKeyboardMarkup([[button] for button in button_column], **kwargs)
```

Return an InlineKeyboardMarkup from a single column of InlineKeyboardButtons

Parameters

- **button_column** (List[*telegram.InlineKeyboardButton*]) – The button to use in the markup
- ****kwargs** (dict) – Arbitrary keyword arguments.

classmethod from_row(*button_row*, ***kwargs*)

Shortcut for:

```
InlineKeyboardMarkup([button_row], **kwargs)
```

Return an InlineKeyboardMarkup from a single row of InlineKeyboardButtons

Parameters

- **button_row** (List[*telegram.InlineKeyboardButton*]) – The button to use in the markup
- ****kwargs** (dict) – Arbitrary keyword arguments.

3.2.17 telegram.InputFile

class telegram.**InputFile**(*obj*, *filename=None*, *attach=None*)

Bases: object

This object represents a Telegram InputFile.

input_file_content

The binaray content of the file to send.

Type bytes

filename

Optional, Filename for the file to be sent.

Type str

attach

Optional, attach id for sending multiple files.

Type str

Parameters

- **obj** (File handler) – An open file descriptor.
- **filename** (str, optional) – Filename for this InputFile.
- **attach** (bool, optional) – Whether this should be send as one file or is part of a collection of files.

Raises TelegramError

static is_image(*stream*)

Check if the content file is an image by analyzing its headers.

Parameters **stream** (str) – A str representing the content of a file.

Returns The str mime-type of an image.

Return type str

3.2.18 telegram.InputMedia

class telegram.**InputMedia**

Bases: telegram.base.TelegramObject

Base class for Telegram InputMedia Objects.

See *telegram.InputMediaAnimation*, *telegram.InputMediaAudio*, *telegram.InputMediaDocument*, *telegram.InputMediaPhoto* and *telegram.InputMediaVideo* for detailed use.

3.2.19 telegram.InputMediaAnimation

class telegram.**InputMediaAnimation**(*media*, *thumb=None*, *caption=None*, *parse_mode=None*, *width=None*, *height=None*, *duration=None*)

Bases: telegram.files.inputmedia.InputMedia

Represents an animation file (GIF or H.264/MPEG-4 AVC video without sound) to be sent.

type
animation.

Type str

media
Animation to send. Pass a file_id as String to send an animation that exists on the Telegram servers (recommended), pass an HTTP URL as a String for Telegram to get an animation from the Internet, or upload a new animation using multipart/form-data. Lastly you can pass an existing *telegram.Animation* object to send.

Type str | *filelike object* | *telegram.Animation*

thumb
Optional. Thumbnail of the file sent. The thumbnail should be in JPEG format and less than 200 kB in size. A thumbnail's width and height should not exceed 90. Ignored if the file is not is passed as a string or file_id.

Type *filelike object*

caption
Optional. Caption of the animation to be sent, 0-1024 characters.

Type str

parse_mode
Optional. Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.

Type str

width
Optional. Animation width.

Type int

height
Optional. Animation height.

Type int

duration
Optional. Animation duration.

Type int

Parameters

- **media** (str) – File to send. Pass a file_id to send a file that exists on the Telegram servers (recommended), pass an HTTP URL for Telegram to get a file from the Internet. Lastly you can pass an existing *telegram.Animation* object to send.

- **thumb** (*filelike object*, optional) – Thumbnail of the file sent. The thumbnail should be in JPEG format and less than 200 kB in size. A thumbnail's width and height should not exceed 90. Ignored if the file is not is passed as a string or file_id.
- **caption** (`str`, optional) – Caption of the animation to be sent, 0-1024 characters.
- **parse_mode** (`str`, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **width** (`int`, optional) – Animation width.
- **height** (`int`, optional) – Animation height.
- **duration** (`int`, optional) – Animation duration.

Note: When using a *telegram.Animation* for the *media* attribute. It will take the width, height and duration from that video, unless otherwise specified with the optional arguments.

3.2.20 telegram.InputMediaAudio

class telegram.**InputMediaAudio**(*media*, *thumb=None*, *caption=None*, *parse_mode=None*, *duration=None*, *performer=None*, *title=None*)

Bases: `telegram.files.inputmedia.InputMedia`

Represents an audio file to be treated as music to be sent.

type
audio.

Type `str`

media
Audio file to send. Pass a file_id as String to send an audio file that exists on the Telegram servers (recommended), pass an HTTP URL as a String for Telegram to get an audio file from the Internet, or upload a new one using multipart/form-data. Lastly you can pass an existing *telegram.Audio* object to send.

Type `str` | *filelike object* | *telegram.Audio*

caption
Optional. Caption of the audio to be sent, 0-1024 characters.

Type `str`

parse_mode
Optional. Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.

Type `str`

duration
Duration of the audio in seconds.

Type `int`

performer
Optional. Performer of the audio as defined by sender or by audio tags.

Type `str`

title
Optional. Title of the audio as defined by sender or by audio tags.

Type str

thumb
Optional. Thumbnail of the file sent. The thumbnail should be in JPEG format and less than 200 kB in size. A thumbnail's width and height should not exceed 90. Ignored if the file is not is passed as a string or file_id.

Type *filelike object*

Parameters

- **media** (str) – File to send. Pass a file_id to send a file that exists on the Telegram servers (recommended), pass an HTTP URL for Telegram to get a file from the Internet. Lastly you can pass an existing *telegram.Document* object to send.
- **caption** (str, optional) – Caption of the audio to be sent, 0-1024 characters.
- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **duration** (int) – Duration of the audio in seconds as defined by sender.
- **performer** (str, optional) – Performer of the audio as defined by sender or by audio tags.
- **title** (str, optional) – Title of the audio as defined by sender or by audio tags.
- **thumb** (*filelike object*, optional) – Thumbnail of the file sent. The thumbnail should be in JPEG format and less than 200 kB in size. A thumbnail's width and height should not exceed 90. Ignored if the file is not is passed as a string or file_id.

Note: When using a *telegram.Audio* for the *media* attribute. It will take the duration, performer and title from that video, unless otherwise specified with the optional arguments.

3.2.21 telegram.InputMediaDocument

class telegram.**InputMediaDocument**(*media*, *thumb=None*, *caption=None*, *parse_mode=None*)

Bases: telegram.files.inputmedia.InputMedia

Represents a general file to be sent.

type
document.

Type str

media
File to send. Pass a file_id as String to send a file that exists on the Telegram servers (recommended), pass an HTTP URL as a String for Telegram to get a file from the Internet, or upload a new one using multipart/form-data. Lastly you can pass an existing *telegram.Document* object to send.

Type str | *filelike object* | *telegram.Document*

caption
Optional. Caption of the document to be sent, 0-1024 characters.

Type str

parse_mode
Optional. Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.

Type str

thumb
Optional. Thumbnail of the file sent. The thumbnail should be in JPEG format and less than 200 kB in size. A thumbnail's width and height should not exceed 90. Ignored if the file is not is passed as a string or file_id.

Type *filelike object*

Parameters

- **media** (str) – File to send. Pass a file_id to send a file that exists on the Telegram servers (recommended), pass an HTTP URL for Telegram to get a file from the Internet. Lastly you can pass an existing *telegram.Document* object to send.
- **caption** (str, optional) – Caption of the document to be sent, 0-1024 characters.
- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **thumb** (*filelike object*, optional) – Thumbnail of the file sent. The thumbnail should be in JPEG format and less than 200 kB in size. A thumbnail's width and height should not exceed 90. Ignored if the file is not is passed as a string or file_id.

3.2.22 telegram.InputMediaPhoto

class telegram.**InputMediaPhoto**(*media*, *caption=None*, *parse_mode=None*)
Bases: telegram.files.inputmedia.InputMedia

Represents a photo to be sent.

type
photo.

Type str

media
Photo to send. Pass a file_id as String to send a photo that exists on the Telegram servers (recommended), pass an HTTP URL as a String for Telegram to get a photo from the Internet, or upload a new photo using multipart/form-data. Lastly you can pass an existing *telegram.PhotoSize* object to send.

Type str | *filelike object* | *telegram.PhotoSize*

caption
Optional. Caption of the photo to be sent, 0-1024 characters.

Type str

parse_mode
Optional. Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.

Type str

Parameters

- **media** (str) – File to send. Pass a file_id to send a file that exists on the Telegram servers (recommended), pass an HTTP URL for Telegram to get a file from the Internet. Lastly you can pass an existing *telegram.PhotoSize* object to send.
- **caption** (str, optional) – Caption of the photo to be sent, 0-1024 characters.

- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.

3.2.23 telegram.InputMediaVideo

class telegram.**InputMediaVideo**(*media*, *caption=None*, *width=None*, *height=None*, *duration=None*, *supports_streaming=None*, *parse_mode=None*, *thumb=None*)

Bases: telegram.files.inputmedia.InputMedia

Represents a video to be sent.

type
video.

Type str

media
Video file to send. Pass a file_id as String to send an video file that exists on the Telegram servers (recommended), pass an HTTP URL as a String for Telegram to get an video file from the Internet, or upload a new one using multipart/form-data. Lastly you can pass an existing *telegram.Video* object to send.

Type str | *filelike object* | *telegram.Video*

caption
Optional. Caption of the video to be sent, 0-1024 characters.

Type str

parse_mode
Optional. Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.

Type str

width
Optional. Video width.

Type int

height
Optional. Video height.

Type int

duration
Optional. Video duration.

Type int

supports_streaming
Optional. Pass True, if the uploaded video is suitable for streaming.

Type bool

thumb
Optional. Thumbnail of the file sent. The thumbnail should be in JPEG format and less than 200 kB in size. A thumbnail's width and height should not exceed 90. Ignored if the file is not is passed as a string or file_id.

Type *filelike object*

Parameters

- **media** (str) – File to send. Pass a file_id to send a file that exists on the Telegram servers (recommended), pass an HTTP URL for Telegram to get a file from the Internet. Lastly you can pass an existing *telegram.Video* object to send.
- **caption** (str, optional) – Caption of the video to be sent, 0-1024 characters.
- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **width** (int, optional) – Video width.
- **height** (int, optional) – Video height.
- **duration** (int, optional) – Video duration.
- **supports_streaming** (bool, optional) – Pass True, if the uploaded video is suitable for streaming.
- **thumb** (*filelike object*, optional) – Thumbnail of the file sent. The thumbnail should be in JPEG format and less than 200 kB in size. A thumbnail's width and height should not exceed 90. Ignored if the file is not is passed as a string or file_id.

Note: When using a *telegram.Video* for the *media* attribute. It will take the width, height and duration from that video, unless otherwise specified with the optional arguments.

3.2.24 telegram.KeyboardButton

class telegram.**KeyboardButton**(*text*, *request_contact=None*, *request_location=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object represents one button of the reply keyboard. For simple text buttons String can be used instead of this object to specify text of the button.

Note: Optional fields are mutually exclusive.

text
Text of the button.

Type str

request_contact
Optional. If the user's phone number will be sent.

Type bool

request_location
Optional. If the user's current location will be sent.

Type bool

Parameters

- **text** (str) – Text of the button. If none of the optional fields are used, it will be sent to the bot as a message when the button is pressed.
- **request_contact** (bool, optional) – If True, the user's phone number will be sent as a contact when the button is pressed. Available in private chats only.
- **request_location** (bool, optional) – If True, the user's current location will be sent when the button is pressed. Available in private chats only.

Note: *request_contact* and *request_location* options will only work in Telegram versions released after 9 April, 2016. Older clients will ignore them.

3.2.25 telegram.Location

class telegram.**Location**(*longitude*, *latitude*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object represents a point on the map.

longitude

Longitude as defined by sender.

Type float

latitude

Latitude as defined by sender.

Type float

Parameters

- **longitude** (float) – Longitude as defined by sender.
- **latitude** (float) – Latitude as defined by sender.
- ****kwargs** (dict) – Arbitrary keyword arguments.

3.2.26 telegram.Message

class telegram.**Message**(*message_id*, *from_user*, *date*, *chat*, *forward_from=None*, *forward_from_chat=None*, *forward_from_message_id=None*, *forward_date=None*, *reply_to_message=None*, *edit_date=None*, *text=None*, *entities=None*, *caption_entities=None*, *audio=None*, *document=None*, *game=None*, *photo=None*, *sticker=None*, *video=None*, *voice=None*, *video_note=None*, *new_chat_members=None*, *caption=None*, *contact=None*, *location=None*, *venue=None*, *left_chat_member=None*, *new_chat_title=None*, *new_chat_photo=None*, *delete_chat_photo=False*, *group_chat_created=False*, *supergroup_chat_created=False*, *channel_chat_created=False*, *migrate_to_chat_id=None*, *migrate_from_chat_id=None*, *pinned_message=None*, *invoice=None*, *successful_payment=None*, *forward_signature=None*, *author_signature=None*, *media_group_id=None*, *connected_website=None*, *animation=None*, *passport_data=None*, *poll=None*, *forward_sender_name=None*, *reply_markup=None*, *bot=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object represents a message.

Note:

- In Python *from* is a reserved word, use *from_user* instead.

message_id

Unique message identifier inside this chat.

Type int

from_user
Optional. Sender.

Type *telegram.User*

date
Date the message was sent.

Type datetime.datetime

chat
Conversation the message belongs to.

Type *telegram.Chat*

forward_from
Optional. Sender of the original message.

Type *telegram.User*

forward_from_chat
Optional. Information about the original channel.

Type *telegram.Chat*

forward_from_message_id
Optional. Identifier of the original message in the channel.

Type int

forward_date
Optional. Date the original message was sent.

Type datetime.datetime

reply_to_message
Optional. The original message.

Type *telegram.Message*

edit_date
Optional. Date the message was last edited.

Type datetime.datetime

media_group_id
Optional. The unique identifier of a media message group this message belongs to.

Type str

text
Optional. The actual UTF-8 text of the message.

Type str

entities
Optional. Special entities like usernames, URLs, bot commands, etc. that appear in the text. See *Message.parse_entity* and *parse_entities* methods for how to use properly.

Type List[*telegram.MessageEntity*]

caption_entities
Optional. Special entities like usernames, URLs, bot commands, etc. that appear in the caption. See *Message.parse_caption_entity* and *parse_caption_entities* methods for how to use properly.

Type List[*telegram.MessageEntity*]

audio
Optional. Information about the file.

Type *telegram.Audio*

document
Optional. Information about the file.

Type *telegram.Document*

animation
For backward compatibility, when this field is set, the document field will also be set.

Type *telegram.Animation*

game
Optional. Information about the game.

Type *telegram.Game*

photo
Optional. Available sizes of the photo.

Type List[*telegram.PhotoSize*]

sticker
Optional. Information about the sticker.

Type *telegram.Sticker*

video
Optional. Information about the video.

Type *telegram.Video*

voice
Optional. Information about the file.

Type *telegram.Voice*

video_note
Optional. Information about the video message.

Type *telegram.VideoNote*

new_chat_members
Optional. Information about new members to the chat. (the bot itself may be one of these members).

Type List[*telegram.User*]

caption
Optional. Caption for the document, photo or video, 0-1024 characters.

Type `str`

contact
Optional. Information about the contact.

Type *telegram.Contact*

location
Optional. Information about the location.

Type *telegram.Location*

venue
Optional. Information about the venue.

Type *telegram.Venue*

left_chat_member
Optional. Information about the user that left the group. (this member may be the bot itself).

Type *telegram.User*

new_chat_title
Optional. A chat title was changed to this value.

Type str

new_chat_photo
Optional. A chat photo was changed to this value.

Type List[*telegram.PhotoSize*]

delete_chat_photo
Optional. The chat photo was deleted.

Type bool

group_chat_created
Optional. The group has been created.

Type bool

supergroup_chat_created
Optional. The supergroup has been created.

Type bool

channel_chat_created
Optional. The channel has been created.

Type bool

migrate_to_chat_id
Optional. The group has been migrated to a supergroup with the specified identifier.

Type int

migrate_from_chat_id
Optional. The supergroup has been migrated from a group with the specified identifier.

Type int

pinned_message
Optional. Specified message was pinned.

Type telegram.message

invoice
Optional. Information about the invoice.

Type *telegram.Invoice*

successful_payment
Optional. Information about the payment.

Type *telegram.SuccessfulPayment*

connected_website
Optional. The domain name of the website on which the user has logged in.

Type str

forward_signature
Optional. Signature of the post author for messages forwarded from channels.

Type str

forward_sender_name
Optional. Sender's name for messages forwarded from users who disallow adding a link to their account in forwarded messages.

Type str

author_signature
Optional. Signature of the post author for messages in channels.

Type str

passport_data
Optional. Telegram Passport data.

Type *telegram.PassportData*

poll
Optional. Message is a native poll, information about the poll.

Type *telegram.Poll*

reply_markup
Optional. Inline keyboard attached to the message.

Type *telegram.InlineKeyboardMarkup*

bot
Optional. The Bot to use for instance methods.

Type *telegram.Bot*

Parameters

- **message_id** (int) – Unique message identifier inside this chat.
- **from_user** (*telegram.User*, optional) – Sender, can be empty for messages sent to channels.
- **date** (datetime.datetime) – Date the message was sent in Unix time. Converted to datetime.datetime.
- **chat** (*telegram.Chat*) – Conversation the message belongs to.
- **forward_from** (*telegram.User*, optional) – For forwarded messages, sender of the original message.
- **forward_from_chat** (*telegram.Chat*, optional) – For messages forwarded from a channel, information about the original channel.
- **forward_from_message_id** (int, optional) – For forwarded channel posts, identifier of the original message in the channel.
- **forward_sender_name** (str, optional) – Sender's name for messages forwarded from users who disallow adding a link to their account in forwarded messages.
- **forward_date** (datetime.datetime, optional) – For forwarded messages, date the original message was sent in Unix time. Converted to datetime.datetime.
- **reply_to_message** (*telegram.Message*, optional) – For replies, the original message. Note that the Message object in this field will not contain further reply_to_message fields even if it itself is a reply.
- **edit_date** (datetime.datetime, optional) – Date the message was last edited in Unix time. Converted to datetime.datetime.
- **media_group_id** (str, optional) – The unique identifier of a media message group this message belongs to.
- **text** (*str, optional*) – For text messages, the actual UTF-8 text of the message, 0-4096 characters. Also found as *telegram.constants.MAX_MESSAGE_LENGTH*.
- **entities** (List[*telegram.MessageEntity*], optional) – For text messages, special entities like usernames, URLs, bot commands, etc. that appear in the text. See attr:*parse_entity* and attr:*parse_entities* methods for how to use properly.
- **caption_entities** (List[*telegram.MessageEntity*]) – Optional. For Messages with a Caption. Special entities like usernames, URLs, bot commands, etc. that appear in the caption. See *Message.parse_caption_entity* and *parse_caption_entities* methods for how to use properly.

- **audio** (*telegram.Audio*, optional) – Message is an audio file, information about the file.
- **document** (*telegram.Document*, optional) – Message is a general file, information about the file.
- **animation** (*telegram.Animation*, optional) – Message is an animation, information about the animation. For backward compatibility, when this field is set, the document field will also be set.
- **game** (*telegram.Game*, optional) – Message is a game, information about the game.
- **photo** (List[*telegram.PhotoSize*], optional) – Message is a photo, available sizes of the photo.
- **sticker** (*telegram.Sticker*, optional) – Message is a sticker, information about the sticker.
- **video** (*telegram.Video*, optional) – Message is a video, information about the video.
- **voice** (*telegram.Voice*, optional) – Message is a voice message, information about the file.
- **video_note** (*telegram.VideoNote*, optional) – Message is a video note, information about the video message.
- **new_chat_members** (List[*telegram.User*], optional) – New members that were added to the group or supergroup and information about them (the bot itself may be one of these members).
- **caption** (`str`, optional) – Caption for the document, photo or video, 0-1024 characters.
- **contact** (*telegram.Contact*, optional) – Message is a shared contact, information about the contact.
- **location** (*telegram.Location*, optional) – Message is a shared location, information about the location.
- **venue** (*telegram.Venue*, optional) – Message is a venue, information about the venue.
- **left_chat_member** (*telegram.User*, optional) – A member was removed from the group, information about them (this member may be the bot itself).
- **new_chat_title** (`str`, optional) – A chat title was changed to this value.
- **new_chat_photo** (List[*telegram.PhotoSize*], optional) – A chat photo was change to this value.
- **delete_chat_photo** (`bool`, optional) – Service message: The chat photo was deleted.
- **group_chat_created** (`bool`, optional) – Service message: The group has been created.
- **supergroup_chat_created** (`bool`, optional) – Service message: The supergroup has been created. This field can't be received in a message coming through updates, because bot can't be a member of a supergroup when it is created. It can only be found in *reply_to_message* if someone replies to a very first message in a directly created supergroup.
- **channel_chat_created** (`bool`, optional) – Service message: The channel has been created. This field can't be received in a message coming through updates, because bot can't be a member of a channel when it is created. It can only be found in attr:*reply_to_message* if someone replies to a very first message in a channel.

- **migrate_to_chat_id** (int, optional) – The group has been migrated to a supergroup with the specified identifier. This number may be greater than 32 bits and some programming languages may have difficulty/silent defects in interpreting it. But it is smaller than 52 bits, so a signed 64 bit integer or double-precision float type are safe for storing this identifier.
- **migrate_from_chat_id** (int, optional) – The supergroup has been migrated from a group with the specified identifier. This number may be greater than 32 bits and some programming languages may have difficulty/silent defects in interpreting it. But it is smaller than 52 bits, so a signed 64 bit integer or double-precision float type are safe for storing this identifier.
- **pinned_message** (telegram.message, optional) – Specified message was pinned. Note that the Message object in this field will not contain further attr:*reply_to_message* fields even if it is itself a reply.
- **invoice** (*telegram.Invoice*, optional) – Message is an invoice for a payment, information about the invoice.
- **successful_payment** (*telegram.SuccessfulPayment*, optional) – Message is a service message about a successful payment, information about the payment.
- **connected_website** (str, optional) – The domain name of the website on which the user has logged in.
- **forward_signature** (str, optional) – Signature of the post author for messages forwarded from channels.
- **author_signature** (str, optional) – Signature of the post author for messages in channels.
- **passport_data** (*telegram.PassportData*, optional) – Telegram Passport data.
- **poll** (*telegram.Poll*, optional) – Message is a native poll, information about the poll.
- **reply_markup** (*telegram.InlineKeyboardMarkup*, optional) – Inline keyboard attached to the message. login_url buttons are represented as ordinary url buttons.

caption_html

Creates an HTML-formatted string from the markup entities found in the message's caption.

Use this if you want to retrieve the message caption with the caption entities formatted as HTML in the same way the original message was formatted.

Returns Message caption with captionentities formatted as HTML.

Return type str

caption_html_urled

Creates an HTML-formatted string from the markup entities found in the message's caption.

Use this if you want to retrieve the message caption with the caption entities formatted as HTML. This also formats *telegram.MessageEntity.URL* as a hyperlink.

Returns Message caption with caption entities formatted as HTML.

Return type str

caption_markdown

Creates an Markdown-formatted string from the markup entities found in the message's caption.

Use this if you want to retrieve the message caption with the caption entities formatted as Markdown in the same way the original message was formatted.

Returns Message caption with caption entities formatted as Markdown.

Return type str

caption_markdown_urled
Creates an Markdown-formatted string from the markup entities found in the message's caption.

Use this if you want to retrieve the message caption with the caption entities formatted as Markdown. This also formats *telegram.MessageEntity.URL* as a hyperlink.

Returns Message caption with caption entities formatted as Markdown.

Return type str

chat_id
Shortcut for *telegram.Chat.id* for *chat*.

Type int

delete(**args*, ***kwargs*)
Shortcut for:

```
bot.delete_message(chat_id=message.chat_id,
                   message_id=message.message_id,
                   *args,
                   **kwargs)
```

Returns On success, True is returned.

Return type bool

edit_caption(**args*, ***kwargs*)
Shortcut for:

```
bot.edit_message_caption(chat_id=message.chat_id,
                         message_id=message.message_id,
                         *args,
                         **kwargs)
```

Note: You can only edit messages that the bot sent itself, therefore this method can only be used on the return value of the bot.send_* family of methods.

Returns On success, instance representing the edited message.

Return type *telegram.Message*

edit_media(*media*, **args*, ***kwargs*)
Shortcut for:

```
bot.edit_message_media(chat_id=message.chat_id,
                         message_id=message.message_id,
                         *args,
                         **kwargs)
```

Note: You can only edit messages that the bot sent itself, therefore this method can only be used on the return value of the bot.send_* family of methods.

Returns On success, instance representing the edited message.

Return type *telegram.Message*

edit_reply_markup(**args*, ***kwargs*)
Shortcut for:

```
bot.edit_message_reply_markup(chat_id=message.chat_id,
                              message_id=message.message_id,
                              *args,
                              **kwargs)
```

Note: You can only edit messages that the bot sent itself, therefore this method can only be used on the return value of the `bot.send_*` family of methods.

Returns On success, instance representing the edited message.

Return type *telegram.Message*

edit_text(**args*, ***kwargs*)

Shortcut for:

```
bot.edit_message_text(chat_id=message.chat_id,
                      message_id=message.message_id,
                      *args,
                      **kwargs)
```

Note: You can only edit messages that the bot sent itself, therefore this method can only be used on the return value of the `bot.send_*` family of methods.

Returns On success, instance representing the edited message.

Return type *telegram.Message*

effective_attachment

telegram.Audio or *telegram.Contact* or *telegram.Document* or *telegram.Animation* or *telegram.Game* or *telegram.Invoice* or *telegram.Location* or List[*telegram.PhotoSize*] or *telegram.Sticker* or *telegram.SuccessfulPayment* or *telegram.Venue* or *telegram.Video* or *telegram.VideoNote* or *telegram.Voice*: The attachment that this message was sent with. May be `None` if no attachment was sent.

forward(*chat_id*, *disable_notification=False*)

Shortcut for:

```
bot.forward_message(chat_id=chat_id,
                    from_chat_id=update.message.chat_id,
                    disable_notification=disable_notification,
                    message_id=update.message.message_id)
```

Returns On success, instance representing the message forwarded.

Return type *telegram.Message*

link

Convenience property. If the chat of the message is a supergroup or a channel and has a *Chat.username*, returns a t.me link of the message.

Type `str`

parse_caption_entities(*types=None*)

Returns a `dict` that maps *telegram.MessageEntity* to `str`. It contains entities from this message's caption filtered by their *telegram.MessageEntity.type* attribute as the key, and the text that each entity belongs to as the value of the `dict`.

Note: This method should always be used instead of the *caption_entities* attribute, since it calculates the correct substring from the message text based on UTF-16 codepoints. See *parse_entity* for more info.

Parameters **types** (List[str], optional) – List of *telegram.MessageEntity* types as strings. If the type attribute of an entity is contained in this list, it will be returned. Defaults to a list of all types. All types can be found as constants in *telegram.MessageEntity*.

Returns A dictionary of entities mapped to the text that belongs to them, calculated based on UTF-16 codepoints.

Return type Dict[*telegram.MessageEntity*, str]

parse_caption_entity(*entity*)

Returns the text from a given *telegram.MessageEntity*.

Note: This method is present because Telegram calculates the offset and length in UTF-16 codepoint pairs, which some versions of Python don't handle automatically. (That is, you can't just slice Message.caption with the offset and length.)

Parameters

- **entity** (*telegram.MessageEntity*) – The entity to extract the text from. It must
- **an entity that belongs to this message.** (*be*) –

Returns The text of the given entity

Return type str

parse_entities(*types=None*)

Returns a dict that maps *telegram.MessageEntity* to str. It contains entities from this message filtered by their *telegram.MessageEntity.type* attribute as the key, and the text that each entity belongs to as the value of the dict.

Note: This method should always be used instead of the *entities* attribute, since it calculates the correct substring from the message text based on UTF-16 codepoints. See *parse_entity* for more info.

Parameters **types** (List[str], optional) – List of *telegram.MessageEntity* types as strings. If the type attribute of an entity is contained in this list, it will be returned. Defaults to a list of all types. All types can be found as constants in *telegram.MessageEntity*.

Returns A dictionary of entities mapped to the text that belongs to them, calculated based on UTF-16 codepoints.

Return type Dict[*telegram.MessageEntity*, str]

parse_entity(*entity*)

Returns the text from a given *telegram.MessageEntity*.

Note: This method is present because Telegram calculates the offset and length in UTF-16 codepoint pairs, which some versions of Python don't handle automatically. (That is, you can't just slice

Message.text with the offset and length.)

Parameters

- **entity** (*telegram.MessageEntity*) – The entity to extract the text from. It must
- **an entity that belongs to this message.** (*be*) –

Returns The text of the given entity

Return type str

reply_animation(**args*, ***kwargs*)

Shortcut for:

```
bot.send_animation(update.message.chat_id, *args, **kwargs)
```

Keyword Arguments **quote** (bool, optional) – If set to True, the photo is sent as an actual reply to this message. If reply_to_message_id is passed in kwargs, this parameter will be ignored. Default: True in group chats and False in private chats.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

reply_audio(**args*, ***kwargs*)

Shortcut for:

```
bot.send_audio(update.message.chat_id, *args, **kwargs)
```

Keyword Arguments **quote** (bool, optional) – If set to True, the photo is sent as an actual reply to this message. If reply_to_message_id is passed in kwargs, this parameter will be ignored. Default: True in group chats and False in private chats.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

reply_contact(**args*, ***kwargs*)

Shortcut for:

```
bot.send_contact(update.message.chat_id, *args, **kwargs)
```

Keyword Arguments **quote** (bool, optional) – If set to True, the photo is sent as an actual reply to this message. If reply_to_message_id is passed in kwargs, this parameter will be ignored. Default: True in group chats and False in private chats.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

reply_document(**args*, ***kwargs*)

Shortcut for:

```
bot.send_document(update.message.chat_id, *args, **kwargs)
```

Keyword Arguments **quote** (bool, optional) – If set to True, the photo is sent as an actual reply to this message. If reply_to_message_id is passed in kwargs, this parameter will be ignored. Default: True in group chats and False in private chats.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

reply_html(**args*, ***kwargs*)
Shortcut for:

```
bot.send_message(update.message.chat_id, parse_mode=ParseMode.HTML, *args,␣
↪**kwargs)
```

Sends a message with HTML formatting.

Keyword Arguments **quote** (bool, optional) – If set to True, the message is sent as an actual reply to this message. If reply_to_message_id is passed in kwargs, this parameter will be ignored. Default: True in group chats and False in private chats.

reply_location(**args*, ***kwargs*)
Shortcut for:

```
bot.send_location(update.message.chat_id, *args, **kwargs)
```

Keyword Arguments **quote** (bool, optional) – If set to True, the photo is sent as an actual reply to this message. If reply_to_message_id is passed in kwargs, this parameter will be ignored. Default: True in group chats and False in private chats.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

reply_markdown(**args*, ***kwargs*)
Shortcut for:

```
bot.send_message(update.message.chat_id, parse_mode=ParseMode.MARKDOWN,␣
↪*args,
**kwargs)
```

Sends a message with markdown formatting.

Keyword Arguments **quote** (bool, optional) – If set to True, the message is sent as an actual reply to this message. If reply_to_message_id is passed in kwargs, this parameter will be ignored. Default: True in group chats and False in private chats.

reply_media_group(**args*, ***kwargs*)
Shortcut for:

```
bot.reply_media_group(update.message.chat_id, *args, **kwargs)
```

Keyword Arguments **quote** (bool, optional) – If set to True, the media group is sent as an actual reply to this message. If reply_to_message_id is passed in kwargs, this parameter will be ignored. Default: True in group chats and False in private chats.

Returns An array of the sent Messages.

Return type List[*telegram.Message*]

Raises telegram.TelegramError

reply_photo(**args*, ***kwargs*)
Shortcut for:

```
bot.send_photo(update.message.chat_id, *args, **kwargs)
```

Keyword Arguments **quote** (bool, optional) – If set to True, the photo is sent as an actual reply to this message. If reply_to_message_id is passed in kwargs, this parameter will be ignored. Default: True in group chats and False in private chats.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

reply_poll(**args*, ***kwargs*)
Shortcut for:

```
bot.send_poll(update.message.chat_id, *args, **kwargs)
```

Keyword Arguments **quote** (bool, optional) – If set to True, the photo is sent as an actual reply to this message. If reply_to_message_id is passed in kwargs, this parameter will be ignored. Default: True in group chats and False in private chats.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

reply_sticker(**args*, ***kwargs*)
Shortcut for:

```
bot.send_sticker(update.message.chat_id, *args, **kwargs)
```

Keyword Arguments **quote** (bool, optional) – If set to True, the photo is sent as an actual reply to this message. If reply_to_message_id is passed in kwargs, this parameter will be ignored. Default: True in group chats and False in private chats.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

reply_text(**args*, ***kwargs*)
Shortcut for:

```
bot.send_message(update.message.chat_id, *args, **kwargs)
```

Keyword Arguments **quote** (bool, optional) – If set to True, the message is sent as an actual reply to this message. If reply_to_message_id is passed in kwargs, this parameter will be ignored. Default: True in group chats and False in private chats.

reply_venue(**args*, ***kwargs*)
Shortcut for:

```
bot.send_venue(update.message.chat_id, *args, **kwargs)
```

Keyword Arguments **quote** (bool, optional) – If set to True, the photo is sent as an actual reply to this message. If reply_to_message_id is passed in kwargs, this parameter will be ignored. Default: True in group chats and False in private chats.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

reply_video(**args*, ***kwargs*)
Shortcut for:

```
bot.send_video(update.message.chat_id, *args, **kwargs)
```

Keyword Arguments **quote** (bool, optional) – If set to True, the photo is sent as an actual reply to this message. If reply_to_message_id is passed in kwargs, this parameter will be ignored. Default: True in group chats and False in private chats.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

reply_video_note(**args*, ***kwargs*)

Shortcut for:

```
bot.send_video_note(update.message.chat_id, *args, **kwargs)
```

Keyword Arguments **quote** (bool, optional) – If set to True, the photo is sent as an actual reply to this message. If reply_to_message_id is passed in kwargs, this parameter will be ignored. Default: True in group chats and False in private chats.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

reply_voice(**args*, ***kwargs*)

Shortcut for:

```
bot.send_voice(update.message.chat_id, *args, **kwargs)
```

Keyword Arguments **quote** (bool, optional) – If set to True, the photo is sent as an actual reply to this message. If reply_to_message_id is passed in kwargs, this parameter will be ignored. Default: True in group chats and False in private chats.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

text_html

Creates an HTML-formatted string from the markup entities found in the message.

Use this if you want to retrieve the message text with the entities formatted as HTML in the same way the original message was formatted.

Returns Message text with entities formatted as HTML.

Return type str

text_html_urled

Creates an HTML-formatted string from the markup entities found in the message.

Use this if you want to retrieve the message text with the entities formatted as HTML. This also formats *telegram.MessageEntity.URL* as a hyperlink.

Returns Message text with entities formatted as HTML.

Return type str

text_markdown

Creates an Markdown-formatted string from the markup entities found in the message.

Use this if you want to retrieve the message text with the entities formatted as Markdown in the same way the original message was formatted.

Returns Message text with entities formatted as Markdown.

Return type str

text_markdown_urled
Creates an Markdown-formatted string from the markup entities found in the message.

Use this if you want to retrieve the message text with the entities formatted as Markdown. This also formats *telegram.MessageEntity.URL* as a hyperlink.

Returns Message text with entities formatted as Markdown.

Return type str

3.2.27 telegram.MessageEntity

class telegram.**MessageEntity**(*type*, *offset*, *length*, *url=None*, *user=None*, ***kwargs*)
Bases: telegram.base.TelegramObject

This object represents one special entity in a text message. For example, hashtags, usernames, URLs, etc.

type
Type of the entity.

Type str

offset
Offset in UTF-16 code units to the start of the entity.

Type int

length
Length of the entity in UTF-16 code units.

Type int

url
Optional. Url that will be opened after user taps on the text.

Type str

user
Optional. The mentioned user.

Type *telegram.User*

Parameters

- **type** (str) – Type of the entity. Can be mention (@username), hashtag, bot_command, url, email, bold (bold text), italic (italic text), code (monowidth string), pre (monowidth block), text_link (for clickable text URLs), text_mention (for users without usernames).
- **offset** (int) – Offset in UTF-16 code units to the start of the entity.
- **length** (int) – Length of the entity in UTF-16 code units.
- **url** (str, optional) – For "text_link" only, url that will be opened after usertaps on the text.
- **user** (*telegram.User*, optional) – For "text_mention" only, the mentioned user.

ALL_TYPES = ['mention', 'hashtag', 'cashtag', 'phone_number', 'bot_command', 'url',
List of all the types.

Type List[str]

BOLD = 'bold'
'bold'

Type str

BOT_COMMAND = 'bot_command'
'bot_command'

Type str

CASHTAG = 'cashtag'
'cashtag'

Type str

CODE = 'code'
'code'

Type str

EMAIL = 'email'
'email'

Type str

HASHTAG = 'hashtag'
'hashtag'

Type str

ITALIC = 'italic'
'italic'

Type str

MENTION = 'mention'
'mention'

Type str

PHONE_NUMBER = 'phone_number'
'phone_number'

Type str

PRE = 'pre'
'pre'

Type str

TEXT_LINK = 'text_link'
'text_link'

Type str

TEXT_MENTION = 'text_mention'
'text_mention'

Type str

URL = 'url'
'url'

Type str

3.2.28 telegram.ParseMode

class telegram.**ParseMode**
Bases: object

This object represents a Telegram Message Parse Modes.

HTML = 'HTML'
'HTML'

Type str

MARKDOWN = 'Markdown'
'Markdown'

Type str

3.2.29 telegram.PhotoSize

class telegram.**PhotoSize**(*file_id*, *width*, *height*, *file_size=None*, *bot=None*, ***kwargs*)
Bases: telegram.base.TelegramObject

This object represents one size of a photo or a file/sticker thumbnail.

file_id
Unique identifier for this file.

Type str

width
Photo width.

Type int

height
Photo height.

Type int

file_size
Optional. File size.

Type int

bot
Optional. The Bot to use for instance methods.

Type *telegram.Bot*

Parameters

- **file_id** (str) – Unique identifier for this file.
- **width** (int) – Photo width.
- **height** (int) – Photo height.
- **file_size** (int, optional) – File size.
- **bot** (*telegram.Bot*, optional) – The Bot to use for instance methods.
- ****kwargs** (dict) – Arbitrary keyword arguments.

get_file(*timeout=None*, ***kwargs*)
Convenience wrapper over *telegram.Bot.get_file*

Parameters

- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns *telegram.File*

Raises telegram.TelegramError

3.2.30 telegram.Poll

class telegram.**Poll**(*id*, *question*, *options*, *is_closed*, ***kwargs*)
Bases: telegram.base.TelegramObject

This object contains information about a poll.

id
Unique poll identifier.

Type str

question
Poll question, 1-255 characters.

Type str

options
List of poll options.

Type List[*PollOption*]

is_closed
True, if the poll is closed.

Type bool

Parameters

- **id** (str) – Unique poll identifier.
- **question** (str) – Poll question, 1-255 characters.
- **options** (List[*PollOption*]) – List of poll options.
- **is_closed** (bool) – True, if the poll is closed.

3.2.31 telegram.PollOption

class telegram.**PollOption**(*text*, *voter_count*, ***kwargs*)
Bases: telegram.base.TelegramObject

This object contains information about one answer option in a poll.

text
Option text, 1-100 characters.

Type str

voter_count
Number of users that voted for this option.

Type int

Parameters

- **text** (str) – Option text, 1-100 characters.
- **voter_count** (int) – Number of users that voted for this option.

3.2.32 telegram.ReplyKeyboardRemove

class telegram.**ReplyKeyboardRemove**(*selective=False*, ***kwargs*)
Bases: telegram.replymarkup.ReplyMarkup

Upon receiving a message with this object, Telegram clients will remove the current custom keyboard and display the default letter-keyboard. By default, custom keyboards are displayed until a new keyboard is sent

by a bot. An exception is made for one-time keyboards that are hidden immediately after the user presses a button (see *telegram.ReplyKeyboardMarkup*).

remove_keyboard
Requests clients to remove the custom keyboard.

Type `True`

selective
Optional. Use this parameter if you want to remove the keyboard for specific users only.

Type `bool`

Example

A user votes in a poll, bot returns confirmation message in reply to the vote and removes the keyboard for that user, while still showing the keyboard with poll options to users who haven't voted yet.

Parameters

- **selective** (`bool`, optional) – Use this parameter if you want to remove the keyboard for specific users only. Targets:
  1) users that are @mentioned in the text of the Message object
  2) if the bot's message is a reply (has reply_to_message_id), sender of the original message.
- ****kwargs** (`dict`) – Arbitrary keyword arguments.

3.2.33 telegram.ReplyKeyboardMarkup

class telegram.**ReplyKeyboardMarkup**(*keyboard*, *resize_keyboard=False*, *one_time_keyboard=False*, *selective=False*, ***kwargs*)

Bases: `telegram.replymarkup.ReplyMarkup`

This object represents a custom keyboard with reply options.

keyboard
Array of button rows.

Type List[List[*telegram.KeyboardButton* | `str`]]

resize_keyboard
Optional. Requests clients to resize the keyboard.

Type `bool`

one_time_keyboard
Optional. Requests clients to hide the keyboard as soon as it's been used.

Type `bool`

selective
Optional. Show the keyboard to specific users only.

Type `bool`

Example

A user requests to change the bot's language, bot replies to the request with a keyboard to select the new language. Other users in the group don't see the keyboard.

Parameters

- **keyboard** (List[List[str | *telegram.KeyboardButton*]]) – Array of button rows, each represented by an Array of *telegram.KeyboardButton* objects.
- **resize_keyboard** (bool, optional) – Requests clients to resize the keyboard vertically for optimal fit (e.g., make the keyboard smaller if there are just two rows of buttons). Defaults to false, in which case the custom keyboard is always of the same height as the app's standard keyboard. Defaults to False
- **one_time_keyboard** (bool, optional) – Requests clients to hide the keyboard as soon as it's been used. The keyboard will still be available, but clients will automatically display the usual letter-keyboard in the chat - the user can press a special button in the input field to see the custom keyboard again. Defaults to False.
- **selective** (bool, optional) – Use this parameter if you want to show the keyboard to specific users only. Targets:

  1) users that are @mentioned in the text of the Message object

  2) if the bot's message is a reply (has reply_to_message_id), sender of the original message.

  Defaults to False.
- ****kwargs** (dict) – Arbitrary keyword arguments.

classmethod from_button(*button*, *resize_keyboard=False*, *one_time_keyboard=False*, *selective=False*, ***kwargs*)

Shortcut for:

```
ReplyKeyboardMarkup([[button]], **kwargs)
```

Return an ReplyKeyboardMarkup from a single KeyboardButton

Parameters

- **button** (*telegram.KeyboardButton* | str) – The button to use in the markup
- **resize_keyboard** (bool, optional) – Requests clients to resize the keyboard vertically for optimal fit (e.g., make the keyboard smaller if there are just two rows of buttons). Defaults to false, in which case the custom keyboard is always of the same height as the app's standard keyboard. Defaults to False
- **one_time_keyboard** (bool, optional) – Requests clients to hide the keyboard as soon as it's been used. The keyboard will still be available, but clients will automatically display the usual letter-keyboard in the chat - the user can press a special button in the input field to see the custom keyboard again. Defaults to False.
- **selective** (bool, optional) – Use this parameter if you want to show the keyboard to specific users only. Targets:

  1) users that are @mentioned in the text of the Message object

  2) **if the bot's message is a reply (has reply_to_message_id), sender of the** original message.

  Defaults to False.
- ****kwargs** (dict) – Arbitrary keyword arguments.

classmethod from_column(*button_column*, *resize_keyboard=False*, *one_time_keyboard=False*, *selective=False*, ***kwargs*)

Shortcut for:

```
ReplyKeyboardMarkup([[button] for button in button_column], **kwargs)
```

Return an ReplyKeyboardMarkup from a single column of KeyboardButtons

Parameters

- **button_column** (List[*telegram.KeyboardButton* | str]) – The button to use in the markup
- **resize_keyboard** (bool, optional) – Requests clients to resize the keyboard vertically for optimal fit (e.g., make the keyboard smaller if there are just two rows of buttons). Defaults to false, in which case the custom keyboard is always of the same height as the app's standard keyboard. Defaults to False
- **one_time_keyboard** (bool, optional) – Requests clients to hide the keyboard as soon as it's been used. The keyboard will still be available, but clients will automatically display the usual letter-keyboard in the chat - the user can press a special button in the input field to see the custom keyboard again. Defaults to False.
- **selective** (bool, optional) – Use this parameter if you want to show the keyboard to specific users only. Targets:

  1) users that are @mentioned in the text of the Message object

  2) **if the bot's message is a reply (has reply_to_message_id), sender of the** original message.

  Defaults to False.
- ****kwargs** (dict) – Arbitrary keyword arguments.

classmethod from_row(*button_row*, *resize_keyboard=False*, *one_time_keyboard=False*, *selective=False*, ***kwargs*)

Shortcut for:

```
ReplyKeyboardMarkup([button_row], **kwargs)
```

Return an ReplyKeyboardMarkup from a single row of KeyboardButtons

Parameters

- **button_row** (List[*telegram.KeyboardButton* | str]) – The button to use in the markup
- **resize_keyboard** (bool, optional) – Requests clients to resize the keyboard vertically for optimal fit (e.g., make the keyboard smaller if there are just two rows of buttons). Defaults to false, in which case the custom keyboard is always of the same height as the app's standard keyboard. Defaults to False
- **one_time_keyboard** (bool, optional) – Requests clients to hide the keyboard as soon as it's been used. The keyboard will still be available, but clients will automatically display the usual letter-keyboard in the chat - the user can press a special button in the input field to see the custom keyboard again. Defaults to False.
- **selective** (bool, optional) – Use this parameter if you want to show the keyboard to specific users only. Targets:

  1) users that are @mentioned in the text of the Message object

  2) **if the bot's message is a reply (has reply_to_message_id), sender of the** original message.

  Defaults to False.
- ****kwargs** (dict) – Arbitrary keyword arguments.

3.2.34 telegram.ReplyMarkup

class telegram.**ReplyMarkup**

Bases: telegram.base.TelegramObject

Base class for Telegram ReplyMarkup Objects.

See *telegram.ReplyKeyboardMarkup* and *telegram.InlineKeyboardMarkup* for detailed use.

3.2.35 telegram.TelegramObject

class telegram.**TelegramObject**
Bases: object

Base class for most telegram objects.

to_json()

Returns str

3.2.36 telegram.Update

class telegram.**Update**(*update_id*, *message=None*, *edited_message=None*, *channel_post=None*, *edited_channel_post=None*, *inline_query=None*, *chosen_inline_result=None*, *callback_query=None*, *shipping_query=None*, *pre_checkout_query=None*, *poll=None*, ***kwargs*)
Bases: telegram.base.TelegramObject

This object represents an incoming update.

Note: At most one of the optional parameters can be present in any given update.

update_id
The update's unique identifier.

Type int

message
Optional. New incoming message.

Type *telegram.Message*

edited_message
Optional. New version of a message.

Type *telegram.Message*

channel_post
Optional. New incoming channel post.

Type *telegram.Message*

edited_channel_post
Optional. New version of a channel post.

Type *telegram.Message*

inline_query
Optional. New incoming inline query.

Type *telegram.InlineQuery*

chosen_inline_result
Optional. The result of an inline query that was chosen by a user.

Type *telegram.ChosenInlineResult*

callback_query
Optional. New incoming callback query.

Type *telegram.CallbackQuery*

shipping_query
Optional. New incoming shipping query.

Type *telegram.ShippingQuery*

pre_checkout_query
Optional. New incoming pre-checkout query.

Type *telegram.PreCheckoutQuery*

poll
Optional. New poll state. Bots receive only updates about polls, which are sent or stopped by the bot

Type *telegram.Poll*

Parameters

- **update_id** (`int`) – The update's unique identifier. Update identifiers start from a certain positive number and increase sequentially. This ID becomes especially handy if you're using Webhooks, since it allows you to ignore repeated updates or to restore the correct update sequence, should they get out of order.
- **message** (*telegram.Message*, optional) – New incoming message of any kind - text, photo, sticker, etc.
- **edited_message** (*telegram.Message*, optional) – New version of a message that is known to the bot and was edited.
- **channel_post** (*telegram.Message*, optional) – New incoming channel post of any kind - text, photo, sticker, etc.
- **edited_channel_post** (*telegram.Message*, optional) – New version of a channel post that is known to the bot and was edited.
- **inline_query** (*telegram.InlineQuery*, optional) – New incoming inline query.
- **chosen_inline_result** (*telegram.ChosenInlineResult*, optional) – The result of an inline query that was chosen by a user and sent to their chat partner.
- **callback_query** (*telegram.CallbackQuery*, optional) – New incoming callback query.
- **shipping_query** (*telegram.ShippingQuery*, optional) – New incoming shipping query. Only for invoices with flexible price.
- **pre_checkout_query** (*telegram.PreCheckoutQuery*, optional) – New incoming pre-checkout query. Contains full information about checkout
- **poll** (*telegram.Poll*, optional) – New poll state. Bots receive only updates about polls, which are sent or stopped by the bot
- ****kwargs** (`dict`) – Arbitrary keyword arguments.

classmethod de_json(*data*, *bot*)

effective_chat
The chat that this update was sent in, no matter what kind of update this is. Will be `None` for *inline_query*, *chosen_inline_result*, *callback_query* from inline messages, *shipping_query*, *pre_checkout_query* and *poll*.

Type *telegram.Chat*

effective_message
The message included in this update, no matter what kind of update this is. Will be `None` for *inline_query*, *chosen_inline_result*, *callback_query* from inline messages, *shipping_query*, *pre_checkout_query* and *poll*.

Type *telegram.Message*

effective_user
The user that sent this update, no matter what kind of update this is. Will be `None` for *channel_post* and *poll*.

Type *telegram.User*

3.2.37 telegram.User

class telegram.**User**(*id*, *first_name*, *is_bot*, *last_name=None*, *username=None*, *language_code=None*, *bot=None*, ***kwargs*)

Bases: `telegram.base.TelegramObject`

This object represents a Telegram user or bot.

id
Unique identifier for this user or bot.

Type `int`

is_bot
True, if this user is a bot

Type `bool`

first_name
User's or bot's first name.

Type `str`

last_name
Optional. User's or bot's last name.

Type `str`

username
Optional. User's or bot's username.

Type `str`

language_code
Optional. IETF language tag of the user's language.

Type `str`

bot
Optional. The Bot to use for instance methods.

Type *telegram.Bot*

Parameters

- **id** (`int`) – Unique identifier for this user or bot.
- **is_bot** (`bool`) – True, if this user is a bot
- **first_name** (`str`) – User's or bot's first name.
- **last_name** (`str`, optional) – User's or bot's last name.
- **username** (`str`, optional) – User's or bot's username.
- **language_code** (`str`, optional) – IETF language tag of the user's language.
- **bot** (*telegram.Bot*, optional) – The Bot to use for instance methods.

classmethod de_json(*data*, *bot*)

classmethod de_list(*data*, *bot*)

full_name
Convenience property. The user's *first_name*, followed by (if available) *last_name*.

Type str

get_profile_photos(**args*, ***kwargs*)
Shortcut for:

```
bot.get_user_profile_photos(update.message.from_user.id, *args, **kwargs)
```

link
Convenience property. If *username* is available, returns a t.me link of the user.

Type str

mention_html(*name=None*)

Parameters **name** (str) – The name used as a link for the user. Defaults to *full_name*.

Returns The inline mention for the user as HTML.

Return type str

mention_markdown(*name=None*)

Parameters **name** (str) – The name used as a link for the user. Defaults to *full_name*.

Returns The inline mention for the user as markdown.

Return type str

name
Convenience property. If available, returns the user's *username* prefixed with "@". If *username* is not available, returns *full_name*.

Type str

send_animation(**args*, ***kwargs*)
Shortcut for:

```
bot.send_animation(User.id, *args, **kwargs)
```

Where User is the current instance.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

send_audio(**args*, ***kwargs*)
Shortcut for:

```
bot.send_audio(User.id, *args, **kwargs)
```

Where User is the current instance.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

send_document(**args*, ***kwargs*)
Shortcut for:

```
bot.send_document(User.id, *args, **kwargs)
```

Where User is the current instance.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

send_message(**args*, ***kwargs*)
Shortcut for:

```
bot.send_message(User.id, *args, **kwargs)
```

Where User is the current instance.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

send_photo(**args*, ***kwargs*)
Shortcut for:

```
bot.send_photo(User.id, *args, **kwargs)
```

Where User is the current instance.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

send_sticker(**args*, ***kwargs*)
Shortcut for:

```
bot.send_sticker(User.id, *args, **kwargs)
```

Where User is the current instance.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

send_video(**args*, ***kwargs*)
Shortcut for:

```
bot.send_video(User.id, *args, **kwargs)
```

Where User is the current instance.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

send_video_note(**args*, ***kwargs*)
Shortcut for:

```
bot.send_video_note(User.id, *args, **kwargs)
```

Where User is the current instance.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

send_voice(**args*, ***kwargs*)
Shortcut for:

```
bot.send_voice(User.id, *args, **kwargs)
```

Where User is the current instance.

Returns On success, instance representing the message posted.

Return type *telegram.Message*

3.2.38 telegram.UserProfilePhotos

class telegram.**UserProfilePhotos**(*total_count*, *photos*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object represent a user's profile pictures.

total_count
Total number of profile pictures.

Type int

photos
Requested profile pictures.

Type List[List[*telegram.PhotoSize*]]

Parameters

- **total_count** (int) – Total number of profile pictures the target user has.
- **photos** (List[List[*telegram.PhotoSize*]]) – Requested profile pictures (in up to 4 sizes each).

3.2.39 telegram.Venue

class telegram.**Venue**(*location*, *title*, *address*, *foursquare_id=None*, *foursquare_type=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object represents a venue.

location
Venue location.

Type *telegram.Location*

title
Name of the venue.

Type str

address
Address of the venue.

Type str

foursquare_id
Optional. Foursquare identifier of the venue.

Type str

foursquare_type
Optional. Foursquare type of the venue. (For example, "arts_entertainment/default", "arts_entertainment/aquarium" or "food/icecream".)

Type str

Parameters

- **location** (*telegram.Location*) – Venue location.
- **title** (str) – Name of the venue.
- **address** (str) – Address of the venue.
- **foursquare_id** (str, optional) – Foursquare identifier of the venue.

- **foursquare_type** (str, optional) – Foursquare type of the venue. (For example, "arts_entertainment/default", "arts_entertainment/aquarium" or "food/icecream".)
- ****kwargs** (dict) – Arbitrary keyword arguments.

3.2.40 telegram.Video

class telegram.**Video**(*file_id*, *width*, *height*, *duration*, *thumb=None*, *mime_type=None*, *file_size=None*, *bot=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object represents a video file.

file_id
Unique identifier for this file.

Type str

width
Video width as defined by sender.

Type int

height
Video height as defined by sender.

Type int

duration
Duration of the video in seconds as defined by sender.

Type int

thumb
Optional. Video thumbnail.

Type *telegram.PhotoSize*

mime_type
Optional. Mime type of a file as defined by sender.

Type str

file_size
Optional. File size.

Type int

bot
Optional. The Bot to use for instance methods.

Type *telegram.Bot*

Parameters

- **file_id** (str) – Unique identifier for this file.
- **width** (int) – Video width as defined by sender.
- **height** (int) – Video height as defined by sender.
- **duration** (int) – Duration of the video in seconds as defined by sender.
- **thumb** (*telegram.PhotoSize*, optional) – Video thumbnail.
- **mime_type** (str, optional) – Mime type of a file as defined by sender.
- **file_size** (int, optional) – File size.
- **bot** (*telegram.Bot*, optional) – The Bot to use for instance methods.

- ****kwargs** (dict) – Arbitrary keyword arguments.

get_file(*timeout=None*, ***kwargs*)
Convenience wrapper over *telegram.Bot.get_file*

Parameters

- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns *telegram.File*

Raises telegram.TelegramError

3.2.41 telegram.VideoNote

class telegram.**VideoNote**(*file_id*, *length*, *duration*, *thumb=None*, *file_size=None*, *bot=None*, ***kwargs*)
Bases: telegram.base.TelegramObject

This object represents a video message (available in Telegram apps as of v.4.0).

file_id
Unique identifier for this file.

Type str

length
Video width and height as defined by sender.

Type int

duration
Duration of the video in seconds as defined by sender.

Type int

thumb
Optional. Video thumbnail.

Type *telegram.PhotoSize*

file_size
Optional. File size.

Type int

bot
Optional. The Bot to use for instance methods.

Type *telegram.Bot*

Parameters

- **file_id** (str) – Unique identifier for this file.
- **length** (int) – Video width and height as defined by sender.
- **duration** (int) – Duration of the video in seconds as defined by sender.
- **thumb** (*telegram.PhotoSize*, optional) – Video thumbnail.
- **file_size** (int, optional) – File size.
- **bot** (*telegram.Bot*, optional) – The Bot to use for instance methods.
- ****kwargs** (dict) – Arbitrary keyword arguments.

get_file(*timeout=None*, ***kwargs*)
Convenience wrapper over *telegram.Bot.get_file*

Parameters

- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns *telegram.File*

Raises telegram.TelegramError

3.2.42 telegram.Voice

class telegram.**Voice**(*file_id*, *duration*, *mime_type=None*, *file_size=None*, *bot=None*, ***kwargs*)
Bases: telegram.base.TelegramObject

This object represents a voice note.

file_id
Unique identifier for this file.

Type str

duration
Duration of the audio in seconds as defined by sender.

Type int

mime_type
Optional. MIME type of the file as defined by sender.

Type str

file_size
Optional. File size.

Type int

bot
Optional. The Bot to use for instance methods.

Type *telegram.Bot*

Parameters

- **file_id** (str) – Unique identifier for this file.
- **duration** (int, optional) – Duration of the audio in seconds as defined by sender.
- **mime_type** (str, optional) – MIME type of the file as defined by sender.
- **file_size** (int, optional) – File size.
- **bot** (*telegram.Bot*, optional) – The Bot to use for instance methods.
- ****kwargs** (dict) – Arbitrary keyword arguments.

get_file(*timeout=None*, ***kwargs*)
Convenience wrapper over *telegram.Bot.get_file*

Parameters

- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).

- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns *telegram.File*

Raises telegram.TelegramError

3.2.43 telegram.WebhookInfo

class telegram.**WebhookInfo**(*url*, *has_custom_certificate*, *pending_update_count*, *last_error_date=None*, *last_error_message=None*, *max_connections=None*, *allowed_updates=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object represents a Telegram WebhookInfo.

Contains information about the current status of a webhook.

url
Webhook URL.

Type str

has_custom_certificate
If a custom certificate was provided for webhook.

Type bool

pending_update_count
Number of updates awaiting delivery.

Type int

last_error_date
Optional. Unix time for the most recent error that happened.

Type int

last_error_message
Optional. Error message in human-readable format.

Type str

max_connections
Optional. Maximum allowed number of simultaneous HTTPS connections.

Type int

allowed_updates
Optional. A list of update types the bot is subscribed to.

Type List[str]

Parameters

- **url** (str) – Webhook URL, may be empty if webhook is not set up.
- **has_custom_certificate** (bool) – True, if a custom certificate was provided for webhook certificate checks.
- **pending_update_count** (int) – Number of updates awaiting delivery.
- **last_error_date** (int, optional) – Unix time for the most recent error that happened when trying todeliver an update via webhook.
- **last_error_message** (str, optional) – Error message in human-readable format for the most recent error that happened when trying to deliver an update via webhook.
- **max_connections** (int, optional) – Maximum allowed number of simultaneous HTTPS connections to the webhook for update delivery.

- **allowed_updates** (List[str], optional) – A list of update types the bot is subscribed to. Defaults to all update types.

3.2.44 Stickers

telegram.Sticker

class telegram.**Sticker**(*file_id*, *width*, *height*, *thumb=None*, *emoji=None*, *file_size=None*, *set_name=None*, *mask_position=None*, *bot=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object represents a sticker.

file_id
Unique identifier for this file.

Type str

width
Sticker width.

Type int

height
Sticker height.

Type int

thumb
Optional. Sticker thumbnail in the .webp or .jpg format.

Type *telegram.PhotoSize*

emoji
Optional. Emoji associated with the sticker.

Type str

set_name
Optional. Name of the sticker set to which the sticker belongs.

Type str

mask_position
Optional. For mask stickers, the position where the mask should be placed.

Type *telegram.MaskPosition*

file_size
Optional. File size.

Type int

bot
Optional. The Bot to use for instance methods.

Type *telegram.Bot*

Parameters

- **file_id** (str) – Unique identifier for this file.
- **width** (int) – Sticker width.
- **height** (int) – Sticker height.
- **thumb** (*telegram.PhotoSize*, optional) – Sticker thumbnail in the .webp or .jpg format.

- **emoji** (str, optional) – Emoji associated with the sticker
- **set_name** (str, optional) – Name of the sticker set to which the sticker belongs.
- **mask_position** (*telegram.MaskPosition*, optional) – For mask stickers, the position where the mask should be placed.
- **file_size** (int, optional) – File size.
- **(obj** (***kwargs*) – *dict*): Arbitrary keyword arguments.7
- **bot** (*telegram.Bot*, optional) – The Bot to use for instance methods.

get_file(*timeout=None*, ***kwargs*)

Convenience wrapper over *telegram.Bot.get_file*

Parameters

- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns *telegram.File*

Raises telegram.TelegramError

telegram.StickerSet

class telegram.**StickerSet**(*name*, *title*, *contains_masks*, *stickers*, *bot=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object represents a sticker set.

name

Sticker set name.

Type str

title

Sticker set title.

Type str

contains_masks

True, if the sticker set contains masks.

Type bool

stickers

List of all set stickers.

Type List[*telegram.Sticker*]

Parameters

- **name** (str) – Sticker set name.
- **title** (str) – Sticker set title.
- **contains_masks** (bool) – True, if the sticker set contains masks.
- **stickers** (List[*telegram.Sticker*]) – List of all set stickers.

telegram.MaskPosition

class telegram.**MaskPosition**(*point*, *x_shift*, *y_shift*, *scale*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object describes the position on faces where a mask should be placed by default.

point
The part of the face relative to which the mask should be placed.

Type str

x_shift
Shift by X-axis measured in widths of the mask scaled to the face size, from left to right.

Type float

y_shift
Shift by Y-axis measured in heights of the mask scaled to the face size, from top to bottom.

Type float

scale
Mask scaling coefficient. For example, 2.0 means double size.

Type float

Notes

type should be one of the following: *forehead*, *eyes*, *mouth* or *chin*. You can use the classconstants for those.

Parameters

- **point** (str) – The part of the face relative to which the mask should be placed.
- **x_shift** (float) – Shift by X-axis measured in widths of the mask scaled to the face size, from left to right. For example, choosing -1.0 will place mask just to the left of the default mask position.
- **y_shift** (float) – Shift by Y-axis measured in heights of the mask scaled to the face size, from top to bottom. For example, 1.0 will place the mask just below the default mask position.
- **scale** (float) – Mask scaling coefficient. For example, 2.0 means double size.

CHIN = 'chin'
'chin'

Type str

EYES = 'eyes'
'eyes'

Type str

FOREHEAD = 'forehead'
'forehead'

Type str

MOUTH = 'mouth'
'mouth'

Type str

3.2.45 Inline Mode

telegram.InlineQuery

class telegram.**InlineQuery**(*id*, *from_user*, *query*, *offset*, *location=None*, *bot=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object represents an incoming inline query. When the user sends an empty query, your bot could return some default or trending results.

Note:

- In Python *from* is a reserved word, use *from_user* instead.

---

id

Unique identifier for this query.

Type str

from_user

Sender.

Type *telegram.User*

location

Optional. Sender location, only for bots that request user location.

Type *telegram.Location*

query

Text of the query (up to 512 characters).

Type str

offset

Offset of the results to be returned, can be controlled by the bot.

Type str

Parameters

- **id** (str) – Unique identifier for this query.
- **from_user** (*telegram.User*) – Sender.
- **location** (*telegram.Location*, optional) – Sender location, only for bots that request user location.
- **query** (str) – Text of the query (up to 512 characters).
- **offset** (str) – Offset of the results to be returned, can be controlled by the bot.
- **bot** (*telegram.Bot*, optional) – The Bot to use for instance methods.
- ****kwargs** (dict) – Arbitrary keyword arguments.

answer(**args*, ***kwargs*)

Shortcut for:

```
bot.answer_inline_query(update.inline_query.id, *args, **kwargs)
```

Parameters

- **results** (List[*telegram.InlineQueryResult*]) – A list of results for the inline query.

- **cache_time** (int, optional) – The maximum amount of time in seconds that the result of the inline query may be cached on the server. Defaults to 300.
- **is_personal** (bool, optional) – Pass True, if results may be cached on the server side only for the user that sent the query. By default, results may be returned to any user who sends the same query.
- **next_offset** (str, optional) – Pass the offset that a client should send in the next query with the same text to receive more results. Pass an empty string if there are no more results or if you don't support pagination. Offset length can't exceed 64 bytes.
- **switch_pm_text** (str, optional) – If passed, clients will display a button with specified text that switches the user to a private chat with the bot and sends the bot a start message with the parameter switch_pm_parameter.
- **switch_pm_parameter** (str, optional) – Deep-linking parameter for the /start message sent to the bot when user presses the switch button. 1-64 characters, only A-Z, a-z, 0-9, _ and - are allowed.

telegram.InlineQueryResult

class telegram.**InlineQueryResult**(*type*, *id*, ***kwargs*)

Bases: telegram.base.TelegramObject

Baseclass for the InlineQueryResult* classes.

type

Type of the result.

Type str

id

Unique identifier for this result, 1-64 Bytes.

Type str

Parameters

- **type** (str) – Type of the result.
- **id** (str) – Unique identifier for this result, 1-64 Bytes.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InlineQueryResultArticle

class telegram.**InlineQueryResultArticle**(*id*, *title*, *input_message_content*, *reply_markup=None*, *url=None*, *hide_url=None*, *description=None*, *thumb_url=None*, *thumb_width=None*, *thumb_height=None*, ***kwargs*)

Bases: telegram.inline.inlinequeryresult.InlineQueryResult

This object represents a Telegram InlineQueryResultArticle.

type

'article'.

Type str

id

Unique identifier for this result, 1-64 Bytes.

Type str

title
Title of the result.

Type str

input_message_content
Content of the message to be sent.

Type *telegram.InputMessageContent*

reply_markup
Optional. Inline keyboard attached to the message.

Type *telegram.ReplyMarkup*

url
Optional. URL of the result.

Type str

hide_url
Optional. Pass True, if you don't want the URL to be shown in the message.

Type bool

description
Optional. Short description of the result.

Type str

thumb_url
Optional. Url of the thumbnail for the result.

Type str

thumb_width
Optional. Thumbnail width.

Type int

thumb_height
Optional. Thumbnail height.

Type int

Parameters

- **id** (str) – Unique identifier for this result, 1-64 Bytes.
- **title** (str) – Title of the result.
- **input_message_content** (*telegram.InputMessageContent*) – Content of the message to be sent.
- **reply_markup** (*telegram.ReplyMarkup*, optional) – Inline keyboard attached to the message
- **url** (str, optional) – URL of the result.
- **hide_url** (bool, optional) – Pass True, if you don't want the URL to be shown in the message.
- **description** (str, optional) – Short description of the result.
- **thumb_url** (str, optional) – Url of the thumbnail for the result.
- **thumb_width** (int, optional) – Thumbnail width.
- **thumb_height** (int, optional) – Thumbnail height.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InlineQueryResultAudio

class telegram.**InlineQueryResultAudio**(*id*, *audio_url*, *title*, *performer=None*, *audio_duration=None*, *caption=None*, *reply_markup=None*, *input_message_content=None*, *parse_mode=None*, ***kwargs*)

Bases: telegram.inline.inlinequeryresult.InlineQueryResult

Represents a link to an mp3 audio file. By default, this audio file will be sent by the user. Alternatively, you can use *input_message_content* to send a message with the specified content instead of the audio.

type
'audio'.

Type str

id
Unique identifier for this result, 1-64 bytes.

Type str

audio_url
A valid URL for the audio file.

Type str

title
Title.

Type str

performer
Optional. Caption, 0-200 characters.

Type str

audio_duration
Optional. Performer.

Type str

caption
Optional. Audio duration in seconds.

Type str

parse_mode
Optional. Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.

Type str

reply_markup
Optional. Inline keyboard attached to the message.

Type *telegram.InlineKeyboardMarkup*

input_message_content
Optional. Content of the message to be sent instead of the audio.

Type *telegram.InputMessageContent*

Parameters

- **id** (str) – Unique identifier for this result, 1-64 bytes.
- **audio_url** (str) – A valid URL for the audio file.

- **title** (str) – Title.
- **performer** (str, optional) – Caption, 0-200 characters.
- **audio_duration** (str, optional) – Performer.
- **caption** (str, optional) – Audio duration in seconds.
- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **reply_markup** (*telegram.InlineKeyboardMarkup*, optional) – Inline keyboard attached to the message.
- **input_message_content** (*telegram.InputMessageContent*, optional) – Content of the message to be sent instead of the audio.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InlineQueryResultCachedAudio

class telegram.**InlineQueryResultCachedAudio**(*id*, *audio_file_id*, *caption=None*, *reply_markup=None*, *input_message_content=None*, *parse_mode=None*, ***kwargs*)

Bases: telegram.inline.inlinequeryresult.InlineQueryResult

Represents a link to an mp3 audio file stored on the Telegram servers. By default, this audio file will be sent by the user. Alternatively, you can use *input_message_content* to send amessage with the specified content instead of the audio.

type
'audio'.

Type str

id
Unique identifier for this result, 1-64 bytes.

Type str

audio_file_id
A valid file identifier for the audio file.

Type str

caption
Optional. Caption, 0-1024 characters

Type str

parse_mode
Optional. Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.

Type str

reply_markup
Optional. Inline keyboard attached to the message.

Type *telegram.InlineKeyboardMarkup*

input_message_content
Optional. Content of the message to be sent instead of the audio.

Type *telegram.InputMessageContent*

Parameters

- **id** (str) – Unique identifier for this result, 1-64 bytes.
- **audio_file_id** (str) – A valid file identifier for the audio file.
- **caption** (str, optional) – Caption, 0-1024 characters
- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **reply_markup** (*telegram.InlineKeyboardMarkup*, optional) – Inline keyboard attached to the message.
- **input_message_content** (*telegram.InputMessageContent*, optional) – Content of the message to be sent instead of the audio.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InlineQueryResultCachedDocument

class telegram.**InlineQueryResultCachedDocument**(*id*, *title*, *document_file_id*, *description=None*, *caption=None*, *reply_markup=None*, *input_message_content=None*, *parse_mode=None*, ***kwargs*)

Bases: telegram.inline.inlinequeryresult.InlineQueryResult

Represents a link to a file stored on the Telegram servers. By default, this file will be sent by the user with an optional caption. Alternatively, you can use *input_message_content* to send a message with the specified content instead of the file.

type
'document'.

Type str

id
Unique identifier for this result, 1-64 bytes.

Type str

title
Title for the result.

Type str

document_file_id
A valid file identifier for the file.

Type str

description
Optional. Short description of the result.

Type str

caption
Optional. Caption, 0-1024 characters

Type str

parse_mode
Optional. Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption.. See the constants in *telegram.ParseMode* for the available modes.

Type str

reply_markup
Optional. Inline keyboard attached to the message.

Type *telegram.InlineKeyboardMarkup*

input_message_content
Optional. Content of the message to be sent instead of the file.

Type *telegram.InputMessageContent*

Parameters

- **id** (str) – Unique identifier for this result, 1-64 bytes.
- **title** (str) – Title for the result.
- **document_file_id** (str) – A valid file identifier for the file.
- **description** (str, optional) – Short description of the result.
- **caption** (str, optional) – Caption, 0-1024 characters
- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption.. See the constants in *telegram.ParseMode* for the available modes.
- **reply_markup** (*telegram.InlineKeyboardMarkup*, optional) – Inline keyboard attached to the message.
- **input_message_content** (*telegram.InputMessageContent*, optional) – Content of the message to be sent instead of the file.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InlineQueryResultCachedGif

class telegram.**InlineQueryResultCachedGif**(*id*, *gif_file_id*, *title=None*, *caption=None*, *reply_markup=None*, *input_message_content=None*, *parse_mode=None*, ***kwargs*)

Bases: telegram.inline.inlinequeryresult.InlineQueryResult

Represents a link to an animated GIF file stored on the Telegram servers. By default, this animated GIF file will be sent by the user with an optional caption. Alternatively, you can use *input_message_content* to send a message with specified content instead of the animation.

type
'gif'.

Type str

id
Unique identifier for this result, 1-64 bytes.

Type str

gif_file_id
A valid file identifier for the GIF file.

Type str

title
Optional. Title for the result.

Type str

caption
Optional. Caption, 0-1024 characters

Type str

parse_mode
Optional. Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.

Type str

reply_markup
Optional. Inline keyboard attached to the message.

Type *telegram.InlineKeyboardMarkup*

input_message_content
Optional. Content of the message to be sent instead of the gif.

Type *telegram.InputMessageContent*

Parameters

- **id** (str) – Unique identifier for this result, 1-64 bytes.
- **gif_file_id** (str) – A valid file identifier for the GIF file.
- **title** (str, optional) – Title for the result.caption (str, optional):
- **caption** (str, optional) – Caption, 0-1024 characters
- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **reply_markup** (*telegram.InlineKeyboardMarkup*, optional) – Inline keyboard attached to the message.
- **input_message_content** (*telegram.InputMessageContent*, optional) – Content of the message to be sent instead of the gif.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InlineQueryResultCachedMpeg4Gif

class telegram.**InlineQueryResultCachedMpeg4Gif**(*id*, *mpeg4_file_id*, *title=None*, *caption=None*, *reply_markup=None*, *input_message_content=None*, *parse_mode=None*, ***kwargs*)

Bases: telegram.inline.inlinequeryresult.InlineQueryResult

Represents a link to a video animation (H.264/MPEG-4 AVC video without sound) stored on the Telegram servers. By default, this animated MPEG-4 file will be sent by the user with an optional caption. Alternatively, you can use *input_message_content* to send a message with the specified content instead of the animation.

type
'mpeg4_gif'.

Type str

id
Unique identifier for this result, 1-64 bytes.

Type str

mpeg4_file_id
A valid file identifier for the MP4 file.

Type str

title
Optional. Title for the result.

Type str

caption
Optional. Caption, 0-1024 characters

Type str

parse_mode
Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.

Type str

reply_markup
Optional. Inline keyboard attached to the message.

Type *telegram.InlineKeyboardMarkup*

input_message_content
Optional. Content of the message to be sent instead of the MPEG-4 file.

Type *telegram.InputMessageContent*

Parameters

- **id** (str) – Unique identifier for this result, 1-64 bytes.
- **mpeg4_file_id** (str) – A valid file identifier for the MP4 file.
- **title** (str, optional) – Title for the result.
- **caption** (str, optional) – Caption, 0-1024 characters
- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **reply_markup** (*telegram.InlineKeyboardMarkup*, optional) – Inline keyboard attached to the message.
- **input_message_content** (*telegram.InputMessageContent*, optional) – Content of the message to be sent instead of the MPEG-4 file.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InlineQueryResultCachedPhoto

class telegram.**InlineQueryResultCachedPhoto**(*id*, *photo_file_id*, *title=None*, *description=None*, *caption=None*, *reply_markup=None*, *input_message_content=None*, *parse_mode=None*, ***kwargs*)

Bases: telegram.inline.inlinequeryresult.InlineQueryResult

Represents a link to a photo stored on the Telegram servers. By default, this photo will be sent by the user with an optional caption. Alternatively, you can use *input_message_content* to send a message with the specified content instead of the photo.

type
'photo'.

Type str

id
Unique identifier for this result, 1-64 bytes.

Type str

photo_file_id
A valid file identifier of the photo.

Type str

title
Optional. Title for the result.

Type str

description
Optional. Short description of the result.

Type str

caption
Optional. Caption, 0-1024 characters

Type str

parse_mode
Optional. Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.

Type str

reply_markup
Optional. Inline keyboard attached to the message.

Type *telegram.InlineKeyboardMarkup*

input_message_content
Optional. Content of the message to be sent instead of the photo.

Type *telegram.InputMessageContent*

Parameters

- **id** (str) – Unique identifier for this result, 1-64 bytes.
- **photo_file_id** (str) – A valid file identifier of the photo.
- **title** (str, optional) – Title for the result.
- **description** (str, optional) – Short description of the result.
- **caption** (str, optional) – Caption, 0-1024 characters
- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **reply_markup** (*telegram.InlineKeyboardMarkup*, optional) – Inline keyboard attached to the message.
- **input_message_content** (*telegram.InputMessageContent*, optional) – Content of the message to be sent instead of the photo.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InlineQueryResultCachedSticker

class telegram.**InlineQueryResultCachedSticker**(*id*, *sticker_file_id*, *reply_markup=None*, *input_message_content=None*, ***kwargs*)

Bases: telegram.inline.inlinequeryresult.InlineQueryResult

Represents a link to a sticker stored on the Telegram servers. By default, this sticker will be sent by the user. Alternatively, you can use *input_message_content* to send a message with the specified content instead of the sticker.

type
'sticker'.

Type str

id
Unique identifier for this result, 1-64 bytes.

Type str

sticker_file_id
A valid file identifier of the sticker.

Type str

reply_markup
Optional. Inline keyboard attached to the message.

Type *telegram.InlineKeyboardMarkup*

input_message_content
Optional. Content of the message to be sent instead of the sticker.

Type *telegram.InputMessageContent*

Parameters

- **id** (str) –
- **sticker_file_id** (str) –
- **reply_markup** (*telegram.InlineKeyboardMarkup*, optional) – Inline keyboard attached to the message.
- **input_message_content** (*telegram.InputMessageContent*, optional) – Content of the message to be sent instead of the sticker.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InlineQueryResultCachedVideo

class telegram.**InlineQueryResultCachedVideo**(*id*, *video_file_id*, *title*, *description=None*, *caption=None*, *reply_markup=None*, *input_message_content=None*, *parse_mode=None*, ***kwargs*)

Bases: telegram.inline.inlinequeryresult.InlineQueryResult

Represents a link to a video file stored on the Telegram servers. By default, this video file will be sent by the user with an optional caption. Alternatively, you can use *input_message_content* to send a message with the specified content instead of the video.

type
'video'.

Type str

id
Unique identifier for this result, 1-64 bytes.

Type str

video_file_id
A valid file identifier for the video file.

Type str

title
Title for the result.

Type str

description
Optional. Short description of the result.

Type str

caption
Optional. Caption, 0-1024 characters.

Type str

parse_mode
Optional. Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.

Type str

reply_markup
Optional. Inline keyboard attached to the message.

Type *telegram.InlineKeyboardMarkup*

input_message_content
Optional. Content of the message to be sent instead of the video.

Type *telegram.InputMessageContent*

Parameters

- **id** (str) – Unique identifier for this result, 1-64 bytes.
- **video_file_id** (str) – A valid file identifier for the video file.
- **title** (str) – Title for the result.
- **description** (str, optional) – Short description of the result.
- **caption** (str, optional) – Caption, 0-1024 characters.
- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **reply_markup** (*telegram.InlineKeyboardMarkup*, optional) – Inline keyboard attached to the message.
- **input_message_content** (*telegram.InputMessageContent*, optional) – Content of the message to be sent instead of the video.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InlineQueryResultCachedVoice

class telegram.**InlineQueryResultCachedVoice**(*id*, *voice_file_id*, *title*, *caption=None*, *reply_markup=None*, *input_message_content=None*, *parse_mode=None*, ***kwargs*)

Bases: telegram.inline.inlinequeryresult.InlineQueryResult

Represents a link to a voice message stored on the Telegram servers. By default, this voice message will be sent by the user. Alternatively, you can use *input_message_content* to send a message with the specified content instead of the voice message.

type
'voice'.

Type str

id
Unique identifier for this result, 1-64 bytes.

Type str

voice_file_id
A valid file identifier for the voice message.

Type str

title
Voice message title.

Type str

caption
Optional. Caption, 0-1024 characters.

Type str

parse_mode
Optional. Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.

Type str

reply_markup
Optional. Inline keyboard attached to the message.

Type *telegram.InlineKeyboardMarkup*

input_message_content
Optional. Content of the message to be sent instead of the voice.

Type *telegram.InputMessageContent*

Parameters

- **id** (str) – Unique identifier for this result, 1-64 bytes.
- **voice_file_id** (str) – A valid file identifier for the voice message.
- **title** (str) – Voice message title.
- **caption** (str, optional) – Caption, 0-1024 characters.
- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **reply_markup** (*telegram.InlineKeyboardMarkup*, optional) – Inline keyboard attached to the message.

- **input_message_content** (*telegram.InputMessageContent*, optional) – Content of the message to be sent instead of the voice.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InlineQueryResultContact

class telegram.**InlineQueryResultContact**(*id*, *phone_number*, *first_name*, *last_name=None*, *reply_markup=None*, *input_message_content=None*, *thumb_url=None*, *thumb_width=None*, *thumb_height=None*, *vcard=None*, ***kwargs*)

Bases: telegram.inline.inlinequeryresult.InlineQueryResult

Represents a contact with a phone number. By default, this contact will be sent by the user. Alternatively, you can use *input_message_content* to send a message with the specified content instead of the contact.

type
'contact'.

Type str

id
Unique identifier for this result, 1-64 bytes.

Type str

phone_number
Contact's phone number.

Type str

first_name
Contact's first name.

Type str

last_name
Optional. Contact's last name.

Type str

vcard
Optional. Additional data about the contact in the form of a vCard, 0-2048 bytes.

Type str

reply_markup
Optional. Inline keyboard attached to the message.

Type *telegram.InlineKeyboardMarkup*

input_message_content
Optional. Content of the message to be sent instead of the contact.

Type *telegram.InputMessageContent*

thumb_url
Optional. Url of the thumbnail for the result.

Type str

thumb_width
Optional. Thumbnail width.

Type int

thumb_height
Optional. Thumbnail height.

Type int

Parameters

- **id** (str) – Unique identifier for this result, 1-64 bytes.
- **phone_number** (str) – Contact's phone number.
- **first_name** (str) – Contact's first name.
- **last_name** (str, optional) – Contact's last name.
- **vcard** (str, optional) – Additional data about the contact in the form of a vCard, 0-2048 bytes.
- **reply_markup** (*telegram.InlineKeyboardMarkup*, optional) – Inline keyboard attached to the message.
- **input_message_content** (*telegram.InputMessageContent*, optional) – Content of the message to be sent instead of the contact.
- **thumb_url** (str, optional) – Url of the thumbnail for the result.
- **thumb_width** (int, optional) – Thumbnail width.
- **thumb_height** (int, optional) – Thumbnail height.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InlineQueryResultDocument

class telegram.**InlineQueryResultDocument**(*id*, *document_url*, *title*, *mime_type*, *caption=None*, *description=None*, *reply_markup=None*, *input_message_content=None*, *thumb_url=None*, *thumb_width=None*, *thumb_height=None*, *parse_mode=None*, ***kwargs*)

Bases: telegram.inline.inlinequeryresult.InlineQueryResult

Represents a link to a file. By default, this file will be sent by the user with an optional caption. Alternatively, you can use *input_message_content* to send a message with the specified content instead of the file. Currently, only .PDF and .ZIP files can be sent using this method.

type
'document'.

Type str

id
Unique identifier for this result, 1-64 bytes.

Type str

title
Title for the result.

Type str

caption
Optional. Caption, 0-1024 characters

Type str

parse_mode
Optional. Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.

Type str

document_url
A valid URL for the file.

Type str

mime_type
Mime type of the content of the file, either "application/pdf" or "application/zip".

Type str

description
Optional. Short description of the result.

Type str

reply_markup
Optional. Inline keyboard attached to the message.

Type *telegram.InlineKeyboardMarkup*

input_message_content
Optional. Content of the message to be sent instead of the file.

Type *telegram.InputMessageContent*

thumb_url
Optional. URL of the thumbnail (jpeg only) for the file.

Type str

thumb_width
Optional. Thumbnail width.

Type int

thumb_height
Optional. Thumbnail height.

Type int

Parameters

- **id** (str) – Unique identifier for this result, 1-64 bytes.
- **title** (str) – Title for the result.
- **caption** (str, optional) – Caption, 0-1024 characters
- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **document_url** (str) – A valid URL for the file.
- **mime_type** (str) – Mime type of the content of the file, either "application/pdf" or "application/zip".
- **description** (str, optional) – Short description of the result.
- **reply_markup** (*telegram.InlineKeyboardMarkup*) – Optional. Inline keyboard attached to the message.
- **input_message_content** (*telegram.InputMessageContent*) – Optional. Content of the message to be sent instead of the file.

- **thumb_url** (str, optional) – URL of the thumbnail (jpeg only) for the file.
- **thumb_width** (int, optional) – Thumbnail width.
- **thumb_height** (int, optional) – Thumbnail height.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InlineQueryResultGame

class telegram.**InlineQueryResultGame**(*id*, *game_short_name*, *reply_markup=None*, ***kwargs*)

Bases: telegram.inline.inlinequeryresult.InlineQueryResult

Represents a Game.

type
'game'.

Type str

id
Unique identifier for this result, 1-64 bytes.

Type str

game_short_name
Short name of the game.

Type str

reply_markup
Optional. Inline keyboard attached to the message.

Type *telegram.InlineKeyboardMarkup*

Parameters

- **id** (str) – Unique identifier for this result, 1-64 bytes.
- **game_short_name** (str) – Short name of the game.
- **reply_markup** (*telegram.InlineKeyboardMarkup*, optional) – Inline keyboard attached to the message.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InlineQueryResultGif

class telegram.**InlineQueryResultGif**(*id*, *gif_url*, *thumb_url*, *gif_width=None*, *gif_height=None*, *title=None*, *caption=None*, *reply_markup=None*, *input_message_content=None*, *gif_duration=None*, *parse_mode=None*, ***kwargs*)

Bases: telegram.inline.inlinequeryresult.InlineQueryResult

Represents a link to an animated GIF file. By default, this animated GIF file will be sent by the user with optional caption. Alternatively, you can use *input_message_content* to send a message with the specified content instead of the animation.

type
'gif'.

Type str

id
Unique identifier for this result, 1-64 bytes.

Type str

gif_url
A valid URL for the GIF file. File size must not exceed 1MB.

Type str

gif_width
Optional. Width of the GIF.

Type int

gif_height
Optional. Height of the GIF.

Type int

gif_duration
Optional. Duration of the GIF.

Type int

thumb_url
URL of the static thumbnail for the result (jpeg or gif).

Type str

title
Optional. Title for the result.

Type str

caption
Optional. Caption, 0-1024 characters

Type str

parse_mode
Optional. Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.

Type str

reply_markup
Optional. Inline keyboard attached to the message.

Type *telegram.InlineKeyboardMarkup*

input_message_content
Optional. Content of the message to be sent instead of the gif.

Type *telegram.InputMessageContent*

Parameters

- **id** (str) – Unique identifier for this result, 1-64 bytes.
- **gif_url** (str) – A valid URL for the GIF file. File size must not exceed 1MB.
- **gif_width** (int, optional) – Width of the GIF.
- **gif_height** (int, optional) – Height of the GIF.
- **gif_duration** (int, optional) – Duration of the GIF
- **thumb_url** (str) – URL of the static thumbnail for the result (jpeg or gif).
- **title** (str, optional) – Title for the result.caption (str, optional):
- **caption** (str, optional) – Caption, 0-1024 characters

- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **reply_markup** (*telegram.InlineKeyboardMarkup*, optional) – Inline keyboard attached to the message.
- **input_message_content** (*telegram.InputMessageContent*, optional) – Content of the message to be sent instead of the gif.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InlineQueryResultLocation

class telegram.**InlineQueryResultLocation**(*id*, *latitude*, *longitude*, *title*, *live_period=None*, *reply_markup=None*, *input_message_content=None*, *thumb_url=None*, *thumb_width=None*, *thumb_height=None*, ***kwargs*)

Bases: telegram.inline.inlinequeryresult.InlineQueryResult

Represents a location on a map. By default, the location will be sent by the user. Alternatively, you can use *input_message_content* to send a message with the specified content instead of the location.

type
'location'.

Type str

id
Unique identifier for this result, 1-64 bytes.

Type str

latitude
Location latitude in degrees.

Type float

longitude
Location longitude in degrees.

Type float

title
Location title.

Type str

live_period
Optional. Period in seconds for which the location can be updated, should be between 60 and 86400.

Type int

reply_markup
Optional. Inline keyboard attached to the message.

Type *telegram.InlineKeyboardMarkup*

input_message_content
Optional. Content of the message to be sent instead of the location.

Type *telegram.InputMessageContent*

thumb_url
Optional. Url of the thumbnail for the result.

Type str

thumb_width
Optional. Thumbnail width.

Type int

thumb_height
Optional. Thumbnail height.

Type int

Parameters

- **id** (str) – Unique identifier for this result, 1-64 bytes.
- **latitude** (float) – Location latitude in degrees.
- **longitude** (float) – Location longitude in degrees.
- **title** (str) – Location title.
- **live_period** (int, optional) – Period in seconds for which the location can be updated, should be between 60 and 86400.
- **reply_markup** (*telegram.InlineKeyboardMarkup*, optional) – Inline keyboard attached to the message.
- **input_message_content** (*telegram.InputMessageContent*, optional) – Content of the message to be sent instead of the location.
- **thumb_url** (str, optional) – Url of the thumbnail for the result.
- **thumb_width** (int, optional) – Thumbnail width.
- **thumb_height** (int, optional) – Thumbnail height.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InlineQueryResultMpeg4Gif

class telegram.**InlineQueryResultMpeg4Gif**(*id*, *mpeg4_url*, *thumb_url*, *mpeg4_width=None*, *mpeg4_height=None*, *title=None*, *caption=None*, *reply_markup=None*, *input_message_content=None*, *mpeg4_duration=None*, *parse_mode=None*, ***kwargs*)

Bases: telegram.inline.inlinequeryresult.InlineQueryResult

Represents a link to a video animation (H.264/MPEG-4 AVC video without sound). By default, this animated MPEG-4 file will be sent by the user with optional caption. Alternatively, you can use *input_message_content* to send a message with the specified content instead of the animation.

type
'mpeg4_gif'.

Type str

id
Unique identifier for this result, 1-64 bytes.

Type str

mpeg4_url
A valid URL for the MP4 file. File size must not exceed 1MB.

Type str

mpeg4_width
Optional. Video width.

Type int

mpeg4_height
Optional. Video height.

Type int

mpeg4_duration
Optional. Video duration.

Type int

thumb_url
URL of the static thumbnail (jpeg or gif) for the result.

Type str

title
Optional. Title for the result.

Type str

caption
Optional. Caption, 0-1024 characters

Type str

parse_mode
Optional. Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.

Type str

reply_markup
Optional. Inline keyboard attached to the message.

Type *telegram.InlineKeyboardMarkup*

input_message_content
Optional. Content of the message to be sent instead of the MPEG-4 file.

Type *telegram.InputMessageContent*

Parameters

- **id** (str) – Unique identifier for this result, 1-64 bytes.
- **mpeg4_url** (str) – A valid URL for the MP4 file. File size must not exceed 1MB.
- **mpeg4_width** (int, optional) – Video width.
- **mpeg4_height** (int, optional) – Video height.
- **mpeg4_duration** (int, optional) – Video duration.
- **thumb_url** (str) – URL of the static thumbnail (jpeg or gif) for the result.
- **title** (str, optional) – Title for the result.
- **caption** (str, optional) – Caption, 0-1024 characters
- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **reply_markup** (*telegram.InlineKeyboardMarkup*, optional) – Inline keyboard attached to the message.
- **input_message_content** (*telegram.InputMessageContent*, optional) – Content of the message to be sent instead of the MPEG-4 file.

- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InlineQueryResultPhoto

class telegram.**InlineQueryResultPhoto**(*id*, *photo_url*, *thumb_url*, *photo_width=None*, *photo_height=None*, *title=None*, *description=None*, *caption=None*, *reply_markup=None*, *input_message_content=None*, *parse_mode=None*, ***kwargs*)

Bases: telegram.inline.inlinequeryresult.InlineQueryResult

Represents a link to a photo. By default, this photo will be sent by the user with optional caption. Alternatively, you can use *input_message_content* to send a message with the specified content instead of the photo.

type
'photo'.

Type str

id
Unique identifier for this result, 1-64 bytes.

Type str

photo_url
A valid URL of the photo. Photo must be in jpeg format. Photo size must not exceed 5MB.

Type str

thumb_url
URL of the thumbnail for the photo.

Type str

photo_width
Optional. Width of the photo.

Type int

photo_height
Optional. Height of the photo.

Type int

title
Optional. Title for the result.

Type str

description
Optional. Short description of the result.

Type str

caption
Optional. Caption, 0-1024 characters

Type str

parse_mode
Optional. Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.

Type str

reply_markup
Optional. Inline keyboard attached to the message.

Type *telegram.InlineKeyboardMarkup*

input_message_content
Optional. Content of the message to be sent instead of the photo.

Type *telegram.InputMessageContent*

Parameters

- **id** (str) – Unique identifier for this result, 1-64 bytes.
- **photo_url** (str) – A valid URL of the photo. Photo must be in jpeg format. Photo size must not exceed 5MB.
- **thumb_url** (str) – URL of the thumbnail for the photo.
- **photo_width** (int, optional) – Width of the photo.
- **photo_height** (int, optional) – Height of the photo.
- **title** (str, optional) – Title for the result.
- **description** (str, optional) – Short description of the result.
- **caption** (str, optional) – Caption, 0-1024 characters
- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **reply_markup** (*telegram.InlineKeyboardMarkup*, optional) – Inline keyboard attached to the message.
- **input_message_content** (*telegram.InputMessageContent*, optional) – Content of the message to be sent instead of the photo.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InlineQueryResultVenue

class telegram.**InlineQueryResultVenue**(*id*, *latitude*, *longitude*, *title*, *address*, *foursquare_id=None*, *foursquare_type=None*, *reply_markup=None*, *input_message_content=None*, *thumb_url=None*, *thumb_width=None*, *thumb_height=None*, ***kwargs*)

Bases: telegram.inline.inlinequeryresult.InlineQueryResult

Represents a venue. By default, the venue will be sent by the user. Alternatively, you can use *input_message_content* to send a message with the specified content instead of the venue.

type
'venue'.

Type str

id
Unique identifier for this result, 1-64 Bytes.

Type str

latitude
Latitude of the venue location in degrees.

Type float

longitude
Longitude of the venue location in degrees.

Type float

title
Title of the venue.

Type str

address
Address of the venue.

Type str

foursquare_id
Optional. Foursquare identifier of the venue if known.

Type str

foursquare_type
Optional. Foursquare type of the venue, if known. (For example, "arts_entertainment/default", "arts_entertainment/aquarium" or "food/icecream".)

Type str

reply_markup
Optional. Inline keyboard attached to the message.

Type *telegram.InlineKeyboardMarkup*

input_message_content
Optional. Content of the message to be sent instead of the venue.

Type *telegram.InputMessageContent*

thumb_url
Optional. Url of the thumbnail for the result.

Type str

thumb_width
Optional. Thumbnail width.

Type int

thumb_height
Optional. Thumbnail height.

Type int

Parameters

- **id** (str) – Unique identifier for this result, 1-64 Bytes.
- **latitude** (float) – Latitude of the venue location in degrees.
- **longitude** (float) – Longitude of the venue location in degrees.
- **title** (str) – Title of the venue.
- **address** (str) – Address of the venue.
- **foursquare_id** (str, optional) – Foursquare identifier of the venue if known.
- **foursquare_type** (str, optional) – Foursquare type of the venue, if known. (For example, "arts_entertainment/default", "arts_entertainment/aquarium" or "food/icecream".)
- **reply_markup** (*telegram.InlineKeyboardMarkup*, optional) – Inline keyboard attached to the message.
- **input_message_content** (*telegram.InputMessageContent*, optional) – Content of the message to be sent instead of the location.

- **thumb_url** (str, optional) – Url of the thumbnail for the result.
- **thumb_width** (int, optional) – Thumbnail width.
- **thumb_height** (int, optional) – Thumbnail height.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InlineQueryResultVideo

class telegram.**InlineQueryResultVideo**(*id*, *video_url*, *mime_type*, *thumb_url*, *title*, *caption=None*, *video_width=None*, *video_height=None*, *video_duration=None*, *description=None*, *reply_markup=None*, *input_message_content=None*, *parse_mode=None*, ***kwargs*)

Bases: telegram.inline.inlinequeryresult.InlineQueryResult

Represents a link to a page containing an embedded video player or a video file. By default, this video file will be sent by the user with an optional caption. Alternatively, you can use *input_message_content* to send a message with the specified content instead of the video.

type
'video'.

Type str

id
Unique identifier for this result, 1-64 bytes.

Type str

video_url
A valid URL for the embedded video player or video file.

Type str

mime_type
Mime type of the content of video url, "text/html" or "video/mp4".

Type str

thumb_url
URL of the thumbnail (jpeg only) for the video.

Type str

title
Title for the result.

Type str

caption
Optional. Caption, 0-1024 characters

Type str

parse_mode
Optional. Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.

Type str

video_width
Optional. Video width.

Type int

video_height
Optional. Video height.

Type int

video_duration
Optional. Video duration in seconds.

Type int

description
Optional. Short description of the result.

Type str

reply_markup
Optional. Inline keyboard attached to the message.

Type *telegram.InlineKeyboardMarkup*

input_message_content
Optional. Content of the message to be sent instead of the video.

Type *telegram.InputMessageContent*

Parameters

- **id** (str) – Unique identifier for this result, 1-64 bytes.
- **video_url** (str) – A valid URL for the embedded video player or video file.
- **mime_type** (str) – Mime type of the content of video url, "text/html" or "video/mp4".
- **thumb_url** (str) – URL of the thumbnail (jpeg only) for the video.
- **title** (str) – Title for the result.
- **caption** (str, optional) – Caption, 0-1024 characters.
- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption. See the constants in *telegram.ParseMode* for the available modes.
- **video_width** (int, optional) – Video width.
- **video_height** (int, optional) – Video height.
- **video_duration** (int, optional) – Video duration in seconds.
- **description** (str, optional) – Short description of the result.
- **reply_markup** (*telegram.InlineKeyboardMarkup*, optional) – Inline keyboard attached to the message.
- **input_message_content** (*telegram.InputMessageContent*, optional) – Content of the message to be sent instead of the video.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InlineQueryResultVoice

class telegram.**InlineQueryResultVoice**(*id*, *voice_url*, *title*, *voice_duration=None*, *caption=None*, *reply_markup=None*, *input_message_content=None*, *parse_mode=None*, ***kwargs*)

Bases: telegram.inline.inlinequeryresult.InlineQueryResult

Represents a link to a voice recording in an .ogg container encoded with OPUS. By default, this voice recording will be sent by the user. Alternatively, you can use *input_message_content* to send a message with the specified content instead of the the voice message.

type
'voice'.

Type str

id
Unique identifier for this result, 1-64 bytes.

Type str

voice_url
A valid URL for the voice recording.

Type str

title
Voice message title.

Type str

caption
Optional. Caption, 0-1024 characters.

Type str

parse_mode
Optional. Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption.. See the constants in *telegram.ParseMode* for the available modes.

Type str

voice_duration
Optional. Recording duration in seconds.

Type int

reply_markup
Optional. Inline keyboard attached to the message.

Type *telegram.InlineKeyboardMarkup*

input_message_content
Optional. Content of the message to be sent instead of the voice.

Type *telegram.InputMessageContent*

Parameters

- **id** (str) – Unique identifier for this result, 1-64 bytes.
- **voice_url** (str) – A valid URL for the voice recording.
- **title** (str) – Voice message title.
- **caption** (str, optional) – Caption, 0-1024 characters.
- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in the media caption.. See the constants in *telegram.ParseMode* for the available modes.
- **voice_duration** (int, optional) – Recording duration in seconds.
- **reply_markup** (*telegram.InlineKeyboardMarkup*, optional) – Inline keyboard attached to the message.

- **input_message_content** (*telegram.InputMessageContent*, optional) – Content of the message to be sent instead of the voice.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InputMessageContent

class telegram.**InputMessageContent**

Bases: telegram.base.TelegramObject

Base class for Telegram InputMessageContent Objects.

See: *telegram.InputContactMessageContent*, *telegram.InputLocationMessageContent*, *telegram.InputTextMessageContent* and *telegram.InputVenueMessageContent* for more details.

telegram.InputTextMessageContent

class telegram.**InputTextMessageContent**(*message_text*, *parse_mode=None*, *disable_web_page_preview=None*, ***kwargs*)

Bases: telegram.inline.inputmessagecontent.InputMessageContent

Represents the content of a text message to be sent as the result of an inline query.

message_text
Text of the message to be sent, 1-4096 characters.

Type str

parse_mode
Optional. Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in your bot's message.

Type str

disable_web_page_preview
Optional. Disables link previews for links in the sent message.

Type bool

Parameters

- **message_text** (str) – Text of the message to be sent, 1-4096 characters. Also found as *telegram.constants.MAX_MESSAGE_LENGTH*.
- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or inline URLs in your bot's message.
- **disable_web_page_preview** (bool, optional) – Disables link previews for links in the sent message.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InputLocationMessageContent

class telegram.**InputLocationMessageContent**(*latitude*, *longitude*, *live_period=None*, ***kwargs*)

Bases: telegram.inline.inputmessagecontent.InputMessageContent

Represents the content of a location message to be sent as the result of an inline query.

latitude
Latitude of the location in degrees.

Type float

longitude
Longitude of the location in degrees.

Type float

Parameters

- **latitude** (float) – Latitude of the location in degrees.
- **longitude** (float) – Longitude of the location in degrees.
- **live_period** (int, optional) – Period in seconds for which the location can be updated, should be between 60 and 86400.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InputVenueMessageContent

class telegram.**InputVenueMessageContent**(*latitude*, *longitude*, *title*, *address*, *foursquare_id=None*, *foursquare_type=None*, ***kwargs*)
Bases: telegram.inline.inputmessagecontent.InputMessageContent

Represents the content of a venue message to be sent as the result of an inline query.

latitude
Latitude of the location in degrees.

Type float

longitude
Longitude of the location in degrees.

Type float

title
Name of the venue.

Type str

address
Address of the venue.

Type str

foursquare_id
Optional. Foursquare identifier of the venue, if known.

Type str

foursquare_type
Optional. Foursquare type of the venue, if known. (For example, “arts_entertainment/default”, “arts_entertainment/aquarium” or “food/icecream”.)

Type str

Parameters

- **latitude** (float) – Latitude of the location in degrees.
- **longitude** (float) – Longitude of the location in degrees.
- **title** (str) – Name of the venue.
- **address** (str) – Address of the venue.
- **foursquare_id** (str, optional) – Foursquare identifier of the venue, if known.

- **foursquare_type** (str, optional) – Foursquare type of the venue, if known. (For example, "arts_entertainment/default", "arts_entertainment/aquarium" or "food/icecream".)
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.InputContactMessageContent

class telegram.**InputContactMessageContent**(*phone_number*, *first_name*, *last_name=None*, *vcard=None*, ***kwargs*)

Bases: telegram.inline.inputmessagecontent.InputMessageContent

Represents the content of a contact message to be sent as the result of an inline query.

phone_number
Contact's phone number.

Type str

first_name
Contact's first name.

Type str

last_name
Optional. Contact's last name.

Type str

vcard
Optional. Additional data about the contact in the form of a vCard, 0-2048 bytes.

Type str

Parameters

- **phone_number** (str) – Contact's phone number.
- **first_name** (str) – Contact's first name.
- **last_name** (str, optional) – Contact's last name.
- **vcard** (str, optional) – Additional data about the contact in the form of a vCard, 0-2048 bytes.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.ChosenInlineResult

class telegram.**ChosenInlineResult**(*result_id*, *from_user*, *query*, *location=None*, *inline_message_id=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

Represents a result of an inline query that was chosen by the user and sent to their chat partner.

Note: In Python *from* is a reserved word, use *from_user* instead.

result_id
The unique identifier for the result that was chosen.

Type str

from_user
The user that chose the result.

Type *telegram.User*

location
Optional. Sender location.

Type *telegram.Location*

inline_message_id
Optional. Identifier of the sent inline message.

Type str

query
The query that was used to obtain the result.

Type str

Parameters

- **result_id** (str) – The unique identifier for the result that was chosen.
- **from_user** (*telegram.User*) – The user that chose the result.
- **location** (*telegram.Location*, optional) – Sender location, only for bots that require user location.
- **inline_message_id** (str, optional) – Identifier of the sent inline message. Available only if there is an inline keyboard attached to the message. Will be also received in callback queries and can be used to edit the message.
- **query** (str) – The query that was used to obtain the result.
- ****kwargs** (dict) – Arbitrary keyword arguments.

3.2.46 Payments

telegram.LabeledPrice

class telegram.**LabeledPrice**(*label*, *amount*, ***kwargs*)
Bases: telegram.base.TelegramObject

This object represents a portion of the price for goods or services.

label
Portion label.

Type str

amount
Price of the product in the smallest units of the currency.

Type int

Parameters

- **label** (str) – Portion label
- **amount** (int) – Price of the product in the smallest units of the currency (integer, not float/double). For example, for a price of US$ 1.45 pass amount = 145. See the exp parameter in currencies.json, it shows the number of digits past the decimal point for each currency (2 for the majority of currencies).
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.Invoice

class telegram.**Invoice**(*title*, *description*, *start_parameter*, *currency*, *total_amount*, ***kwargs*)
Bases: telegram.base.TelegramObject

This object contains basic information about an invoice.

title
Product name.

Type str

description
Product description.

Type str

start_parameter
Unique bot deep-linking parameter.

Type str

currency
Three-letter ISO 4217 currency code.

Type str

total_amount
Total price in the smallest units of the currency.

Type int

Parameters

- **title** (str) – Product name.
- **description** (str) – Product description.
- **start_parameter** (str) – Unique bot deep-linking parameter that can be used to generate this invoice.
- **currency** (str) – Three-letter ISO 4217 currency code.
- **total_amount** (int) – Total price in the smallest units of the currency (integer, not float/double). For example, for a price of US$ 1.45 pass amount = 145.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.ShippingAddress

class telegram.**ShippingAddress**(*country_code*, *state*, *city*, *street_line1*, *street_line2*, *post_code*, ***kwargs*)
Bases: telegram.base.TelegramObject

This object represents a Telegram ShippingAddress.

country_code
ISO 3166-1 alpha-2 country code.

Type str

state
State, if applicable.

Type str

city
City.

Type str

street_line1
First line for the address.

Type str

street_line2
Second line for the address.

Type str

post_code
Address post code.

Type str

Parameters

- **country_code** (str) – ISO 3166-1 alpha-2 country code.
- **state** (str) – State, if applicable.
- **city** (str) – City.
- **street_line1** (str) – First line for the address.
- **street_line2** (str) – Second line for the address.
- **post_code** (str) – Address post code.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.OrderInfo

class telegram.**OrderInfo**(*name=None*, *phone_number=None*, *email=None*, *shipping_address=None*, ***kwargs*)
Bases: telegram.base.TelegramObject

This object represents information about an order.

name
Optional. User name.

Type str

phone_number
Optional. User's phone number.

Type str

email
Optional. User email.

Type str

shipping_address
Optional. User shipping address.

Type *telegram.ShippingAddress*

Parameters

- **name** (str, optional) – User name.
- **phone_number** (str, optional) – User's phone number.
- **email** (str, optional) – User email.
- **shipping_address** (*telegram.ShippingAddress*, optional) – User shipping address.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.ShippingOption

class telegram.**ShippingOption**(*id*, *title*, *prices*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object represents one shipping option.

id
Shipping option identifier.

Type str

title
Option title.

Type str

prices
List of price portions.

Type List[*telegram.LabeledPrice*]

Parameters

- **id** (str) – Shipping option identifier.
- **title** (str) – Option title.
- **prices** (List[*telegram.LabeledPrice*]) – List of price portions.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.SuccessfulPayment

class telegram.**SuccessfulPayment**(*currency*, *total_amount*, *invoice_payload*, *telegram_payment_charge_id*, *provider_payment_charge_id*, *shipping_option_id=None*, *order_info=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object contains basic information about a successful payment.

currency
Three-letter ISO 4217 currency code.

Type str

total_amount
Total price in the smallest units of the currency.

Type int

invoice_payload
Bot specified invoice payload.

Type str

shipping_option_id
Optional. Identifier of the shipping option chosen by the user.

Type str

order_info
Optional. Order info provided by the user.

Type *telegram.OrderInfo*

telegram_payment_charge_id
Telegram payment identifier.

Type str

provider_payment_charge_id
Provider payment identifier.

Type str

Parameters

- **currency** (str) – Three-letter ISO 4217 currency code.
- **total_amount** (int) – Total price in the smallest units of the currency (integer, not float/double). For example, for a price of US$ 1.45 pass amount = 145. See the exp parameter in currencies.json, it shows the number of digits past the decimal point for each currency (2 for the majority of currencies).
- **invoice_payload** (str) – Bot specified invoice payload.
- **shipping_option_id** (str, optional) – Identifier of the shipping option chosen by the user.
- **order_info** (*telegram.OrderInfo*, optional) – Order info provided by the user
- **telegram_payment_charge_id** (str) – Telegram payment identifier.
- **provider_payment_charge_id** (str) – Provider payment identifier.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.ShippingQuery

class telegram.**ShippingQuery**(*id*, *from_user*, *invoice_payload*, *shipping_address*, *bot=None*, ***kwargs*)
Bases: telegram.base.TelegramObject

This object contains information about an incoming shipping query.

Note:

- In Python *from* is a reserved word, use *from_user* instead.

---

id
Unique query identifier.

Type str

from_user
User who sent the query.

Type *telegram.User*

invoice_payload
Bot specified invoice payload.

Type str

shipping_address
User specified shipping address.

Type *telegram.ShippingAddress*

bot
Optional. The Bot to use for instance methods.

Type *telegram.Bot*

Parameters

- **id** (str) – Unique query identifier.

- **from_user** (*telegram.User*) – User who sent the query.
- **invoice_payload** (str) – Bot specified invoice payload.
- **shipping_address** (*telegram.ShippingAddress*) – User specified shipping address.
- **bot** (*telegram.Bot*, optional) – The Bot to use for instance methods.
- ****kwargs** (dict) – Arbitrary keyword arguments.

answer(**args*, ***kwargs*)

Shortcut for:

```
bot.answer_shipping_query(update.shipping_query.id, *args, **kwargs)
```

Parameters

- **ok** (bool) – Specify True if delivery to the specified address is possible and False if there are any problems (for example, if delivery to the specified address is not possible).
- **shipping_options** (List[*telegram.ShippingOption*], optional) – Required if ok is True. A JSON-serialized array of available shipping options.
- **error_message** (str, optional) – Required if ok is False. Error message in human readable form that explains why it is impossible to complete the order (e.g. "Sorry, delivery to your desired address is unavailable'). Telegram will display this message to the user.

telegram.PreCheckoutQuery

class telegram.**PreCheckoutQuery**(*id*, *from_user*, *currency*, *total_amount*, *invoice_payload*, *shipping_option_id=None*, *order_info=None*, *bot=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object contains information about an incoming pre-checkout query.

Note:

- In Python *from* is a reserved word, use *from_user* instead.

---

id

Unique query identifier.

Type str

from_user

User who sent the query.

Type *telegram.User*

currency

Three-letter ISO 4217 currency code.

Type str

total_amount

Total price in the smallest units of the currency.

Type int

invoice_payload

Bot specified invoice payload.

Type str

shipping_option_id
Optional. Identifier of the shipping option chosen by the user.

Type str

order_info
Optional. Order info provided by the user.

Type *telegram.OrderInfo*

bot
Optional. The Bot to use for instance methods.

Type *telegram.Bot*

Parameters

- **id** (str) – Unique query identifier.
- **from_user** (*telegram.User*) – User who sent the query.
- **currency** (str) – Three-letter ISO 4217 currency code
- **total_amount** (int) – Total price in the smallest units of the currency (integer, not float/double). For example, for a price of US$ 1.45 pass amount = 145. See the exp parameter in currencies.json, it shows the number of digits past the decimal point for each currency (2 for the majority of currencies).
- **invoice_payload** (str) – Bot specified invoice payload.
- **shipping_option_id** (str, optional) – Identifier of the shipping option chosen by the user.
- **order_info** (*telegram.OrderInfo*, optional) – Order info provided by the user.
- **bot** (*telegram.Bot*, optional) – The Bot to use for instance methods.
- ****kwargs** (dict) – Arbitrary keyword arguments.

answer(**args*, ***kwargs*)
Shortcut for:

```
bot.answer_pre_checkout_query(update.pre_checkout_query.id, *args,␣
↪**kwargs)
```

Parameters

- **ok** (bool) – Specify True if everything is alright (goods are available, etc.) and the bot is ready to proceed with the order. Use False if there are any problems.
- **error_message** (str, optional) – Required if ok is False. Error message in human readable form that explains the reason for failure to proceed with the checkout (e.g. "Sorry, somebody just bought the last of our amazing black T-shirts while you were busy filling out your payment details. Please choose a different color or garment!"). Telegram will display this message to the user.
- ****kwargs** (dict) – Arbitrary keyword arguments.

3.2.47 Games

telegram.Game

class telegram.**Game**(*title*, *description*, *photo*, *text=None*, *text_entities=None*, *animation=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object represents a game. Use BotFather to create and edit games, their short names will act as unique identifiers.

title
Title of the game.

Type str

description
Description of the game.

Type str

photo
Photo that will be displayed in the game message in chats.

Type List[*telegram.PhotoSize*]

text
Optional. Brief description of the game or high scores included in the game message. Can be automatically edited to include current high scores for the game when the bot calls set_game_score, or manually edited using edit_message_text.

Type str

text_entities
Optional. Special entities that appear in text, such as usernames, URLs, bot commands, etc.

Type List[*telegram.MessageEntity*]

animation
Optional. Animation that will be displayed in the game message in chats. Upload via BotFather.

Type *telegram.Animation*

Parameters

- **title** (str) – Title of the game.
- **description** (str) – Description of the game.
- **photo** (List[*telegram.PhotoSize*]) – Photo that will be displayed in the game message in chats.
- **text** (str, optional) – Brief description of the game or high scores included in the game message. Can be automatically edited to include current high scores for the game when the bot calls set_game_score, or manually edited using edit_message_text. 0-4096 characters. Also found as telegram.constants.MAX_MESSAGE_LENGTH.
- **text_entities** (List[*telegram.MessageEntity*], optional) – Special entities that appear in text, such as usernames, URLs, bot commands, etc.
- **animation** (*telegram.Animation*, optional) – Animation that will be displayed in the game message in chats. Upload via BotFather.

parse_text_entities(*types=None*)
Returns a dict that maps *telegram.MessageEntity* to str. It contains entities from this message filtered by their type attribute as the key, and the text that each entity belongs to as the value of the dict.

Note: This method should always be used instead of the *text_entities* attribute, since it calculates the correct substring from the message text based on UTF-16 codepoints. See *parse_text_entity* for more info.

Parameters **types** (List[str], optional) – List of MessageEntity types as strings. If the type attribute of an entity is contained in this list, it will be returned. Defaults to *telegram.MessageEntity.ALL_TYPES*.

Returns A dictionary of entities mapped to the text that belongs to them, calculated based on UTF-16 codepoints.

Return type Dict[*telegram.MessageEntity*, str]

parse_text_entity(*entity*)

Returns the text from a given *telegram.MessageEntity*.

Note: This method is present because Telegram calculates the offset and length in UTF-16 codepoint pairs, which some versions of Python don't handle automatically. (That is, you can't just slice Message.text with the offset and length.)

Parameters **entity** (*telegram.MessageEntity*) – The entity to extract the text from. It must be an entity that belongs to this message.

Returns The text of the given entity.

Return type str

telegram.Callbackgame

class telegram.**CallbackGame**

Bases: telegram.base.TelegramObject

A placeholder, currently holds no information. Use BotFather to set up your game.

telegram.GameHighScore

class telegram.**GameHighScore**(*position*, *user*, *score*)

Bases: telegram.base.TelegramObject

This object represents one row of the high scores table for a game.

position

Position in high score table for the game.

Type int

user

User.

Type *telegram.User*

score

Score.

Type int

Parameters

- **position** (int) – Position in high score table for the game.

- **user** (*telegram.User*) – User.
- **score** (int) – Score.

3.2.48 Passport

telegram.PassportElementError

class telegram.**PassportElementError**(*source*, *type*, *message*, ***kwargs*)

Bases: telegram.base.TelegramObject

Baseclass for the PassportElementError* classes.

source
Error source.

Type str

type
The section of the user's Telegram Passport which has the error.

Type str

message
Error message

Type str

Parameters

- **source** (str) – Error source.
- **type** (str) – The section of the user's Telegram Passport which has the error.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.PassportElementErrorFile

class telegram.**PassportElementErrorFile**(*type*, *file_hash*, *message*, ***kwargs*)

Bases: telegram.passport.passportelementerrors.PassportElementError

Represents an issue with a document scan. The error is considered resolved when the file with the document scan changes.

type
The section of the user's Telegram Passport which has the issue, one of "utility_bill", "bank_statement", "rental_agreement", "passport_registration", "temporary_registration".

Type str

file_hash
Base64-encoded file hash.

Type str

message
Error message.

Type str

Parameters

- **type** (str) – The section of the user's Telegram Passport which has the issue, one of "utility_bill", "bank_statement", "rental_agreement", "passport_registration", "temporary_registration".

- **file_hash** (str) – Base64-encoded file hash.
- **message** (str) – Error message.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.PassportElementErrorReverseSide

class telegram.**PassportElementErrorReverseSide**(*type*, *file_hash*, *message*, ***kwargs*)

Bases: telegram.passport.passportelementerrors.PassportElementError

Represents an issue with the front side of a document. The error is considered resolved when the file with the reverse side of the document changes.

type

The section of the user's Telegram Passport which has the issue, one of "passport", "driver_license", "identity_card", "internal_passport".

Type str

file_hash

Base64-encoded hash of the file with the reverse side of the document.

Type str

message

Error message.

Type str

Parameters

- **type** (str) – The section of the user's Telegram Passport which has the issue, one of "driver_license", "identity_card".
- **file_hash** (str) – Base64-encoded hash of the file with the reverse side of the document.
- **message** (str) – Error message.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.PassportElementErrorFrontSide

class telegram.**PassportElementErrorFrontSide**(*type*, *file_hash*, *message*, ***kwargs*)

Bases: telegram.passport.passportelementerrors.PassportElementError

Represents an issue with the front side of a document. The error is considered resolved when the file with the front side of the document changes.

type

The section of the user's Telegram Passport which has the issue, one of "passport", "driver_license", "identity_card", "internal_passport".

Type str

file_hash

Base64-encoded hash of the file with the front side of the document.

Type str

message

Error message.

Type str

Parameters

- **type** (str) – The section of the user's Telegram Passport which has the issue, one of "passport", "driver_license", "identity_card", "internal_passport".
- **file_hash** (str) – Base64-encoded hash of the file with the front side of the document.
- **message** (str) – Error message.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.PassportElementErrorFiles

class telegram.**PassportElementErrorFiles**(*type*, *file_hashes*, *message*, ***kwargs*)

Bases: telegram.passport.passportelementerrors.PassportElementError

Represents an issue with a list of scans. The error is considered resolved when the file with the document scan changes.

type
The section of the user's Telegram Passport which has the issue, one of "utility_bill", "bank_statement", "rental_agreement", "passport_registration", "temporary_registration".

Type str

file_hash
Base64-encoded file hash.

Type str

message
Error message.

Type str

Parameters

- **type** (str) – The section of the user's Telegram Passport which has the issue, one of "utility_bill", "bank_statement", "rental_agreement", "passport_registration", "temporary_registration".
- **file_hashes** (List[str]) – List of base64-encoded file hashes.
- **message** (str) – Error message.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.PassportElementErrorDataField

class telegram.**PassportElementErrorDataField**(*type*, *field_name*, *data_hash*, *message*, ***kwargs*)

Bases: telegram.passport.passportelementerrors.PassportElementError

Represents an issue in one of the data fields that was provided by the user. The error is considered resolved when the field's value changes.

type
The section of the user's Telegram Passport which has the error, one of "personal_details", "passport", "driver_license", "identity_card", "internal_passport", "address".

Type str

field_name
Name of the data field which has the error.

Type str

data_hash
Base64-encoded data hash.

Type str

message
Error message.

Type str

Parameters

- **type** (str) – The section of the user's Telegram Passport which has the error, one of "personal_details", "passport", "driver_license", "identity_card", "internal_passport", "address".
- **field_name** (str) – Name of the data field which has the error.
- **data_hash** (str) – Base64-encoded data hash.
- **message** (str) – Error message.
- ****kwargs** (dict) – Arbitrary keyword arguments.

telegram.Credentials

class telegram.**Credentials**(*secure_data*, *nonce*, *bot=None*, ***kwargs*)
Bases: telegram.base.TelegramObject

secure_data
Credentials for encrypted data

Type *telegram.SecureData*

nonce
Bot-specified nonce

Type str

telegram.DataCredentials

class telegram.**DataCredentials**(*data_hash*, *secret*, ***kwargs*)
Bases: telegram.passport.credentials._CredentialsBase

These credentials can be used to decrypt encrypted data from the data field in EncryptedPassportData.

Parameters

- **data_hash** (str) – Checksum of encrypted data
- **secret** (str) – Secret of encrypted data

hash
Checksum of encrypted data

Type str

secret
Secret of encrypted data

Type str

telegram.SecureData

class telegram.**SecureData**(*personal_details=None*, *passport=None*, *internal_passport=None*, *driver_license=None*, *identity_card=None*, *address=None*, *utility_bill=None*, *bank_statement=None*, *rental_agreement=None*, *passport_registration=None*, *temporary_registration=None*, *bot=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object represents the credentials that were used to decrypt the encrypted data. All fields are optional and depend on fields that were requested.

personal_details
Credentials for encrypted personal details.

Type telegram.SecureValue, optional

passport
Credentials for encrypted passport.

Type telegram.SecureValue, optional

internal_passport
Credentials for encrypted internal passport.

Type telegram.SecureValue, optional

driver_license
Credentials for encrypted driver license.

Type telegram.SecureValue, optional

identity_card
Credentials for encrypted ID card

Type telegram.SecureValue, optional

address
Credentials for encrypted residential address.

Type telegram.SecureValue, optional

utility_bill
Credentials for encrypted utility bill.

Type telegram.SecureValue, optional

bank_statement
Credentials for encrypted bank statement.

Type telegram.SecureValue, optional

rental_agreement
Credentials for encrypted rental agreement.

Type telegram.SecureValue, optional

passport_registration
Credentials for encrypted registration from internal passport.

Type telegram.SecureValue, optional

temporary_registration
Credentials for encrypted temporary registration.

Type telegram.SecureValue, optional

telegram.FileCredentials

class telegram.**FileCredentials**(*file_hash*, *secret*, ***kwargs*)
Bases: telegram.passport.credentials._CredentialsBase

These credentials can be used to decrypt encrypted files from the front_side, reverse_side, selfie and files fields in EncryptedPassportData.

Parameters

- **file_hash** (str) – Checksum of encrypted file
- **secret** (str) – Secret of encrypted file

hash
Checksum of encrypted file

Type str

secret
Secret of encrypted file

Type str

telegram.IdDocumentData

class telegram.**IdDocumentData**(*document_no*, *expiry_date*, *bot=None*, ***kwargs*)
Bases: telegram.base.TelegramObject

This object represents the data of an identity document.

document_no
Document number.

Type str

expiry_date
Optional. Date of expiry, in DD.MM.YYYY format.

Type str

telegram.PersonalDetails

class telegram.**PersonalDetails**(*first_name*, *last_name*, *birth_date*, *gender*, *country_code*, *residence_country_code*, *first_name_native=None*, *last_name_native=None*, *middle_name=None*, *middle_name_native=None*, *bot=None*, ***kwargs*)
Bases: telegram.base.TelegramObject

This object represents personal details.

first_name
First Name.

Type str

middle_name
Optional. First Name.

Type str

last_name
Last Name.

Type str

birth_date
Date of birth in DD.MM.YYYY format.

Type str

gender
Gender, male or female.

Type str

country_code
Citizenship (ISO 3166-1 alpha-2 country code).

Type str

residence_country_code
Country of residence (ISO 3166-1 alpha-2 country code).

Type str

first_name
First Name in the language of the user's country of residence.

Type str

middle_name
Optional. Middle Name in the language of the user's country of residence.

Type str

last_name
Last Name in the language of the user's country of residence.

Type str

telegram.ResidentialAddress

class telegram.**ResidentialAddress**(*street_line1*, *street_line2*, *city*, *state*, *country_code*, *post_code*, *bot=None*, ***kwargs*)
Bases: telegram.base.TelegramObject

This object represents a residential address.

street_line1
First line for the address.

Type str

street_line2
Optional. Second line for the address.

Type str

city
City.

Type str

state
Optional. State.

Type str

country_code
ISO 3166-1 alpha-2 country code.

Type str

post_code
Address post code.

Type str

telegram.PassportData

class telegram.**PassportData**(*data*, *credentials*, *bot=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

Contains information about Telegram Passport data shared with the bot by the user.

data

Array with encrypted information about documents and other Telegram Passport elements that was shared with the bot.

Type List[*telegram.EncryptedPassportElement*]

credentials

Encrypted credentials.

Type *telegram.EncryptedCredentials*

bot

The Bot to use for instance methods.

Type *telegram.Bot*, optional

Parameters

- **data** (List[*telegram.EncryptedPassportElement*]) – Array with encrypted information about documents and other Telegram Passport elements that was shared with the bot.
- **credentials** (str) – Encrypted credentials.
- **bot** (*telegram.Bot*, optional) – The Bot to use for instance methods.
- ****kwargs** (dict) – Arbitrary keyword arguments.

Note: To be able to decrypt this object, you must pass your private_key to either telegram.Updater or *telegram.Bot*. Decrypted data is then found in *decrypted_data* and the payload can be found in *decrypted_credentials*'s attribute telegram.Credentials.payload.

---

decrypted_credentials

Lazily decrypt and return credentials that were used to decrypt the data. This object also contains the user specified payload as *decrypted_data.payload*.

Raises telegram.TelegramDecryptionError – Decryption failed. Usually due to bad private/public key but can also suggest malformed/tampered data.

Type *telegram.Credentials*

decrypted_data

Lazily decrypt and return information about documents and other Telegram Passport elements which were shared with the bot.

Raises telegram.TelegramDecryptionError – Decryption failed. Usually due to bad private/public key but can also suggest malformed/tampered data.

Type List[*telegram.EncryptedPassportElement*]

telegram.PassportFile

class telegram.**PassportFile**(*file_id*, *file_date*, *file_size=None*, *bot=None*, *credentials=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object represents a file uploaded to Telegram Passport. Currently all Telegram Passport files are in JPEG format when decrypted and don't exceed 10MB.

file_id
Unique identifier for this file.

Type str

file_size
File size.

Type int

file_date
Unix time when the file was uploaded.

Type int

bot
Optional. The Bot to use for instance methods.

Type *telegram.Bot*

Parameters

- **file_id** (str) – Unique identifier for this file.
- **file_size** (int) – File size.
- **file_date** (int) – Unix time when the file was uploaded.
- **bot** (*telegram.Bot*, optional) – The Bot to use for instance methods.
- ****kwargs** (dict) – Arbitrary keyword arguments.

get_file(*timeout=None*, ***kwargs*)
Wrapper over *telegram.Bot.get_file*. Will automatically assign the correct credentials to the returned *telegram.File* if originating from *telegram.PassportData.decrypted_data*.

Parameters

- **timeout** (int | float, optional) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).
- ****kwargs** (dict) – Arbitrary keyword arguments.

Returns *telegram.File*

Raises telegram.TelegramError

telegram.EncryptedPassportElement

class telegram.**EncryptedPassportElement**(*type*, *data=None*, *phone_number=None*, *email=None*, *files=None*, *front_side=None*, *reverse_side=None*, *selfie=None*, *translation=None*, *hash=None*, *bot=None*, *credentials=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

Contains information about documents or other Telegram Passport elements shared with the bot by the user. The data has been automatically decrypted by python-telegram-bot.

type
Element type. One of “personal_details”, “passport”, “driver_license”, “identity_card”, “internal_passport”, “address”, “utility_bill”, “bank_statement”, “rental_agreement”, “passport_registration”, “temporary_registration”, “phone_number”, “email”.

Type str

data
Optional. Decrypted or encrypted data, available for “personal_details”, “passport”, “driver_license”, “identity_card”, “identity_passport” and “address” types.

Type *telegram.PersonalDetails* or telegram.IdDocument or *telegram.ResidentialAddress* or str

phone_number
Optional. User’s verified phone number, available only for “phone_number” type.

Type str

email
Optional. User’s verified email address, available only for “email” type.

Type str

files
Optional. Array of encrypted/decrypted files with documents provided by the user, available for “utility_bill”, “bank_statement”, “rental_agreement”, “passport_registration” and “temporary_registration” types.

Type List[*telegram.PassportFile*]

front_side
Optional. Encrypted/decrypted file with the front side of the document, provided by the user. Available for “passport”, “driver_license”, “identity_card” and “internal_passport”.

Type *telegram.PassportFile*

reverse_side
Optional. Encrypted/decrypted file with the reverse side of the document, provided by the user. Available for “driver_license” and “identity_card”.

Type *telegram.PassportFile*

selfie
Optional. Encrypted/decrypted file with the selfie of the user holding a document, provided by the user; available for “passport”, “driver_license”, “identity_card” and “internal_passport”.

Type *telegram.PassportFile*

translation
Optional. Array of encrypted/decrypted files with translated versions of documents provided by the user. Available if requested for “passport”, “driver_license”, “identity_card”, “internal_passport”, “utility_bill”, “bank_statement”, “rental_agreement”, “passport_registration” and “temporary_registration” types.

Type List[*telegram.PassportFile*]

hash
Base64-encoded element hash for using in telegram.PassportElementErrorUnspecified.

Type str

bot
Optional. The Bot to use for instance methods.

Type *telegram.Bot*

Parameters

- **type** (str) – Element type. One of “personal_details”, “passport”, “driver_license”, “identity_card”, “internal_passport”, “address”, “utility_bill”, “bank_statement”, “rental_agreement”, “passport_registration”, “temporary_registration”, “phone_number”, “email”.
- **data** (*telegram.PersonalDetails* or telegram.IdDocument or *telegram.ResidentialAddress* or str, optional) – Decrypted or encrypted data, available for “personal_details”, “passport”, “driver_license”, “identity_card”, “identity_passport” and “address” types.
- **phone_number** (str, optional) – User’s verified phone number, available only for “phone_number” type.
- **email** (str, optional) – User’s verified email address, available only for “email” type.
- **files** (List[*telegram.PassportFile*], optional) – Array of encrypted/decrypted files with documents provided by the user, available for “utility_bill”, “bank_statement”, “rental_agreement”, “passport_registration” and “temporary_registration” types.
- **front_side** (*telegram.PassportFile*, optional) – Encrypted/decrypted file with the front side of the document, provided by the user. Available for “passport”, “driver_license”, “identity_card” and “internal_passport”.
- **reverse_side** (*telegram.PassportFile*, optional) – Encrypted/decrypted file with the reverse side of the document, provided by the user. Available for “driver_license” and “identity_card”.
- **selfie** (*telegram.PassportFile*, optional) – Encrypted/decrypted file with the selfie of the user holding a document, provided by the user; available for “passport”, “driver_license”, “identity_card” and “internal_passport”.
- **translation** (List[*telegram.PassportFile*], optional) – Array of encrypted/decrypted files with translated versions of documents provided by the user. Available if requested for “passport”, “driver_license”, “identity_card”, “internal_passport”, “utility_bill”, “bank_statement”, “rental_agreement”, “passport_registration” and “temporary_registration” types.
- **hash** (str) – Base64-encoded element hash for using in telegram.PassportElementErrorUnspecified.
- **bot** (*telegram.Bot*, optional) – The Bot to use for instance methods.
- ****kwargs** (dict) – Arbitrary keyword arguments.

Note: This object is decrypted only when originating from *telegram.PassportData.decrypted_data*.

telegram.EncryptedCredentials

class telegram.**EncryptedCredentials**(*data*, *hash*, *secret*, *bot=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

Contains data required for decrypting and authenticating EncryptedPassportElement. See the Telegram Passport Documentation for a complete description of the data decryption and authentication processes.

data

Decrypted data with unique user’s nonce, data hashes and secrets used for EncryptedPassportElement decryption and authentication or base64 encrypted data.

Type *telegram.Credentials* or str

hash
Base64-encoded data hash for data authentication.

Type str

secret
Decrypted or encrypted secret used for decryption.

Type str

Parameters

- **data** (*telegram.Credentials* or str) – Decrypted data with unique user's nonce, data hashes and secrets used for EncryptedPassportElement decryption and authentication or base64 encrypted data.
- **hash** (str) – Base64-encoded data hash for data authentication.
- **secret** (str) – Decrypted or encrypted secret used for decryption.
- ****kwargs** (dict) – Arbitrary keyword arguments.

Note: This object is decrypted only when originating from *telegram.PassportData.decrypted_credentials*.

---

decrypted_data

Lazily decrypt and return credentials data. This object also contains the user specified nonce as *decrypted_data.nonce*.

Raises telegram.TelegramDecryptionError – Decryption failed. Usually due to bad private/public key but can also suggest malformed/tampered data.

Type *telegram.Credentials*

decrypted_secret
Lazily decrypt and return secret.

Raises telegram.TelegramDecryptionError – Decryption failed. Usually due to bad private/public key but can also suggest malformed/tampered data.

Type str

3.2.49 telegram.utils

telegram.utils package

telegram.utils.helpers Module

This module contains helper functions.

telegram.utils.helpers.**decode_conversations_from_json**(*json_string*)
Helper method to decode a conversations dict (that uses tuples as keys) from a JSON-string created with _encode_conversations_to_json.

Parameters **json_string** (str) – The conversations dict as JSON string.

Returns The conversations dict after decoding

Return type dict

telegram.utils.helpers.**decode_user_chat_data_from_json**(*data*)
Helper method to decode chat or user data (that uses ints as keys) from a JSON-string.

Parameters **data** (str) – The user/chat_data dict as JSON string.

Returns The user/chat_data defaultdict after decoding

Return type dict

telegram.utils.helpers.**effective_message_type**(*entity*)
Extracts the type of message as a string identifier from a *telegram.Message* or a *telegram.Update*.

Parameters **entity** (Update | Message) –

Returns One of Message.MESSAGE_TYPES

Return type str

telegram.utils.helpers.**enocde_conversations_to_json**(*conversations*)
Helper method to encode a conversations dict (that uses tuples as keys) to a JSON-serializable way. Use _decode_conversations_from_json to decode.

Parameters **conversations** (dict) – The conversations dict to transofrm to JSON.

Returns The JSON-serialized conversations dict

Return type str

telegram.utils.helpers.**escape_markdown**(*text*)
Helper function to escape telegram markup symbols.

telegram.utils.helpers.**from_timestamp**(*unixtime*)

Parameters **unixtime** (*int*) –

Returns

Return type datetime.datetime

telegram.utils.helpers.**get_signal_name**(*signum*)
Returns the signal name of the given signal number.

telegram.utils.helpers.**mention_html**(*user_id*, *name*)

Parameters

- **user_id** (int) –
- **name** (str) –

Returns The inline mention for the user as html.

Return type str

telegram.utils.helpers.**mention_markdown**(*user_id*, *name*)

Parameters

- **user_id** (int) –
- **name** (str) –

Returns The inline mention for the user as markdown.

Return type str

telegram.utils.helpers.**to_timestamp**(*dt_obj*)

Parameters **dt_obj** (datetime.datetime) –

Returns

Return type int

telegram.utils.promise.Promise

class telegram.utils.promise.**Promise**(*pooled_function*, *args*, *kwargs*)
Bases: object

A simple Promise implementation for use with the run_async decorator, DelayQueue etc.

Parameters

- **pooled_function** (callable) – The callable that will be called concurrently.
- **args** (list | tuple) – Positional arguments for *pooled_function*.
- **kwargs** (dict) – Keyword arguments for *pooled_function*.

pooled_function
The callable that will be called concurrently.

Type callable

args
Positional arguments for *pooled_function*.

Type list | tuple

kwargs
Keyword arguments for *pooled_function*.

Type dict

done
Is set when the result is available.

Type threading.Event

exception
The exception raised by *pooled_function* or None if no exception has been raised (yet).

result(*timeout=None*)
Return the result of the Promise.

Parameters **timeout** (float, optional) – Maximum time in seconds to wait for the result to be calculated. None means indefinite. Default is None.

Returns Returns the return value of *pooled_function* or None if the timeout expires.

Raises Any exception raised by *pooled_function*.

run()
Calls the *pooled_function* callable.

telegram.utils.request.Request

class telegram.utils.request.**Request**(*con_pool_size=1*, *proxy_url=None*, *urllib3_proxy_kwargs=None*, *connect_timeout=5.0*, *read_timeout=5.0*)
Bases: object

Helper class for python-telegram-bot which provides methods to perform POST & GET towards telegram servers.

Parameters

- **con_pool_size** (*int*) – Number of connections to keep in the connection pool.
- **proxy_url** (*str*) – The URL to the proxy server. For example: *http://127.0.0.1:3128*.

- **urllib3_proxy_kwargs** (*dict*) – Arbitrary arguments passed as-is to *urllib3.ProxyManager*. This value will be ignored if proxy_url is not set.
- **connect_timeout** (*int | float*) – The maximum amount of time (in seconds) to wait for a connection attempt to a server to succeed. None will set an infinite timeout for connection attempts. (default: 5.)
- **read_timeout** (*int | float*) – The maximum amount of time (in seconds) to wait between consecutive read operations for a response from the server. None will set an infinite timeout. This value is usually overridden by the various `telegram.Bot` methods. (default: 5.)

con_pool_size
The size of the connection pool used.

download(*url*, *filename*, *timeout=None*)
Download a file by its URL.

Parameters

- **url** (*str*) – The web location we want to retrieve.
- **timeout** – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).

get(*url*, *timeout=None*)
Request an URL.

Parameters

- **url** (`str`) – The web location we want to retrieve.
- **timeout** (`int | float`) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).

Returns A JSON object.

post(*url*, *data*, *timeout=None*)
Request an URL.

Parameters

- **url** (`str`) – The web location we want to retrieve.
- **data** (*dict[str, str|int]*) – A dict of key/value pairs. Note: On py2.7 value is unicode.
- **timeout** (`int | float`) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).

Returns A JSON object.

retrieve(*url*, *timeout=None*)
Retrieve the contents of a file by its URL.

Parameters

- **url** (`str`) – The web location we want to retrieve.
- **timeout** (`int | float`) – If this value is specified, use it as the read timeout from the server (instead of the one specified during creation of the connection pool).

3.3 Changelog

3.3.1 Changelog

Version 12.0.0

Released 2019-08-29

Well... This felt like decades. But here we are with a new release.

Expect minor releases soon (mainly complete Bot API 4.4 support)

Major and/or breaking changes:

- Context based callbacks
- Persistence
- PrefixHandler added (Handler overhaul)
- Deprecation of RegexHandler and edited_messages, channel_post, etc. arguments (Filter overhaul)
- Various ConversationHandler changes and fixes
- Bot API 4.1, 4.2, 4.3 support
- Python 3.4 is no longer supported
- Error Handler now handles all types of exceptions (#1485)
- Return UTC from from_timestamp() (#1485)

See the wiki page at https://git.io/fxJuV for a detailed guide on how to migrate from version 11 to version 12.

Context based callbacks (#1100)

- Use of `pass_` in handlers is deprecated.
- Instead use `use_context=True` on `Updater` or `Dispatcher` and change callback from (bot, update, others...) to (update, context).
- This also applies to error handlers `Dispatcher.add_error_handler` and JobQueue jobs (change (bot, job) to (context) here).
- For users with custom handlers subclassing Handler, this is mostly backwards compatible, but to use the new context based callbacks you need to implement the new collect_additional_context method.
- Passing bot to `JobQueue.__init__` is deprecated. Use JobQueue.set_dispatcher with a dispatcher instead.
- Dispatcher makes sure to use a single *CallbackContext* for a entire update. This means that if an update is handled by multiple handlers (by using the group argument), you can add custom arguments to the *CallbackContext* in a lower group handler and use it in higher group handler. NOTE: Never use with @run_async, see docs for more info. (#1283)
- If you have custom handlers they will need to be updated to support the changes in this release.
- Update all examples to use context based callbacks.

Persistence (#1017)

- Added PicklePersistence and DictPersistence for adding persistence to your bots.
- BasePersistence can be subclassed for all your persistence needs.
- Add a new example that shows a persistent ConversationHandler bot

Handler overhaul (#1114)

- CommandHandler now only triggers on actual commands as defined by telegram servers (everything that the clients mark as a tabable link).
- PrefixHandler can be used if you need to trigger on prefixes (like all messages starting with a "/" (old CommandHandler behaviour) or even custom prefixes like "#" or "!").

Filter overhaul (#1221)

- RegexHandler is deprecated and should be replaced with a MessageHandler with a regex filter.
- Use update filters to filter update types instead of arguments (message_updates, channel_post_updates and edited_updates) on the handlers.
- Completely remove allow_edited argument - it has been deprecated for a while.
- data_filters now exist which allows filters that return data into the callback function. This is how the regex filter is implemented.
- All this means that it no longer possible to use a list of filters in a handler. Use bitwise operators instead!

ConversationHandler

- Remove `run_async_timeout` and `timed_out_behavior` arguments (#1344)
- Replace with `WAITING` constant and behavior from states (#1344)
- Only emit one warning for multiple CallbackQueryHandlers in a ConversationHandler (#1319)
- Use warnings.warn for ConversationHandler warnings (#1343)
- Fix unresolvable promises (#1270)

Bug fixes & improvements

- Handlers should be faster due to deduped logic.
- Avoid compiling compiled regex in regex filter. (#1314)
- Add missing `left_chat_member` to Message.MESSAGE_TYPES (#1336)
- Make custom timeouts actually work properly (#1330)
- Add convenience classmethods (from_button, from_row and from_column) to InlineKeyboardMarkup
- Small typo fix in setup.py (#1306)
- Add Conflict error (HTTP error code 409) (#1154)
- Change MAX_CAPTION_LENGTH to 1024 (#1262)
- Remove some unnecessary clauses (#1247, #1239)
- Allow filenames without dots in them when sending files (#1228)
- Fix uploading files with unicode filenames (#1214)
- Replace http.server with Tornado (#1191)
- Allow SOCKSConnection to parse username and password from URL (#1211)
- Fix for arguments in passport/data.py (#1213)
- Improve message entity parsing by adding text_mention (#1206)
- Documentation fixes (#1348, *#1397_*, #1436)

- Merged filters short-circuit (#1350)
- Fix webhook listen with tornado (#1383)
- Call task_done() on update queue after update processing finished (#1428)
- Fix send_location() - latitude may be 0 (#1437)
- Make MessageEntity objects comparable (#1465)
- Add prefix to thread names (#1358)

Buf fixes since v12.0.0b1

- Fix setting bot on ShippingQuery (#1355)
- Fix _trigger_timeout() missing 1 required positional argument: 'job' (#1367)
- Add missing message.text check in PrefixHandler check_update (#1375)
- Make updates persist even on DispatcherHandlerStop (#1463)
- Dispatcher force updating persistence object's chat data attribute(*#1462*)

Internal improvements

- Finally fix our CI builds mostly (too many commits and PRs to list)
- Use multiple bots for CI to improve testing times significantly.
- Allow pypy to fail in CI.
- Remove the last CamelCase CheckUpdate methods from the handlers we missed earlier.
- test_official is now executed in a different job

Version 11.1.0

Released 2018-09-01

Fixes and updates for Telegram Passport: (#1198)

- Fix passport decryption failing at random times
- Added support for middle names.
- Added support for translations for documents
- Add errors for translations for documents
- Added support for requesting names in the language of the user's country of residence
- Replaced the payload parameter with the new parameter nonce
- Add hash to EncryptedPassportElement

Version 11.0.0

Released 2018-08-29

Fully support Bot API version 4.0! (also some bugfixes :))

Telegram Passport (#1174):

- **Add full support for telegram passport.**

  - New types: PassportData, PassportFile, EncryptedPassportElement, EncryptedCredentials, PassportElementError, PassportElementErrorDataField, PassportElementErrorFrontSide, PassportElementErrorReverseSide, PassportElementErrorSelfie, PassportElementErrorFile and PassportElementErrorFiles.
  - New bot method: set_passport_data_errors
  - New filter: Filters.passport_data
  - Field passport_data field on Message
  - PassportData can be easily decrypted.
  - PassportFiles are automatically decrypted if originating from decrypted PassportData.
- See new passportbot.py example for details on how to use, or go to our telegram passport wiki page for more info
- NOTE: Passport decryption requires new dependency *cryptography*.

Inputfile rework (#1184):

- Change how Inputfile is handled internally
- This allows support for specifying the thumbnails of photos and videos using the thumb= argument in the different send_ methods.
- Also allows Bot.send_media_group to actually finally send more than one media.
- Add thumb to Audio, Video and Videonote
- Add Bot.edit_message_media together with InputMediaAnimation, InputMediaAudio, and inputMediaDocument.

Other Bot API 4.0 changes:

- Add forusquare_type to Venue, InlineQueryResultVenue, InputVenueMessageContent, and Bot.send_venue. (#1170)
- Add vCard support by adding vcard field to Contact, InlineQueryResultContact, InputContactMessageContent, and Bot.send_contact. (#1166)
- **Support new message entities: CASHTAG and PHONE_NUMBER. (#1179)**
  - Cashtag seems to be things like *$USD* and *$GBP*, but it seems telegram doesn't currently send them to bots.
  - Phone number also seems to have limited support for now
- Add Bot.send_animation, add width, height, and duration to Animation, and add Filters.animation. (#1172)

Non Bot API 4.0 changes:

- Minor integer comparison fix (#1147)
- Fix Filters.regex failing on non-text message (#1158)
- Fix ProcessLookupError if process finishes before we kill it (#1126)
- Add t.me links for User, Chat and Message if available and update User.mention_* (#1092)
- Fix mention_markdown/html on py2 (#1112)

Version 10.1.0

Released 2018-05-02

Fixes changing previous behaviour:

- Add urllib3 fix for socks5h support (#1085)
- Fix send_sticker() timeout=20 (#1088)

Fixes:

- Add a caption_entity filter for filtering caption entities (#1068)
- Inputfile encode filenames (#1086)
- InputFile: Fix proper naming of file when reading from subprocess.PIPE (#1079)
- Remove pytest-catchlog from requirements (#1099)
- Documentation fixes (#1061, #1078, #1081, #1096)

Version 10.0.2

Released 2018-04-17

Important fix:

- Handle utf8 decoding errors (#1076)

New features:

- Added Filter.regex (#1028)
- Filters for Category and file types (#1046)
- Added video note filter (#1067)

Fixes:

- Fix in telegram.Message (#1042)
- Make chat_id a positional argument inside shortcut methods of Chat and User classes (#1050)
- Make Bot.full_name return a unicode object. (#1063)
- CommandHandler faster check (#1074)
- Correct documentation of Dispatcher.add_handler (#1071)
- Various small fixes to documentation.

Version 10.0.1

Released 2018-03-05

Fixes:

- Fix conversationhandler timeout (PR #1032)
- Add missing docs utils (PR #912)

Version 10.0.0

Released 2018-03-02

Non backward compatabile changes and changed defaults

- JobQueue: Remove deprecated prevent_autostart & put() (PR #1012)
- Bot, Updater: Remove deprecated network_delay (PR #1012)
- Remove deprecated Message.new_chat_member (PR #1012)
- Retry bootstrap phase indefinitely (by default) on network errors (PR #1018)

New Features

- Support v3.6 API (PR #1006)

- User.full_name convinience property (PR #949)
- Add *send_phone_number_to_provider* and *send_email_to_provider* arguments to send_invoice (PR #986)
- Bot: Add shortcut methods reply_{markdown,html} (PR #827)
- Bot: Add shortcut method reply_media_group (PR #994)
- Added utils.helpers.effective_message_type (PR #826)
- Bot.get_file now allows passing a file in addition to file_id (PR #963)
- Add .get_file() to Audio, Document, PhotoSize, Sticker, Video, VideoNote and Voice (PR #963)
- Add .send_*() methods to User and Chat (PR #963)
- Get jobs by name (PR #1011)
- Add Message caption html/markdown methods (PR #1013)
- File.download_as_bytearray - new method to get a d/led file as bytearray (PR #1019)
- File.download(): Now returns a meaningful return value (PR #1019)
- Added conversation timeout in ConversationHandler (PR #895)

Changes

- Store bot in PreCheckoutQuery (PR #953)
- Updater: Issue INFO log upon received signal (PR #951)
- JobQueue: Thread safety fixes (PR #977)
- WebhookHandler: Fix exception thrown during error handling (PR #985)
- Explicitly check update.effective_chat in ConversationHandler.check_update (PR #959)
- Updater: Better handling of timeouts during get_updates (PR #1007)
- Remove unnecessary to_dict() (PR #834)
- CommandHandler - ignore strings in entities and "/" followed by whitespace (PR #1020)
- Documentation & style fixes (PR #942, PR #956, PR #962, PR #980, PR #983)

Version 9.0.0

Released 2017-12-08

Breaking changes (possibly)

- Drop support for python 3.3 (PR #930)

New Features

- Support Bot API 3.5 (PR #920)

Changes

- Fix race condition in dispatcher start/stop (#887)
- Log error trace if there is no error handler registered (#694)
- Update examples with consistent string formatting (#870)
- Various changes and improvements to the docs.

Version 8.1.1

Released 2017-10-15

- Fix Commandhandler crashing on single character messages (PR #873).

Version 8.1.0

Released 2017-10-14

New features - Support Bot API 3.4 (PR #865).

Changes - MessageHandler & RegexHandler now consider channel_updates. - Fix command not recognized if it is directly followed by a newline (PR #869). - Removed Bot._message_wrapper (PR #822). - Unitests are now also running on AppVeyor (Windows VM). - Various unitest improvements. - Documentation fixes.

Version 8.0.0

Released 2017-09-01

New features

- Fully support Bot Api 3.3 (PR #806).
- DispatcherHandlerStop (see docs).
- Regression fix for text_html & text_markdown (PR #777).
- Added effective_attachment to message (PR #766).

Non backward compatible changes

- Removed Botan support from the library (PR #776).
- Fully support Bot Api 3.3 (PR #806).
- Remove de_json() (PR #789).

Changes

- Sane defaults for tcp socket options on linux (PR #754).
- Add RESTRICTED as constant to ChatMember (PR #761).
- Add rich comparison to CallbackQuery (PR #764).
- Fix get_game_high_scores (PR #771).
- Warn on small con_pool_size during custom initalization of Updater (PR #793).
- Catch exceptions in error handlerfor errors that happen during polling (PR #810).
- For testing we switched to pytest (PR #788).
- Lots of small improvements to our tests and documentation.

Version 7.0.1

Released 2017-07-28

- Fix TypeError exception in RegexHandler (PR #751).
- Small documentation fix (PR #749).

Version 7.0.0

Released 2017-07-25

- Fully support Bot API 3.2.
- New filters for handling messages from specific chat/user id (PR #677).
- Add the possibility to add objects as arguments to send_* methods (PR #742).
- Fixed download of URLs with UTF-8 chars in path (PR #688).

- Fixed URL parsing for `Message` text properties (PR #689).
- Fixed args dispatching in `MessageQueue`'s decorator (PR #705).
- Fixed regression preventing IPv6 only hosts from connnecting to Telegram servers (Issue #720).
- ConvesationHandler - check if a user exist before using it (PR #699).
- Removed deprecated `telegram.Emoji`.
- Removed deprecated `Botan` import from `utils` (`Botan` is still available through `contrib`).
- Removed deprecated `ReplyKeyboardHide`.
- Removed deprecated `edit_message` argument of `bot.set_game_score`.
- Internal restructure of files.
- Improved documentation.
- Improved unitests.

Pre-version 7.0

2017-06-18

Released 6.1.0

- Fully support Bot API 3.0
- Add more fine-grained filters for status updates
- Bug fixes and other improvements

2017-05-29

Released 6.0.3

- Faulty PyPI release

2017-05-29

Released 6.0.2

- Avoid confusion with user's `urllib3` by renaming vendored `urllib3` to `ptb_urllib3`

2017-05-19

Released 6.0.1

- Add support for `User.language_code`
- Fix `Message.text_html` and `Message.text_markdown` for messages with emoji

2017-05-19

Released 6.0.0

- Add support for Bot API 2.3.1
- Add support for `deleteMessage` API method
- New, simpler API for `JobQueue` - https://github.com/python-telegram-bot/python-telegram-bot/pull/484
- Download files into file-like objects - https://github.com/python-telegram-bot/python-telegram-bot/pull/459
- Use vendor `urllib3` to address issues with timeouts - The default timeout for messages is now 5 seconds. For sending media, the default timeout is now 20 seconds.
- String attributes that are not set are now `None` by default, instead of empty strings
- Add `text_markdown` and `text_html` properties to `Message` - https://github.com/python-telegram-bot/python-telegram-bot/pull/507

- Add support for Socks5 proxy - https://github.com/python-telegram-bot/python-telegram-bot/pull/518
- Add support for filters in `CommandHandler` - https://github.com/python-telegram-bot/python-telegram-bot/pull/536
- Add the ability to invert (not) filters - https://github.com/python-telegram-bot/python-telegram-bot/pull/552
- Add `Filters.group` and `Filters.private`
- Compatibility with GAE via `urllib3.contrib` package - https://github.com/python-telegram-bot/python-telegram-bot/pull/583
- Add equality rich comparision operators to telegram objects - https://github.com/python-telegram-bot/python-telegram-bot/pull/604
- Several bugfixes and other improvements
- Remove some deprecated code

2017-04-17

Released 5.3.1

- Hotfix release due to bug introduced by urllib3 version 1.21

2016-12-11

Released 5.3

- Implement API changes of November 21st (Bot API 2.3)
- `JobQueue` now supports `datetime.timedelta` in addition to seconds
- `JobQueue` now supports running jobs only on certain days
- New `Filters.reply` filter
- Bugfix for `Message.edit_reply_markup`
- Other bugfixes

2016-10-25

Released 5.2

- Implement API changes of October 3rd (games update)
- Add `Message.edit_*` methods
- Filters for the `MessageHandler` can now be combined using bitwise operators (`& and |`)
- Add a way to save user- and chat-related data temporarily
- Other bugfixes and improvements

2016-09-24

Released 5.1

- Drop Python 2.6 support
- Deprecate `telegram.Emoji`
- Use `ujson` if available
- Add instance methods to `Message`, `Chat`, `User`, `InlineQuery` and `CallbackQuery`
- RegEx filtering for `CallbackQueryHandler` and `InlineQueryHandler`
- New `MessageHandler` filters: `forwarded` and `entity`
- Add `Message.get_entity` to correctly handle UTF-16 codepoints and `MessageEntity` offsets
- Fix bug in `ConversationHandler` when first handler ends the conversation
- Allow multiple `Dispatcher` instances

- Add `ChatMigrated` Exception
- Properly split and handle arguments in `CommandHandler`

2016-07-15

Released 5.0

- Rework `JobQueue`
- Introduce `ConversationHandler`
- Introduce `telegram.constants` - https://github.com/python-telegram-bot/python-telegram-bot/pull/342

2016-07-12

Released 4.3.4

- Fix proxy support with `urllib3` when proxy requires auth

2016-07-08

Released 4.3.3

- Fix proxy support with `urllib3`

2016-07-04

Released 4.3.2

- Fix: Use `timeout` parameter in all API methods

2016-06-29

Released 4.3.1

- Update wrong requirement: `urllib3>=1.10`

2016-06-28

Released 4.3

- Use `urllib3.PoolManager` for connection re-use
- Rewrite `run_async` decorator to re-use threads
- New requirements: `urllib3` and `certifi`

2016-06-10

Released 4.2.1

- Fix `CallbackQuery.to_dict()` bug (thanks to @jlmadurga)
- Fix `editMessageText` exception when receiving a `CallbackQuery`

2016-05-28

Released 4.2

- Implement Bot API 2.1
- Move `botan` module to `telegram.contrib`
- New exception type: `BadRequest`

2016-05-22

Released 4.1.2

- Fix `MessageEntity` decoding with Bot API 2.1 changes

2016-05-16

Released 4.1.1

- Fix deprecation warning in `Dispatcher`

2016-05-15

Released 4.1

- Implement API changes from May 6, 2016
- Fix bug when `start_polling` with `clean=True`
- Methods now have snake_case equivalent, for example `telegram.Bot.send_message` is the same as `telegram.Bot.sendMessage`

2016-05-01

Released 4.0.3

- Add missing attribute `location` to `InlineQuery`

2016-04-29

Released 4.0.2

- Bugfixes
- `KeyboardReplyMarkup` now accepts `str` again

2016-04-27

Released 4.0.1

- Implement Bot API 2.0
- Almost complete recode of `Dispatcher`
- Please read the Transition Guide to 4.0
- **Changes from 4.0rc1**
  - The syntax of filters for `MessageHandler` (upper/lower cases)
  - Handler groups are now identified by `int` only, and ordered
- **Note:** v4.0 has been skipped due to a PyPI accident

2016-04-22

Released 4.0rc1

- Implement Bot API 2.0
- Almost complete recode of `Dispatcher`
- Please read the Transistion Guide to 4.0

2016-03-22

Released 3.4

- Move `Updater`, `Dispatcher` and `JobQueue` to new `telegram.ext` submodule (thanks to @rahiel)
- Add `disable_notification` parameter (thanks to @aidarbiktimirov)
- Fix bug where commands sent by Telegram Web would not be recognized (thanks to @shelomentsevd)
- Add option to skip old updates on bot startup
- Send files from `BufferedReader`

2016-02-28

Released 3.3

- Inline bots
- Send any file by URL

- Specialized exceptions: `Unauthorized`, `InvalidToken`, `NetworkError` and `TimedOut`
- Integration for botan.io (thanks to @ollmer)
- HTML Parsemode (thanks to @jlmadurga)
- Bugfixes and under-the-hood improvements

Very special thanks to Noam Meltzer (@tsnoam) for all of his work!

2016-01-09

Released 3.3b1

- Implement inline bots (beta)

2016-01-05

Released 3.2.0

- Introducing `JobQueue` (original author: @franciscod)
- Streamlining all exceptions to `TelegramError` (Special thanks to @tsnoam)
- Proper locking of `Updater` and `Dispatcher` `start` and `stop` methods
- Small bugfixes

2015-12-29

Released 3.1.2

- Fix custom path for file downloads
- Don't stop the dispatcher thread on uncaught errors in handlers

2015-12-21

Released 3.1.1

- Fix a bug where asynchronous handlers could not have additional arguments
- Add `groups` and `groupdict` as additional arguments for regex-based handlers

2015-12-16

Released 3.1.0

- The `chat`-field in `Message` is now of type `Chat`. (API update Oct 8 2015)
- `Message` now contains the optional fields `supergroup_chat_created`, `migrate_to_chat_id`, `migrate_from_chat_id` and `channel_chat_created`. (API update Nov 2015)

2015-12-08

Released 3.0.0

- Introducing the `Updater` and `Dispatcher` classes

2015-11-11

Released 2.9.2

- Error handling on request timeouts has been improved

2015-11-10

Released 2.9.1

- Add parameter `network_delay` to Bot.getUpdates for slow connections

2015-11-10

Released 2.9

- Emoji class now uses `bytes_to_native_str` from `future` 3rd party lib

- Make `user_from` optional to work with channels
- Raise exception if Telegram times out on long-polling

Special thanks to @jh0ker for all hard work

2015-10-08

Released 2.8.7

- Type as optional for `GroupChat` class

2015-10-08

Released 2.8.6

- Adds type to `User` and `GroupChat` classes (pre-release Telegram feature)

2015-09-24

Released 2.8.5

- Handles HTTP Bad Gateway (503) errors on request
- Fixes regression on `Audio` and `Document` for unicode fields

2015-09-20

Released 2.8.4

- `getFile` and `File.download` is now fully supported

2015-09-10

Released 2.8.3

- Moved `Bot._requestURL` to its own class (`telegram.utils.request`)
- Much better, such wow, Telegram Objects tests
- Add consistency for `str` properties on Telegram Objects
- Better design to test if `chat_id` is invalid
- Add ability to set custom filename on `Bot.sendDocument(..,filename='')`
- Fix Sticker as `InputFile`
- Send JSON requests over urlencoded post data
- Markdown support for `Bot.sendMessage(..., parse_mode=ParseMode.MARKDOWN)`
- Refactor of `TelegramError` class (no more handling `IOError` or `URLError`)

2015-09-05

Released 2.8.2

- Fix regression on Telegram ReplyMarkup
- Add certificate to `is_inputfile` method

2015-09-05

Released 2.8.1

- Fix regression on Telegram objects with thumb properties

2015-09-04

Released 2.8

- TelegramError when `chat_id` is empty for send* methods
- `setWebhook` now supports sending self-signed certificate
- Huge redesign of existing Telegram classes

- Added support for PyPy
- Added docstring for existing classes

2015-08-19

Released 2.7.1

- Fixed JSON serialization for `message`

2015-08-17

Released 2.7

- Added support for `Voice` object and `sendVoice` method
- Due backward compatibility performer or/and title will be required for `sendAudio`
- Fixed JSON serialization when forwarded message

2015-08-15

Released 2.6.1

- Fixed parsing image header issue on < Python 2.7.3

2015-08-14

Released 2.6.0

- Depreciation of `require_authentication` and `clearCredentials` methods
- Giving `AUTHORS` the proper credits for their contribution for this project
- `Message.date` and `Message.forward_date` are now `datetime` objects

2015-08-12

Released 2.5.3

- `telegram.Bot` now supports to be unpickled

2015-08-11

Released 2.5.2

- New changes from Telegram Bot API have been applied
- `telegram.Bot` now supports to be pickled
- Return empty `str` instead `None` when `message.text` is empty

2015-08-10

Released 2.5.1

- Moved from GPLv2 to LGPLv3

2015-08-09

Released 2.5

- Fixes logging calls in API

2015-08-08

Released 2.4

- Fixes `Emoji` class for Python 3
- `PEP8` improvements

2015-08-08

Released 2.3

- Fixes `ForceReply` class

- Remove `logging.basicConfig` from library

2015-07-25

Released 2.2

- Allows `debug=True` when initializing `telegram.Bot`

2015-07-20

Released 2.1

- Fix `to_dict` for `Document` and `Video`

2015-07-19

Released 2.0

- Fixes bugs
- Improves `__str__` over `to_json()`
- Creates abstract class `TelegramObject`

2015-07-15

Released 1.9

- Python 3 officially supported
- `PEP8` improvements

2015-07-12

Released 1.8

- Fixes crash when replying an unicode text message (special thanks to JRoot3D)

2015-07-11

Released 1.7

- Fixes crash when `username` is not defined on `chat` (special thanks to JRoot3D)

2015-07-10

Released 1.6

- Improvements for GAE support

2015-07-10

Released 1.5

- Fixes randomly unicode issues when using `InputFile`

2015-07-10

Released 1.4

- `requests` lib is no longer required
- Google App Engine (GAE) is supported

2015-07-10

Released 1.3

- Added support to `setWebhook` (special thanks to macrojames)

2015-07-09

Released 1.2

- `CustomKeyboard` classes now available
- Emojis available

- PEP8 improvements

2015-07-08

Released 1.1

- PyPi package now available

2015-07-08

Released 1.0

- Initial checkin of python-telegram-bot

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