



python-telegram-bot Documentation

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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.

EXAMPLES

A great way to learn is by looking at examples. Ours can be found in our [examples folder on Github](#).

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.ExtBot

class telegram.ext.**ExtBot** (*token*, *base_url=None*, *base_file_url=None*, *request=None*, *private_key=None*, *private_key_password=None*, *defaults=None*, *arbitrary_callback_data=False*)

Bases: telegram.bot.Bot

This object represents a Telegram Bot with convenience extensions.

Warning: Not to be confused with *telegram.Bot*.

For the documentation of the arguments, methods and attributes, please see *telegram.Bot*.

New in version 13.6.

Parameters

- **defaults** (*telegram.ext.Defaults*, optional) – An object containing default values to be used if not set explicitly in the bot methods.
- **arbitrary_callback_data** (bool | int, optional) – Whether to allow arbitrary objects as callback data for *telegram.InlineKeyboardButton*. Pass an integer to specify the maximum number of objects cached in memory. For more details, please see our [wiki](#). Defaults to False.

arbitrary_callback_data

Whether this bot instance allows to use arbitrary objects as callback data for *telegram.InlineKeyboardButton*.

Type bool | int

callback_data_cache

The cache for objects passed as callback data for *telegram.InlineKeyboardButton*.

Type *telegram.ext.CallbackDataCache*

3.1.2 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, per-
                           sistence=None, defaults=None, use_context=True,
                           dispatcher=None, base_file_url=None, arbi-
                           trary_callback_data=False, context_types=None)
```

Bases: `Generic[telegram.ext.utils.types.CCT, telegram.ext.utils.types.UD, telegram.ext.utils.types.CD, telegram.ext.utils.types.BD]`

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.

Note:

- You must supply either a `bot` or a token argument.
- If you supply a `bot`, you will need to pass `arbitrary_callback_data`, and `defaults` to the bot instead of the `telegram.ext.Updater`. In this case, you'll have to use the class `telegram.ext.ExtBot`.

Changed in version 13.6.

Parameters

- **token** (str, optional) – The bot's token given by the @BotFather.
- **base_url** (str, optional) – Base_url for the bot.
- **base_file_url** (str, optional) – Base_file_url for the bot.
- **workers** (int, optional) – Amount of threads in the thread pool for functions decorated with `@run_async` (ignored if `dispatcher` argument is used).
- **bot** (`telegram.Bot`, optional) – A pre-initialized bot instance (ignored if `dispatcher` argument is used). 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.
- **dispatcher** (`telegram.ext.Dispatcher`, optional) – A pre-initialized dispatcher instance. If a pre-initialized dispatcher is used, it is the user's responsibility to create it with proper arguments.
- **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) settable with `idle`.
- **request_kwargs** (dict, optional) – Keyword args to control the creation of a `telegram.utils.request.Request` object (ignored if `bot` or `dispatcher` 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` uses the context based callback API (ignored if `dispatcher` argument is used). Defaults to `True`. **New users:** set this to `True`.
- **persistence** (`telegram.ext.BasePersistence`, optional) – The persistence class to store data that should be persistent over restarts (ignored if `dispatcher` argument is used).
- **defaults** (`telegram.ext.Defaults`, optional) – An object containing default values to be used if not set explicitly in the bot methods.
- **arbitrary_callback_data** (`bool | int | None`, optional) – Whether to allow arbitrary objects as callback data for `telegram.InlineKeyboardButton`. Pass an integer to specify the maximum number of cached objects. For more details, please see our wiki. Defaults to `False`.

New in version 13.6.

- **context_types** (`telegram.ext.ContextTypes`, optional) – Pass an instance of `telegram.ext.ContextTypes` to customize the types used in the context interface. If not passed, the defaults documented in `telegram.ext.ContextTypes` will be used.

New in version 13.6.

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

bot

The bot used with this Updater.

Type `telegram.Bot`

user_sig_handler

Optional. Function to be called when a signal is received.

Type `function`

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

Optional. `True` if using context based callbacks.

Type `bool`

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** (list | tuple) – List 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=None, bootstrap_retries=-1, read_latency=2.0, allowed_updates=None, drop_pending_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()`.
- **drop_pending_updates** (bool, optional) – Whether to clean any pending updates on Telegram servers before actually starting to poll. Default is False.

New in version 13.4.

- **clean** (bool, optional) – Alias for `drop_pending_updates`.
Deprecated since version 13.4: Use `drop_pending_updates` instead.
- **bootstrap_retries** (int, optional) – Whether the bootstrapping phase of the `telegram.ext.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=None, bootstrap_retries=0, webhook_url=None, allowed_updates=None, force_event_loop=None, drop_pending_updates=None, ip_address=None, max_connections=40*)

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`. Also calls `telegram.Bot.set_webhook()` as required.

Changed in version 13.4: `start_webhook()` now always calls `telegram.Bot.set_webhook()`, so pass `webhook_url` instead of calling `updater.bot.set_webhook(webhook_url)` manually.

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.

- **drop_pending_updates** (bool, optional) – Whether to clean any pending updates on Telegram servers before actually starting to poll. Default is False.

New in version 13.4.

- **clean** (bool, optional) – Alias for `drop_pending_updates`.

Deprecated since version 13.4: Use `drop_pending_updates` instead.

- **bootstrap_retries** (int, optional) – Whether the bootstrapping phase of the `telegram.ext.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`.

- **ip_address** (str, optional) – Passed to `telegram.Bot.set_webhook()`.

New in version 13.4.

- **allowed_updates** (List[str], optional) – Passed to `telegram.Bot.set_webhook()`.

- **force_event_loop** (bool, optional) – Legacy parameter formerly used for a workaround on Windows + Python 3.8+. No longer has any effect.

Deprecated since version 13.6: Since version 13.6, `tornado>=6.1` is required, which resolves the former issue.

- **max_connections** (int, optional) – Passed to `telegram.Bot.set_webhook()`.

New in version 13.6.

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.

3.1.3 telegram.ext.Dispatcher

```
class telegram.ext.Dispatcher(bot, update_queue, workers=4, exception_event=None,  
                             job_queue=None, persistence=None, use_context=True,  
                             context_types=None)
```

Bases: Generic[`telegram.ext.utils.types.CCT`, `telegram.ext.utils.types.UD`,
`telegram.ext.utils.types.CD`, `telegram.ext.utils.types.BD`]

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

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 and `run_async()`. 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` uses the context based callback API (ignored if `dispatcher` argument is used). Defaults to `True`. **New users:** set this to `True`.
- **context_types** (`telegram.ext.ContextTypes`, optional) – Pass an instance of `telegram.ext.ContextTypes` to customize the types used in the context interface. If not passed, the defaults documented in `telegram.ext.ContextTypes` will be used.

New in version 13.6.

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 and `run_async()`.

Type `int`, optional

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`

bot_data

A dictionary handlers can use to store data for the bot.

Type `dict`

persistence

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

Type `telegram.ext.BasePersistence`

context_types

Container for the types used in the context interface.

New in version 13.6.

Type `telegram.ext.ContextTypes`

add_error_handler (`callback`, `run_async=False`)

Registers an error handler in the Dispatcher. This handler will receive every error which happens in your bot.

Note: Attempts to add the same callback multiple times will be ignored.

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: object, context: CallbackContext)
```


The error that happened will be present in `context.error`.
- **run_async** (bool, optional) – Whether this handlers callback should be run asynchronously using `run_async()`. Defaults to `False`.

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. End handling of update with `telegram.ext.DispatcherHandlerStop`.

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*, *promise=None*)

Dispatches an error.

Parameters

- **update** (object | `telegram.Update`) – The update that caused the error.
- **error** (Exception) – The error that was raised.
- **promise** (`telegram.utils.Promise`, optional) – The promise whose pooled function raised the error.

error_handlers: Dict[Callable, Union[bool, `telegram.utils.helpers.DefaultValue`]]

A dict, where the keys are error handlers and the values indicate whether they are to be run asynchronously.

Type Dict[callable, bool]

classmethod `get_instance()`

Get the singleton instance of this class.

Returns `telegram.ext.Dispatcher`

Raises `RuntimeError` –

groups: `List[int]`
A list with all groups.

Type `List[int]`

handlers: `Dict[int, List[telegram.ext.handler.Handler]]`
Holds the handlers per group.

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

process_update (*update*)
Processes a single update and updates the persistence.

Note: If the update is handled by least one synchronously running handlers (i.e. `run_async=False`), `update_persistence()` is called *once* after all handlers synchronous handlers are done. Each asynchronously running handler will trigger `update_persistence()` on its own.

Parameters *update* (`telegram.Update` | `object` | `telegram.error.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*, *update=None*, ***kwargs*)
Queue a function (with given args/kwargs) to be run asynchronously. Exceptions raised by the function will be handled by the error handlers registered with `add_error_handler()`.

Warning:

- If you're using `@run_async/run_async()` you cannot rely on adding custom attributes to `telegram.ext.CallbackContext`. See its docs for more info.
- Calling a function through `run_async()` from within an error handler can lead to an infinite error handling loop.

Parameters

- **func** (`callable`) – The function to run in the thread.
- ***args** (`tuple`, optional) – Arguments to *func*.
- **update** (`telegram.Update` | `object`, optional) – The update associated with the functions call. If passed, it will be available in the error handlers, in case an exception is raised by *func*.
- ****kwargs** (`dict`, optional) – Keyword arguments to *func*.

Returns `Promise`

running

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=None*)

Update *user_data*, *chat_data* and *bot_data* in *persistence*.

Parameters **update** (`telegram.Update`, optional) – The update to process. If passed, only the corresponding *user_data* and *chat_data* will be updated.

3.1.4 telegram.ext.DispatcherHandlerStop

class telegram.ext.DispatcherHandlerStop (*state=None*)

Bases: Exception

Raise this in handler to prevent execution of any other handler (even in different group).

In order to use this exception in a `telegram.ext.ConversationHandler`, pass the optional *state* parameter instead of returning the next state:

```
def callback(update, context):
    ...
    raise DispatcherHandlerStop(next_state)
```

state

Optional. The next state of the conversation.

Type object

Parameters **state** (object, optional) – The next state of the conversation.

3.1.5 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/telegram.ext.Dispatcher.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.

Parameters `dispatcher` (*telegram.ext.Dispatcher*) – The dispatcher associated with this context.

matches

Optional. 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]`

args

Optional. 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]`

error

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

Type `Exception`

async_args

Optional. Positional arguments of the function that raised the error. Only present when the raising function was run asynchronously using *telegram.ext.Dispatcher.run_async()*.

Type `List[object]`

async_kwargs

Optional. Keyword arguments of the function that raised the error. Only present when the raising function was run asynchronously using *telegram.ext.Dispatcher.run_async()*.

Type `Dict[str, object]`

job

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

Type *telegram.ext.Job*

property bot

The bot associated with this context.

Type *telegram.Bot*

property bot_data

Optional. A dict that can be used to keep any data in. For each update it will be the same dict.

Type `dict`

property chat_data

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

Warning: When a group chat migrates to a supergroup, its chat id will change and the `chat_data` needs to be transferred. For details see our [wiki page](#).

Type `dict`

property dispatcher

The dispatcher associated with this context.

Type `telegram.ext.Dispatcher`

drop_callback_data (*callback_query*)

Deletes the cached data for the specified callback query.

New in version 13.6.

Note: Will *not* raise exceptions in case the data is not found in the cache. Will raise `KeyError` in case the callback query can not be found in the cache.

Parameters `callback_query` (*telegram.CallbackQuery*) – The callback query.

Raises `KeyError` | `RuntimeError` – `KeyError`, if the callback query can not be found in the cache and `RuntimeError`, if the bot doesn't allow for arbitrary callback data.

classmethod from_error (*update*, *error*, *dispatcher*, *async_args=None*, *async_kwargs=None*)

Constructs an instance of `telegram.ext.CallbackContext` to be passed to the error handlers.

See also:

`telegram.ext.Dispatcher.add_error_handler()`

Parameters

- **update** (object | *telegram.Update*) – The update associated with the error. May be `None`, e.g. for errors in job callbacks.
- **error** (Exception) – The error.
- **dispatcher** (*telegram.ext.Dispatcher*) – The dispatcher associated with this context.
- **async_args** (List[object]) – Optional. Positional arguments of the function that raised the error. Pass only when the raising function was run asynchronously using `telegram.ext.Dispatcher.run_async()`.
- **async_kwargs** (Dict[str, object]) – Optional. Keyword arguments of the function that raised the error. Pass only when the raising function was run asynchronously using `telegram.ext.Dispatcher.run_async()`.

Returns `telegram.ext.CallbackContext`

classmethod from_job (*job*, *dispatcher*)

Constructs an instance of `telegram.ext.CallbackContext` to be passed to a job callback.

See also:

`telegram.ext.JobQueue()`

Parameters

- **job** (*telegram.ext.Job*) – The job.
- **dispatcher** (*telegram.ext.Dispatcher*) – The dispatcher associated with this context.

Returns `telegram.ext.CallbackContext`

classmethod `from_update(update, dispatcher)`

Constructs an instance of `telegram.ext.CallbackContext` to be passed to the handlers.

See also:

`telegram.ext.Dispatcher.add_handler()`

Parameters

- **update** (object | `telegram.Update`) – The update.
- **dispatcher** (`telegram.ext.Dispatcher`) – The dispatcher associated with this context.

Returns `telegram.ext.CallbackContext`

property `job_queue`

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

Type `telegram.ext.JobQueue`

property `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`

refresh_data()

If `dispatcher` uses persistence, calls `telegram.ext.BasePersistence.refresh_bot_data()` on `bot_data`, `telegram.ext.BasePersistence.refresh_chat_data()` on `chat_data` and `telegram.ext.BasePersistence.refresh_user_data()` on `user_data`, if appropriate.

New in version 13.6.

update(data)

Updates `self.__slots__` with the passed data.

Parameters `data` (Dict[str, object]) – The data.

property `update_queue`

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

Type `queue.Queue`

property `user_data`

Optional. 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`

3.1.6 telegram.ext.Job

class `telegram.ext.Job(callback, context=None, name=None, job_queue=None, job=None)`

Bases: `object`

This class is a convenience wrapper for the jobs held in a `telegram.ext.JobQueue`. With the current backend `APScheduler`, `job` holds a `apscheduler.job.Job` instance.

Note:

- All attributes and instance methods of `job` are also directly available as attributes/methods of the corresponding `telegram.ext.Job` object.

- Two instances of `telegram.ext.Job` are considered equal, if their corresponding `job` attributes have the same `id`.
 - If `job` isn't passed on initialization, it must be set manually afterwards for this `telegram.ext.Job` to be useful.
-

Parameters

- **callback** (callable) – The callback function that should be executed by the new job. Callback signature for context based API:

```
def callback(CallbackContext)
```

a `context.job` is the `telegram.ext.Job` instance. It can be used to access its `job.context` or change it to a repeating job.

- **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__`.
- **job_queue** (`telegram.ext.JobQueue`, optional) – The `JobQueue` this job belongs to. Only optional for backward compatibility with `JobQueue.put()`.
- **job** (`apscheduler.job.Job`, optional) – The APS Job this job is a wrapper for.

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

job_queue

Optional. The `JobQueue` this job belongs to.

Type `telegram.ext.JobQueue`

job

Optional. The APS Job this job is a wrapper for.

Type `apscheduler.job.Job`

property enabled

Whether this job is enabled.

Type bool

property next_t

Datetime for the next job execution. Datetime is localized according to `tzinfo`. If job is removed or already ran it equals to `None`.

Type `datetime.datetime`

property removed

Whether this job is due to be removed.

Type bool

run(dispatcher)

Executes the callback function independently of the jobs schedule.

schedule_removal()

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

3.1.7 telegram.ext.JobQueue

class telegram.ext.JobQueue

Bases: object

This class allows you to periodically perform tasks with the bot. It is a convenience wrapper for the APScheduler library.

scheduler

The APScheduler

Type `apscheduler.schedulers.background.BackgroundScheduler`

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 all *pending/scheduled* jobs with the given name that are currently in the `JobQueue`.

jobs()

Returns a tuple of all *scheduled* jobs that are currently in the `JobQueue`.

run_custom(callback, job_kwargs, context=None, name=None)

Creates a new customly defined `Job`.

Parameters

- **callback** (callable) – The callback function that should be executed by the new job. Callback signature for context based API:

```
def callback(CallbackContext)
```


`context.job` is the `telegram.ext.Job` instance. It can be used to access its `job.context` or change it to a repeating job.
- **job_kwargs** (dict) – Arbitrary keyword arguments. Used as arguments for `scheduler.add_job`.
- **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_daily(callback, time, days=(0, 1, 2, 3, 4, 5, 6), context=None, name=None, job_kwargs=None)

Creates a new `Job` that runs on a daily basis and adds it to the queue.

Note: For a note about DST, please see the documentation of [APScheduler](#).

Parameters

- **callback** (callable) – The callback function that should be executed by the new job. Callback signature for context based API:

```
def callback(CallbackContext)
```

`context.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. If the timezone (`time.tzinfo`) is `None`, the default timezone of the bot will be used.
- **days** (`Tuple[int]`, optional) – Defines on which days of the week the job should run (where 0–6 correspond to monday - sunday). 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__`.
- **job_kwargs** (`dict`, optional) – Arbitrary keyword arguments to pass to the `scheduler.add_job()`.

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

Return type `telegram.ext.Job`

run_monthly (`callback`, `when`, `day`, `context=None`, `name=None`, `day_is_strict=True`, `job_kwargs=None`)

Creates a new `Job` that runs on a monthly basis and adds it to the queue.

Parameters

- **callback** (callable) – The callback function that should be executed by the new job. Callback signature for context based API:

```
def callback(CallbackContext)
```

`context.job` is the `telegram.ext.Job` instance. It can be used to access its `job.context` or change it to a repeating job.
- **when** (`datetime.time`) – Time of day at which the job should run. If the timezone (`when.tzinfo`) is `None`, the default timezone of the bot will be used.
- **day** (`int`) – Defines the day of the month whereby the job would run. It should be within the range of 1 and 31, inclusive.
- **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__`.
- **day_is_strict** (`bool`, optional) – If `False` and `day > month.days`, will pick the last day in the month. Defaults to `True`.
- **job_kwargs** (`dict`, optional) – Arbitrary keyword arguments to pass to the `scheduler.add_job()`.

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

Return type `telegram.ext.Job`

run_once (`callback`, `when`, `context=None`, `name=None`, `job_kwargs=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. Callback signature for context based API:

```
def callback(CallbackContext)
```

`context.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. If the `timezone` (`datetime.tzinfo`) is `None`, the default timezone of the bot will be used.
 - `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. If the `timezone` (`time.tzinfo`) is `None`, the default timezone of the bot will be used.
- **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__`.
- **job_kwargs** (`dict`, optional) – Arbitrary keyword arguments to pass to the `scheduler.add_job()`.

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

Return type `telegram.ext.Job`

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

Note: For a note about DST, please see the documentation of [APScheduler](#).

Parameters

- **callback** (`callable`) – The callback function that should be executed by the new job. Callback signature for context based API:

```
def callback(CallbackContext)
```

`context.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. If the `timezone` (`datetime.tzinfo`) is `None`, the default timezone of the bot will be used.

- `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. If the `timezone` (`time.tzinfo`) is `None`, the default timezone of the bot will be used.

Defaults to `interval`

- **last** (`int` | `float` | `datetime.timedelta` | `datetime.datetime` | `datetime.time`, optional) – Latest possible time for the job to run. This parameter will be interpreted depending on its type. See `first` for details.

If `last` is `datetime.datetime` or `datetime.time` type and `last.tzinfo` is `None`, the default timezone of the bot will be assumed.

Defaults to `None`.

- **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__`.
- **job_kwargs** (`dict`, optional) – Arbitrary keyword arguments to pass to the `scheduler.add_job()`.

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

Return type `telegram.ext.Job`

set_dispatcher (`dispatcher`)

Set the dispatcher to be used by this `JobQueue`. Use this instead of passing a `telegram.Bot` to the `JobQueue`, which is deprecated.

Parameters **dispatcher** (`telegram.ext.Dispatcher`) – The dispatcher.

start ()

Starts the `job_queue` thread.

stop ()

Stops the thread.

3.1.8 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.

Deprecated since version 13.3: `telegram.ext.MessageQueue` in its current form is deprecated and will be reinvented in a future release. See [this thread](#) for a list of known bugs.

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 throughput-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 `:obj:True``), or only through `*all* ``DelayQueue` (if set to `False`), resulting in needed delays to avoid hitting specified limits. Defaults to `False`.

Note: 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`.

3.1.9 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.

Deprecated since version 13.3: `telegram.ext.DelayQueue` in its current form is deprecated and will be reinvented in a future release. See [this thread](#) for a list of known bugs.

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.

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

__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*.

3.1.10 telegram.ext.ContextTypes

```
class telegram.ext.ContextTypes (context=<class 'telegram.ext.callbackcontext.CallbackContext'>,
                                bot_data=<class 'dict'>, chat_data=<class 'dict'>,
                                user_data=<class 'dict'>)
```

Bases: *Generic[telegram.ext.utils.types.CCT, telegram.ext.utils.types.UD, telegram.ext.utils.types.CD, telegram.ext.utils.types.BD]*

Convenience class to gather customizable types of the *telegram.ext.CallbackContext* interface.

New in version 13.6.

Parameters

- **context** (*type*, optional) – Determines the type of the *context* argument of all (error-)handler callbacks and job callbacks. Must be a subclass of *telegram.ext.CallbackContext*. Defaults to *telegram.ext.CallbackContext*.
- **bot_data** (*type*, optional) – Determines the type of *context.bot_data* of all (error-)handler callbacks and job callbacks. Defaults to *dict*. Must support instantiating without arguments.
- **chat_data** (*type*, optional) – Determines the type of *context.chat_data* of all (error-)handler callbacks and job callbacks. Defaults to *dict*. Must support instantiating without arguments.
- **user_data** (*type*, optional) – Determines the type of *context.user_data* of all (error-)handler callbacks and job callbacks. Defaults to *dict*. Must support instantiating without arguments.

3.1.11 telegram.ext.Defaults

```
class telegram.ext.Defaults (parse_mode=None,      disable_notification=None,      dis-
                           able_web_page_preview=None,      timeout=None,
                           quote=None,      tzinfo=<UTC>,      run_async=False,      al-
                           low_sending_without_reply=None)
```

Bases: object

Convenience Class to gather all parameters with a (user defined) default value

Parameters

- **parse_mode** (str, optional) – Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or URLs in your bot’s message.
- **disable_notification** (bool, optional) – Sends the message silently. Users will receive a notification with no sound.
- **disable_web_page_preview** (bool, optional) – Disables link previews for links in this message.
- **allow_sending_without_reply** (bool, optional) – Pass True, if the message should be sent even if the specified replied-to message is not found.
- **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).

Note: Will *not* be used for `telegram.Bot.get_updates()`!

- **quote** (bool, optional) – If set to True, the reply is sent as an actual reply to the 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.
- **tzinfo** (tzinfo, optional) – A timezone to be used for all date(time) inputs appearing throughout PTB, i.e. if a timezone naive date(time) object is passed somewhere, it will be assumed to be in tzinfo. Must be a timezone provided by the `pytz` module. Defaults to UTC.
- **run_async** (bool, optional) – Default setting for the `run_async` parameter of handlers and error handlers registered through `Dispatcher.add_handler()` and `Dispatcher.add_error_handler()`. Defaults to False.

property allow_sending_without_reply

Optional. Pass True, if the message should be sent even if the specified replied-to message is not found.

Type bool

property disable_notification

Optional. Sends the message silently. Users will receive a notification with no sound.

Type bool

property disable_web_page_preview

Optional. Disables link previews for links in this message.

Type bool

property explanation_parse_mode

Optional. Alias for `parse_mode`, used for the corresponding parameter of `telegram.Bot.send_poll()`.

Type str

property parse_mode

Optional. Send Markdown or HTML, if you want Telegram apps to show bold, italic, fixed-width text or URLs in your bot's message.

Type `str`

property quote

Optional. If set to `True`, the reply is sent as an actual reply to the 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.

Type `bool`

property run_async

Optional. Default setting for the `run_async` parameter of handlers and error handlers registered through `Dispatcher.add_handler()` and `Dispatcher.add_error_handler()`.

Type `bool`

property timeout

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).

Type `int|float`

property tzinfo

A timezone to be used for all date(time) objects appearing throughout PTB.

Type `tzinfo`

3.1.12 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,
                           run_async=False)
```

Bases: `Generic[telegram.ext.handler.UT, telegram.ext.utils.types.CCT]`, `abc.ABC`

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

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.

Warning: When setting `run_async` to `True`, you cannot rely on adding custom attributes to `telegram.ext.CallbackContext`. See its docs 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.
- **run_async** (bool) – Determines whether the callback will run asynchronously. Defaults to `False`.

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

run_async

Determines whether the callback will run asynchronously.

Type bool

callback**abstract check_update** (*update*)

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

Note: Custom updates types can be handled by the dispatcher. Therefore, an implementation of this method should always check the type of `update`.

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 `callback` along with its respectful arguments. To work with the `telegram.ext.ConversationHandler`, this method returns the value returned from `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** (*obj*) – The result from `check_update`.
- **context** (*telegram.ext.CallbackContext, optional*) – The context as provided by the dispatcher.

`pass_chat_data`

`pass_job_queue`

`pass_update_queue`

`pass_user_data`

`run_async`

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,
                                         run_async=False)
```

Bases: telegram.ext.handler.Handler[telegram.update.Update, *telegram.ext.utils.types.CCT*]

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

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

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.

- If your bot allows arbitrary objects as *callback_data*, it may happen that the original *callback_data* for the incoming `telegram.CallbackQuery`` can not be found. This is the case when either a malicious client tampered with the *callback_data* or the data was simply dropped from cache or not persisted. In these cases, an instance of *telegram.ext.InvalidCallbackData* will be set as *callback_data*.

New in version 13.6.

Warning: When setting `run_async` to `True`, you cannot rely on adding custom attributes to *telegram.ext.CallbackContext*. See its docs 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* | callable | type, optional) – Pattern to test *telegram.CallbackQuery.data* against. If a string or a regex pattern is passed, `re.match()` is used on *telegram.CallbackQuery.data* to determine if an up-

date should be handled by this handler. If your bot allows arbitrary objects as `callback_data`, non-strings will be accepted. To filter arbitrary objects you may pass

- a callable, accepting exactly one argument, namely the `telegram.CallbackQuery.data`. It must return `True` or `False/None` to indicate, whether the update should be handled.
- a type. If `telegram.CallbackQuery.data` is an instance of that type (or a subclass), the update will be handled.

If `telegram.CallbackQuery.data` is `None`, the `telegram.CallbackQuery` update will not be handled.

Changed in version 13.6: Added support for arbitrary callback data.

- **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.
- **run_async** (bool) – Determines whether the callback will run asynchronously. Defaults to `False`.

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, callback or type to test `telegram.CallbackQuery.data` against.

Changed in version 13.6: Added support for arbitrary callback data.

Type `Pattern | callable | type`

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`

run_async

Determines whether the callback will run asynchronously.

Type `bool`

check_update (*update*)

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

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

Returns `bool`

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

Add the result of `re.match(pattern, update.callback_query.data)` to *CallbackContext.matches* as list with one element.

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

Pass the results of `re.match(pattern, data).groups()`, `groupdict()` to the callback as a keyword arguments called `groups` and `groupdict`, respectively, if needed.

telegram.ext.ChosenInlineResultHandler

```
class telegram.ext.ChosenInlineResultHandler(callback, pass_update_queue=False,
                                             pass_job_queue=False,
                                             pass_user_data=False,
                                             pass_chat_data=False,
                                             run_async=False, pattern=None)
```

Bases: `telegram.ext.handler.Handler[telegram.update.Update, telegram.ext.utils.types.CCT]`

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

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.

Warning: When setting `run_async` to `True`, you cannot rely on adding custom attributes to *telegram.ext.CallbackContext*. See its docs 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.
- **run_async** (bool) – Determines whether the callback will run asynchronously. Defaults to False.
- **pattern** (str | *Pattern*, optional) – Regex pattern. If not None, `re.match` is used on `telegram.ChosenInlineResult.result_id` to determine if an update should be handled by this handler. This is accessible in the callback as `telegram.ext.CallbackContext.matches`.

New in version 13.6.

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

run_async

Determines whether the callback will run asynchronously.

Type bool

pattern

Optional. Regex pattern to test `telegram.ChosenInlineResult.result_id` against.

New in version 13.6.

Type *Pattern*

check_update (*update*)

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

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

Returns bool

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

This function adds the matched regex pattern result to *telegram.ext.CallbackContext.matches*.

telegram.ext.ChatMemberHandler

```
class telegram.ext.ChatMemberHandler(callback,                                chat_member_types=-1,
                                     pass_update_queue=False,
                                     pass_job_queue=False,    pass_user_data=False,
                                     pass_chat_data=False, run_async=False)
Bases: telegram.ext.handler.Handler[telegram.update.Update, telegram.ext.utils.types.CCT]
```

Handler class to handle Telegram updates that contain a chat member update.

New in version 13.4.

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.

Warning: When setting *run_async* to True, you cannot rely on adding custom attributes to *telegram.ext.CallbackContext*. See its docs 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*.

- **chat_member_types** (int, optional) – Pass one of *MY_CHAT_MEMBER*, *CHAT_MEMBER* or *ANY_CHAT_MEMBER* to specify if this handler should handle only updates with *telegram.Update.my_chat_member*, *telegram.Update.chat_member* or both. Defaults to *MY_CHAT_MEMBER*.
- **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.
- **run_async** (bool) – Determines whether the callback will run asynchronously. Defaults to False.

callback

The callback function for this handler.

Type callable

chat_member_types

Specifies if this handler should handle only updates with `telegram.Update.my_chat_member`, `telegram.Update.chat_member` or both.

Type int, optional

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

run_async

Determines whether the callback will run asynchronously.

Type bool

ANY_CHAT_MEMBER: ClassVar[int] = 1

Used as a constant to handle bot `telegram.Update.my_chat_member` and `telegram.Update.chat_member`.

Type int

CHAT_MEMBER: ClassVar[int] = 0

Used as a constant to handle only `telegram.Update.chat_member`.

Type int

MY_CHAT_MEMBER: ClassVar[int] = -1

Used as a constant to handle only `telegram.Update.my_chat_member`.

Type int

check_update(update)

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

Parameters **update** (`telegram.Update` | object) – Incoming update.

Returns bool

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, run_async=False)
```

Bases: telegram.ext.handler.Handler[telegram.update.Update, *telegram.ext.utils.types.CCT*]

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.

Note:

- *CommandHandler* does *not* handle (edited) channel posts.
- *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.

Warning: When setting *run_async* to True, you cannot rely on adding custom attributes to *telegram.ext.CallbackContext*. See its docs for more info.

Parameters

- **command** (telegram.utils.types.SLT[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.
- **run_async** (bool) – Determines whether the callback will run asynchronously. Defaults to False.

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

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 `telegram.utils.types.SLT[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`

run_async

Determines whether the callback will run asynchronously.

Type `bool`

check_update (*update*)

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

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

Returns The list of args for the handler.

Return type `list`

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

Add text after the command to *CallbackContext.args* as list, split on single whitespaces and add output of data filters to *CallbackContext* as well.

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

Provide text after the command to the callback the *args* argument as list, split on single whitespaces.

telegram.ext.ConversationHandler

```
class telegram.ext.ConversationHandler (entry_points,      states,      fallbacks,      al-
                                         low_reentry=False,      per_chat=True,
                                         per_user=True,      per_message=False,      con-
                                         versation_timeout=None,      name=None,
                                         persistent=False,      map_to_parent=None,
                                         run_async=False)
```

Bases: `telegram.ext.handler.Handler[telegram.update.Update, telegram.ext.utils.types.CCT]`

A handler to hold a conversation with a single or multiple users through Telegram updates by managing four collections of other handlers.

Note: `ConversationHandler` will only accept updates that are (subclass-)instances of *telegram.Update*. This is, because depending on the *per_user* and *per_chat* `ConversationHandler` relies on *telegram.Update.effective_user* and/or *telegram.Update.effective_chat* in order to determine which conversation an update should belong to. For *per_message=True*, `ConversationHandler` uses *update.callback_query.message.message_id* when *per_chat=True* and *update.callback_query.inline_message_id* when *per_chat=False*. For a more detailed explanation, please see our [FAQ](#).

Finally, `ConversationHandler`, does *not* handle (edited) channel posts.

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

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.

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`. Finally, `telegram.ext.DispatcherHandlerStop` can be used in conversations as described in the corresponding documentation.

Note: In each of the described collections of handlers, a handler may in turn be a `ConversationHandler`. In that case, the nested `ConversationHandler` should have the attribute `map_to_parent` which allows to return to the parent conversation at specified states within the nested conversation.

Note that the keys in `map_to_parent` must not appear as keys in `states` attribute or else the latter will be ignored. You may map `END` to one of the parents states to continue the parent conversation after this has ended or even map a state to `END` to end the *parent* conversation from within the nested one. For an example on nested `ConversationHandler`s, see our [examples](#).

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 and the corresponding context will be handled by ALL the handler's who's `check_update` method returns `True` that are in the state `ConversationHandler.TIMEOUT`.

Note: Using `conversation_timeout` with nested conversations is currently not supported. You can still try to use it, but it will likely behave differently from what you expect.

- **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`

- **map_to_parent** (Dict[object, object], optional) – A dict that can be used to instruct a nested conversationhandler to transition into a mapped state on its parent conversationhandler in place of a specified nested state.
- **run_async** (bool, optional) – Pass True to *override* the `Handler.run_async` setting of all handlers (in *entry_points*, *states* and *fallbacks*).

Note: If set to True, you should not pass a handler instance, that needs to be run synchronously in another context.

New in version 13.2.

Raises ValueError –

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

run_async

If True, will override the `Handler.run_async` setting of all internal handlers on initialization.

New in version 13.2.

Type bool

END: ClassVar[int] = -1

Used as a constant to return when a conversation is ended.

Type int

TIMEOUT: ClassVar[int] = -2

Used as a constant to handle state when a conversation is timed out.

Type int

WAITING: ClassVar[int] = -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` | object) – Incoming update.

Returns bool

property conversation_timeout

Optional. When this handler is inactive more than this timeout (in seconds), it will be automatically ended.

Type float | datetime.timedelta

property entry_points

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

Type List[`telegram.ext.Handler`]

property 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`]

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.
- **context** (*telegram.ext.CallbackContext*, optional) – The context as provided by the dispatcher.

property map_to_parent

Optional. A dict that can be used to instruct a nested *ConversationHandler* to transition into a mapped state on its parent *ConversationHandler* in place of a specified nested state.

Type Dict[object, object]

property name

Optional. The name for this *ConversationHandler*.

Type str

property per_chat

If the conversation key should contain the Chat's ID.

Type bool

property per_message

If the conversation key should contain the message's ID.

Type bool

property per_user

If the conversation key should contain the User's ID.

Type bool

property persistence

The persistence class as provided by the *Dispatcher*.

property 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*]]

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,
                                       run_async=False, chat_types=None)
```

Bases: telegram.ext.handler.Handler[telegram.update.Update, *telegram.ext.utils.types.CCT*]

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

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.

Warning:

- When setting `run_async` to `True`, you cannot rely on adding custom attributes to `telegram.ext.CallbackContext`. See its docs for more info.
- `telegram.InlineQuery.chat_type` will not be set for inline queries from secret chats and may not be set for inline queries coming from third-party clients. These updates won't be handled, if `chat_types` is passed.

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.
- **chat_types** (List[str], optional) – List of allowed chat types. If passed, will only handle inline queries with the appropriate `telegram.InlineQuery.chat_type`. New in version 13.5.
- **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.
- **run_async** (bool) – Determines whether the callback will run asynchronously. Defaults to `False`.

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

chat_types

List of allowed chat types.

New in version 13.5.

Type List[str], optional

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

run_async

Determines whether the callback will run asynchronously.

Type bool

check_update (*update*)

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

Parameters `update` (`telegram.Update` | object) – Incoming update.

Returns bool

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

Add the result of `re.match(pattern, update.inline_query.query)` to `CallbackContext.matches` as list with one element.

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

Pass the results of `re.match(pattern, query).{groups(), groupdict() }` to the callback as a keyword arguments called `groups` and `groupdict`, respectively, if needed.

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,
                                  run_async=False)
```

Bases: telegram.ext.handler.Handler[telegram.update.Update, telegram.ext.utils.types.CCT]

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

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.

Warning: When setting `run_async` to `True`, you cannot rely on adding custom attributes to `telegram.ext.CallbackContext`. See its docs 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.
- **run_async** (`bool`) – Determines whether the callback will run asynchronously. Defaults to `False`.

Raises `ValueError` –

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`

run_async

Determines whether the callback will run asynchronously.

Type `bool`

check_update (*update*)

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

Parameters **update** (`telegram.Update` | object) – Incoming update.

Returns `bool`

collect_additional_context (*context, update, dispatcher, check_result*)
 Adds possible output of data filters to the *CallbackContext*.

telegram.ext.filters Module

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

class telegram.ext.filters.**BaseFilter** (*args, **kwargs)
 Bases: abc.ABC

Base class for all Filters.

Filters subclassing from this class can combined using bitwise operators:

And:

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

Or:

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

Exclusive Or:

```
>>> (Filters.regex('To Be') ^ Filters.regex('Not 2B'))
```

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 as python's *and*, *or* and *not*. This means that for example:

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

With `message.text == 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 either *MessageFilter* or *UpdateFilter* 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

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

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`.

attachment = **Filters.attachment**

Messages that contain `telegram.Message.effective_attachment()`.

New in version 13.6.

audio = **Filters.audio**

Messages that contain `telegram.Audio`.

caption = **Filters.caption**

Messages with a caption. If a list of strings is passed, it filters messages to only allow those whose caption is appearing in the given list.

Examples

`MessageHandler(Filters.caption, callback_method)`

Parameters `update` (List[str] | Tuple[str], optional) – Which captions to allow. Only exact matches are allowed. If not specified, will allow any message with a caption.

class `caption_entity` (*args, **kwargs)

Bases: `telegram.ext.filters.MessageFilter`

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 `caption_regex` (*args, **kwargs)

Bases: `telegram.ext.filters.MessageFilter`

Filters updates by searching for an occurrence of pattern in the message caption.

This filter works similarly to `Filters.regex`, with the only exception being that it applies to the message caption instead of the text.

Examples

Use `MessageHandler(Filters.photo & Filters.caption_regex(r'help'), callback)` to capture all photos with caption containing the word 'help'.

Note: This filter will not work on simple text messages, but only on media with caption.

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

class `chat` (`*args`, `**kwargs`)

Bases: `telegram.ext.filters.Filters._ChatUserBaseFilter`

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

Examples

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

Warning: `chat_ids` will give a *copy* of the saved chat ids as `frozenset`. This is to ensure thread safety. To add/remove a chat, you should use `add_usernames()`, `add_chat_ids()`, `remove_usernames()` and `remove_chat_ids()`. Only update the entire set by filter. `chat_ids/usernames = new_set`, if you are entirely sure that it is not causing race conditions, as this will completely replace the current set of allowed chats.

Parameters

- **chat_id** (`telegram.utils.types.SLT[int]`, optional) – Which chat ID(s) to allow through.
- **username** (`telegram.utils.types.SLT[str]`, optional) – Which username(s) to allow through. Leading '@' s in usernames will be discarded.
- **allow_empty** (`bool`, optional) – Whether updates should be processed, if no chat is specified in `chat_ids` and `usernames`. Defaults to `False`

Raises `RuntimeError` – If `chat_id` and `username` are both present.

`chat_ids`

Which chat ID(s) to allow through.

Type `set(int)`, optional

`usernames`

Which username(s) (without leading '@') to allow through.

Type `set(str)`, optional

`allow_empty`

Whether updates should be processed, if no chat is specified in `chat_ids` and `usernames`.

Type `bool`, optional

`add_chat_ids(chat_id)`

Add one or more chats to the allowed chat ids.

Parameters `chat_id` (`telegram.utils.types.SLT[int]`, optional) – Which chat ID(s) to allow through.

`add_usernames(username)`

Add one or more chats to the allowed usernames.

Parameters `username` (`telegram.utils.types.SLT[str]`, optional) – Which username(s) to allow through. Leading '@' s in usernames will be discarded.

`get_chat_or_user(message)`

remove_chat_ids (*chat_id*)

Remove one or more chats from allowed chat ids.

Parameters **chat_id** (`telegram.utils.types.SLT[int]`, optional) – Which chat ID(s) to disallow through.

remove_usernames (*username*)

Remove one or more chats from allowed usernames.

Parameters **username** (`telegram.utils.types.SLT[str]`, optional) – Which username(s) to disallow through. Leading '@' s in usernames will be discarded.

chat_type = Filters.chat_type

Subset for filtering the type of chat.

Examples

Use these filters like: `Filters.chat_type.channel` or `Filters.chat_type.supergroup` etc. Or use just `Filters.chat_type` for all chat types.

channel

Updates from channel

group

Updates from group

supergroup

Updates from supergroup

groups

Updates from group *or* supergroup

private

Updates sent in private chat

command = Filters.command

Messages with a `telegram.MessageEntity.BOT_COMMAND`. By default only allows messages *starting* with a bot command. Pass `False` to also allow messages that contain a bot command *anywhere* in the text.

Examples:

```
MessageHandler(Filters.command, command_at_start_callback)
MessageHandler(Filters.command(False), command_anywhere_callback)
```

Note: `Filters.text` also accepts messages containing a command.

Parameters **update** (`bool`, optional) – Whether to only allow messages that *start* with a bot command. Defaults to `True`.

contact = Filters.contact

Messages that contain `telegram.Contact`.

dice = Filters.dice

Dice Messages. If an integer or a list of integers is passed, it filters messages to only allow those whose dice value is appearing in the given list.

Examples

To allow any dice message, simply use `MessageHandler(Filters.dice, callback_method)`.

To allow only dice messages with the emoji , but any value, use `MessageHandler(Filters.dice.dice, callback_method)`.

To allow only dice messages with the emoji and with value 6, use `MessageHandler(Filters.dice.darts(6), callback_method)`.

To allow only dice messages with the emoji and with value 5 or 6, use `MessageHandler(Filters.dice.football([5, 6]), callback_method)`.

Note: Dice messages don't have text. If you want to filter either text or dice messages, use `Filters.text | Filters.dice`.

Parameters `update` (`telegram.utils.types.SLT[int]`, optional) – Which values to allow. If not specified, will allow any dice message.

dice

Dice messages with the emoji . Passing a list of integers is supported just as for `Filters.dice`.

darts

Dice messages with the emoji . Passing a list of integers is supported just as for `Filters.dice`.

basketball

Dice messages with the emoji . Passing a list of integers is supported just as for `Filters.dice`.

football

Dice messages with the emoji . Passing a list of integers is supported just as for `Filters.dice`.

slot_machine

Dice messages with the emoji . Passing a list of integers is supported just as for `Filters.dice`.

bowling

Dice messages with the emoji . Passing a list of integers is supported just as for `Filters.dice`.

New in version 13.4.

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

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.document.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

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.document.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")`.

file_extension

This filter filters documents by their file ending/extension.

Note:

- This Filter only filters by the file ending/extension of the document, it doesn't check the validity of document.
 - The user can manipulate the file extension of a document and send media with wrong types that don't fit to this handler.
 - Case insensitive by default, you may change this with the flag `case_sensitive=True`.
 - Extension should be passed without leading dot unless it's a part of the extension.
 - Pass `None` to filter files with no extension, i.e. without a dot in the filename.
-

Example

- `Filters.document.file_extension("jpg")` filters files with extension `".jpg"`.
 - `Filters.document.file_extension(".jpg")` filters files with extension `"...jpg"`.
 - `Filters.document.file_extension("Dockerfile", case_sensitive=True)` filters files with extension `".Dockerfile"` minding the case.
 - `Filters.document.file_extension(None)` filters files without a dot in the filename.
-

class `entity(*args, **kwargs)`

Bases: `telegram.ext.filters.MessageFilter`

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.

class `forwarded_from(*args, **kwargs)`

Bases: `telegram.ext.filters.Filters._ChatUserBaseFilter`

Filters messages to allow only those which are forwarded from the specified chat ID(s) or username(s) based on `telegram.Message.forward_from` and `telegram.Message.forward_from_chat`.

New in version 13.5.

Examples

```
MessageHandler(Filters.forwarded_from(chat_id=1234),
               callback_method)
```

Note: When a user has disallowed adding a link to their account while forwarding their messages, this filter will *not* work since both `telegram.Message.forwarded_from` and `telegram.Message.forwarded_from_chat` are `None`. However, this behaviour is undocumented and might be changed by Telegram.

Warning: `chat_ids` will give a *copy* of the saved chat ids as `frozenset`. This is to ensure thread safety. To add/remove a chat, you should use `add_usernames()`, `add_chat_ids()`, `remove_usernames()` and `remove_chat_ids()`. Only update the entire set by `filter.chat_ids/usernames = new_set`, if you are entirely sure that it is not causing race conditions, as this will completely replace the current set of allowed chats.

Parameters

- **chat_id** (`telegram.utils.types.SLT[int]`, optional) – Which chat/user ID(s) to allow through.
- **username** (`telegram.utils.types.SLT[str]`, optional) – Which username(s) to allow through. Leading '@' s in usernames will be discarded.
- **allow_empty** (`bool`, optional) – Whether updates should be processed, if no chat is specified in `chat_ids` and `usernames`. Defaults to `False`.

Raises `RuntimeError` – If both `chat_id` and `username` are present.

chat_ids

Which chat/user ID(s) to allow through.

Type `set(int)`, optional

usernames

Which username(s) (without leading '@') to allow through.

Type `set(str)`, optional

allow_empty

Whether updates should be processed, if no chat is specified in `chat_ids` and `usernames`.

Type `bool`, optional

add_chat_ids (*chat_id*)

Add one or more chats to the allowed chat ids.

Parameters **chat_id** (`telegram.utils.types.SLT[int]`, optional) – Which chat/user ID(s) to allow through.

add_usernames (*username*)

Add one or more chats to the allowed usernames.

Parameters **username** (`telegram.utils.types.SLT[str]`, optional) – Which username(s) to allow through. Leading '@' s in usernames will be discarded.

get_chat_or_user (*message*)

remove_chat_ids (*chat_id*)

Remove one or more chats from allowed chat ids.

Parameters **chat_id** (`telegram.utils.types.SLT[int]`, optional) – Which chat/user ID(s) to disallow through.

remove_usernames (*username*)

Remove one or more chats from allowed usernames.

Parameters `username` (`telegram.utils.types.SLT[str]`, optional) – Which username(s) to disallow through. Leading '@' s in usernames will be discarded.

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

group = `Filters.group`
Messages sent in a group or a supergroup chat.

Note: DEPRECATED. Use `telegram.ext.Filters.chat_type.groups` instead.

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

class `language` (*args, **kwargs)
Bases: `telegram.ext.filters.MessageFilter`
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` (`telegram.utils.types.SLT[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`.

poll = `Filters.poll`
Messages that contain a `telegram.Poll`.

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

Note: DEPRECATED. Use `telegram.ext.Filters.chat_type.private` instead.

class `regex` (*args, **kwargs)
Bases: `telegram.ext.filters.MessageFilter`
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 as python's *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.

class sender_chat (**args*, ***kwargs*)

Bases: `telegram.ext.filters.Filters._ChatUserBaseFilter`

Filters messages to allow only those which are from a specified sender chats chat ID or username.

Examples

- To filter for messages forwarded to a discussion group from a channel with ID -1234, use `MessageHandler(Filters.sender_chat(-1234), callback_method)`.
 - To filter for messages of anonymous admins in a super group with username @anonymous, use `MessageHandler(Filters.sender_chat(username='anonymous'), callback_method)`.
 - To filter for messages forwarded to a discussion group from *any* channel, use `MessageHandler(Filters.sender_chat.channel, callback_method)`.
 - To filter for messages of anonymous admins in *any* super group, use `MessageHandler(Filters.sender_chat.super_group, callback_method)`.
-

Note: Remember, `sender_chat` is also set for messages in a channel as the channel itself, so when your bot is an admin in a channel and the linked discussion group, you would receive the message twice (once from inside the channel, once inside the discussion group).

Warning: `chat_ids` will return a *copy* of the saved chat ids as `frozenset`. This is to ensure thread safety. To add/remove a chat, you should use `add_usernames()`, `add_chat_ids()`, `remove_usernames()` and `remove_chat_ids()`. Only update the entire set by `filter.chat_ids/usernames = new_set`, if you are entirely sure that it is not causing race conditions, as this will completely replace the current set of allowed chats.

Parameters

- **chat_id** (`telegram.utils.types.SLT[int]`, optional) – Which sender chat chat ID(s) to allow through.
- **username** (`telegram.utils.types.SLT[str]`, optional) – Which sender chat username(s) to allow through. Leading '@' s in usernames will be discarded.

- **allow_empty** (bool, optional) – Whether updates should be processed, if no sender chat is specified in `chat_ids` and `usernames`. Defaults to False

Raises **RuntimeError** – If both `chat_id` and `username` are present.

chat_ids

Which sender chat chat ID(s) to allow through.

Type set(int), optional

usernames

Which sender chat username(s) (without leading '@') to allow through.

Type set(str), optional

allow_empty

Whether updates should be processed, if no sender chat is specified in `chat_ids` and `usernames`.

Type bool, optional

super_group

Messages whose sender chat is a super group.

Examples

```
Filters.sender_chat.supergroup
```

channel

Messages whose sender chat is a channel.

Examples

```
Filters.sender_chat.channel
```

add_chat_ids (*chat_id*)

Add one or more sender chats to the allowed chat ids.

Parameters **chat_id** (telegram.utils.types.SLT[int], optional) – Which sender chat ID(s) to allow through.

add_usernames (*username*)

Add one or more sender chats to the allowed usernames.

Parameters **username** (telegram.utils.types.SLT[str], optional) – Which sender chat username(s) to allow through. Leading '@' s in usernames will be discarded.

channel = **_Channel**

get_chat_or_user (*message*)

remove_chat_ids (*chat_id*)

Remove one or more sender chats from allowed chat ids.

Parameters **chat_id** (telegram.utils.types.SLT[int], optional) – Which sender chat ID(s) to disallow through.

remove_usernames (*username*)

Remove one or more sender chats from allowed usernames.

Parameters **username** (telegram.utils.types.SLT[str], optional) – Which sender chat username(s) to disallow through. Leading '@' s in usernames will be discarded.

super_group = **_SuperGroup**

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`.

connected_website

Messages that contain `telegram.Message.connected_website`.

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_to_chat_id` or `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`.

message_auto_delete_timer_changed

Messages that contain `message_auto_delete_timer_changed`.

New in version 13.4.

pinned_message

Messages that contain `telegram.Message.pinned_message`.

proximity_alert_triggered

Messages that contain `telegram.Message.proximity_alert_triggered`.

voice_chat_scheduled

Messages that contain `telegram.Message.voice_chat_scheduled`.

New in version 13.5.

voice_chat_started

Messages that contain `telegram.Message.voice_chat_started`.

New in version 13.4.

voice_chat_ended

Messages that contain `telegram.Message.voice_chat_ended`.

New in version 13.4.

voice_chat_participants_invited

Messages that contain `telegram.Message.voice_chat_participants_invited`.

New in version 13.4.

sticker = Filters.sticker

Messages that contain `telegram.Sticker`.

successful_payment = Filters.successful_payment

Messages that confirm a `telegram.SuccessfulPayment`.

text = Filters.text

Text Messages. If a list of strings is passed, it filters messages to only allow those whose text is appearing in the given list.

Examples

To allow any text message, simply use `MessageHandler(Filters.text, callback_method)`.

A simple use case for passing a list is to allow only messages that were sent by a custom *telegram.ReplyKeyboardMarkup*:

```
buttons = ['Start', 'Settings', 'Back']
markup = ReplyKeyboardMarkup.from_column(buttons)
...
MessageHandler(Filters.text(buttons), callback_method)
```

Note:

- Dice messages don't have text. If you want to filter either text or dice messages, use `Filters.text | Filters.dice`.
- Messages containing a command are accepted by this filter. Use `Filters.text & (~Filters.command)`, if you want to filter only text messages without commands.

Parameters `update` (`List[str]` | `Tuple[str]`, optional) – Which messages to allow. Only exact matches are allowed. If not specified, will allow any text message.

update = Filters.update

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 (*args, **kwargs)

Bases: `telegram.ext.filters.Filters._ChatUserBaseFilter`

Filters messages to allow only those which are from specified user ID(s) or username(s).

Examples

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

Warning: `user_ids` will give a *copy* of the saved user ids as `frozenset`. This is to ensure thread safety. To add/remove a user, you should use `add_usernames()`, `add_user_ids()`, `remove_usernames()` and `remove_user_ids()`. Only update the entire set by `filter.user_ids/usernames = new_set`, if you are entirely sure that it is not causing race conditions, as this will completely replace the current set of allowed users.

Parameters

- **user_id** (`telegram.utils.types.SLT[int]`, optional) – Which user ID(s) to allow through.
- **username** (`telegram.utils.types.SLT[str]`, optional) – Which username(s) to allow through. Leading '@' s in usernames will be discarded.
- **allow_empty** (`bool`, optional) – Whether updates should be processed, if no user is specified in `user_ids` and `usernames`. Defaults to `False`

Raises `RuntimeError` – If `user_id` and `username` are both present.

user_ids

Which user ID(s) to allow through.

Type `set(int)`, optional

usernames

Which username(s) (without leading '@') to allow through.

Type `set(str)`, optional

allow_empty

Whether updates should be processed, if no user is specified in `user_ids` and `usernames`.

Type `bool`, optional

add_user_ids (`user_id`)

Add one or more users to the allowed user ids.

Parameters **user_id** (`telegram.utils.types.SLT[int]`, optional) – Which user ID(s) to allow through.

add_usernames (`username`)

Add one or more users to the allowed usernames.

Parameters **username** (`telegram.utils.types.SLT[str]`, optional) – Which username(s) to allow through. Leading '@' s in usernames will be discarded.

get_chat_or_user (`message`)

remove_user_ids (`user_id`)

Remove one or more users from allowed user ids.

Parameters **user_id** (`telegram.utils.types.SLT[int]`, optional) – Which user ID(s) to disallow through.

remove_usernames (`username`)

Remove one or more users from allowed usernames.

Parameters **username** (`telegram.utils.types.SLT[str]`, optional) – Which username(s) to disallow through. Leading '@' s in usernames will be discarded.

property user_ids

venue = `Filters.venue`

Messages that contain `telegram.Venue`.

```
class via_bot (*args, **kwargs)
```

Bases: telegram.ext.filters.Filters._ChatUserBaseFilter

Filters messages to allow only those which are from specified via_bot ID(s) or username(s).

Examples

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

Warning: `bot_ids` will give a *copy* of the saved bot ids as frozenset. This is to ensure thread safety. To add/remove a bot, you should use `add_usernames()`, `add_bot_ids()`, `remove_usernames()` and `remove_bot_ids()`. Only update the entire set by `filter.bot_ids/usernames = new_set`, if you are entirely sure that it is not causing race conditions, as this will completely replace the current set of allowed bots.

Parameters

- **bot_id** (telegram.utils.types.SLT[int], optional) – Which bot ID(s) to allow through.
- **username** (telegram.utils.types.SLT[str], optional) – Which username(s) to allow through. Leading '@' s in usernames will be discarded.
- **allow_empty** (bool, optional) – Whether updates should be processed, if no user is specified in `bot_ids` and `usernames`. Defaults to False

Raises **RuntimeError** – If bot_id and username are both present.

bot_ids

Which bot ID(s) to allow through.

Type set(int), optional

usernames

Which username(s) (without leading '@') to allow through.

Type set(str), optional

allow_empty

Whether updates should be processed, if no bot is specified in `bot_ids` and `usernames`.

Type bool, optional

add_bot_ids (bot_id)

Add one or more users to the allowed user ids.

Parameters **bot_id** (telegram.utils.types.SLT[int], optional) – Which bot ID(s) to allow through.

add_usernames (username)

Add one or more users to the allowed usernames.

Parameters **username** (telegram.utils.types.SLT[str], optional) – Which username(s) to allow through. Leading '@' s in usernames will be discarded.

property bot_ids

get_chat_or_user (message)

remove_bot_ids (bot_id)

Remove one or more users from allowed user ids.

Parameters **bot_id** (telegram.utils.types.SLT[int], optional) – Which bot ID(s) to disallow through.

remove_usernames (username)

Remove one or more users from allowed usernames.

Parameters `username` (`telegram.utils.types.SLT[str]`, optional) – Which username(s) to disallow through. Leading '@' s in usernames will be discarded.

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.InvertedFilter(*args, **kwargs)`
Bases: `telegram.ext.filters.UpdateFilter`

Represents a filter that has been inverted.

Parameters `f` – The filter to invert.

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

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

Returns dict or bool.

class `telegram.ext.filters.MergedFilter(*args, **kwargs)`
Bases: `telegram.ext.filters.UpdateFilter`

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.

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

Returns dict or bool.

class `telegram.ext.filters.MessageFilter(*args, **kwargs)`
Bases: `telegram.ext.filters.BaseFilter`

Base class for all Message Filters. In contrast to `UpdateFilter`, the object passed to `filter()` is `update.effective_message`.

Please see `telegram.ext.filters.BaseFilter` for details on how to create custom filters.

name

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

Type `str`

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`

abstract filter (`message`)
This method must be overwritten.

Parameters `message` (`telegram.Message`) – The message that is tested.

Returns dict or bool

class telegram.ext.filters.**UpdateFilter**(*args, **kwargs)

Bases: *telegram.ext.filters.BaseFilter*

Base class for all Update Filters. In contrast to *MessageFilter*, the object passed to *filter()* is update, which allows to create filters like `Filters.update.edited_message`.

Please see *telegram.ext.filters.BaseFilter* for details on how to create custom filters.

name

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

Type str

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

abstract filter(update)

This method must be overwritten.

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

Returns dict or bool.

class telegram.ext.filters.**XORFilter**(*args, **kwargs)

Bases: *telegram.ext.filters.UpdateFilter*

Convenience filter acting as wrapper for *MergedFilter* representing the an XOR gate for two filters.

Parameters

- **base_filter** – Filter 1 of the merged filter.
- **xor_filter** – Filter 2 of the merged filter.

filter(update)

This method must be overwritten.

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

Returns dict or bool.

telegram.ext.PollAnswerHandler

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

Bases: telegram.ext.handler.Handler[telegram.update.Update, *telegram.ext.utils.types.CCT*]

Handler class to handle Telegram updates that contain a poll answer.

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.

Warning: When setting *run_async* to True, you cannot rely on adding custom attributes to *telegram.ext.CallbackContext*. See its docs 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.
- **run_async** (bool) – Determines whether the callback will run asynchronously. Defaults to False.

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

run_async

Determines whether the callback will run asynchronously.

Type bool

check_update (*update*)

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

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

Returns bool

telegram.ext.PollHandler

```
class telegram.ext.PollHandler(callback,                                pass_update_queue=False,
                               pass_job_queue=False,                 pass_user_data=False,
                               pass_chat_data=False, run_async=False)
Bases: telegram.ext.handler.Handler[telegram.update.Update, telegram.ext.
utils.types.CCT]
```

Handler class to handle Telegram updates that contain a poll.

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.

Warning: When setting `run_async` to `True`, you cannot rely on adding custom attributes to `telegram.ext.CallbackContext`. See its docs 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.
- **run_async** (bool) – Determines whether the callback will run asynchronously. Defaults to `False`.

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`

run_async

Determines whether the callback will run asynchronously.

Type `bool`

check_update (*update*)

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

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

Returns `bool`

telegram.ext.PreCheckoutQueryHandler

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

Bases: `telegram.ext.handler.Handler[telegram.update.Update, telegram.ext.utils.types.CCT]`

Handler class to handle Telegram PreCheckout callback queries.

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.

Warning: When setting `run_async` to `True`, you cannot rely on adding custom attributes to `telegram.ext.CallbackContext`. See its docs 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.
- **run_async** (bool) – Determines whether the callback will run asynchronously. Defaults to `False`.

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

run_async

Determines whether the callback will run asynchronously.

Type bool

check_update (*update*)

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

Parameters **update** (`telegram.Update` | object) – Incoming 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, run_async=False)
```

Bases: telegram.ext.handler.Handler[telegram.update.Update, telegram.ext.utils.types.CCT]

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'.
```

Multiple 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`.

Note:

- *PrefixHandler* does *not* handle (edited) channel posts.
- *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.

Warning: When setting *run_async* to *True*, you cannot rely on adding custom attributes to *telegram.ext.CallbackContext*. See its docs for more info.

Parameters

- **prefix** (telegram.utils.types.SLT[str]) – The prefix(es) that will precede *command*.
- **command** (telegram.utils.types.SLT[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.
- **run_async** (bool) – Determines whether the callback will run asynchronously. Defaults to `False`.

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`

run_async

Determines whether the callback will run asynchronously.

Type `bool`

check_update (*update*)

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

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

Returns The list of args for the handler.

Return type `list`

property command

The list of commands this handler should listen for.

Returns `List[str]`

property prefix

The prefixes that will precede *command*.

Returns `List[str]`

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, run_async=False)
```

Bases: `telegram.ext.handler.Handler[telegram.update.Update, telegram.ext.utils.types.CCT]`

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.

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

Warning: When setting `run_async` to `True`, you cannot rely on adding custom attributes to `telegram.ext.CallbackContext`. See its docs for more info.

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`.
- **run_async** (bool) – Determines whether the callback will run asynchronously. Defaults to `False`.

Raises `ValueError` –

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`

run_async

Determines whether the callback will run asynchronously.

Type `bool`

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

Pass the results of `re.match(pattern, text).{groups(), groupdict() }` to the callback as a keyword arguments called `groups` and `groupdict`, respectively, if needed.

telegram.ext.ShippingQueryHandler

```
class telegram.ext.ShippingQueryHandler(callback, pass_update_queue=False,
                                         pass_job_queue=False,
                                         pass_user_data=False,
                                         pass_chat_data=False, run_async=False)
```

Bases: `telegram.ext.handler.Handler[telegram.update.Update, telegram.ext.utils.types.CCT]`

Handler class to handle Telegram shipping callback queries.

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.

Warning: When setting `run_async` to `True`, you cannot rely on adding custom attributes to `telegram.ext.CallbackContext`. See its docs 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.
- **run_async** (bool) – Determines whether the callback will run asynchronously. Defaults to False.

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

run_async

Determines whether the callback will run asynchronously.

Type bool

check_update (*update*)

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

Parameters **update** (`telegram.Update` | object) – Incoming update.

Returns bool

telegram.ext.StringCommandHandler

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

Bases: `telegram.ext.handler.Handler`[`str`, `telegram.ext.utils.types.CCT`]

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

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.

Warning: When setting `run_async` to `True`, you cannot rely on adding custom attributes to `telegram.ext.CallbackContext`. See its docs for more info.

Parameters

- **command** (`str`) – The command 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`.

- **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.
- **run_async** (`bool`) – Determines whether the callback will run asynchronously. Defaults to `False`.

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

run_async

Determines whether the callback will run asynchronously.

Type bool

check_update (*update*)

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

Parameters **update** (object) – The incoming update.

Returns bool

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

Add text after the command to *CallbackContext.args* as list, split on single whitespaces.

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

Provide text after the command to the callback the *args* argument as list, split on single whitespaces.

telegram.ext.StringRegexHandler

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

Bases: telegram.ext.handler.Handler[str, telegram.ext.utils.types.CCT]

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.

Warning: When setting `run_async` to `True`, you cannot rely on adding custom attributes to *telegram.ext.CallbackContext*. See its docs for more info.

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.
- **run_async** (bool) – Determines whether the callback will run asynchronously. Defaults to `False`.

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`

run_async

Determines whether the callback will run asynchronously.

Type `bool`

check_update (*update*)

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

Parameters **update** (object) – The incoming update.

Returns `bool`

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

Add the result of `re.match(pattern, update)` to `CallbackContext.matches` as list with one element.

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

Pass the results of `re.match(pattern, update).{groups(), groupdict()}` to the callback as a keyword arguments called `groups` and `groupdict`, respectively, if needed.

telegram.ext.TypeHandler

```
class telegram.ext.TypeHandler(type, callback, strict=False, pass_update_queue=False,
                                pass_job_queue=False, run_async=False)
```

Bases: telegram.ext.handler.Handler[telegram.ext.typehandler.UT, [telegram.ext.utils.types.CCT](#)]

Handler class to handle updates of custom types.

Warning: When setting `run_async` to `True`, you cannot rely on adding custom attributes to [telegram.ext.CallbackContext](#). See its docs for more info.

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.
- **run_async** (bool) – Determines whether the callback will run asynchronously. Defaults to `False`.

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

run_async

Determines whether the callback will run asynchronously.

Type bool

check_update (*update*)

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

Parameters **update** (object) – Incoming update.

Returns bool

3.1.13 Persistence

telegram.ext.BasePersistence

class telegram.ext.**BasePersistence** (*args, **kwargs)

Bases: Generic[*telegram.ext.utils.types.UD*, *telegram.ext.utils.types.CD*, *telegram.ext.utils.types.BD*], abc.ABC

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 includes:

- *get_bot_data()*
- *update_bot_data()*
- *refresh_bot_data()*
- *get_chat_data()*
- *update_chat_data()*
- *refresh_chat_data()*
- *get_user_data()*
- *update_user_data()*
- *refresh_user_data()*
- *get_callback_data()*
- *update_callback_data()*
- *get_conversations()*
- *update_conversation()*
- *flush()*

If you don't actually need one of those methods, a simple pass is enough. For example, if `store_bot_data=False`, you don't need *get_bot_data()*, *update_bot_data()* or *refresh_bot_data()*.

Warning: Persistence will try to replace *telegram.Bot* instances by *REPLACED_BOT* and insert the bot set with *set_bot()* upon loading of the data. This is to ensure that changes to the bot apply to the saved objects, too. If you change the bots token, this may lead to e.g. Chat not found errors. For the limitations on replacing bots see *replace_bot()* and *insert_bot()*.

Note: `replace_bot()` and `insert_bot()` are used *independently* of the implementation of the `update/get_*()` methods, i.e. you don't need to worry about it while implementing a custom persistence subclass.

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`.
- **store_bot_data** (`bool`, optional) – Whether bot_data should be saved by this persistence class. Default is `True`.
- **store_callback_data** (`bool`, optional) – Whether callback_data should be saved by this persistence class. Default is `False`.

New in version 13.6.

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`

store_bot_data

Optional. Whether bot_data should be saved by this persistence class.

Type `bool`

store_callback_data

Optional. Whether callback_data should be saved by this persistence class.

New in version 13.6.

Type `bool`

REPLACED_BOT: `ClassVar[str] = 'bot_instance_replaced_by_ptb_persistence'`

Placeholder for `telegram.Bot` instances replaced in saved data.

Type `str`

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.

abstract get_bot_data()

Will be called by `telegram.ext.Dispatcher` upon creation with a persistence object. It should return the bot_data if stored, or an empty `telegram.ext.utils.types.BD`.

Returns The restored bot data.

Return type `telegram.ext.utils.types.BD`

get_callback_data()

Will be called by `telegram.ext.Dispatcher` upon creation with a persistence object. If callback data was stored, it should be returned.

New in version 13.6.

Returns

The restored meta data or `None`, if no data was stored.

Return type Optional[*telegram.ext.utils.types.CDCData*]

abstract 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 (*telegram.ext.utils.types.CD*) with integer keys.

Returns The restored chat data.

Return type DefaultDict[int, *telegram.ext.utils.types.CD*]

abstract 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

abstract 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 (*telegram.ext.utils.types.UD*) with integer keys.

Returns The restored user data.

Return type DefaultDict[int, *telegram.ext.utils.types.UD*]

insert_bot(obj)

Replaces all instances of *REPLACED_BOT* that occur within the passed object with bot. Currently, this handles objects of type list, tuple, set, frozenset, dict, defaultdict and objects that have a `__dict__` or `__slots__` attribute, excluding classes and objects that can't be copied with `copy.copy`.

Parameters *obj* (object) – The object

Returns Copy of the object with Bot instances inserted.

Return type obj

refresh_bot_data(bot_data)

Will be called by the *telegram.ext.Dispatcher* before passing the bot_data to a callback. Can be used to update data stored in bot_data from an external source.

New in version 13.6.

Parameters *bot_data* (*telegram.ext.utils.types.BD*) – The bot_data.

refresh_chat_data(chat_id, chat_data)

Will be called by the *telegram.ext.Dispatcher* before passing the chat_data to a callback. Can be used to update data stored in chat_data from an external source.

New in version 13.6.

Parameters

- **chat_id** (int) – The chat ID this chat_data is associated with.
- **chat_data** (*telegram.ext.utils.types.CD*) – The chat_data of a single chat.

refresh_user_data(user_id, user_data)

Will be called by the *telegram.ext.Dispatcher* before passing the user_data to a callback. Can be used to update data stored in user_data from an external source.

New in version 13.6.

Parameters

- **user_id** (int) – The user ID this `user_data` is associated with.
- **user_data** (`telegram.ext.utils.types.UD`) – The `user_data` of a single user.

classmethod `replace_bot` (*obj*)

Replaces all instances of `telegram.Bot` that occur within the passed object with `REPLACED_BOT`. Currently, this handles objects of type `list`, `tuple`, `set`, `frozenset`, `dict`, `defaultdict` and objects that have a `__dict__` or `__slots__` attribute, excluding classes and objects that can't be copied with `copy.copy`.

Parameters *obj* (object) – The object

Returns Copy of the object with Bot instances replaced.

Return type *obj*

set_bot (*bot*)

Set the Bot to be used by this persistence instance.

Parameters *bot* (`telegram.Bot`) – The bot.

abstract `update_bot_data` (*data*)

Will be called by the `telegram.ext.Dispatcher` after a handler has handled an update.

Parameters *data* (`telegram.ext.utils.types.BD`) – The `telegram.ext.dispatcher.bot_data`.

update_callback_data (*data*)

Will be called by the `telegram.ext.Dispatcher` after a handler has handled an update.

New in version 13.6.

:param data (`telegram.ext.utils.types.CDCData`): The relevant data to restore `telegram.ext.dispatcher.bot.callback_data_cache`.

abstract `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** (`telegram.ext.utils.types.CD`) – The `telegram.ext.dispatcher.chat_data [chat_id]`.

abstract `update_conversation` (*name*, *key*, *new_state*)

Will be called when a `telegram.ext.ConversationHandler.update_state` is called. This allows the storage of the new state in the persistence.

Parameters

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

abstract `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** (`telegram.ext.utils.types.UD`) – The `telegram.ext.dispatcher.user_data [user_id]`.

telegram.ext.PicklePersistence

```
class telegram.ext.PicklePersistence(*args, **kwargs)
```

Bases: telegram.ext.basepersistence.BasePersistence[telegram.ext.utils.types.UD, telegram.ext.utils.types.CD, telegram.ext.utils.types.BD]

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

Warning: `PicklePersistence` will try to replace `telegram.Bot` instances by `REPLACED_BOT` and insert the bot set with `telegram.ext.BasePersistence.set_bot()` upon loading of the data. This is to ensure that changes to the bot apply to the saved objects, too. If you change the bots token, this may lead to e.g. Chat not found errors. For the limitations on replacing bots see `telegram.ext.BasePersistence.replace_bot()` and `telegram.ext.BasePersistence.insert_bot()`.

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 chat_data should be saved by this persistence class. Default is `True`.
- **store_bot_data** (bool, optional) – Whether bot_data should be saved by this persistence class. Default is `True`.
- **store_callback_data** (bool, optional) – Whether callback_data should be saved by this persistence class. Default is `False`.

New in version 13.6.

- **single_file** (bool, optional) – When `False` will store 5 separate files of `filename_user_data`, `filename_chat_data`, `filename_bot_data`, `filename_chat_data`, `filename_callback_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 to `flush()`. Default is `False`.
- **context_types** (telegram.ext.ContextTypes, optional) – Pass an instance of `telegram.ext.ContextTypes` to customize the types used in the context interface. If not passed, the defaults documented in `telegram.ext.ContextTypes` will be used.

New in version 13.6.

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 chat_data should be saved by this persistence class.

Type bool

store_bot_data

Optional. Whether bot_data should be saved by this persistence class.

Type bool

store_callback_data

Optional. Whether callback_data be saved by this persistence class.

New in version 13.6.

Type bool

single_file

Optional. When False will store 5 separate files of *filename_user_data*, *filename_chat_data*, *filename_bot_data*, *filename_chat_data*, *filename_callback_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 to *flush()*. Default is False.

Type bool, optional

context_types

Container for the types used in the context interface.

New in version 13.6.

Type *telegram.ext.ContextTypes*

flush()

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

get_bot_data()

Returns the bot_data from the pickle file if it exists or an empty object of type *telegram.ext.utils.types.BD*.

Returns The restored bot data.

Return type *telegram.ext.utils.types.BD*

get_callback_data()

Returns the callback data from the pickle file if it exists or None.

New in version 13.6.

Returns

The restored meta data or None, if no data was stored.

Return type Optional[*telegram.ext.utils.types.CDCData*]

get_chat_data()

Returns the chat_data from the pickle file if it exists or an empty defaultdict.

Returns The restored chat data.

Return type DefaultDict[int, *telegram.ext.utils.types.CD*]

get_conversations(name)

Returns the conversations from the pickle file if it exists or an empty dict.

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 exists or an empty defaultdict.

Returns The restored user data.

Return type DefaultDict[int, *telegram.ext.utils.types.UD*]

refresh_bot_data (*bot_data*)

Does nothing.

New in version 13.6.

See also:

telegram.ext.BasePersistence.refresh_bot_data()

refresh_chat_data (*chat_id*, *chat_data*)

Does nothing.

New in version 13.6.

See also:

telegram.ext.BasePersistence.refresh_chat_data()

refresh_user_data (*user_id*, *user_data*)

Does nothing.

New in version 13.6.

See also:

telegram.ext.BasePersistence.refresh_user_data()

update_bot_data (*data*)

Will update the bot_data and depending on *on_flush* save the pickle file.

Parameters *data* (*telegram.ext.utils.types.BD*) – The telegram.ext.dispatcher.bot_data.

update_callback_data (*data*)

Will update the callback_data (if changed) and depending on *on_flush* save the pickle file.

New in version 13.6.

:param data (*telegram.ext.utils.types.CDCData*): The relevant data to restore telegram.ext.dispatcher.bot.callback_data.

update_chat_data (*chat_id*, *data*)

Will update the chat_data and depending on *on_flush* save the pickle file.

Parameters

- **chat_id** (int) – The chat the data might have been changed for.
- **data** (*telegram.ext.utils.types.CD*) – 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 handler's 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 and depending on *on_flush* save the pickle file.

Parameters

- **user_id** (int) – The user the data might have been changed for.

- **data** (*telegram.ext.utils.types.UD*) – The `telegram.ext.dispatcher.user_data[user_id]`.

telegram.ext.DictPersistence

class `telegram.ext.DictPersistence(*args, **kwargs)`

Bases: `Generic[telegram.ext.utils.types.UD, telegram.ext.utils.types.CD, telegram.ext.utils.types.BD]`, `abc.ABC`

Using Python's `dict` and `json` for making your bot persistent.

Note: This class does *not* implement a `flush()` method, meaning that data managed by `DictPersistence` is in-memory only and will be lost when the bot shuts down. This is, because `DictPersistence` is mainly intended as starting point for custom persistence classes that need to JSON-serialize the stored data before writing them to file/database.

Warning: `DictPersistence` will try to replace `telegram.Bot` instances by `REPLACED_BOT` and insert the bot set with `telegram.ext.BasePersistence.set_bot()` upon loading of the data. This is to ensure that changes to the bot apply to the saved objects, too. If you change the bots token, this may lead to e.g. Chat not found errors. For the limitations on replacing bots see `telegram.ext.BasePersistence.replace_bot()` and `telegram.ext.BasePersistence.insert_bot()`.

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`.
- **store_bot_data** (`bool`, optional) – Whether `bot_data` should be saved by this persistence class. Default is `True`.
- **store_callback_data** (`bool`, optional) – Whether `callback_data` should be saved by this persistence class. Default is `False`.

New in version 13.6.

- **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 `""`.
- **bot_data_json** (`str`, optional) – JSON string that will be used to reconstruct `bot_data` on creating this persistence. Default is `""`.
- **callback_data_json** (`str`, optional) – Json string that will be used to reconstruct `callback_data` on creating this persistence. Default is `""`.

New in version 13.6.

- **conversations_json** (`str`, optional) – JSON string that will be used to reconstruct conversation on creating this persistence. Default is `""`.

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

store_bot_data

Whether bot_data should be saved by this persistence class.

Type bool

store_callback_data

Whether callback_data be saved by this persistence class.

New in version 13.6.

Type bool

property bot_data

The bot_data as a dict.

Type dict

property bot_data_json

The bot_data serialized as a JSON-string.

Type str

property callback_data

The meta data on the stored callback data.

New in version 13.6.

Type *telegram.ext.utils.types.CDCData*

property callback_data_json

The meta data on the stored callback data as a JSON-string.

New in version 13.6.

Type str

property chat_data

The chat_data as a dict.

Type dict

property chat_data_json

The chat_data serialized as a JSON-string.

Type str

property conversations

The conversations as a dict.

Type dict

property conversations_json

The conversations serialized as a JSON-string.

Type str

get_bot_data()

Returns the bot_data created from the bot_data_json or an empty dict.

Returns The restored bot data.

Return type dict

get_callback_data()

Returns the callback_data created from the callback_data_json or None.

New in version 13.6.

Returns

The restored meta data or `None`, if no data was stored.

Return type Optional[`telegram.ext.utils.types.CDCData`]

get_chat_data ()

Returns the chat_data created from the chat_data_json or an empty defaultdict.

Returns The restored chat data.

Return type defaultdict

get_conversations (name)

Returns the conversations created from the conversations_json or an empty dict.

Returns The restored conversations data.

Return type dict

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

refresh_bot_data (bot_data)

Does nothing.

New in version 13.6.

See also:

`telegram.ext.BasePersistence.refresh_bot_data()`

refresh_chat_data (chat_id, chat_data)

Does nothing.

New in version 13.6.

See also:

`telegram.ext.BasePersistence.refresh_chat_data()`

refresh_user_data (user_id, user_data)

Does nothing.

New in version 13.6.

See also:

`telegram.ext.BasePersistence.refresh_user_data()`

update_bot_data (data)

Will update the bot_data (if changed).

Parameters data (dict) – The telegram.ext.dispatcher.bot_data.

update_callback_data (data)

Will update the callback_data (if changed).

New in version 13.6.

:param data (telegram.ext.utils.types.CDCData): The relevant data to restore telegram.ext.dispatcher.bot.callback_data_cache.

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 handler’s 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]`.

property user_data

The user_data as a dict.

Type dict

property user_data_json

The user_data serialized as a JSON-string.

Type str

3.1.14 Arbitrary Callback Data

telegram.ext.CallbackDataCache

class telegram.ext.CallbackDataCache (*bot, maxsize=1024, persistent_data=None*)

Bases: object

A custom cache for storing the callback data of a `telegram.ext.ExtBot`. Internally, it keeps two mappings with fixed maximum size:

- One for mapping the data received in callback queries to the cached objects
- One for mapping the IDs of received callback queries to the cached objects

The second mapping allows to manually drop data that has been cached for keyboards of messages sent via inline mode. If necessary, will drop the least recently used items.

New in version 13.6.

Parameters

- **bot** (`telegram.ext.ExtBot`) – The bot this cache is for.
- **maxsize** (int, optional) – Maximum number of items in each of the internal mappings. Defaults to 1024.
- **persistent_data** (`telegram.ext.utils.types.CDCData`, optional) – Data to initialize the cache with, as returned by `telegram.ext.BasePersistence.get_callback_data()`.

bot

The bot this cache is for.

Type `telegram.ext.ExtBot`

maxsize

maximum size of the cache.

Type `int`

clear_callback_data (*time_cutoff=None*)

Clears the stored callback data.

Parameters `time_cutoff` (`float` | `datetime.datetime`, optional) – Pass a UNIX timestamp or a `datetime.datetime` to clear only entries which are older. For time-zone naive `datetime.datetime` objects, the default timezone of the bot will be used.

clear_callback_queries ()

Clears the stored callback query IDs.

drop_data (*callback_query*)

Deletes the data for the specified callback query.

Note: Will *not* raise exceptions in case the callback data is not found in the cache. Will raise `KeyError` in case the callback query can not be found in the cache.

Parameters `callback_query` (`telegram.CallbackQuery`) – The callback query.

Raises `KeyError` – If the callback query can not be found in the cache

static extract_uuids (*callback_data*)

Extracts the keyboard uuid and the button uuid from the given `callback_data`.

Parameters `callback_data` (`str`) – The `callback_data` as present in the button.

Returns Tuple of keyboard and button uuid

Return type (`str`, `str`)

property persistence_data

The data that needs to be persisted to allow caching callback data across bot reboots.

Type `telegram.ext.utils.types.CDCData`

process_callback_query (*callback_query*)

Replaces the data in the callback query and the attached messages keyboard with the cached objects, if necessary. If the data could not be found, `telegram.ext.InvalidCallbackData` will be inserted. If `callback_query.data` or `callback_query.message` is present, this also saves the callback queries ID in order to be able to resolve it to the stored data.

Note: Also considers inserts data into the buttons of `telegram.Message.reply_to_message` and `telegram.Message.pinned_message` if necessary.

Warning: *In place*, i.e. the passed `telegram.CallbackQuery` will be changed!

Parameters `callback_query` (`telegram.CallbackQuery`) – The callback query.

process_keyboard (*reply_markup*)

Registers the reply markup to the cache. If any of the buttons have `callback_data`, stores that data and builds a new keyboard with the correspondingly replaced buttons. Otherwise does nothing and returns the original reply markup.

Parameters `reply_markup` (`telegram.InlineKeyboardMarkup`) – The keyboard.

Returns The keyboard to be passed to Telegram.

Return type `telegram.InlineKeyboardMarkup`

process_message (*message*)

Replaces the data in the inline keyboard attached to the message with the cached objects, if necessary. If the data could not be found, `telegram.ext.InvalidCallbackData` will be inserted.

Note: Checks `telegram.Message.via_bot` and `telegram.Message.from_user` to check if the reply markup (if any) was actually sent by this caches bot. If it was not, the message will be returned unchanged.

Note that this will fail for channel posts, as `telegram.Message.from_user` is `None` for those! In the corresponding reply markups the callback data will be replaced by `telegram.ext.InvalidCallbackData`.

Warning:

- Does *not* consider `telegram.Message.reply_to_message` and `telegram.Message.pinned_message`. Pass them to these method separately.
- *In place*, i.e. the passed `telegram.Message` will be changed!

Parameters `message` (`telegram.Message`) – The message.

telegram.ext.InvalidCallbackData

class `telegram.ext.InvalidCallbackData` (*callback_data=None*)

Bases: `telegram.error.TelegramError`

Raised when the received callback data has been tempered with or deleted from cache.

New in version 13.6.

Parameters `callback_data` (`int`, optional) – The button data of which the callback data could not be found.

callback_data

Optional. The button data of which the callback data could not be found.

Type `int`

3.1.15 utils

telegram.ext.utils.promise.Promise

class `telegram.ext.utils.promise.Promise` (*pooled_function, args, kwargs, update=None, error_handling=True*)

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`.
- **update** (`telegram.Update` | `object`, optional) – The update this promise is associated with.
- **error_handling** (`bool`, optional) – Whether exceptions raised by `func` may be handled by error handlers. Defaults to `True`.

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

update

Optional. The update this promise is associated with.

Type *telegram.Update* | object

error_handling

Optional. Whether exceptions raised by *func* may be handled by error handlers. Defaults to True.

Type bool

add_done_callback (*callback*)

Callback to be run when *telegram.ext.utils.Promise.Promise* becomes done.

Note: Callback won't be called if *pooled_function* raises an exception.

Parameters

- **callback** (callable) – The callable that will be called when promise is done.
- **will be called by passing Promise.result() as only positional argument.** (*callback*) –

property 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 object exception raised by *pooled_function*.::

run ()

Calls the *pooled_function* callable.

telegram.ext.utils.types Module

This module contains custom typing aliases.

New in version 13.6.

`telegram.ext.utils.types.BD`

Type of the bot data.

New in version 13.6.

alias of `TypeVar('BD')`

`telegram.ext.utils.types.CCT`

An instance of `telegram.ext.CallbackContext` or a custom subclass.

New in version 13.6.

alias of `TypeVar('CCT')`

`telegram.ext.utils.types.CD`

Type of the chat data for a single user.

New in version 13.6.

alias of `TypeVar('CD')`

`telegram.ext.utils.types.CDCData`

Data returned by `telegram.ext.CallbackDataCache.persistence_data`.

New in version 13.6.

Type `Tuple[List[Tuple[str, float, Dict[str, any]]], Dict[str, str]]`

alias of `Tuple[List[Tuple[str, float, Dict[str, Any]]], Dict[str, str]]`

`telegram.ext.utils.types.ConversationDict`

Dicts as maintained by the `telegram.ext.ConversationHandler`.

New in version 13.6.

alias of `Dict[Tuple[int, ...], Optional[object]]`

`telegram.ext.utils.types.UD`

Type of the user data for a single user.

New in version 13.6.

alias of `TypeVar('UD')`

3.2 telegram package

3.2.1 telegram.Animation

```
class telegram.Animation(file_id, file_unique_id, width, height, duration, thumb=None,
                        file_name=None, mime_type=None, file_size=None, bot=None,
                        **kwargs)
```

Bases: `telegram.base.TelegramObject`

This object represents an animation file (GIF or H.264/MPEG-4 AVC video without sound).

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `file_unique_id` is equal.

Parameters

- **file_id** (`str`) – Identifier for this file, which can be used to download or reuse the file.

- **file_unique_id** (*str*) – Unique identifier for this file, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the 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) – 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.
- **bot** (*telegram.Bot*, optional) – The Bot to use for instance methods.
- ****kwargs** (*dict*) – Arbitrary keyword arguments.

file_id

File identifier.

Type *str*

file_unique_id

Unique identifier for this file, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the 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. 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*

bot

Optional. The Bot to use for instance methods.

Type *telegram.Bot*

classmethod `de_json(data, bot)`

See `telegram.TelegramObject.de_json()`.

get_file (`timeout=None`, `api_kwargs=None`)

Convenience wrapper over `telegram.Bot.get_file`

For the documentation of the arguments, please see `telegram.Bot.get_file()`.

Returns `telegram.File`

Raises `telegram.error.TelegramError` –

3.2.2 telegram.Audio

class `telegram.Audio` (`file_id`, `file_unique_id`, `duration`, `performer=None`, `title=None`,
`mime_type=None`, `file_size=None`, `thumb=None`, `bot=None`,
`file_name=None`, `**kwargs`)

Bases: `telegram.base.TelegramObject`

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

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `file_unique_id` is equal.

Parameters

- **file_id** (`str`) – Identifier for this file, which can be used to download or reuse the file.
- **file_unique_id** (`str`) – Unique identifier for this file, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the 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.
- **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.
- **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.

file_id

Identifier for this file.

Type `str`

file_unique_id

Unique identifier for this file, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the 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`

file_name
Optional. Original 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`

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`

classmethod `de_json(data, bot)`
See `telegram.TelegramObject.de_json()`.

get_file (`timeout=None`, `api_kwargs=None`)
Convenience wrapper over `telegram.Bot.get_file`

For the documentation of the arguments, please see `telegram.Bot.get_file()`.

Returns `telegram.File`

Raises `telegram.error.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`, `defaults=None`)
Bases: `telegram.base.TelegramObject`

This object represents a Telegram Bot.

New in version 13.2: Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `bot` is equal.

Note: Most bot methods have the argument `api_kwargs` which allows to pass arbitrary keywords to the Telegram API. This can be used to access new features of the API before they were incorporated into PTB. However, this is not guaranteed to work, i.e. it will fail for passing files.

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.
- **defaults** (*telegram.ext.Defaults*, optional) – An object containing default values to be used if not set explicitly in the bot methods.

Deprecated since version 13.6: Passing *telegram.ext.Defaults* to *telegram.Bot* is deprecated. If you want to use *telegram.ext.Defaults*, please use *telegram.ext.ExtBot* instead.

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

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

Use this method to add a new sticker to a set created by the bot. You must use exactly one of the fields *png_sticker* or *tgs_sticker*. Animated stickers can be added to animated sticker sets and only to them. Animated sticker sets can have up to 50 stickers. Static sticker sets can have up to 120 stickers.

Warning: As of API 4.7 *png_sticker* is an optional argument and therefore the order of the arguments had to be changed. Use keyword arguments to make sure that the arguments are passed correctly.

Note: The *png_sticker* and *tgs_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 | bytes | *pathlib.Path*, optional) – 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.

Changed in version 13.2: Accept bytes as input.
- **tgs_sticker** (str | filelike object | bytes | *pathlib.Path*, optional) – TGS animation with the sticker, uploaded using multipart/form-data. See https://core.telegram.org/animated_stickers#technical-requirements for technical requirements.

Changed in version 13.2: Accept bytes as input.
- **emojis** (str) – One or more emoji corresponding to the sticker.
- **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).

- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type `bool`

Raises `telegram.error.TelegramError` –

answerCallbackQuery (*callback_query_id*, *text=None*, *show_alert=False*, *url=None*, *cache_time=None*, *timeout=None*, *api_kwargs=None*)
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*, *current_offset=None*, *api_kwargs=None*)
Alias for `answer_inline_query()`

answerPreCheckoutQuery (*pre_checkout_query_id*, *ok*, *error_message=None*, *timeout=None*, *api_kwargs=None*)
Alias for `answer_pre_checkout_query()`

answerShippingQuery (*shipping_query_id*, *ok*, *shipping_options=None*, *error_message=None*, *timeout=None*, *api_kwargs=None*)
Alias for `answer_shipping_query()`

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

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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

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

Raises `telegram.error.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*, *current_offset=None*, *api_kwargs=None*)

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

Warning: In most use cases `current_offset` should not be passed manually. Instead of calling this method directly, use the shortcut `telegram.InlineQuery.answer()` with `auto_pagination=True`, which will take care of passing the correct value.

Parameters

- **inline_query_id** (str) – Unique identifier for the answered query.
- **results** (List[`telegram.InlineQueryResult`] | Callable) – A list of results for the inline query. In case `current_offset` is passed, `results` may also be a callable that accepts the current page index starting from 0. It must return either a list of `telegram.InlineQueryResult` instances or `None` if there are no more results.
- **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.
- **current_offset** (str, optional) – The `telegram.InlineQuery.offset` of the inline query to answer. If passed, PTB will automatically take care of the pagination for you, i.e. pass the correct `next_offset` and truncate the results list/get the results from the callable you passed.
- **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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

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 On success, `True` is returned.

Return type bool

Raises `telegram.error.TelegramError` –

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

Once the user has confirmed their payment and shipping details, the Bot API sends the final confirmation in the form of an [telegram.Update](#) with the field `Update.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).
- **api_kwargs** (*dict*, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type `bool`

Raises [telegram.error.TelegramError](#) –

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

If you sent an invoice requesting a shipping address and the parameter `is_flexible` was specified, the Bot API will send an [telegram.Update](#) with a `Update.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).
- **api_kwargs** (*dict*, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type `bool`

Raises `telegram.error.TelegramError` –

property `bot`

User instance for the bot as returned by `get_me()`.

Type `telegram.User`

property `can_join_groups`

Bot's `telegram.User.can_join_groups` attribute.

Type `bool`

property `can_read_all_group_messages`

Bot's `telegram.User.can_read_all_group_messages` attribute.

Type `bool`

close (*timeout=None*)

Use this method to close the bot instance before moving it from one local server to another. You need to delete the webhook before calling this method to ensure that the bot isn't launched again after server restart. The method will return error 429 in the first 10 minutes after the bot is launched.

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 On success

Return type `True`

Raises `telegram.error.TelegramError` –

property `commands`

Bot's commands.

Type `List[BotCommand]`

copyMessage (*chat_id*, *from_chat_id*, *message_id*, *caption=None*, *parse_mode=None*, *caption_entities=None*, *disable_notification=None*, *reply_to_message_id=None*, *allow_sending_without_reply=None*, *reply_markup=None*, *timeout=None*, *api_kwargs=None*)

Alias for `copy_message()`

copy_message (*chat_id*, *from_chat_id*, *message_id*, *caption=None*, *parse_mode=None*, *caption_entities=None*, *disable_notification=None*, *reply_to_message_id=None*, *allow_sending_without_reply=None*, *reply_markup=None*, *timeout=None*, *api_kwargs=None*)

Use this method to copy messages of any kind. Service messages and invoice messages can't be copied. The method is analogous to the method `forward_message()`, but the copied message doesn't have a link to the original message.

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`).
- **message_id** (`int`) – Message identifier in the chat specified in `from_chat_id`.
- **caption** (`str`, optional) – New caption for media, 0-1024 characters after entities parsing. If not specified, the original caption is kept.
- **parse_mode** (`str`, optional) – Mode for parsing entities in the new caption. See the constants in `telegram.ParseMode` for the available modes.

- **caption_entities** (`telegram.utils.types.SLT[MessageEntity]`) – List of special entities that appear in the new caption, which can be specified instead of `parse_mode`
- **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.
- **allow_sending_without_reply** (`bool`, optional) – Pass `True`, if the message should be sent even if the specified replied-to message is not found.
- **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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success

Return type `telegram.MessageId`

Raises `telegram.error.TelegramError` –

createChatInviteLink (`chat_id`, `expire_date=None`, `member_limit=None`, `timeout=None`, `api_kwargs=None`)

Alias for `create_chat_invite_link`

createNewStickerSet (`user_id`, `name`, `title`, `emojis`, `png_sticker=None`, `contains_masks=None`, `mask_position=None`, `timeout=20`, `tgs_sticker=None`, `api_kwargs=None`)

Alias for `create_new_sticker_set()`

create_chat_invite_link (`chat_id`, `expire_date=None`, `member_limit=None`, `timeout=None`, `api_kwargs=None`)

Use this method to create an additional invite link for a chat. The bot must be an administrator in the chat for this to work and must have the appropriate admin rights. The link can be revoked using the method `revoke_chat_invite_link()`.

New in version 13.4.

Parameters

- **chat_id** (`int | str`) – Unique identifier for the target chat or username of the target channel (in the format `@channelusername`).
- **expire_date** (`int | datetime.datetime`, optional) – Date when the link will expire. Integer input will be interpreted as Unix timestamp. For timezone naive `datetime.datetime` objects, the default timezone of the bot will be used.
- **member_limit** (`int`, optional) – Maximum number of users that can be members of the chat simultaneously after joining the chat via this invite link; 1-99999.
- **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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns `telegram.ChatInviteLink`

Raises `telegram.error.TelegramError` –

```
create_new_sticker_set(user_id, name, title, emojis, png_sticker=None, contains_masks=None, mask_position=None, timeout=20, tgs_sticker=None, api_kwargs=None)
```

Use this method to create new sticker set owned by a user. The bot will be able to edit the created sticker set. You must use exactly one of the fields `png_sticker` or `tgs_sticker`.

Warning: As of API 4.7 `png_sticker` is an optional argument and therefore the order of the arguments had to be changed. Use keyword arguments to make sure that the arguments are passed correctly.

Note: The `png_sticker` and `tgs_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* | `bytes` | `pathlib.Path`, optional) – 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.

Changed in version 13.2: Accept `bytes` as input.

- **tgs_sticker** (`str` | *filelike object* | `bytes` | `pathlib.Path`, optional) – TGS animation with the sticker, uploaded using multipart/form-data. See https://core.telegram.org/animated_stickers#technical-requirements for technical requirements.

Changed in version 13.2: Accept `bytes` as input.

- **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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type `bool`

Raises *telegram.error.TelegramError* –

```
deleteChatPhoto(chat_id, timeout=None, api_kwargs=None)
```

Alias for `delete_chat_photo()`

deleteChatStickerSet (*chat_id*, *timeout=None*, *api_kwargs=None*)

Alias for `delete_chat_sticker_set()`

deleteMessage (*chat_id*, *message_id*, *timeout=None*, *api_kwargs=None*)

Alias for `delete_message()`

deleteStickerFromSet (*sticker*, *timeout=None*, *api_kwargs=None*)

Alias for `delete_sticker_from_set()`

deleteWebhook (*timeout=None*, *api_kwargs=None*, *drop_pending_updates=None*)

Alias for `delete_webhook()`

delete_chat_photo (*chat_id*, *timeout=None*, *api_kwargs=None*)

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).
- **api_kwargs** (*dict*, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type `bool`

Raises `telegram.error.TelegramError` –

delete_chat_sticker_set (*chat_id*, *timeout=None*, *api_kwargs=None*)

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).
- **api_kwargs** (*dict*, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type `bool`

delete_message (*chat_id*, *message_id*, *timeout=None*, *api_kwargs=None*)

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.
- A dice message in a private chat can only be deleted if it was sent more than 24 hours ago.
- Bots can delete outgoing messages in private chats, groups, and supergroups.
- Bots can delete incoming messages in private chats.
- Bots granted `telegram.ChatMember.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 `telegram.ChatMember.can_delete_messages` permission in a super-group 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 the read timeout from the server (instead of the one specified during creation of the connection pool).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type `bool`

Raises `telegram.error.TelegramError` –

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

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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type `bool`

Raises `telegram.error.TelegramError` –

delete_webhook (*timeout=None*, *api_kwargs=None*, *drop_pending_updates=None*)

Use this method to remove webhook integration if you decide to switch back to `get_updates()`.

Parameters

- **drop_pending_updates** (`bool`, optional) – Pass `True` to drop all pending updates.
- **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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type `bool`

Raises `telegram.error.TelegramError` –

editChatInviteLink (*chat_id*, *invite_link*, *expire_date=None*, *member_limit=None*, *timeout=None*, *api_kwargs=None*)

Alias for `edit_chat_invite_link`

```
editMessageCaption (chat_id=None, message_id=None, inline_message_id=None, caption=None, reply_markup=None, timeout=None, parse_mode=None, api_kwargs=None, caption_entities=None)
```

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, api_kwargs=None, horizontal_accuracy=None, heading=None, proximity_alert_radius=None)
```

Alias for `edit_message_live_location()`

```
editMessageMedia (chat_id=None, message_id=None, inline_message_id=None, media=None, reply_markup=None, timeout=None, api_kwargs=None)
```

Alias for `edit_message_media()`

```
editMessageReplyMarkup (chat_id=None, message_id=None, inline_message_id=None, reply_markup=None, timeout=None, api_kwargs=None)
```

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, api_kwargs=None, entities=None)
```

Alias for `edit_message_text()`

```
edit_chat_invite_link (chat_id, invite_link, expire_date=None, member_limit=None, timeout=None, api_kwargs=None)
```

Use this method to edit a non-primary invite link created by the bot. The bot must be an administrator in the chat for this to work and must have the appropriate admin rights.

New in version 13.4.

Parameters

- **chat_id** (`int` | `str`) – Unique identifier for the target chat or username of the target channel (in the format `@channelusername`).
- **invite_link** (`str`) – The invite link to edit.
- **expire_date** (`int` | `datetime.datetime`, optional) – Date when the link will expire. For timezone naive `datetime.datetime` objects, the default timezone of the bot will be used.
- **member_limit** (`int`, optional) – Maximum number of users that can be members of the chat simultaneously after joining the chat via this invite link; 1-99999.
- **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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns `telegram.ChatInviteLink`

Raises `telegram.error.TelegramError` –

```
edit_message_caption (chat_id=None, message_id=None, inline_message_id=None, caption=None, reply_markup=None, timeout=None, parse_mode=None, api_kwargs=None, caption_entities=None)
```

Use this method to edit captions of messages.

Parameters

- **chat_id** (`int` | `str`, optional) – Required if `inline_message_id` is not specified. 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 message to edit.
- **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, 0-1024 characters after entities parsing.
- **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.
- **caption_entities** (List[`telegram.MessageEntity`], optional) – List of special entities that appear in message text, which can be specified instead of `parse_mode`.
- **reply_markup** (`telegram.InlineKeyboardMarkup`, optional) – A JSON-serialized object for an inline keyboard.
- **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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, if edited message is not an inline message, the edited message is returned, otherwise `True` is returned.

Return type `telegram.Message`

Raises `telegram.error.TelegramError` –

```
edit_message_live_location(chat_id=None, message_id=None, in-
                             line_message_id=None, latitude=None, longitude=None,
                             location=None, reply_markup=None, timeout=None,
                             api_kwargs=None, horizontal_accuracy=None, head-
                             ing=None, proximity_alert_radius=None)
```

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 `telegram.Location.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, optional) – Required if `inline_message_id` is not specified. 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 message to edit.
- **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.
- **horizontal_accuracy** (float, optional) – The radius of uncertainty for the location, measured in meters; 0-1500.

- **heading** (*int*, optional) – Direction in which the user is moving, in degrees. Must be between 1 and 360 if specified.
- **proximity_alert_radius** (*int*, optional) – Maximum distance for proximity alerts about approaching another chat member, in meters. Must be between 1 and 100000 if specified.
- **reply_markup** (*telegram.InlineKeyboardMarkup*, optional) – A JSON-serialized object for a new inline keyboard.
- **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).
- **api_kwargs** (*dict*, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, if edited message is not an inline message, the edited message is returned, otherwise `True` is returned.

Return type *telegram.Message*

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

Use this method to edit animation, audio, document, photo, or video messages. If a message is part of a message album, then it can be edited only to an audio for audio albums, only to a document for document albums and to a photo or a video otherwise. When an inline message is edited, a new file can't be uploaded. Use a previously uploaded file via its `file_id` or specify a URL.

Parameters

- **chat_id** (*int* | *str*, optional) – Required if `inline_message_id` is not specified. 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 message to edit.
- **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.InlineKeyboardMarkup*, optional) – A JSON-serialized object for an inline keyboard.
- **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).
- **api_kwargs** (*dict*, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

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.error.TelegramError* –

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

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`, optional) – Required if `inline_message_id` is not specified. 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 message to edit.
- **inline_message_id** (`str`, optional) – Required if `chat_id` and `message_id` are not specified. Identifier of the inline message.
- **reply_markup** (`telegram.InlineKeyboardMarkup`, optional) – A JSON-serialized object for an inline keyboard.
- **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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, if edited message is not an inline message, the edited message is returned, otherwise `True` is returned.

Return type `telegram.Message`

Raises `telegram.error.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`, `api_kwargs=None`, `entities=None`)

Use this method to edit text and game messages.

Parameters

- **chat_id** (`int` | `str`, optional) – Required if `inline_message_id` is not specified. 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 message to edit.
- **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, 1-4096 characters after entities parsing.
- **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. See the constants in `telegram.ParseMode` for the available modes.
- **entities** (`List[telegram.MessageEntity]`, optional) – List of special entities that appear in message text, which can be specified instead of `parse_mode`.
- **disable_web_page_preview** (`bool`, optional) – Disables link previews for links in this message.
- **reply_markup** (`telegram.InlineKeyboardMarkup`, optional) – A JSON-serialized object for an inline keyboard.
- **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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, if edited message is not an inline message, the edited message is returned, otherwise `True` is returned.

Return type `telegram.Message`

Raises `telegram.error.TelegramError` –

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

Alias for `export_chat_invite_link()`

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

Use this method to generate a new primary invite link for a chat; any previously generated link is revoked. 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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Note: Each administrator in a chat generates their own invite links. Bots can't use invite links generated by other administrators. If you want your bot to work with invite links, it will need to generate its own link using `export_chat_invite_link()` or by calling the `get_chat()` method. If your bot needs to generate a new primary invite link replacing its previous one, use `export_chat_invite_link` again.

Returns New invite link on success.

Return type `str`

Raises `telegram.error.TelegramError` –

property first_name

Bot's first name.

Type `str`

forwardMessage (*chat_id*, *from_chat_id*, *message_id*, *disable_notification=None*, *timeout=None*, *api_kwargs=None*)

Alias for `forward_message()`

forward_message (*chat_id*, *from_chat_id*, *message_id*, *disable_notification=None*, *timeout=None*, *api_kwargs=None*)

Use this method to forward messages of any kind. Service messages can't be forwarded.

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`).
- **message_id** (`int`) – Message identifier in the chat specified in `from_chat_id`.
- **disable_notification** (`bool`, optional) – Sends the message silently. Users will receive a notification with no sound.
- **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).

- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, the sent Message is returned.

Return type `telegram.Message`

Raises `telegram.error.TelegramError` –

getChat (*chat_id*, *timeout=None*, *api_kwargs=None*)

Alias for `get_chat()`

getChatAdministrators (*chat_id*, *timeout=None*, *api_kwargs=None*)

Alias for `get_chat_administrators()`

getChatMember (*chat_id*, *user_id*, *timeout=None*, *api_kwargs=None*)

Alias for `get_chat_member()`

getChatMembersCount (*chat_id*, *timeout=None*, *api_kwargs=None*)

Alias for `get_chat_members_count()`

getFile (*file_id*, *timeout=None*, *api_kwargs=None*)

Alias for `get_file()`

getGameHighScores (*user_id*, *chat_id=None*, *message_id=None*, *inline_message_id=None*, *timeout=None*, *api_kwargs=None*)

Alias for `get_game_high_scores()`

getMe (*timeout=None*, *api_kwargs=None*)

Alias for `get_me()`

getMyCommands (*timeout=None*, *api_kwargs=None*)

Alias for `get_my_commands()`

getStickerSet (*name*, *timeout=None*, *api_kwargs=None*)

Alias for `get_sticker_set()`

getUpdates (*offset=None*, *limit=100*, *timeout=0*, *read_latency=2.0*, *allowed_updates=None*, *api_kwargs=None*)

Alias for `get_updates()`

getUserProfilePhotos (*user_id*, *offset=None*, *limit=100*, *timeout=None*, *api_kwargs=None*)

Alias for `get_user_profile_photos()`

getWebhookInfo (*timeout=None*, *api_kwargs=None*)

Alias for `get_webhook_info()`

get_chat (*chat_id*, *timeout=None*, *api_kwargs=None*)

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 supergroup or 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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns `telegram.Chat`

Raises `telegram.error.TelegramError` –

get_chat_administrators (*chat_id*, *timeout=None*, *api_kwargs=None*)

Use this method to get a list of administrators in a chat.

Parameters

- **chat_id** (`int` | `str`) – Unique identifier for the target chat or username of the target supergroup or 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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, returns a list 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.

Return type `List[telegram.ChatMember]`

Raises *telegram.error.TelegramError* –

get_chat_member (*chat_id*, *user_id*, *timeout=None*, *api_kwargs=None*)

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 supergroup or 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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns *telegram.ChatMember*

Raises *telegram.error.TelegramError* –

get_chat_members_count (*chat_id*, *timeout=None*, *api_kwargs=None*)

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 supergroup or 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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns Number of members in the chat.

Return type `int`

Raises *telegram.error.TelegramError* –

get_file (*file_id*, *timeout=None*, *api_kwargs=None*)

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.

Note: This function may not preserve the original file name and MIME type. You should save the file's MIME type and name (if available) when the File object is received.

Parameters

- **file_id** (str | *telegram.Animation* | *telegram.Audio* | *telegram.ChatPhoto* | *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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns *telegram.File*

Raises *telegram.error.TelegramError* –

get_game_high_scores (user_id, chat_id=None, message_id=None, inline_message_id=None, timeout=None, api_kwargs=None)

Use this method to get data for high score tables. Will return the score of the specified user and several of their neighbors in a game.

Note: This method will currently return scores for the target user, plus two of their closest neighbors on each side. Will also return the top three users if the user and his neighbors are not among them. Please note that this behavior is subject to change.

Parameters

- **user_id** (int) – Target user id.
- **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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns List[*telegram.GameHighScore*]

Raises *telegram.error.TelegramError* –

get_me (timeout=None, api_kwargs=None)

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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

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

Return type `telegram.User`

Raises `telegram.error.TelegramError` –

get_my_commands (*timeout=None, api_kwargs=None*)

Use this method to get the current list of the bot's commands.

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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, the commands set for the bot

Return type `List[telegram.BotCommand]`

Raises `telegram.error.TelegramError` –

get_sticker_set (*name, timeout=None, api_kwargs=None*)

Use this method to get a sticker set.

Parameters

- **name** (str) – Name of the 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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns `telegram.StickerSet`

Raises `telegram.error.TelegramError` –

get_updates (*offset=None, limit=100, timeout=0, read_latency=2.0, allowed_updates=None, api_kwargs=None*)

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 `telegram.Update.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.

- **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. Defaults to 2.
- **allowed_updates** (`List[str]`), optional) – A JSON-serialized 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 except [telegram.Update.chat_member](#) (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.
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Note:

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.error.TelegramError](#) –

get_user_profile_photos (`user_id`, `offset=None`, `limit=100`, `timeout=None`,
`api_kwargs=None`)

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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns [telegram.UserProfilePhotos](#)

Raises [telegram.error.TelegramError](#) –

get_webhook_info (`timeout=None`, `api_kwargs=None`)

Use this method to get current webhook status. Requires no parameters.

If the bot is using [get_updates\(\)](#), will return an object with the [telegram.WebhookInfo.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).

- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns *telegram.WebhookInfo*

property id

Unique identifier for this bot.

Type `int`

kickChatMember (*chat_id*, *user_id*, *timeout=None*, *until_date=None*, *api_kwargs=None*, *revoke_messages=None*)

Alias for *kick_chat_member()*

kick_chat_member (*chat_id*, *user_id*, *timeout=None*, *until_date=None*, *api_kwargs=None*, *revoke_messages=None*)

Use this method to kick a user from a group, supergroup or a channel. In the case of supergroups and channels, 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 chat for this to work and must have the appropriate admin rights.

Parameters

- **chat_id** (`int` | `str`) – Unique identifier for the target group or username of the target supergroup or 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. Applied for supergroups and channels only. For timezone naive `datetime.datetime` objects, the default timezone of the bot will be used.
- **revoke_messages** (`bool`, optional) – Pass `True` to delete all messages from the chat for the user that is being removed. If `False`, the user will be able to see messages in the group that were sent before the user was removed. Always `True` for supergroups and channels.

New in version 13.4.

- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type `bool`

Raises *telegram.error.TelegramError* –

property last_name

Optional. Bot's last name.

Type `str`

leaveChat (*chat_id*, *timeout=None*, *api_kwargs=None*)

Alias for *leave_chat()*

leave_chat (*chat_id*, *timeout=None*, *api_kwargs=None*)

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 supergroup or 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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, True is returned.

Return type bool

Raises `telegram.error.TelegramError` –

property link

Convenience property. Returns the t.me link of the bot.

Type str

logOut (timeout=None)

Alias for `log_out()`

log_out (timeout=None)

Use this method to log out from the cloud Bot API server before launching the bot locally. You *must* log out the bot before running it locally, otherwise there is no guarantee that the bot will receive updates. After a successful call, you can immediately log in on a local server, but will not be able to log in back to the cloud Bot API server for 10 minutes.

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 On success

Return type True

Raises `telegram.error.TelegramError` –

property name

Bot's @username.

Type str

pinChatMessage (chat_id, message_id, disable_notification=None, timeout=None, api_kwargs=None)

Alias for `pin_chat_message()`

pin_chat_message (chat_id, message_id, disable_notification=None, timeout=None, api_kwargs=None)

Use this method to add a message to the list of pinned messages in a chat. If the chat is not a private chat, the bot must be an administrator in the chat for this to work and must have the `telegram.ChatMember.can_pin_messages` admin right in a supergroup or `telegram.ChatMember.can_edit_messages` admin right in a channel.

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 chat members about the new pinned message. Notifications are always disabled in channels and private chats.
- **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).

- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type `bool`

Raises `telegram.error.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,
                    api_kwargs=None, is_anonymous=None, can_manage_chat=None,
                    can_manage_voice_chats=None)
```

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, api_kwargs=None, is_anonymous=None,
                      can_manage_chat=None, can_manage_voice_chats=None)
```

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 channel (in the format `@channelusername`).
- **user_id** (int) – Unique identifier of the target user.
- **is_anonymous** (bool, optional) – Pass `True`, if the administrator's presence in the chat is hidden.
- **can_manage_chat** (bool, optional) – Pass `True`, if the administrator can access the chat event log, chat statistics, message statistics in channels, see channel members, see anonymous administrators in supergroups and ignore slow mode. Implied by any other administrator privilege.

New in version 13.4.

- **can_manage_voice_chats** (bool, optional) – Pass `True`, if the administrator can manage voice chats.

New in version 13.4.

- **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 and can pin messages, 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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type bool

Raises `telegram.error.TelegramError` –

restrictChatMember (*chat_id*, *user_id*, *permissions*, *until_date=None*, *timeout=None*, *api_kwargs=None*)

Alias for `restrict_chat_member()`

restrict_chat_member (*chat_id*, *user_id*, *permissions*, *until_date=None*, *timeout=None*, *api_kwargs=None*)

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.

Note: Since Bot API 4.4, `restrict_chat_member()` takes the new user permissions in a single argument of type `telegram.ChatPermissions`. The old way of passing parameters will not keep working forever.

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. For timezone naive `datetime.datetime` objects, the default timezone of the bot will be used.
- **permissions** (`telegram.ChatPermissions`) – A JSON-serialized object for new user permissions.
- **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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type bool

Raises `telegram.error.TelegramError` –

revokeChatInviteLink (*chat_id*, *invite_link*, *timeout=None*, *api_kwargs=None*)

Alias for `revoke_chat_invite_link`

revoke_chat_invite_link (*chat_id*, *invite_link*, *timeout=None*, *api_kwargs=None*)

Use this method to revoke an invite link created by the bot. If the primary link is revoked, a new link is automatically generated. The bot must be an administrator in the chat for this to work and must have the appropriate admin rights.

New in version 13.4.

Parameters

- **chat_id** (*int* | *str*) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **invite_link** (*str*) – The invite link to edit.
- **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).
- **api_kwargs** (*dict*, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns `telegram.ChatInviteLink`

Raises `telegram.error.TelegramError` –

sendAnimation (*chat_id*, *animation*, *duration=None*, *width=None*, *height=None*, *thumb=None*, *caption=None*, *parse_mode=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *api_kwargs=None*, *allow_sending_without_reply=None*, *caption_entities=None*, *filename=None*)

Alias for `send_animation()`

sendAudio (*chat_id*, *audio*, *duration=None*, *performer=None*, *title=None*, *caption=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *parse_mode=None*, *thumb=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *caption_entities=None*, *filename=None*)

Alias for `send_audio()`

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

Alias for `send_chat_action()`

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

Alias for `send_contact()`

sendDice (*chat_id*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *emoji=None*, *api_kwargs=None*, *allow_sending_without_reply=None*)

Alias for `send_dice()`

sendDocument (*chat_id*, *document*, *filename=None*, *caption=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *parse_mode=None*, *thumb=None*, *api_kwargs=None*, *disable_content_type_detection=None*, *allow_sending_without_reply=None*, *caption_entities=None*)

Alias for `send_document()`

sendGame (*chat_id*, *game_short_name*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *api_kwargs=None*, *allow_sending_without_reply=None*)

Alias for `send_game()`

sendInvoice (*chat_id*, *title*, *description*, *payload*, *provider_token*, *currency*, *prices*, *start_parameter=None*, *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=None*, *reply_to_message_id=None*, *reply_markup=None*, *provider_data=None*, *send_phone_number_to_provider=None*, *send_email_to_provider=None*, *timeout=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *max_tip_amount=None*, *suggested_tip_amounts=None*)

Alias for `send_invoice()`

sendLocation (*chat_id*, *latitude=None*, *longitude=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *location=None*, *live_period=None*, *api_kwargs=None*, *horizontal_accuracy=None*, *heading=None*, *proximity_alert_radius=None*, *allow_sending_without_reply=None*)

Alias for `send_location()`

sendMediaGroup (*chat_id*, *media*, *disable_notification=None*, *reply_to_message_id=None*, *timeout=20*, *api_kwargs=None*, *allow_sending_without_reply=None*)

Alias for `send_media_group()`

sendMessage (*chat_id*, *text*, *parse_mode=None*, *disable_web_page_preview=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *entities=None*)

Alias for `send_message()`

sendPhoto (*chat_id*, *photo*, *caption=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *parse_mode=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *caption_entities=None*, *filename=None*)

Alias for `send_photo()`

sendPoll (*chat_id*, *question*, *options*, *is_anonymous=True*, *type='regular'*, *allows_multiple_answers=False*, *correct_option_id=None*, *is_closed=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *explanation=None*, *explanation_parse_mode=None*, *open_period=None*, *close_date=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *explanation_entities=None*)

Alias for `send_poll()`

sendSticker (*chat_id*, *sticker*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *api_kwargs=None*, *allow_sending_without_reply=None*)

Alias for `send_sticker()`

sendVenue (*chat_id*, *latitude=None*, *longitude=None*, *title=None*, *address=None*, *foursquare_id=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *venue=None*, *foursquare_type=None*, *api_kwargs=None*, *google_place_id=None*, *google_place_type=None*, *allow_sending_without_reply=None*)

Alias for `send_venue()`

sendVideo (*chat_id*, *video*, *duration=None*, *caption=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *width=None*, *height=None*, *parse_mode=None*, *supports_streaming=None*, *thumb=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *caption_entities=None*, *filename=None*)

Alias for `send_video()`

sendVideoNote (*chat_id*, *video_note*, *duration=None*, *length=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *thumb=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *filename=None*)

Alias for `send_video_note()`

```
sendVoice(chat_id, voice, duration=None, caption=None, disable_notification=None,
           reply_to_message_id=None, reply_markup=None, timeout=20, parse_mode=None,
           api_kwargs=None, allow_sending_without_reply=None, caption_entities=None, file-
           name=None)
```

Alias for `send_voice()`

```
send_animation(chat_id, animation, duration=None, width=None, height=None,
                thumb=None, caption=None, parse_mode=None, disable_notification=None,
                reply_to_message_id=None, reply_markup=None, timeout=20,
                api_kwargs=None, allow_sending_without_reply=None, cap-
                tion_entities=None, filename=None)
```

Use this method to send animation files (GIF or H.264/MPEG-4 AVC video without sound). Bots can currently send animation files of up to 50 MB in size, this limit may be changed in the future.

Note: `thumb` will be ignored for small files, for which Telegram can easily generate thumb nails. However, this behaviour is undocumented and might be changed by Telegram.

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* | `bytes` | `pathlib.Path` | `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.

Changed in version 13.2: Accept `bytes` as input.

- **filename** (`str`, optional) – Custom file name for the animation, when uploading a new file. Convenience parameter, useful e.g. when sending files generated by the `tempfile` module.

New in version 13.1.

- **duration** (`int`, optional) – Duration of sent animation in seconds.
- **width** (`int`, optional) – Animation width.
- **height** (`int`, optional) – Animation height.
- **thumb** (*filelike object* | `bytes` | `pathlib.Path`, optional) – Thumbnail of the file sent; can be ignored if thumbnail generation for the file is supported server-side. The thumbnail should be in `JPEG` format and less than 200 kB in size. A thumbnail's width and height should not exceed 320. Ignored if the file is not uploaded using `multipart/form-data`. Thumbnails can't be reused and can be only uploaded as a new file.

Changed in version 13.2: Accept `bytes` as input.

- **caption** (`str`, optional) – Animation caption (may also be used when resending animations by `file_id`), 0-1024 characters after entities parsing.
- **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.
- **caption_entities** (`List[telegram.MessageEntity]`, optional) – List of special entities that appear in message text, which can be specified instead of `parse_mode`.

- **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.
- **allow_sending_without_reply** (bool, optional) – Pass True, if the message should be sent even if the specified replied-to message is not found.
- **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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, the sent Message is returned.

Return type *telegram.Message*

Raises *telegram.error.TelegramError* –

send_audio (*chat_id*, *audio*, *duration=None*, *performer=None*, *title=None*, *caption=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *parse_mode=None*, *thumb=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *caption_entities=None*, *filename=None*)

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 or .m4a format.

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 *send_voice()* 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 | bytes | pathlib.Path | *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.

Changed in version 13.2: Accept bytes as input.

- **filename** (str, optional) – Custom file name for the audio, when uploading a new file. Convenience parameter, useful e.g. when sending files generated by the tempfile module.

New in version 13.1.

- **caption** (str, optional) – Audio caption, 0-1024 characters after entities parsing.
- **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.
- **caption_entities** (List[*telegram.MessageEntity*], optional) – List of special entities that appear in message text, which can be specified instead of parse_mode.

- **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.
- **allow_sending_without_reply** (*bool*, optional) – Pass `True`, if the message should be sent even if the specified replied-to message is not found.
- **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* | *bytes* | *pathlib.Path*, optional) – Thumbnail of the file sent; can be ignored if thumbnail generation for the file is supported server-side. The thumbnail should be in JPEG format and less than 200 kB in size. A thumbnail's width and height should not exceed 320. Ignored if the file is not uploaded using multipart/form-data. Thumbnails can't be reused and can be only uploaded as a new file.

Changed in version 13.2: Accept `bytes` as input.

- **timeout** (*int* | *float*, optional) – Send file timeout (default: 20 seconds).
- **api_kwargs** (*dict*, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, the sent `Message` is returned.

Return type `telegram.Message`

Raises `telegram.error.TelegramError` –

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

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). Telegram only recommends using this method when a response from the bot will take a noticeable amount of time to arrive.

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).
- **api_kwargs** (*dict*, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type `bool`

Raises `telegram.error.TelegramError` –

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

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.
- **allow_sending_without_reply** (*bool*, optional) – Pass *True*, if the message should be sent even if the specified replied-to message is not found.
- **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).
- **api_kwargs** (*dict*, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, the sent *Message* is returned.

Return type *telegram.Message*

Raises *telegram.error.TelegramError* –

send_dice (*chat_id*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *emoji=None*, *api_kwargs=None*, *allow_sending_without_reply=None*)

Use this method to send an animated emoji that will display a random value.

Parameters

- **chat_id** (*int* | *str*) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **emoji** (*str*, optional) – Emoji on which the dice throw animation is based. Currently, must be one of “🎲”, “🎯”, “🎰”, “🎱”, “🎳”, or “🎮”. Dice can have values 1-6 for “🎲”, “🎯” and “🎳”, values 1-5 for “🎰” and “🎱”, and values 1-64 for “🎮”. Defaults to “🎲”.

Changed in version 13.4: Added the “🎮” emoji.

- **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.
- **allow_sending_without_reply** (`bool`, optional) – Pass `True`, if the message should be sent even if the specified replied-to message is not found.
- **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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, the sent `Message` is returned.

Return type `telegram.Message`

Raises `telegram.error.TelegramError` –

send_document (`chat_id`, `document`, `filename=None`, `caption=None`, `disable_notification=None`, `reply_to_message_id=None`, `reply_markup=None`, `timeout=20`, `parse_mode=None`, `thumb=None`, `api_kwargs=None`, `disable_content_type_detection=None`, `allow_sending_without_reply=None`, `caption_entities=None`)

Use this method to send general files.

Bots can currently send files of any type of up to 50 MB in size, this limit may be changed in the future.

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 | bytes | pathlib.Path | 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.

Changed in version 13.2: Accept `bytes` as input.

- **filename** (`str`, optional) – Custom file name for the document, when uploading a new file. Convenience parameter, useful e.g. when sending files generated by the `tempfile` module.
- **caption** (`str`, optional) – Document caption (may also be used when resending documents by `file_id`), 0-1024 characters after entities parsing.
- **disable_content_type_detection** (`bool`, optional) – Disables automatic server-side content type detection for files uploaded using multipart/form-data.
- **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.

- **caption_entities** (List[[telegram.MessageEntity](#)], optional) – List of special entities that appear in message text, which can be specified instead of `parse_mode`.
- **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.
- **allow_sending_without_reply** (bool, optional) – Pass `True`, if the message should be sent even if the specified replied-to message is not found.
- **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* | bytes | `pathlib.Path`, optional) – Thumbnail of the file sent; can be ignored if thumbnail generation for the file is supported server-side. The thumbnail should be in JPEG format and less than 200 kB in size. A thumbnail's width and height should not exceed 320. Ignored if the file is not uploaded using multipart/form-data. Thumbnails can't be reused and can be only uploaded as a new file.

Changed in version 13.2: Accept bytes as input.

- **timeout** (int | float, optional) – Send file timeout (default: 20 seconds).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, the sent `Message` is returned.

Return type `telegram.Message`

Raises [telegram.error.TelegramError](#) –

send_game (*chat_id*, *game_short_name*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *api_kwargs=None*, *allow_sending_without_reply=None*)

Use this method to send a game.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat.
- **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.
- **allow_sending_without_reply** (bool, optional) – Pass `True`, if the message should be sent even if the specified replied-to message is not found.
- **reply_markup** ([telegram.InlineKeyboardMarkup](#), optional) – A JSON-serialized object for a new inline keyboard. If empty, one 'Play game_title' button will be shown. If not empty, the first button must launch the game.
- **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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, the sent Message is returned.

Return type `telegram.Message`

Raises `telegram.error.TelegramError` –

```
send_invoice(chat_id, title, description, payload, provider_token, currency, prices,
              start_parameter=None, 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, dis-
              able_notification=None, reply_to_message_id=None, reply_markup=None,
              provider_data=None, send_phone_number_to_provider=None,
              send_email_to_provider=None, timeout=None, api_kwargs=None,
              allow_sending_without_reply=None, max_tip_amount=None, sug-
              gested_tip_amounts=None)
```

Use this method to send invoices.

Warning: As of API 5.2 `start_parameter` is an optional argument and therefore the order of the arguments had to be changed. Use keyword arguments to make sure that the arguments are passed correctly.

Changed in version 13.5: As of Bot API 5.2, the parameter `start_parameter` is optional.

Parameters

- **chat_id** (`int` | `str`) – Unique identifier for the target chat or username of the target channel (in the format `@channelusername`).
- **title** (`str`) – Product name, 1-32 characters.
- **description** (`str`) – Product description, 1-255 characters.
- **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](#).
- **currency** (`str`) – Three-letter ISO 4217 currency code.
- **prices** (`List[telegram.LabeledPrice]`) – Price breakdown, a JSON-serialized list of components (e.g. product price, tax, discount, delivery cost, delivery tax, bonus, etc.).
- **max_tip_amount** (`int`, optional) – The maximum accepted amount for tips in the smallest units of the currency (integer, not float/double). For example, for a maximum tip of US\$ 1.45 pass `max_tip_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). Defaults to 0.

New in version 13.5.

- **suggested_tip_amounts** (`List[int]`, optional) – A JSON-serialized array of suggested amounts of tips in the smallest units of the currency (integer, not float/double). At most 4 suggested tip amounts can be specified. The suggested tip amounts must be positive, passed in a strictly increased order and must not exceed `max_tip_amount`.

New in version 13.5.

- **start_parameter** (`str`, optional) – Unique deep-linking parameter. If left empty, *forwarded copies* of the sent message will have a *Pay* button, allowing multiple users to pay directly from the forwarded message, using the same invoice. If non-empty, forwarded copies of the sent message will have a *URL* button with a deep link to the bot (instead of a *Pay* button), with the value used as the start parameter.

Changed in version 13.5: As of Bot API 5.2, this parameter is optional.

- **provider_data** (`str` | `object`, optional) – JSON-serialized 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.
- **allow_sending_without_reply** (`bool`, optional) – Pass `True`, if the message should be sent even if the specified replied-to message is not found.
- **reply_markup** (`telegram.InlineKeyboardMarkup`, optional) – A JSON-serialized object for an inline keyboard. 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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, the sent `Message` is returned.

Return type `telegram.Message`

Raises `telegram.error.TelegramError` –

```
send_location (chat_id, latitude=None, longitude=None, disable_notification=None,  
                reply_to_message_id=None, reply_markup=None, timeout=None,  
                location=None, live_period=None, api_kwargs=None, horizontal  
                accuracy=None, heading=None, proximity_alert_radius=None, al  
                low_sending_without_reply=None)
```

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.
- **horizontal_accuracy** (`int`, optional) – The radius of uncertainty for the location, measured in meters; 0-1500.
- **live_period** (`int`, optional) – Period in seconds for which the location will be updated, should be between 60 and 86400.
- **heading** (`int`, optional) – For live locations, a direction in which the user is moving, in degrees. Must be between 1 and 360 if specified.
- **proximity_alert_radius** (`int`, optional) – For live locations, a maximum distance for proximity alerts about approaching another chat member, in meters. Must be between 1 and 100000 if specified.
- **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.
- **allow_sending_without_reply** (`bool`, optional) – Pass `True`, if the message should be sent even if the specified replied-to message is not found.
- **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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, the sent `Message` is returned.

Return type `telegram.Message`

Raises `telegram.error.TelegramError` –

send_media_group (`chat_id`, `media`, `disable_notification=None`, `reply_to_message_id=None`, `timeout=20`, `api_kwargs=None`, `allow_sending_without_reply=None`)

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.InputMediaAudio`, `telegram.InputMediaDocument`, `telegram.InputMediaPhoto`, `telegram.InputMediaVideo`]) – An array describing messages 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.
- **allow_sending_without_reply** (bool, optional) – Pass True, if the message should be sent even if the specified replied-to message is not found.
- **timeout** (int | float, optional) – Send file timeout (default: 20 seconds).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns An array of the sent Messages.

Return type List[*telegram.Message*]

Raises *telegram.error.TelegramError* –

send_message (*chat_id*, *text*, *parse_mode=None*, *disable_web_page_preview=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *entities=None*)

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 after entities parsing. 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.
- **entities** (List[*telegram.MessageEntity*], optional) – List of special entities that appear in message text, which can be specified instead of *parse_mode*.
- **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.
- **allow_sending_without_reply** (bool, optional) – Pass True, if the message should be sent even if the specified replied-to message is not found.
- **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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, the sent message is returned.

Return type *telegram.Message*

Raises *telegram.error.TelegramError* –

```
send_photo (chat_id, photo, caption=None, disable_notification=None, reply_to_message_id=None, reply_markup=None, timeout=20, parse_mode=None, api_kwargs=None, allow_sending_without_reply=None, caption_entities=None, filename=None)
```

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 | bytes | pathlib.Path | [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.

Changed in version 13.2: Accept bytes as input.

- **filename** (str, optional) – Custom file name for the photo, when uploading a new file. Convenience parameter, useful e.g. when sending files generated by the `tempfile` module.

New in version 13.1.

- **caption** (str, optional) – Photo caption (may also be used when resending photos by file_id), 0-1024 characters after entities parsing.
- **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.
- **caption_entities** (List[[telegram.MessageEntity](#)], optional) – List of special entities that appear in message text, which can be specified instead of parse_mode.
- **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.
- **allow_sending_without_reply** (bool, optional) – Pass True, if the message should be sent even if the specified replied-to message is not found.
- **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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, the sent Message is returned.

Return type [telegram.Message](#)

Raises [telegram.error.TelegramError](#) –

```
send_poll(chat_id, question, options, is_anonymous=True, type='regular', allows_multiple_answers=False, correct_option_id=None, is_closed=None, disable_notification=None, reply_to_message_id=None, reply_markup=None, timeout=None, explanation=None, explanation_parse_mode=None, open_period=None, close_date=None, api_kwargs=None, allow_sending_without_reply=None, explanation_entities=None)
```

Use this method to send a native poll.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target channel (in the format @channelusername).
- **question** (str) – Poll question, 1-300 characters.
- **options** (List[str]) – List of answer options, 2-10 strings 1-100 characters each.
- **is_anonymous** (bool, optional) – True, if the poll needs to be anonymous, defaults to True.
- **type** (str, optional) – Poll type, `telegram.Poll.QUIZ` or `telegram.Poll.REGULAR`, defaults to `telegram.Poll.REGULAR`.
- **allows_multiple_answers** (bool, optional) – True, if the poll allows multiple answers, ignored for polls in quiz mode, defaults to False.
- **correct_option_id** (int, optional) – 0-based identifier of the correct answer option, required for polls in quiz mode.
- **explanation** (str, optional) – Text that is shown when a user chooses an incorrect answer or taps on the lamp icon in a quiz-style poll, 0-200 characters with at most 2 line feeds after entities parsing.
- **explanation_parse_mode** (str, optional) – Mode for parsing entities in the explanation. See the constants in `telegram.ParseMode` for the available modes.
- **explanation_entities** (List[`telegram.MessageEntity`], optional) – List of special entities that appear in message text, which can be specified instead of `parse_mode`.
- **open_period** (int, optional) – Amount of time in seconds the poll will be active after creation, 5-600. Can't be used together with `close_date`.
- **close_date** (int | `datetime.datetime`, optional) – Point in time (Unix timestamp) when the poll will be automatically closed. Must be at least 5 and no more than 600 seconds in the future. Can't be used together with `open_period`. For timezone naive `datetime.datetime` objects, the default timezone of the bot will be used.
- **is_closed** (bool, optional) – Pass True, if the poll needs to be immediately closed. This can be useful for poll preview.
- **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.
- **allow_sending_without_reply** (bool, optional) – Pass True, if the message should be sent even if the specified replied-to message is not found.
- **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).

- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, the sent Message is returned.

Return type `telegram.Message`

Raises `telegram.error.TelegramError` –

send_sticker (*chat_id*, *sticker*, *disable_notification=None*, *reply_to_message_id=None*,
reply_markup=None, *timeout=20*, *api_kwargs=None*, *allow_sending_without_reply=None*)

Use this method to send static .WEBP or animated .TGS 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 | bytes | pathlib.Path | `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.

Changed in version 13.2: Accept bytes as input.

- **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.
- **allow_sending_without_reply** (bool, optional) – Pass True, if the message should be sent even if the specified replied-to message is not found.
- **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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, the sent Message is returned.

Return type `telegram.Message`

Raises `telegram.error.TelegramError` –

send_venue (*chat_id*, *latitude=None*, *longitude=None*, *title=None*, *address=None*,
foursquare_id=None, *disable_notification=None*, *reply_to_message_id=None*,
reply_markup=None, *timeout=None*, *venue=None*, *foursquare_type=None*,
api_kwargs=None, *google_place_id=None*, *google_place_type=None*, *allow_sending_without_reply=None*)

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 foursquare_type or optionally google_place_id and google_place_type.
 - Foursquare details and Google Place details are mutually exclusive. However, this behaviour is undocumented and might be changed by Telegram.
-

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”.)
- **google_place_id** (str, optional) – Google Places identifier of the venue.
- **google_place_type** (str, optional) – Google Places type of the venue. (See [supported types](#).)
- **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.
- **allow_sending_without_reply** (bool, optional) – Pass True, if the message should be sent even if the specified replied-to message is not found.
- **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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, the sent Message is returned.

Return type [telegram.Message](#)

Raises [telegram.error.TelegramError](#) –

send_video (*chat_id*, *video*, *duration=None*, *caption=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *width=None*, *height=None*, *parse_mode=None*, *supports_streaming=None*, *thumb=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *caption_entities=None*, *filename=None*)

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

Bots can currently send video files of up to 50 MB in size, this limit may be changed in the future.

Note:

- The video argument can be either a `file_id`, an URL or a file from disk `open(filename, 'rb')`
 - `thumb` will be ignored for small video files, for which Telegram can easily generate thumb nails. However, this behaviour is undocumented and might be changed by Telegram.
-

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* | `bytes` | `pathlib.Path` | `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.

Changed in version 13.2: Accept `bytes` as input.

- **filename** (`str`, optional) – Custom file name for the video, when uploading a new file. Convenience parameter, useful e.g. when sending files generated by the `tempfile` module.

New in version 13.1.

- **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 after entities parsing.
- **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.
- **caption_entities** (`List[telegram.MessageEntity]`, optional) – List of special entities that appear in message text, which can be specified instead of `parse_mode`.
- **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.
- **allow_sending_without_reply** (`bool`, optional) – Pass `True`, if the message should be sent even if the specified replied-to message is not found.
- **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* | `bytes` | `pathlib.Path`, optional) – Thumbnail of the file sent; can be ignored if thumbnail generation for the file is supported server-side. The thumbnail should be in JPEG format and less than 200 kB in size. A thumbnail's width and height should not exceed 320. Ignored if the file is not uploaded using multipart/form-data. Thumbnails can't be reused and can be only uploaded as a new file.

Changed in version 13.2: Accept `bytes` as input.

- **timeout** (`int` | `float`, optional) – Send file timeout (default: 20 seconds).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, the sent `Message` is returned.

Return type `telegram.Message`

Raises `telegram.error.TelegramError` –

```
send_video_note (chat_id, video_note, duration=None, length=None, dis-  
able_notification=None, reply_to_message_id=None, re-  
ply_markup=None, timeout=20, thumb=None, api_kwargs=None, al-  
low_sending_without_reply=None, filename=None)
```

As of v.4.0, Telegram clients support rounded square mp4 videos of up to 1 minute long. 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')`
 - `thumb` will be ignored for small video files, for which Telegram can easily generate thumb nails. However, this behaviour is undocumented and might be changed by Telegram.
-

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* | `bytes` | `pathlib.Path` | `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.

Changed in version 13.2: Accept `bytes` as input.

- **filename** (`str`, optional) – Custom file name for the video note, when uploading a new file. Convenience parameter, useful e.g. when sending files generated by the `tempfile` module.

New in version 13.1.

- **duration** (`int`, optional) – Duration of sent video in seconds.
- **length** (`int`, optional) – Video width and height, i.e. diameter of the video 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.
- **allow_sending_without_reply** (`bool`, optional) – Pass `True`, if the message should be sent even if the specified replied-to message is not found.
- **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* | `bytes` | `pathlib.Path`, optional) – Thumbnail of the file sent; can be ignored if thumbnail generation for the file is supported server-side. The

thumbnail should be in JPEG format and less than 200 kB in size. A thumbnail's width and height should not exceed 320. Ignored if the file is not uploaded using multipart/form-data. Thumbnails can't be reused and can be only uploaded as a new file.

Changed in version 13.2: Accept bytes as input.

- **timeout** (int | float, optional) – Send file timeout (default: 20 seconds).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, the sent Message is returned.

Return type `telegram.Message`

Raises `telegram.error.TelegramError` –

send_voice (*chat_id*, *voice*, *duration=None*, *caption=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *parse_mode=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *caption_entities=None*, *filename=None*)

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). Bots can currently send voice messages of up to 50 MB in size, this limit may be changed in the future.

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 | bytes | pathlib.Path | `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.

Changed in version 13.2: Accept bytes as input.

- **filename** (str, optional) – Custom file name for the voice, when uploading a new file. Convenience parameter, useful e.g. when sending files generated by the `tempfile` module.

New in version 13.1.

- **caption** (str, optional) – Voice message caption, 0-1024 characters after entities parsing.
- **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.
- **caption_entities** (List[`telegram.MessageEntity`], optional) – List of special entities that appear in message text, which can be specified instead of `parse_mode`.
- **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.
- **allow_sending_without_reply** (bool, optional) – Pass True, if the message should be sent even if the specified replied-to message is not found.
- **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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, the sent Message is returned.

Return type *telegram.Message*

Raises *telegram.error.TelegramError* –

setChatAdministratorCustomTitle (*chat_id*, *user_id*, *custom_title*, *timeout=None*,
api_kwargs=None)
Alias for *set_chat_administrator_custom_title()*

setChatDescription (*chat_id*, *description*, *timeout=None*, *api_kwargs=None*)
Alias for *set_chat_description()*

setChatPermissions (*chat_id*, *permissions*, *timeout=None*, *api_kwargs=None*)
Alias for *set_chat_permissions()*

setChatPhoto (*chat_id*, *photo*, *timeout=20*, *api_kwargs=None*)
Alias for *set_chat_photo()*

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

setChatTitle (*chat_id*, *title*, *timeout=None*, *api_kwargs=None*)
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*, *api_kwargs=None*)
Alias for *set_game_score()*

setMyCommands (*commands*, *timeout=None*, *api_kwargs=None*)
Alias for *set_my_commands()*

setPassportDataErrors (*user_id*, *errors*, *timeout=None*, *api_kwargs=None*)
Alias for *set_passport_data_errors()*

setStickerPositionInSet (*sticker*, *position*, *timeout=None*, *api_kwargs=None*)
Alias for *set_sticker_position_in_set()*

setStickerSetThumb (*name*, *user_id*, *thumb=None*, *timeout=None*, *api_kwargs=None*)
Alias for *set_sticker_set_thumb()*

setWebhook (*url=None*, *certificate=None*, *timeout=None*, *max_connections=40*,
allowed_updates=None, *api_kwargs=None*, *ip_address=None*,
drop_pending_updates=None)
Alias for *set_webhook()*

set_chat_administrator_custom_title (*chat_id*, *user_id*, *custom_title*, *timeout=None*,
api_kwargs=None)

Use this method to set a custom title for administrators promoted by the bot in a supergroup. The bot must be an administrator for this to work.

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 administrator.
- **custom_title** (`str`) – New custom title for the administrator; 0-16 characters, emoji are not allowed.
- **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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type `bool`

Raises `telegram.error.TelegramError` –

set_chat_description (`chat_id`, `description`, `timeout=None`, `api_kwargs=None`)

Use this method to change the description of a group, 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, 0-255 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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type `bool`

Raises `telegram.error.TelegramError` –

set_chat_permissions (`chat_id`, `permissions`, `timeout=None`, `api_kwargs=None`)

Use this method to set default chat permissions for all members. The bot must be an administrator in the group or a supergroup for this to work and must have the `telegram.ChatMember.can_restrict_members` admin rights.

Parameters

- **chat_id** (`int` | `str`) – Unique identifier for the target chat or username of the target supergroup (in the format `@supergroupusername`).
- **permissions** (`telegram.ChatPermissions`) – New default chat permissions.
- **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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type `bool`

Raises `telegram.error.TelegramError` –

set_chat_photo (*chat_id*, *photo*, *timeout=20*, *api_kwargs=None*)

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* | *bytes* | *pathlib.Path*) – New chat photo.
Changed in version 13.2: Accept bytes as input.
- **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).
- **api_kwargs** (*dict*, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type `bool`

Raises `telegram.error.TelegramError` –

set_chat_sticker_set (*chat_id*, *sticker_set_name*, *timeout=None*, *api_kwargs=None*)

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).
- **api_kwargs** (*dict*, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type `bool`

set_chat_title (*chat_id*, *title*, *timeout=None*, *api_kwargs=None*)

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).
- **api_kwargs** (*dict*, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type `bool`

Raises `telegram.error.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*, *api_kwargs=None*)
Use this method to set the score of the specified user in a game.

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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns The edited message, or if the message wasn't sent by the bot, `True`.

Return type `telegram.Message`

Raises `telegram.error.TelegramError` – If the new score is not greater than the user's current score in the chat and *force* is `False`.

set_my_commands (*commands*, *timeout=None*, *api_kwargs=None*)
Use this method to change the list of the bot's commands.

Parameters

- **commands** (`List[BotCommand]` | (`str`, `str`)) – A JSON-serialized list of bot commands to be set as the list of the bot's commands. At most 100 commands can be specified.
- **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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success

Return type `True`

Raises `telegram.error.TelegramError` –

set_passport_data_errors (*user_id*, *errors*, *timeout=None*, *api_kwargs=None*)

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).

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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type `bool`

Raises `telegram.error.TelegramError` –

set_sticker_position_in_set (*sticker, position, timeout=None, api_kwargs=None*)

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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, `True` is returned.

Return type `bool`

Raises `telegram.error.TelegramError` –

set_sticker_set_thumb (*name, user_id, thumb=None, timeout=None, api_kwargs=None*)

Use this method to set the thumbnail of a sticker set. Animated thumbnails can be set for animated sticker sets only.

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

Parameters

- **name** (`str`) – Sticker set name
- **user_id** (`int`) – User identifier of created sticker set owner.
- **thumb** (`str | filelike object | bytes | pathlib.Path`, optional) – A PNG image with the thumbnail, must be up to 128 kilobytes in size and have width and height exactly 100px, or a TGS animation with the thumbnail up to 32 kilobytes in size; see https://core.telegram.org/animated_stickers#technical-requirements for animated sticker technical requirements. 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. Animated sticker set thumbnail can't be uploaded via HTTP URL.

Changed in version 13.2: Accept bytes as input.

- **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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, True is returned.

Return type bool

Raises `telegram.error.TelegramError` –

```
set_webhook(url=None, certificate=None, timeout=None, max_connections=40,
            allowed_updates=None, api_kwargs=None, ip_address=None,
            drop_pending_updates=None)
```

Use this method to specify a url and receive incoming updates via an outgoing webhook. Whenever there is an update for the bot, Telegram will send an HTTPS POST request to the specified url, containing a JSON-serialized Update. In case of an unsuccessful request, Telegram will give up after a reasonable amount of attempts.

If you'd like to make sure that the Webhook request comes from Telegram, Telegram recommends 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>)
- **ip_address** (str, optional) – The fixed IP address which will be used to send webhook requests instead of the IP address resolved through DNS.
- **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) – A JSON-serialized 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 except `telegram.Update.chat_member` (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.
- **drop_pending_updates** (bool, optional) – Pass True to drop all pending updates.
- **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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Note:

1. You will not be able to receive updates using `get_updates()` for 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.

If you're having any trouble setting up webhooks, please check out this [guide to Webhooks](#).

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

Raises `telegram.error.TelegramError` –

stopMessageLiveLocation (`chat_id=None`, `message_id=None`, `inline_message_id=None`, `reply_markup=None`, `timeout=None`, `api_kwargs=None`)
Alias for `stop_message_live_location()`

stopPoll (`chat_id`, `message_id`, `reply_markup=None`, `timeout=None`, `api_kwargs=None`)
Alias for `stop_poll()`

stop_message_live_location (`chat_id=None`, `message_id=None`, `inline_message_id=None`, `reply_markup=None`, `timeout=None`, `api_kwargs=None`)

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`) – Required if `inline_message_id` is not specified. 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 with live location to stop.
- **inline_message_id** (`str`, optional) – Required if `chat_id` and `message_id` are not specified. Identifier of the inline message.
- **reply_markup** (`telegram.InlineKeyboardMarkup`, optional) – A JSON-serialized object for a new inline keyboard.
- **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).
- **api_kwargs** (`dict`, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

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

Return type `telegram.Message`

stop_poll (`chat_id`, `message_id`, `reply_markup=None`, `timeout=None`, `api_kwargs=None`)
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.InlineKeyboardMarkup*, optional) – A JSON-serialized object for a new message inline keyboard.
- **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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, the stopped Poll with the final results is returned.

Return type *telegram.Poll*

Raises *telegram.error.TelegramError* –

property supports_inline_queries

Bot's *telegram.User.supports_inline_queries* attribute.

Type bool

to_dict()

See *telegram.TelegramObject.to_dict()*.

unbanChatMember (*chat_id*, *user_id*, *timeout=None*, *api_kwargs=None*, *only_if_banned=None*)

Alias for *unban_chat_member()*

unban_chat_member (*chat_id*, *user_id*, *timeout=None*, *api_kwargs=None*, *only_if_banned=None*)

Use this method to unban a previously kicked user in a supergroup or channel.

The user will *not* return to the group or channel automatically, but will be able to join via link, etc. The bot must be an administrator for this to work. By default, this method guarantees that after the call the user is not a member of the chat, but will be able to join it. So if the user is a member of the chat they will also be *removed* from the chat. If you don't want this, use the parameter *only_if_banned*.

Parameters

- **chat_id** (int | str) – Unique identifier for the target chat or username of the target supergroup or channel (in the format @channelusername).
- **user_id** (int) – Unique identifier of the target user.
- **only_if_banned** (bool, optional) – Do nothing if the user is not banned.
- **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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns bool On success, True is returned.

Raises *telegram.error.TelegramError* –

unpinAllChatMessages (*chat_id*, *timeout=None*, *api_kwargs=None*)

Alias for *unpin_all_chat_messages()*

unpinChatMessage (*chat_id*, *timeout=None*, *api_kwargs=None*, *message_id=None*)

Alias for *unpin_chat_message()*

unpin_all_chat_messages (*chat_id*, *timeout=None*, *api_kwargs=None*)

Use this method to clear the list of pinned messages in a chat. If the chat is not a private chat, the bot must be an administrator in the chat for this to work and must have the *telegram.ChatMember.can_pin_messages* admin right in a supergroup or *telegram.ChatMember.can_edit_messages* admin right in a 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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, True is returned.

Return type bool

Raises *telegram.error.TelegramError* –

unpin_chat_message (chat_id, timeout=None, api_kwargs=None, message_id=None)

Use this method to remove a message from the list of pinned messages in a chat. If the chat is not a private chat, the bot must be an administrator in the chat for this to work and must have the *telegram.ChatMember.can_pin_messages* admin right in a supergroup or *telegram.ChatMember.can_edit_messages* admin right in a channel.

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) – Identifier of a message to unpin. If not specified, the most recent pinned message (by sending date) will be unpinned.
- **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).
- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, True is returned.

Return type bool

Raises *telegram.error.TelegramError* –

uploadStickerFile (user_id, png_sticker, timeout=20, api_kwargs=None)

Alias for *upload_sticker_file()*

upload_sticker_file (user_id, png_sticker, timeout=20, api_kwargs=None)

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 | bytes | pathlib.Path) – 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.

Changed in version 13.2: Accept bytes as input.
- **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).

- **api_kwargs** (dict, optional) – Arbitrary keyword arguments to be passed to the Telegram API.

Returns On success, the uploaded File is returned.

Return type `telegram.File`

Raises `telegram.error.TelegramError` –

property username

Bot's username.

Type `str`

3.2.4 telegram.BotCommand

class `telegram.BotCommand` (*command, description, **kwargs*)

Bases: `telegram.base.TelegramObject`

This object represents a bot command.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *command* and *description* are equal.

Parameters

- **command** (`str`) – Text of the command, 1-32 characters. Can contain only lowercase English letters, digits and underscores.
- **description** (`str`) – Description of the command, 3-256 characters.

command

Text of the command.

Type `str`

description

Description of the command.

Type `str`

3.2.5 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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *id* is equal.

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.

- 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).
- If you're using `Bot.arbitrary_callback_data`, `data` may be an instance of `telegram.ext.InvalidCallbackData`. This will be the case, if the data associated with the button triggering the `telegram.CallbackQuery` was already deleted or if `data` was manipulated by a malicious client.

New in version 13.6.

Parameters

- **id** (`str`) – Unique identifier for this query.
- **from_user** (`telegram.User`) – Sender.
- **chat_instance** (`str`) – Global identifier, uniquely corresponding to the chat to which the message with the callback button was sent. Useful for high scores in games.
- **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.
- **data** (`str`, optional) – Data associated with the callback button. Be aware that a bad client can send arbitrary data in this field.
- **inline_message_id** (`str`, optional) – Identifier of the message sent via the bot in inline mode, that originated the query.
- **game_short_name** (`str`, optional) – Short name of a Game to be returned, serves as the unique identifier for the game
- **bot** (`telegram.Bot`, optional) – The Bot to use for instance methods.

id

Unique identifier for this query.

Type `str`

from_user

Sender.

Type `telegram.User`

chat_instance

Global identifier, uniquely corresponding to the chat to which the message with the callback button was sent.

Type `str`

message

Optional. Message with the callback button that originated the query.

Type `telegram.Message`

data

Optional. Data associated with the callback button.

Type `str|object`

inline_message_id

Optional. Identifier of the message sent via the bot in inline mode, that originated the query.

Type `str`

game_short_name

Optional. Short name of a Game to be returned.

Type `str`**bot**

The Bot to use for instance methods.

Type `telegram.Bot`, optional**MAX_ANSWER_TEXT_LENGTH**: `ClassVar[int] = 200``telegram.constants.MAX_ANSWER_CALLBACK_QUERY_TEXT_LENGTH`

New in version 13.2.

answer (`text=None`, `show_alert=False`, `url=None`, `cache_time=None`, `timeout=None`, `api_kwargs=None`)

Shortcut for:

```
bot.answer_callback_query(update.callback_query.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.answer_callback_query()`.

Returns On success, `True` is returned.**Return type** `bool`**copy_message** (`chat_id`, `caption=None`, `parse_mode=None`, `caption_entities=None`, `disable_notification=None`, `reply_to_message_id=None`, `allow_sending_without_reply=None`, `reply_markup=None`, `timeout=None`, `api_kwargs=None`)

Shortcut for:

```
update.callback_query.message.copy(
    chat_id,
    from_chat_id=update.message.chat_id,
    message_id=update.message.message_id,
    *args,
    **kwargs)
```

For the documentation of the arguments, please see `telegram.Message.copy()`.

Returns On success, returns the `MessageId` of the sent message.**Return type** `telegram.MessageId`**classmethod de_json** (`data`, `bot`)See `telegram.TelegramObject.de_json()`.**delete_message** (`timeout=None`, `api_kwargs=None`)

Shortcut for:

```
update.callback_query.message.delete(*args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Message.delete()`.

Returns On success, `True` is returned.**Return type** `bool`**edit_message_caption** (`caption=None`, `reply_markup=None`, `timeout=None`, `parse_mode=None`, `api_kwargs=None`, `caption_entities=None`)

Shortcut for either:

```
update.callback_query.message.edit_caption(caption, *args, **kwargs)
```

or:

```
bot.edit_message_caption(caption=caption
                        inline_message_id=update.callback_query.inline_
↪message_id,
                        *args, **kwargs)
```

For the documentation of the arguments, please see [`telegram.Bot.edit\_message\_caption\(\)`](#) and [`telegram.Message.edit\_caption\(\)`](#).

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_live_location (*latitude=None, longitude=None, location=None, reply_markup=None, timeout=None, api_kwargs=None, horizontal_accuracy=None, heading=None, proximity_alert_radius=None*)

Shortcut for either:

```
update.callback_query.message.edit_live_location(*args, **kwargs)
```

or:

```
bot.edit_message_live_location(
    inline_message_id=update.callback_query.inline_message_id,
    *args, **kwargs
)
```

For the documentation of the arguments, please see [`telegram.Bot.edit\_message\_live\_location\(\)`](#) and [`telegram.Message.edit\_live\_location\(\)`](#).

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_media (*media=None, reply_markup=None, timeout=None, api_kwargs=None*)

Shortcut for either:

```
update.callback_query.message.edit_media(*args, **kwargs)
```

or:

```
bot.edit_message_media(inline_message_id=update.callback_query.inline_
↪message_id,
                        *args, **kwargs)
```

For the documentation of the arguments, please see [`telegram.Bot.edit\_message\_media\(\)`](#) and [`telegram.Message.edit\_media\(\)`](#).

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=None, timeout=None, api_kwargs=None*)

Shortcut for either:

```
update.callback_query.message.edit_reply_markup(
    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
)
```

For the documentation of the arguments, please see `telegram.Bot.edit_message_reply_markup()` and `telegram.Message.edit_reply_markup()`.

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*, *parse_mode=None*, *disable_web_page_preview=None*, *reply_markup=None*, *timeout=None*, *api_kwargs=None*, *entities=None*)

Shortcut for either:

```
update.callback_query.message.edit_text(text, *args, **kwargs)
```

or:

```
bot.edit_message_text(text, inline_message_id=update.callback_query.inline_
↳message_id,
                        *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.edit_message_text()` and `telegram.Message.edit_text()`.

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

Return type `telegram.Message`

get_game_high_scores (*user_id*, *timeout=None*, *api_kwargs=None*)

Shortcut for either:

```
update.callback_query.message.get_game_high_score(*args, **kwargs)
```

or:

```
bot.get_game_high_scores(inline_message_id=update.callback_query.inline_
↳message_id,
                        *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.get_game_high_scores()` and `telegram.Message.get_game_high_score()`.

Returns List[`telegram.GameHighScore`]

pin_message (*disable_notification=None*, *timeout=None*, *api_kwargs=None*)

Shortcut for:

```
update.callback_query.message.pin(*args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Message.pin()`.

Returns On success, True is returned.

Return type `bool`

set_game_score (*user_id*, *score*, *force=None*, *disable_edit_message=None*, *timeout=None*, *api_kwargs=None*)

Shortcut for either:

```
update.callback_query.message.set_game_score(*args, **kwargs)
```

or:

```
bot.set_game_score(inline_message_id=update.callback_query.inline_message_id,
    ↪ id,
                    *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.set_game_score()` and `telegram.Message.set_game_score()`.

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

Return type `telegram.Message`

stop_message_live_location (*reply_markup=None, timeout=None, api_kwargs=None*)

Shortcut for either:

```
update.callback_query.message.stop_live_location(*args, **kwargs)
```

or:

```
bot.stop_message_live_location(
    inline_message_id=update.callback_query.inline_message_id,
    *args, **kwargs
)
```

For the documentation of the arguments, please see `telegram.Bot.stop_message_live_location()` and `telegram.Message.stop_live_location()`.

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

Return type `telegram.Message`

unpin_message (*timeout=None, api_kwargs=None*)

Shortcut for:

```
update.callback_query.message.unpin(*args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Message.unpin()`.

Returns On success, True is returned.

Return type `bool`

3.2.6 telegram.Chat

```
class telegram.Chat(id, type, title=None, username=None, first_name=None, last_name=None,
    bot=None, photo=None, description=None, invite_link=None,
    pinned_message=None, permissions=None, sticker_set_name=None,
    can_set_sticker_set=None, slow_mode_delay=None, bio=None,
    linked_chat_id=None, location=None, message_auto_delete_time=None,
    **kwargs)
```

Bases: `telegram.base.TelegramObject`

This object represents a chat.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `id` is equal.

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.
- **photo** (`telegram.ChatPhoto`, optional) – Chat photo. Returned only in `telegram.Bot.get_chat()`.
- **bio** (`str`, optional) – Bio of the other party in a private chat. Returned only in `telegram.Bot.get_chat()`.
- **description** (`str`, optional) – Description, for groups, supergroups and channel chats. Returned only in `telegram.Bot.get_chat()`.
- **invite_link** (`str`, optional) – Primary invite link, for groups, supergroups and channel. Returned only in `telegram.Bot.get_chat()`.
- **pinned_message** (`telegram.Message`, optional) – The most recent pinned message (by sending date). Returned only in `telegram.Bot.get_chat()`.
- **permissions** (`telegram.ChatPermissions`) – Optional. Default chat member permissions, for groups and supergroups. Returned only in `telegram.Bot.get_chat()`.
- **slow_mode_delay** (`int`, optional) – For supergroups, the minimum allowed delay between consecutive messages sent by each unprivileged user. Returned only in `telegram.Bot.get_chat()`.
- **message_auto_delete_time** (`int`, optional) – The time after which all messages sent to the chat will be automatically deleted; in seconds. Returned only in `telegram.Bot.get_chat()`.

New in version 13.4.

- **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 `telegram.Bot.get_chat()`.
- **can_set_sticker_set** (`bool`, optional) – True, if the bot can change group the sticker set. Returned only in `telegram.Bot.get_chat()`.
- **linked_chat_id** (`int`, optional) – Unique identifier for the linked chat, i.e. the discussion group identifier for a channel and vice versa; for supergroups and channel chats. Returned only in `telegram.Bot.get_chat()`.
- **location** (`telegram.ChatLocation`, optional) – For supergroups, the location to which the supergroup is connected. Returned only in `telegram.Bot.get_chat()`.
- ****kwargs** (`dict`) – Arbitrary keyword arguments.

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`

photo
Optional. Chat photo.

Type `telegram.ChatPhoto`

bio
Optional. Bio of the other party in a private chat. Returned only in `telegram.Bot.get_chat()`.

Type `str`

description
Optional. Description, for groups, supergroups and channel chats.

Type `str`

invite_link
Optional. Primary invite link, for groups, supergroups and channel. Returned only in `telegram.Bot.get_chat()`.

Type `str`

pinned_message
Optional. The most recent pinned message (by sending date). Returned only in `telegram.Bot.get_chat()`.

Type `telegram.Message`

permissions
Optional. Default chat member permissions, for groups and supergroups. Returned only in `telegram.Bot.get_chat()`.

Type `telegram.ChatPermissions`

slow_mode_delay
Optional. For supergroups, the minimum allowed delay between consecutive messages sent by each unprivileged user. Returned only in `telegram.Bot.get_chat()`.

Type `int`

message_auto_delete_time
Optional. The time after which all messages sent to the chat will be automatically deleted; in seconds. Returned only in `telegram.Bot.get_chat()`.
New in version 13.4.

Type `int`

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`

linked_chat_id

Optional. Unique identifier for the linked chat, i.e. the discussion group identifier for a channel and vice versa; for supergroups and channel chats. Returned only in `telegram.Bot.get_chat()`.

Type `int`

location

Optional. For supergroups, the location to which the supergroup is connected. Returned only in `telegram.Bot.get_chat()`.

Type `telegram.ChatLocation`

CHANNEL: ClassVar[str] = 'channel'

`telegram.constants.CHAT_CHANNEL`

GROUP: ClassVar[str] = 'group'

`telegram.constants.CHAT_GROUP`

PRIVATE: ClassVar[str] = 'private'

`telegram.constants.CHAT_PRIVATE`

SENDER: ClassVar[str] = 'sender'

`telegram.constants.CHAT_SENDER`

New in version 13.5.

SUPERGROUP: ClassVar[str] = 'supergroup'

`telegram.constants.CHAT_SUPERGROUP`

copy_message (`chat_id`, `message_id`, `caption=None`, `parse_mode=None`, `caption_entities=None`, `disable_notification=None`, `reply_to_message_id=None`, `allow_sending_without_reply=None`, `reply_markup=None`, `timeout=None`, `api_kwargs=None`)

Shortcut for:

```
bot.copy_message(from_chat_id=update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.copy_message()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

create_invite_link (`expire_date=None`, `member_limit=None`, `timeout=None`, `api_kwargs=None`)

Shortcut for:

```
bot.create_chat_invite_link(chat_id=update.effective_chat.id, *args,
↪ **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.create_chat_invite_link()`.

New in version 13.4.

Returns `telegram.ChatInviteLink`

classmethod de_json (`data`, `bot`)

See `telegram.TelegramObject.de_json()`.

edit_invite_link(*invite_link*, *expire_date=None*, *member_limit=None*, *timeout=None*,
api_kwargs=None)

Shortcut for:

```
bot.edit_chat_invite_link(chat_id=update.effective_chat.id, *args,  
↪ **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.edit_chat_invite_link()`.

New in version 13.4.

Returns `telegram.ChatInviteLink`

export_invite_link(*timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.export_chat_invite_link(chat_id=update.effective_chat.id, *args,  
↪ **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.export_chat_invite_link()`.

New in version 13.4.

Returns New invite link on success.

Return type `str`

property full_name

Convenience property. If *first_name* is not None gives, *first_name* followed by (if available) *last_name*.

Note: *full_name* will always be None, if the chat is a (super)group or channel.

New in version 13.2.

Type `str`

get_administrators(*timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.get_chat_administrators(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.get_chat_administrators()`.

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(*user_id*, *timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.get_chat_member(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.get_chat_member()`.

Returns `telegram.ChatMember`

get_members_count(*timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.get_chat_members_count(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.get_chat_members_count()`.

Returns `int`

kick_member (*user_id*, *timeout=None*, *until_date=None*, *api_kwargs=None*, *revoke_messages=None*)

Shortcut for:

```
bot.kick_chat_member(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.kick_chat_member()`.

Returns If the action was sent successfully.

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 (*timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.leave_chat(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.leave_chat()`.

Returns `bool` If the action was sent successfully.

property link

Convenience property. If the chat has a *username*, returns a t.me link of the chat.

Type `str`

pin_message (*message_id*, *disable_notification=None*, *timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.pin_chat_message(chat_id=update.effective_chat.id,
                     *args,
                     **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.pin_chat_message()`.

Returns On success, `True` is returned.

Return type `bool`

promote_member (*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*,
api_kwargs=None, *is_anonymous=None*, *can_manage_chat=None*,
can_manage_voice_chats=None)

Shortcut for:

```
bot.promote_chat_member(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.promote_chat_member()`.

New in version 13.2.

Returns If the action was sent successfully.

Return type `bool`

restrict_member (*user_id*, *permissions*, *until_date=None*, *timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.restrict_chat_member(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.restrict_chat_member()`.

New in version 13.2.

Returns If the action was sent successfully.

Return type `bool`

revoke_invite_link (*invite_link*, *timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.revoke_chat_invite_link(chat_id=update.effective_chat.id, *args, ↵
↪ **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.revoke_chat_invite_link()`.

New in version 13.4.

Returns `telegram.ChatInviteLink`

send_action (*action*, *timeout=None*, *api_kwargs=None*)

Alias for `send_chat_action`

send_animation (*animation*, *duration=None*, *width=None*, *height=None*, *thumb=None*,
caption=None, *parse_mode=None*, *disable_notification=None*,
reply_to_message_id=None, *reply_markup=None*, *timeout=20*,
api_kwargs=None, *allow_sending_without_reply=None*, *cap-*
tion_entities=None, *filename=None*)

Shortcut for:

```
bot.send_animation(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_animation()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_audio (*audio*, *duration=None*, *performer=None*, *title=None*, *caption=None*, *dis-*
able_notification=None, *reply_to_message_id=None*, *reply_markup=None*,
timeout=20, *parse_mode=None*, *thumb=None*, *api_kwargs=None*, *al-*
low_sending_without_reply=None, *caption_entities=None*, *filename=None*)

Shortcut for:

```
bot.send_audio(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_audio()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_chat_action (*action*, *timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.send_chat_action(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_chat_action()`.

Returns On success, True is returned.

Return type bool

send_contact (*phone_number=None, first_name=None, last_name=None, disable_notification=None, reply_to_message_id=None, reply_markup=None, timeout=None, contact=None, vcard=None, api_kwargs=None, allow_sending_without_reply=None*)

Shortcut for:

```
bot.send_contact(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_contact()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_copy (*from_chat_id, message_id, caption=None, parse_mode=None, caption_entities=None, disable_notification=None, reply_to_message_id=None, allow_sending_without_reply=None, reply_markup=None, timeout=None, api_kwargs=None*)

Shortcut for:

```
bot.copy_message(chat_id=update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.copy_message()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_dice (*disable_notification=None, reply_to_message_id=None, reply_markup=None, timeout=None, emoji=None, api_kwargs=None, allow_sending_without_reply=None*)

Shortcut for:

```
bot.send_dice(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_dice()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_document (*document, filename=None, caption=None, disable_notification=None, reply_to_message_id=None, reply_markup=None, timeout=20, parse_mode=None, thumb=None, api_kwargs=None, disable_content_type_detection=None, allow_sending_without_reply=None, caption_entities=None*)

Shortcut for:

```
bot.send_document(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_document()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_game (*game_short_name, disable_notification=None, reply_to_message_id=None, reply_markup=None, timeout=None, api_kwargs=None, allow_sending_without_reply=None*)

Shortcut for:

```
bot.send_game(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_game()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_invoice (*title*, *description*, *payload*, *provider_token*, *currency*, *prices*, *start_parameter=None*, *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=None*, *reply_to_message_id=None*, *reply_markup=None*, *provider_data=None*, *send_phone_number_to_provider=None*, *send_email_to_provider=None*, *timeout=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *max_tip_amount=None*, *suggested_tip_amounts=None*)

Shortcut for:

```
bot.send_invoice(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_invoice()`.

Warning: As of API 5.2 *start_parameter* is an optional argument and therefore the order of the arguments had to be changed. Use keyword arguments to make sure that the arguments are passed correctly.

Changed in version 13.5: As of Bot API 5.2, the parameter *start_parameter* is optional.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_location (*latitude=None*, *longitude=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *location=None*, *live_period=None*, *api_kwargs=None*, *horizontal_accuracy=None*, *heading=None*, *proximity_alert_radius=None*, *allow_sending_without_reply=None*)

Shortcut for:

```
bot.send_location(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_location()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_media_group (*media*, *disable_notification=None*, *reply_to_message_id=None*, *timeout=20*, *api_kwargs=None*, *allow_sending_without_reply=None*)

Shortcut for:

```
bot.send_media_group(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_media_group()`.

Returns] On success, instance representing the message posted.

Return type List[`telegram.Message`

send_message (*text*, *parse_mode=None*, *disable_web_page_preview=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *entities=None*)

Shortcut for:

```
bot.send_message(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_message()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_photo (*photo*, *caption=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *parse_mode=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *caption_entities=None*, *filename=None*)

Shortcut for:

```
bot.send_photo(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_photo()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_poll (*question*, *options*, *is_anonymous=True*, *type='regular'*, *allows_multiple_answers=False*, *correct_option_id=None*, *is_closed=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *explanation=None*, *explanation_parse_mode=None*, *open_period=None*, *close_date=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *explanation_entities=None*)

Shortcut for:

```
bot.send_poll(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_poll()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_sticker (*sticker*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *api_kwargs=None*, *allow_sending_without_reply=None*)

Shortcut for:

```
bot.send_sticker(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_sticker()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_venue (*latitude=None*, *longitude=None*, *title=None*, *address=None*, *foursquare_id=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *venue=None*, *foursquare_type=None*, *api_kwargs=None*, *google_place_id=None*, *google_place_type=None*, *allow_sending_without_reply=None*)

Shortcut for:

```
bot.send_venue(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_venue()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_video (*video*, *duration=None*, *caption=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *width=None*, *height=None*, *parse_mode=None*, *supports_streaming=None*, *thumb=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *caption_entities=None*, *filename=None*)

Shortcut for:

```
bot.send_video(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_video()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_video_note (*video_note*, *duration=None*, *length=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *thumb=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *filename=None*)

Shortcut for:

```
bot.send_video_note(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_video_note()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_voice (*voice*, *duration=None*, *caption=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *parse_mode=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *caption_entities=None*, *filename=None*)

Shortcut for:

```
bot.send_voice(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_voice()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

set_administrator_custom_title (*user_id*, *custom_title*, *timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.set_chat_administrator_custom_title(update.effective_chat.id, *args,   
↪ **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.set_chat_administrator_custom_title()`.

Returns: `bool`: If the action was sent successfully.

set_permissions (*permissions*, *timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.set_chat_permissions(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.set_chat_permissions()`.

Returns If the action was sent successfully.

Return type `bool`

unban_member (*user_id*, *timeout=None*, *api_kwargs=None*, *only_if_banned=None*)

Shortcut for:

```
bot.unban_chat_member(update.effective_chat.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.unban_chat_member()`.

Returns If the action was sent successfully.

Return type bool

unpin_all_messages (*timeout=None, api_kwargs=None*)

Shortcut for:

```
bot.unpin_all_chat_messages(chat_id=update.effective_chat.id,
                             *args,
                             **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.unpin_all_chat_messages()`.

Returns On success, True is returned.

Return type bool

unpin_message (*timeout=None, api_kwargs=None, message_id=None*)

Shortcut for:

```
bot.unpin_chat_message(chat_id=update.effective_chat.id,
                        *args,
                        **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.unpin_chat_message()`.

Returns On success, True is returned.

Return type bool

3.2.7 telegram.ChatAction

class telegram.ChatAction

Bases: object

Helper class to provide constants for different chat actions.

FIND_LOCATION: ClassVar[str] = 'find_location'
`telegram.constants.CHATACTION_FIND_LOCATION`

RECORD_AUDIO: ClassVar[str] = 'record_audio'
`telegram.constants.CHATACTION_RECORD_AUDIO`

Deprecated since version 13.5: Deprecated by Telegram. Use `RECORD_VOICE` instead.

RECORD_VIDEO: ClassVar[str] = 'record_video'
`telegram.constants.CHATACTION_RECORD_VIDEO`

RECORD_VIDEO_NOTE: ClassVar[str] = 'record_video_note'
`telegram.constants.CHATACTION_RECORD_VIDEO_NOTE`

RECORD_VOICE: ClassVar[str] = 'record_voice'
`telegram.constants.CHATACTION_RECORD_VOICE`

New in version 13.5.

TYPING: ClassVar[str] = 'typing'
`telegram.constants.CHATACTION_TYPING`

UPLOAD_AUDIO: ClassVar[str] = 'upload_audio'
`telegram.constants.CHATACTION_UPLOAD_AUDIO`

Deprecated since version 13.5: Deprecated by Telegram. Use `UPLOAD_VOICE` instead.

UPLOAD_DOCUMENT: ClassVar[str] = 'upload_document'
`telegram.constants.CHATACTION_UPLOAD_DOCUMENT`

```
UPLOAD_PHOTO: ClassVar[str] = 'upload_photo'
    telegram.constants.CHATACTION_UPLOAD_PHOTO

UPLOAD_VIDEO: ClassVar[str] = 'upload_video'
    telegram.constants.CHATACTION_UPLOAD_VIDEO

UPLOAD_VIDEO_NOTE: ClassVar[str] = 'upload_video_note'
    telegram.constants.CHATACTION_UPLOAD_VIDEO_NOTE

UPLOAD_VOICE: ClassVar[str] = 'upload_voice'
    telegram.constants.CHATACTION_UPLOAD_VOICE
```

New in version 13.5.

3.2.8 telegram.ChatInviteLink

```
class telegram.ChatInviteLink(invite_link, creator, is_primary, is_revoked, ex-
    pire_date=None, member_limit=None, **kwargs)
Bases: telegram.base.TelegramObject
```

This object represents an invite link for a chat.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *invite_link*, *creator*, *is_primary* and *is_revoked* are equal.

New in version 13.4.

Parameters

- **invite_link** (str) – The invite link.
- **creator** (*telegram.User*) – Creator of the link.
- **is_primary** (bool) – True, if the link is primary.
- **is_revoked** (bool) – True, if the link is revoked.
- **expire_date** (datetime.datetime, optional) – Date when the link will expire or has been expired.
- **member_limit** (int, optional) – Maximum number of users that can be members of the chat simultaneously after joining the chat via this invite link; 1-99999.

invite_link

The invite link. If the link was created by another chat administrator, then the second part of the link will be replaced with '... '.

Type str

creator

Creator of the link.

Type *telegram.User*

is_primary

True, if the link is primary.

Type bool

is_revoked

True, if the link is revoked.

Type bool

expire_date

Optional. Date when the link will expire or has been expired.

Type datetime.datetime

member_limit

Optional. Maximum number of users that can be members of the chat simultaneously after joining the chat via this invite link; 1-99999.

Type `int`

classmethod de_json (*data, bot*)

See `telegram.TelegramObject.de_json()`.

to_dict ()

See `telegram.TelegramObject.to_dict()`.

3.2.9 telegram.ChatLocation

class telegram.ChatLocation (*location, address, **kwargs*)

Bases: `telegram.base.TelegramObject`

This object represents a location to which a chat is connected.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *location* is equal.

Parameters

- **location** (`telegram.Location`) – The location to which the supergroup is connected. Can't be a live location.
- **address** (`str`) – Location address; 1-64 characters, as defined by the chat owner
- ****kwargs** (`dict`) – Arbitrary keyword arguments.

location

The location to which the supergroup is connected.

Type `telegram.Location`

address

Location address, as defined by the chat owner

Type `str`

classmethod de_json (*data, bot*)

See `telegram.TelegramObject.de_json()`.

3.2.10 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_polls=None,      can_send_other_messages=None,
                             can_add_web_page_previews=None,      is_member=None,      cus-
                             tom_title=None,      is_anonymous=None,      can_manage_chat=None,
                             can_manage_voice_chats=None,      **kwargs)
```

Bases: `telegram.base.TelegramObject`

This object contains information about one member of a chat.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *user* and *status* are equal.

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’.
- **custom_title** (`str`, optional) – Owner and administrators only. Custom title for this user.
- **is_anonymous** (`bool`, optional) – Owner and administrators only. `True`, if the user’s presence in the chat is hidden.
- **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_manage_chat** (`bool`, optional) – Administrators only. `True`, if the administrator can access the chat event log, chat statistics, message statistics in channels, see channel members, see anonymous administrators in supergroups and ignore slow mode. Implied by any other administrator privilege.

New in version 13.4.

- **can_manage_voice_chats** (`bool`, optional) – Administrators only. `True`, if the administrator can manage voice chats.

New in version 13.4.

- **can_change_info** (`bool`, optional) – Administrators and restricted only. `True`, if the user 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 and can pin messages; channels only.
- **can_delete_messages** (`bool`, optional) – Administrators only. `True`, if the administrator can delete messages of other users.
- **can_invite_users** (`bool`, optional) – Administrators and restricted only. `True`, if the user 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 and restricted only. `True`, if the user can pin messages, groups and 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.
- **can_send_polls** (`bool`, optional) – Restricted only. `True`, if the user is allowed to send polls.
- **can_send_other_messages** (`bool`, optional) – Restricted only. `True`, if the user can send animations, games, stickers and use inline bots.

- **can_add_web_page_previews** (`bool`, optional) – Restricted only. `True`, if user may add web page previews to his messages.

user

Information about the user.

Type `telegram.User`

status

The member's status in the chat.

Type `str`

custom_title

Optional. Custom title for owner and administrators.

Type `str`

is_anonymous

Optional. `True`, if the user's presence in the chat is hidden.

Type `bool`

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_manage_chat

Optional. If the administrator can access the chat event log, chat statistics, message statistics in channels, see channel members, see anonymous administrators in supergroups and ignore slow mode.

New in version 13.4.

Type `bool`

can_manage_voice_chats

Optional. if the administrator can manage voice chats.

New in version 13.4.

Type `bool`

can_change_info

Optional. If the user 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 user 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 user 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_polls

Optional. True, if the user is allowed to send polls.

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`

ADMINISTRATOR: `ClassVar[str] = 'administrator'`

`telegram.constants.CHATMEMBER_ADMINISTRATOR`

CREATOR: `ClassVar[str] = 'creator'`

`telegram.constants.CHATMEMBER_CREATOR`

KICKED: `ClassVar[str] = 'kicked'`

`telegram.constants.CHATMEMBER_KICKED`

LEFT: `ClassVar[str] = 'left'`

`telegram.constants.CHATMEMBER_LEFT`

MEMBER: `ClassVar[str] = 'member'`

`telegram.constants.CHATMEMBER_MEMBER`

RESTRICTED: `ClassVar[str] = 'restricted'`

`telegram.constants.CHATMEMBER_RESTRICTED`

classmethod `de_json(data, bot)`

See `telegram.TelegramObject.de_json()`.

to_dict()

See `telegram.TelegramObject.to_dict()`.

3.2.11 telegram.ChatMemberUpdated

```
class telegram.ChatMemberUpdated(chat, from_user, date, old_chat_member,
                                new_chat_member, invite_link=None, **kwargs)
```

Bases: telegram.base.TelegramObject

This object represents changes in the status of a chat member.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *chat*, *from_user*, *date*, *old_chat_member* and *new_chat_member* are equal.

New in version 13.4.

Note: In Python `from` is a reserved word, use `from_user` instead.

Parameters

- **chat** (*telegram.Chat*) – Chat the user belongs to.
- **from_user** (*telegram.User*) – Performer of the action, which resulted in the change.
- **date** (*datetime.datetime*) – Date the change was done in Unix time. Converted to *datetime.datetime*.
- **old_chat_member** (*telegram.ChatMember*) – Previous information about the chat member.
- **new_chat_member** (*telegram.ChatMember*) – New information about the chat member.
- **invite_link** (*telegram.ChatInviteLink*, optional) – Chat invite link, which was used by the user to join the chat. For joining by invite link events only.

chat

Chat the user belongs to.

Type *telegram.Chat*

from_user

Performer of the action, which resulted in the change.

Type *telegram.User*

date

Date the change was done in Unix time. Converted to *datetime.datetime*.

Type *datetime.datetime*

old_chat_member

Previous information about the chat member.

Type *telegram.ChatMember*

new_chat_member

New information about the chat member.

Type *telegram.ChatMember*

invite_link

Optional. Chat invite link, which was used by the user to join the chat.

Type *telegram.ChatInviteLink*

classmethod de_json (*data*, *bot*)

See *telegram.TelegramObject.de_json()*.

difference()

Computes the difference between `old_chat_member` and `new_chat_member`.

Example

```
>>> chat_member_updated.difference()
{'custom_title': ('old title', 'new title')}
```

Note: To determine, if the `telegram.ChatMember.user` attribute has changed, *every* attribute of the user will be checked.

New in version 13.5.

Returns A dictionary mapping attribute names to tuples of the form `(old_value, new_value)`

Return type Dict[str, Tuple[obj, obj]]

to_dict()

See `telegram.TelegramObject.to_dict()`.

3.2.12 telegram.ChatPermissions

class telegram.ChatPermissions(*can_send_messages=None, can_send_media_messages=None, can_send_polls=None, can_send_other_messages=None, can_add_web_page_previews=None, can_change_info=None, can_invite_users=None, can_pin_messages=None, **kwargs*)

Bases: telegram.base.TelegramObject

Describes actions that a non-administrator user is allowed to take in a chat.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `can_send_messages`, `can_send_media_messages`, `can_send_polls`, `can_send_other_messages`, `can_add_web_page_previews`, `can_change_info`, `can_invite_users` and `can_pin_messages` are equal.

Note: Though not stated explicitly in the official docs, Telegram changes not only the permissions that are set, but also sets all the others to `False`. However, since not documented, this behaviour may change unbeknown to PTB.

Parameters

- **can_send_messages** (bool, optional) – True, if the user is allowed to send text messages, contacts, locations and venues.
- **can_send_media_messages** (bool, optional) – True, if the user is allowed to send audios, documents, photos, videos, video notes and voice notes, implies `can_send_messages`.
- **can_send_polls** (bool, optional) – True, if the user is allowed to send polls, implies `can_send_messages`.
- **can_send_other_messages** (bool, optional) – True, if the user is allowed to send animations, games, stickers and use inline bots, implies `can_send_media_messages`.

- **can_add_web_page_previews** (bool, optional) – True, if the user is allowed to add web page previews to their messages, implies *can_send_media_messages*.
- **can_change_info** (bool, optional) – True, if the user is allowed to change the chat title, photo and other settings. Ignored in public supergroups.
- **can_invite_users** (bool, optional) – True, if the user is allowed to invite new users to the chat.
- **can_pin_messages** (bool, optional) – True, if the user is allowed to pin messages. Ignored in public supergroups.

can_send_messages

Optional. True, if the user is allowed to send text messages, contacts, locations and venues.

Type bool

can_send_media_messages

Optional. True, if the user is allowed to send audios, documents, photos, videos, video notes and voice notes, implies *can_send_messages*.

Type bool

can_send_polls

Optional. True, if the user is allowed to send polls, implies *can_send_messages*.

Type bool

can_send_other_messages

Optional. True, if the user is allowed to send animations, games, stickers and use inline bots, implies *can_send_media_messages*.

Type bool

can_add_web_page_previews

Optional. True, if the user is allowed to add web page previews to their messages, implies *can_send_media_messages*.

Type bool

can_change_info

Optional. True, if the user is allowed to change the chat title, photo and other settings. Ignored in public supergroups.

Type bool

can_invite_users

Optional. True, if the user is allowed to invite new users to the chat.

Type bool

can_pin_messages

Optional. True, if the user is allowed to pin messages. Ignored in public supergroups.

Type bool

3.2.13 telegram.ChatPhoto

```
class telegram.ChatPhoto(small_file_id, small_file_unique_id, big_file_id, big_file_unique_id,  
                        bot=None, **kwargs)  
Bases: telegram.base.TelegramObject
```

This object represents a chat photo.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *small_file_unique_id* and *big_file_unique_id* are equal.

Parameters

- **small_file_id** (*str*) – Unique file identifier of small (160x160) chat photo. This *file_id* can be used only for photo download and only for as long as the photo is not changed.
- **small_file_unique_id** (*str*) – Unique file identifier of small (160x160) chat photo, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the file.
- **big_file_id** (*str*) – Unique file identifier of big (640x640) chat photo. This *file_id* can be used only for photo download and only for as long as the photo is not changed.
- **big_file_unique_id** (*str*) – Unique file identifier of big (640x640) chat photo, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the file.
- **bot** (*telegram.Bot*, optional) – The Bot to use for instance methods
- ****kwargs** (*dict*) – Arbitrary keyword arguments.

small_file_id

File identifier of small (160x160) chat photo. This *file_id* can be used only for photo download and only for as long as the photo is not changed.

Type *str*

small_file_unique_id

Unique file identifier of small (160x160) chat photo, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the file.

Type *str*

big_file_id

File identifier of big (640x640) chat photo. This *file_id* can be used only for photo download and only for as long as the photo is not changed.

Type *str*

big_file_unique_id

Unique file identifier of big (640x640) chat photo, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the file.

Type *str*

get_big_file (*timeout=None, api_kwargs=None*)

Convenience wrapper over *telegram.Bot.get_file* for getting the big (640x640) chat photo

For the documentation of the arguments, please see *telegram.Bot.get_file()*.

Returns *telegram.File*

Raises *telegram.error.TelegramError* –

get_small_file (*timeout=None, api_kwargs=None*)

Convenience wrapper over *telegram.Bot.get_file* for getting the small (160x160) chat photo

For the documentation of the arguments, please see *telegram.Bot.get_file()*.

Returns `telegram.File`

Raises `telegram.error.TelegramError` –

3.2.14 telegram.constants Module

Constants in the Telegram network.

The following constants were extracted from the [Telegram Bots FAQ](#) and [Telegram Bots API](#).

`telegram.constants.BOT_API_VERSION`

5.2. Telegram Bot API version supported by this version of *python-telegram-bot*. Also available as `telegram.bot_api_version`.

New in version 13.4.

Type `str`

`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_PHOTOSIZE_UPLOAD`

In bytes (10MB)

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`

`telegram.constants.MAX_ANSWER_CALLBACK_QUERY_TEXT_LENGTH`
200

New in version 13.2.

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

`telegram.constants.ANONYMOUS_ADMIN_ID`
1087968824 (User id in groups for anonymous admin)

Type int

`telegram.constants.SERVICE_CHAT_ID`
777000 (Telegram service chat, that also acts as sender of channel posts forwarded to discussion groups)

Type int

The following constants are related to specific classes and are also available as attributes of those classes:

telegram.Chat:

`telegram.constants.CHAT_PRIVATE`
'private'

Type str

`telegram.constants.CHAT_GROUP`
'group'

Type str

`telegram.constants.CHAT_SUPERGROUP`
'supergroup'

Type str

`telegram.constants.CHAT_CHANNEL`
'channel'

Type str

`telegram.constants.CHAT_SENDER`
'sender'. Only relevant for *telegram.InlineQuery.chat_type*.

New in version 13.5.

Type str

telegram.ChatAction:

`telegram.constants.CHATACTION_FIND_LOCATION`
'find_location'

Type str

`telegram.constants.CHATACTION_RECORD_AUDIO`
'record_audio'

Deprecated since version 13.5: Deprecated by Telegram. Use *CHATACTION_RECORD_VOICE* instead.

Type str

`telegram.constants.CHATACTION_RECORD_VOICE`
'record_voice'

New in version 13.5.

Type str

```
telegram.constants.CHATACTION_RECORD_VIDEO  
'record_video'
```

Type str

```
telegram.constants.CHATACTION_RECORD_VIDEO_NOTE  
'record_video_note'
```

Type str

```
telegram.constants.CHATACTION_TYPING  
'typing'
```

Type str

```
telegram.constants.CHATACTION_UPLOAD_AUDIO  
'upload_audio'
```

Deprecated since version 13.5: Deprecated by Telegram. Use [CHATACTION_UPLOAD_VOICE](#) instead.

Type str

```
telegram.constants.CHATACTION_UPLOAD_VOICE  
'upload_voice'
```

New in version 13.5.

Type str

```
telegram.constants.CHATACTION_UPLOAD_DOCUMENT  
'upload_document'
```

Type str

```
telegram.constants.CHATACTION_UPLOAD_PHOTO  
'upload_photo'
```

Type str

```
telegram.constants.CHATACTION_UPLOAD_VIDEO  
'upload_video'
```

Type str

```
telegram.constants.CHATACTION_UPLOAD_VIDEO_NOTE  
'upload_video_note'
```

Type str

telegram.ChatMember:

```
telegram.constants.CHATMEMBER_ADMINISTRATOR  
'administrator'
```

Type str

```
telegram.constants.CHATMEMBER_CREATOR  
'creator'
```

Type str

```
telegram.constants.CHATMEMBER_KICKED  
'kicked'
```

Type str

```
telegram.constants.CHATMEMBER_LEFT  
'left'
```

Type str

```
telegram.constants.CHATMEMBER_MEMBER  
    'member'
```

Type str

```
telegram.constants.CHATMEMBER_RESTRICTED  
    'restricted'
```

Type str

telegram.Dice:

```
telegram.constants.DICE_DICE  
    ''
```

Type str

```
telegram.constants.DICE_DARTS  
    ''
```

Type str

```
telegram.constants.DICE_BASKETBALL  
    ''
```

Type str

```
telegram.constants.DICE_FOOTBALL  
    ''
```

Type str

```
telegram.constants.DICE_SLOT_MACHINE  
    ''
```

Type str

```
telegram.constants.DICE_BOWLING  
    ''
```

New in version 13.4.

Type str

```
telegram.constants.DICE_ALL_EMOJI  
    List of all supported base emoji.
```

Changed in version 13.4: Added *DICE_BOWLING*

Type List[str]

telegram.MessageEntity:

```
telegram.constants.MESSAGEENTITY_MENTION  
    'mention'
```

Type str

```
telegram.constants.MESSAGEENTITY_HASHTAG  
    'hashtag'
```

Type str

```
telegram.constants.MESSAGEENTITY_CASHTAG  
    'cashtag'
```

Type str

```
telegram.constants.MESSAGEENTITY_PHONE_NUMBER  
    'phone_number'
```

Type str

telegram.constants.MESSAGEENTITY_BOT_COMMAND
 'bot_command'

Type str

telegram.constants.MESSAGEENTITY_URL
 'url'

Type str

telegram.constants.MESSAGEENTITY_EMAIL
 'email'

Type str

telegram.constants.MESSAGEENTITY_BOLD
 'bold'

Type str

telegram.constants.MESSAGEENTITY_ITALIC
 'italic'

Type str

telegram.constants.MESSAGEENTITY_CODE
 'code'

Type str

telegram.constants.MESSAGEENTITY_PRE
 'pre'

Type str

telegram.constants.MESSAGEENTITY_TEXT_LINK
 'text_link'

Type str

telegram.constants.MESSAGEENTITY_TEXT_MENTION
 'text_mention'

Type str

telegram.constants.MESSAGEENTITY_UNDERLINE
 'underline'

Type str

telegram.constants.MESSAGEENTITY_STRIKETHROUGH
 'strikethrough'

Type str

telegram.constants.MESSAGEENTITY_ALL_TYPES
 List of all the types of message entity.

Type List[str]

telegram.ParseMode:

telegram.constants.PARSEMODE_MARKDOWN
 'Markdown'

Type str

telegram.constants.PARSEMODE_MARKDOWN_V2
 'MarkdownV2'

Type str

```
telegram.constants.PARSEMODE_HTML
    'HTML'

    Type str

telegram.Poll:

telegram.constants.POLL_REGULAR
    'regular'

    Type str

telegram.constants.POLL QUIZ
    'quiz'

    Type str

telegram.constants.MAX_POLL_QUESTION_LENGTH
    300

    Type int

telegram.constants.MAX_POLL_OPTION_LENGTH
    100

    Type int

telegram.MaskPosition:

telegram.constants.STICKER_FOREHEAD
    'forehead'

    Type str

telegram.constants.STICKER_EYES
    'eyes'

    Type str

telegram.constants.STICKER_MOUTH
    'mouth'

    Type str

telegram.constants.STICKER_CHIN
    'chin'

    Type str

telegram.Update:

telegram.constants.UPDATE_MESSAGE
    'message'

    New in version 13.5.

    Type str

telegram.constants.UPDATE_EDITED_MESSAGE
    'edited_message'

    New in version 13.5.

    Type str

telegram.constants.UPDATE_CHANNEL_POST
    'channel_post'

    New in version 13.5.

    Type str
```

```
telegram.constants.UPDATE_EDITED_CHANNEL_POST  
'edited_channel_post'
```

New in version 13.5.

Type str

```
telegram.constants.UPDATE_INLINE_QUERY  
'inline_query'
```

New in version 13.5.

Type str

```
telegram.constants.UPDATE_CHOSEN_INLINE_RESULT  
'chosen_inline_result'
```

New in version 13.5.

Type str

```
telegram.constants.UPDATE_CALLBACK_QUERY  
'callback_query'
```

New in version 13.5.

Type str

```
telegram.constants.UPDATE_SHIPPING_QUERY  
'shipping_query'
```

New in version 13.5.

Type str

```
telegram.constants.UPDATE_PRE_CHECKOUT_QUERY  
'pre_checkout_query'
```

New in version 13.5.

Type str

```
telegram.constants.UPDATE_POLL  
'poll'
```

New in version 13.5.

Type str

```
telegram.constants.UPDATE_POLL_ANSWER  
'poll_answer'
```

New in version 13.5.

Type str

```
telegram.constants.UPDATE_MY_CHAT_MEMBER  
'my_chat_member'
```

New in version 13.5.

Type str

```
telegram.constants.UPDATE_CHAT_MEMBER  
'chat_member'
```

New in version 13.5.

Type str

```
telegram.constants.UPDATE_ALL_TYPES  
List of all update types.
```

New in version 13.5.

Type `List[str]`

3.2.15 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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `phone_number` is equal.

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.

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`

3.2.16 telegram.Dice

```
class telegram.Dice(value, emoji, **kwargs)  
Bases: telegram.base.TelegramObject
```

This object represents an animated emoji with a random value for currently supported base emoji. (The singular form of “dice” is “die”. However, PTB mimics the Telegram API, which uses the term “dice”.)

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `value` and `emoji` are equal.

Note: If `emoji` is “”, a value of 6 currently represents a bullseye, while a value of 1 indicates that the dartboard was missed. However, this behaviour is undocumented and might be changed by Telegram.

If *emoji* is "", a value of 4 or 5 currently score a basket, while a value of 1 to 3 indicates that the basket was missed. However, this behaviour is undocumented and might be changed by Telegram.

If *emoji* is "", a value of 4 to 5 currently scores a goal, while a value of 1 to 3 indicates that the goal was missed. However, this behaviour is undocumented and might be changed by Telegram.

If *emoji* is "", a value of 6 knocks all the pins, while a value of 1 means all the pins were missed. However, this behaviour is undocumented and might be changed by Telegram.

If *emoji* is "", each value corresponds to a unique combination of symbols, which can be found at our [wiki](#). However, this behaviour is undocumented and might be changed by Telegram.

Parameters

- **value** (`int`) – Value of the dice. 1-6 for dice, darts and bowling balls, 1-5 for basketball and football/soccer ball, 1-64 for slot machine.
- **emoji** (`str`) – Emoji on which the dice throw animation is based.

value

Value of the dice.

Type `int`

emoji

Emoji on which the dice throw animation is based.

Type `str`

```
ALL_EMOJI: ClassVar[List[str]] = ['', '', '', '', '', '']
telegram.constants.DICE_ALL_EMOJI
```

```
BASKETBALL: ClassVar[str] = ''
telegram.constants.DICE_BASKETBALL
```

```
BOWLING: ClassVar[str] = ''
telegram.constants.DICE_BOWLING
```

New in version 13.4.

```
DARTS: ClassVar[str] = ''
telegram.constants.DICE_DARTS
```

```
DICE: ClassVar[str] = ''
telegram.constants.DICE_DICE
```

```
FOOTBALL: ClassVar[str] = ''
telegram.constants.DICE_FOOTBALL
```

```
SLOT_MACHINE: ClassVar[str] = ''
telegram.constants.DICE_SLOT_MACHINE
```

3.2.17 telegram.Document

```
class telegram.Document(file_id, file_unique_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).

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *file_unique_id* is equal.

Parameters

- **file_id** (*str*) – Identifier for this file, which can be used to download or reuse the file.
- **file_unique_id** (*str*) – Unique identifier for this file, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the file.
- **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.

file_id

File identifier.

Type *str*

file_unique_id

Unique identifier for this file, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the file.

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*

classmethod de_json (*data*, *bot*)

See *telegram.TelegramObject.de_json()*.

get_file (*timeout=None*, *api_kwargs=None*)

Convenience wrapper over *telegram.Bot.get_file*

For the documentation of the arguments, please see *telegram.Bot.get_file()*.

Returns *telegram.File*

Raises *telegram.error.TelegramError* –

3.2.18 telegram.error module

This module contains an object that represents Telegram errors.

exception telegram.error.**BadRequest** (*message*)

Bases: [telegram.error.NetworkError](#)

Raised when Telegram could not process the request correctly.

exception telegram.error.**ChatMigrated** (*new_chat_id*)

Bases: [telegram.error.TelegramError](#)

Raised when the requested group chat migrated to supergroup and has a new chat id.

Parameters **new_chat_id** (int) – The new chat id of the group.

new_chat_id

exception telegram.error.**Conflict** (*message*)

Bases: [telegram.error.TelegramError](#)

Raised when a long poll or webhook conflicts with another one.

exception telegram.error.**InvalidToken**

Bases: [telegram.error.TelegramError](#)

Raised when the token is invalid.

exception telegram.error.**NetworkError** (*message*)

Bases: [telegram.error.TelegramError](#)

Base class for exceptions due to networking errors.

exception telegram.error.**RetryAfter** (*retry_after*)

Bases: [telegram.error.TelegramError](#)

Raised when flood limits were exceeded.

Parameters **retry_after** (int) – Time in seconds, after which the bot can retry the request.

retry_after

exception telegram.error.**TelegramError** (*message*)

Bases: `Exception`

Base class for Telegram errors.

message

exception telegram.error.**TimedOut**

Bases: [telegram.error.NetworkError](#)

Raised when a request took too long to finish.

exception telegram.error.**Unauthorized** (*message*)

Bases: [telegram.error.TelegramError](#)

Raised when the bot has not enough rights to perform the requested action.

3.2.19 telegram.File

```
class telegram.File(file_id, file_unique_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 `telegram.Bot.get_file()`.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `file_unique_id` is equal.

Note:

- Maximum file size to download is 20 MB.
 - 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()`.
-

Parameters

- **file_id** (str) – Identifier for this file, which can be used to download or reuse the file.
- **file_unique_id** (str) – Unique identifier for this file, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the 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.

file_id

Identifier for this file.

Type str

file_unique_id

Unique identifier for this file, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the file.

Type str

file_size

Optional. File size.

Type str

file_path

Optional. File path. Use [download](#) to get the file.

Type str

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 the file has no filename, it the file ID will be used as filename. 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.

- If neither `custom_path` nor `out` is provided and `file_path` is the path of a local file (which is the case when a Bot API Server is running in local mode), this method will just return the path.
-

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 or the file path of the local file.

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`

set_credentials (*credentials*)

Sets the passport credentials for the file.

Parameters **credentials** (`telegram.FileCredentials`) – The credentials.

3.2.20 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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `selective` is equal.

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.

force_reply

Shows reply interface to the user, as if they manually selected the bots message and tapped 'Reply'.

Type `True`

selective

Optional. Force reply from specific users only.

Type `bool`

3.2.21 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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `text`, `url`, `login_url`, `callback_data`, `switch_inline_query`, `switch_inline_query_current_chat`, `callback_game` and `pay` are equal.

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.
- If your bot allows for arbitrary callback data, in keyboards returned in a response from telegram, `callback_data` maybe be an instance of `telegram.ext.InvalidCallbackData`. This will be the case, if the data associated with the button was already deleted.

New in version 13.6.

Warning: If your bot allows your arbitrary callback data, buttons whose callback data is a non-hashable object will be come unhashable. Trying to evaluate `hash(button)` will result in a `TypeError`.

Changed in version 13.6.

Parameters

- **text** (`str`) – Label text on the button.
- **url** (`str`, optional) – HTTP or `tg://` url to be opened when button is pressed.
- **login_url** (`telegram.LoginUrl`, optional) – An HTTP URL used to automatically authorize the user. Can be used as a replacement for the Telegram Login Widget.
- **callback_data** (`str` | Any, optional) – Data to be sent in a callback query to the bot when button is pressed, UTF-8 1-64 bytes. If the bot instance allows arbitrary callback data, anything can be passed.
- **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.

text

Label text on the button.

Type `str`

url

Optional. HTTP or `tg://` url to be opened when button is pressed.

Type `str`

login_url

Optional. An HTTP URL used to automatically authorize the user. Can be used as a replacement for the Telegram Login Widget.

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|object`

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. Can be empty, in which case just the bot's username will be inserted.

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. Can be empty, in which case just the bot's username will be inserted.

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`

update_callback_data (*callback_data*)

Sets *callback_data* to the passed object. Intended to be used by *telegram.ext.CallbackDataCache*.

New in version 13.6.

Parameters **callback_data** (`obj`) – The new callback data.

3.2.22 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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their the size of *inline_keyboard* and all the buttons are equal.

Parameters

- **inline_keyboard** (List[List[*telegram.InlineKeyboardButton*]]) – List of button rows, each represented by a list of InlineKeyboardButton objects.
- ****kwargs** (dict) – Arbitrary keyword arguments.

inline_keyboard

List of button rows, each represented by a list of InlineKeyboardButton objects.

Type List[List[*telegram.InlineKeyboardButton*]]

classmethod de_json (*data*, *bot*)

See *telegram.TelegramObject.de_json()*.

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.

to_dict ()

See *telegram.TelegramObject.to_dict()*.

3.2.23 telegram.InputFile

class telegram.**InputFile** (*obj, filename=None, attach=None*)

Bases: object

This object represents a Telegram InputFile.

Parameters

- **obj** (File handler | bytes) – An open file descriptor or the files content as bytes.
- **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* –

input_file_content

The binary 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

static is_image (*stream*)

Check if the content file is an image by analyzing its headers.

Parameters *stream* (bytes) – A byte stream representing the content of a file.

Returns The mime-type of an image, if the input is an image, or None else.

Return type str | None

to_dict ()

See *telegram.TelegramObject.to_dict()*.

3.2.24 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.

to_dict ()

See *telegram.TelegramObject.to_dict()*.

3.2.25 telegram.InputMediaAnimation

```
class telegram.InputMediaAnimation(media, thumb=None, caption=None,  
                                  parse_mode=None, width=None, height=None, duration=None, caption_entities=None, filename=None)
```

Bases: telegram.files.inputmedia.InputMedia

Represents an animation file (GIF or H.264/MPEG-4 AVC video without sound) to be sent.

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.

Parameters

- **media** (`str` | *filelike object* | `bytes` | `pathlib.Path` | `telegram.Animation`) – 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.

Changed in version 13.2: Accept `bytes` as input.

- **filename** (`str`, optional) – Custom file name for the animation, when uploading a new file. Convenience parameter, useful e.g. when sending files generated by the `tempfile` module.

New in version 13.1.

- **thumb** (*filelike object* | `bytes` | `pathlib.Path`, optional) – Thumbnail of the file sent; can be ignored if thumbnail generation for the file is supported server-side. The thumbnail should be in JPEG format and less than 200 kB in size. A thumbnail's width and height should not exceed 320. Ignored if the file is not uploaded using multipart/form-data. Thumbnails can't be reused and can be only uploaded as a new file.

Changed in version 13.2: Accept `bytes` as input.

- **caption** (`str`, optional) – Caption of the animation to be sent, 0-1024 characters after entities parsing.
- **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.
- **caption_entities** (`List[telegram.MessageEntity]`, optional) – List of special entities that appear in the caption, which can be specified instead of `parse_mode`.
- **width** (`int`, optional) – Animation width.
- **height** (`int`, optional) – Animation height.
- **duration** (`int`, optional) – Animation duration.

type

`animation.`

Type `str`

media

Animation to send.

Type `str` | `telegram.InputFile`

caption

Optional. Caption of the document to be sent.

Type `str`

parse_mode

Optional. The parse mode to use for text formatting.

Type `str`

caption_entities

Optional. List of special entities that appear in the caption.

Type `List[telegram.MessageEntity]`

thumb

Optional. Thumbnail of the file to send.

Type `telegram.InputFile`

width

Optional. Animation width.

Type `int`

height

Optional. Animation height.

Type `int`

duration

Optional. Animation duration.

Type `int`

3.2.26 telegram.InputMediaAudio

```
class telegram.InputMediaAudio(media, thumb=None, caption=None, parse_mode=None,  
                                duration=None, performer=None, title=None, cap-  
                                tion_entities=None, filename=None)
```

Bases: `telegram.files.inputmedia.InputMedia`

Represents an audio file to be treated as music to be sent.

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.

Parameters

- **media** (`str` | *filelike object* | `bytes` | `pathlib.Path` | `telegram.Audio`) – 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.Audio` object to send.

Changed in version 13.2: Accept `bytes` as input.

- **filename** (`str`, optional) – Custom file name for the audio, when uploading a new file. Convenience parameter, useful e.g. when sending files generated by the `tempfile` module.

New in version 13.1.

- **caption** (`str`, optional) – Caption of the audio to be sent, 0-1024 characters after entities parsing.
- **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.

- **caption_entities** (List[*telegram.MessageEntity*], optional) – List of special entities that appear in the caption, which can be specified instead of `parse_mode`.
- **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* | bytes | *pathlib.Path*, optional) – Thumbnail of the file sent; can be ignored if thumbnail generation for the file is supported server-side. The thumbnail should be in JPEG format and less than 200 kB in size. A thumbnail's width and height should not exceed 320. Ignored if the file is not uploaded using multipart/form-data. Thumbnails can't be reused and can be only uploaded as a new file.

Changed in version 13.2: Accept bytes as input.

type

audio.

Type str

media

Audio file to send.

Type str | *telegram.InputFile*

caption

Optional. Caption of the document to be sent.

Type str

parse_mode

Optional. The parse mode to use for text formatting.

Type str

caption_entities

Optional. List of special entities that appear in the caption.

Type List[*telegram.MessageEntity*]

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 to send.

Type *telegram.InputFile*

3.2.27 telegram.InputMediaDocument

```
class telegram.InputMediaDocument (media,                thumb=None,                cap-
                                   tion=None,            parse_mode=None,            dis-
                                   able_content_type_detection=None,        cap-
                                   tion_entities=None, filename=None)
```

Bases: telegram.files.inputmedia.InputMedia

Represents a general file to be sent.

Parameters

- **media** (*str* | *filelike object* | *bytes* | *pathlib.Path* | *telegram.Document*) – 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.

Changed in version 13.2: Accept `bytes` as input.

- **filename** (*str*, optional) – Custom file name for the document, when uploading a new file. Convenience parameter, useful e.g. when sending files generated by the `tempfile` module.

New in version 13.1.

- **caption** (*str*, optional) – Caption of the document to be sent, 0-1024 characters after entities parsing.
- **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.
- **caption_entities** (*List[telegram.MessageEntity]*, optional) – List of special entities that appear in the caption, which can be specified instead of `parse_mode`.
- **thumb** (*filelike object* | *bytes* | *pathlib.Path*, optional) – Thumbnail of the file sent; can be ignored if thumbnail generation for the file is supported server-side. The thumbnail should be in JPEG format and less than 200 kB in size. A thumbnail's width and height should not exceed 320. Ignored if the file is not uploaded using multipart/form-data. Thumbnails can't be reused and can be only uploaded as a new file.

Changed in version 13.2: Accept `bytes` as input.

- **disable_content_type_detection** (*bool*, optional) – Disables automatic server-side content type detection for files uploaded using multipart/form-data. Always `true`, if the document is sent as part of an album.

type

document.

Type *str*

media

File to send.

Type *str* | *telegram.InputFile*

caption

Optional. Caption of the document to be sent.

Type *str*

parse_mode

Optional. The parse mode to use for text formatting.

Type *str*

caption_entities

Optional. List of special entities that appear in the caption.

Type `List[telegram.MessageEntity]`

thumb

Optional. Thumbnail of the file to send.

Type `telegram.InputFile`

disable_content_type_detection

Optional. Disables automatic server-side content type detection for files uploaded using multipart/form-data. Always true, if the document is sent as part of an album.

Type `bool`

3.2.28 telegram.InputMediaPhoto

```
class telegram.InputMediaPhoto(media, caption=None, parse_mode=None, caption_entities=None, filename=None)
```

Bases: `telegram.files.inputmedia.InputMedia`

Represents a photo to be sent.

Parameters

- **media** (`str` | *filelike object* | `bytes` | `pathlib.Path` | `telegram.PhotoSize`) – 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.

Changed in version 13.2: Accept `bytes` as input.

- **filename** (`str`, optional) – Custom file name for the photo, when uploading a new file. Convenience parameter, useful e.g. when sending files generated by the `tempfile` module.

New in version 13.1.

- **caption** (`str`, optional) – Caption of the photo to be sent, 0-1024 characters after entities parsing.
- **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.
- **caption_entities** (`List[telegram.MessageEntity]`, optional) – List of special entities that appear in the caption, which can be specified instead of `parse_mode`.

type

`photo`.

Type `str`

media

Photo to send.

Type `str` | `telegram.InputFile`

caption

Optional. Caption of the document to be sent.

Type `str`

parse_mode

Optional. The parse mode to use for text formatting.

Type `str`

caption_entities

Optional. List of special entities that appear in the caption.

Type `List[telegram.MessageEntity]`

3.2.29 telegram.InputMediaVideo

```
class telegram.InputMediaVideo(media, caption=None, width=None, height=None, duration=None, supports_streaming=None, parse_mode=None, thumb=None, caption_entities=None, filename=None)
```

Bases: `telegram.files.inputmedia.InputMedia`

Represents a video to be sent.

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.
 - *thumb* will be ignored for small video files, for which Telegram can easily generate thumb nails. However, this behaviour is undocumented and might be changed by Telegram.
-

Parameters

- **media** (`str` | *filelike object* | `bytes` | `pathlib.Path` | [telegram.Video](#)) – 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.

Changed in version 13.2: Accept `bytes` as input.

- **filename** (`str`, optional) – Custom file name for the video, when uploading a new file. Convenience parameter, useful e.g. when sending files generated by the `tempfile` module.

New in version 13.1.

- **caption** (`str`, optional) – Caption of the video to be sent, 0-1024 characters after entities parsing.
- **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.
- **caption_entities** (`List[telegram.MessageEntity]`, optional) – List of special entities that appear in the caption, which can be specified instead of *parse_mode*.
- **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* | `bytes` | `pathlib.Path`, optional) – Thumbnail of the file sent; can be ignored if thumbnail generation for the file is supported server-side. The thumbnail should be in JPEG format and less than 200 kB in size. A thumbnail's width and height should not exceed 320. Ignored if the file is not uploaded using multipart/form-data. Thumbnails can't be reused and can be only uploaded as a new file.

Changed in version 13.2: Accept `bytes` as input.

type
video.
Type `str`

media
Video file to send.
Type `str | telegram.InputFile`

caption
Optional. Caption of the document to be sent.
Type `str`

parse_mode
Optional. The parse mode to use for text formatting.
Type `str`

caption_entities
Optional. List of special entities that appear in the caption.
Type `List[telegram.MessageEntity]`

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 to send.
Type `telegram.InputFile`

3.2.30 telegram.KeyboardButton

class `telegram.KeyboardButton` (*text*, *request_contact=None*, *request_location=None*, *request_poll=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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *text*, *request_contact*, *request_location* and *request_poll* are equal.

Note:

- Optional fields are mutually exclusive.
- *request_contact* and *request_location* options will only work in Telegram versions released after 9 April, 2016. Older clients will ignore them.

- `request_poll` option will only work in Telegram versions released after 23 January, 2020. Older clients will receive unsupported message.
-

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.
- **request_poll** (`KeyboardButtonPollType`, optional) – If specified, the user will be asked to create a poll and send it to the bot when the button is pressed. Available in private chats only.

text

Text of the button.

Type `str`

request_contact

Optional. The user's phone number will be sent.

Type `bool`

request_location

Optional. The user's current location will be sent.

Type `bool`

request_poll

Optional. If the user should create a poll.

Type `KeyboardButtonPollType`

3.2.31 telegram.KeyboardButtonPollType

class `telegram.KeyboardButtonPollType` (*type=None, **kwargs*)

Bases: `telegram.base.TelegramObject`

This object represents type of a poll, which is allowed to be created and sent when the corresponding button is pressed.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *type* is equal.

type

Optional. If `telegram.Poll.QUIZ` is passed, the user will be allowed to create only polls in the quiz mode. If `telegram.Poll.REGULAR` is passed, only regular polls will be allowed. Otherwise, the user will be allowed to create a poll of any type.

Type `str`

3.2.32 telegram.Location

class telegram.Location(*longitude*, *latitude*, *horizontal_accuracy=None*, *live_period=None*,
heading=None, *proximity_alert_radius=None*, ***kwargs*)

Bases: telegram.base.TelegramObject

This object represents a point on the map.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *longitude* and *latitude* are equal.

Parameters

- **longitude** (float) – Longitude as defined by sender.
- **latitude** (float) – Latitude as defined by sender.
- **horizontal_accuracy** (float, optional) – The radius of uncertainty for the location, measured in meters; 0-1500.
- **live_period** (int, optional) – Time relative to the message sending date, during which the location can be updated, in seconds. For active live locations only.
- **heading** (int, optional) – The direction in which user is moving, in degrees; 1-360. For active live locations only.
- **proximity_alert_radius** (int, optional) – Maximum distance for proximity alerts about approaching another chat member, in meters. For sent live locations only.
- ****kwargs** (dict) – Arbitrary keyword arguments.

longitude

Longitude as defined by sender.

Type float

latitude

Latitude as defined by sender.

Type float

horizontal_accuracy

Optional. The radius of uncertainty for the location, measured in meters.

Type float

live_period

Optional. Time relative to the message sending date, during which the location can be updated, in seconds. For active live locations only.

Type int

heading

Optional. The direction in which user is moving, in degrees. For active live locations only.

Type int

proximity_alert_radius

Optional. Maximum distance for proximity alerts about approaching another chat member, in meters. For sent live locations only.

Type int

3.2.33 telegram.LoginUrl

```
class telegram.LoginUrl(url, forward_text=None, bot_username=None, request_write_access=None, **kwargs)
Bases: telegram.base.TelegramObject
```

This object represents a parameter of the inline keyboard button used to automatically authorize a user. Serves as a great replacement for the Telegram Login Widget when the user is coming from Telegram. All the user needs to do is tap/click a button and confirm that they want to log in. Telegram apps support these buttons as of version 5.7.

Sample bot: [@discussbot](#)

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *url* is equal.

Note: You must always check the hash of the received data to verify the authentication and the integrity of the data as described in [Checking authorization](#)

Parameters

- **url** (*str*) – An HTTP URL to be opened with user authorization data added to the query string when the button is pressed. If the user refuses to provide authorization data, the original URL without information about the user will be opened. The data added is the same as described in [Receiving authorization data](#)
- **forward_text** (*str*, optional) – New text of the button in forwarded messages.
- **bot_username** (*str*, optional) – Username of a bot, which will be used for user authorization. See [Setting up a bot](#) for more details. If not specified, the current bot's username will be assumed. The url's domain must be the same as the domain linked with the bot. See [Linking your domain to the bot](#) for more details.
- **request_write_access** (*bool*, optional) – Pass `True` to request the permission for your bot to send messages to the user.

url

An HTTP URL to be opened with user authorization data.

Type *str*

forward_text

Optional. New text of the button in forwarded messages.

Type *str*

bot_username

Optional. Username of a bot, which will be used for user authorization.

Type *str*

request_write_access

Optional. Pass `True` to request the permission for your bot to send messages to the user.

Type *bool*

3.2.34 telegram.Message

```
class telegram.Message(message_id, date, chat, from_user=None, 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, dice=None,
via_bot=None, proximity_alert_triggered=None, sender_chat=None, voice_chat_started=None,
voice_chat_ended=None, voice_chat_participants_invited=None, message_auto_delete_timer_changed=None,
voice_chat_scheduled=None, **kwargs)
```

Bases: telegram.base.TelegramObject

This object represents a message.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `message_id` and `chat` are equal.

Note: In Python `from` is a reserved word, use `from_user` instead.

Parameters

- **message_id** (`int`) – Unique message identifier inside this chat.
- **from_user** (`telegram.User`, optional) – Sender, empty for messages sent to channels.
- **sender_chat** (`telegram.Chat`, optional) – Sender of the message, sent on behalf of a chat. The channel itself for channel messages. The supergroup itself for messages from anonymous group administrators. The linked channel for messages automatically forwarded to the discussion group.
- **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 channels or from anonymous administrators, information about the original sender chat.
- **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.
- **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 `parse_entity` and `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 animation, audio, document, photo, video or voice, 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. For backward compatibility, when this field is set, the location field will also be set.

- **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 changed 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 *reply_to_message* if someone replies to a very first message in a channel.
- **message_auto_delete_timer_changed** (*telegram.MessageAutoDeleteTimerChanged*, optional) – Service message: auto-delete timer settings changed in the chat.

New in version 13.4.

- **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 *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) – For messages forwarded from channels, signature of the post author if present.
- **author_signature** (*str*, optional) – Signature of the post author for messages in channels, or the custom title of an anonymous group administrator.
- **passport_data** (*telegram.PassportData*, optional) – Telegram Passport data.
- **poll** (*telegram.Poll*, optional) – Message is a native poll, information about the poll.

- **dice** (*telegram.Dice*, optional) – Message is a dice with random value from 1 to 6.
- **via_bot** (*telegram.User*, optional) – Message was sent through an inline bot.
- **proximity_alert_triggered** (*telegram.ProximityAlertTriggered*, optional) – Service message. A user in the chat triggered another user's proximity alert while sharing Live Location.
- **voice_chat_scheduled** (*telegram.VoiceChatScheduled*, optional) – Service message: voice chat scheduled.

New in version 13.5.

- **voice_chat_started** (*telegram.VoiceChatStarted*, optional) – Service message: voice chat started.

New in version 13.4.

- **voice_chat_ended** (*telegram.VoiceChatEnded*, optional) – Service message: voice chat ended.

New in version 13.4.

- **voice_chat_participants_invited** (*telegram.VoiceChatParticipantsInvited*, optional) – Service message: new participants invited to a voice chat.

New in version 13.4.

- **reply_markup** (*telegram.InlineKeyboardMarkup*, optional) – Inline keyboard attached to the message. `login_url` buttons are represented as ordinary url buttons.

- **bot** (*telegram.Bot*, optional) – The Bot to use for instance methods.

message_id

Unique message identifier inside this chat.

Type `int`

from_user

Optional. Sender.

Type *telegram.User*

sender_chat

Optional. Sender of the message, sent on behalf of a chat. The channel itself for channel messages. The supergroup itself for messages from anonymous group administrators. The linked channel for messages automatically forwarded to the discussion group.

Type *telegram.Chat*

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. For messages forwarded from channels or from anonymous administrators, information about the original sender chat.

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. 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.

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`

message_auto_delete_timer_changed

Optional. Service message: auto-delete timer settings changed in the chat.

New in version 13.4.

Type `telegram.MessageAutoDeleteTimerChanged`

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, or the custom title of an anonymous group administrator.

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*

dice

Optional. Message is a dice.

Type *telegram.Dice*

via_bot

Optional. Bot through which the message was sent.

Type *telegram.User*

proximity_alert_triggered

Optional. Service message. A user in the chat triggered another user's proximity alert while sharing Live Location.

Type *telegram.ProximityAlertTriggered*

voice_chat_scheduled

Optional. Service message: voice chat scheduled.

New in version 13.5.

Type *telegram.VoiceChatScheduled*

voice_chat_started

Optional. Service message: voice chat started.

New in version 13.4.

Type *telegram.VoiceChatStarted*

voice_chat_ended

Optional. Service message: voice chat ended.

New in version 13.4.

Type *telegram.VoiceChatEnded*

voice_chat_participants_invited

Optional. Service message: new participants invited to a voice chat.

New in version 13.4.

Type *telegram.VoiceChatParticipantsInvited*

reply_markup

Optional. Inline keyboard attached to the message.

Type *telegram.InlineKeyboardMarkup*

bot

Optional. The Bot to use for instance methods.

Type *telegram.Bot*

property 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 caption entities formatted as HTML.

Return type `str`

property 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`

property `caption_markdown`

Creates an Markdown-formatted string from the markup entities found in the message's caption using `telegram.ParseMode.MARKDOWN`.

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.

Note: `telegram.ParseMode.MARKDOWN` is a legacy mode, retained by Telegram for backward compatibility. You should use `caption_markdown_v2()` instead.

Returns Message caption with caption entities formatted as Markdown.

Return type `str`

property `caption_markdown_urled`

Creates an Markdown-formatted string from the markup entities found in the message's caption using `telegram.ParseMode.MARKDOWN`.

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.

Note: `telegram.ParseMode.MARKDOWN` is a legacy mode, retained by Telegram for backward compatibility. You should use `caption_markdown_v2_urled()` instead.

Returns Message caption with caption entities formatted as Markdown.

Return type `str`

property `caption_markdown_v2`

Creates an Markdown-formatted string from the markup entities found in the message's caption using `telegram.ParseMode.MARKDOWN_V2`.

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`

property `caption_markdown_v2_urled`

Creates an Markdown-formatted string from the markup entities found in the message's caption using `telegram.ParseMode.MARKDOWN_V2`.

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`

property `chat_id`

Shortcut for `telegram.Chat.id` for `chat`.

Type `int`

copy (*chat_id*, *caption=None*, *parse_mode=None*, *caption_entities=None*, *disable_notification=None*, *reply_to_message_id=None*, *allow_sending_without_reply=None*, *reply_markup=None*, *timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.copy_message(chat_id=chat_id,
                 from_chat_id=update.effective_message.chat_id,
                 message_id=update.effective_message.message_id,
                 *args,
                 **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.copy_message()`.

Returns On success, returns the `MessageId` of the sent message.

Return type `telegram.MessageId`

classmethod de_json (*data*, *bot*)

See `telegram.TelegramObject.de_json()`.

delete (*timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.delete_message(chat_id=message.chat_id,
                   message_id=message.message_id,
                   *args,
                   **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.delete_message()`.

Returns On success, `True` is returned.

Return type `bool`

edit_caption (*caption=None*, *reply_markup=None*, *timeout=None*, *parse_mode=None*, *api_kwargs=None*, *caption_entities=None*)

Shortcut for:

```
bot.edit_message_caption(chat_id=message.chat_id,
                         message_id=message.message_id,
                         *args,
                         **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.edit_message_caption()`.

Note: You can only edit messages that the bot sent itself (i.e. of the `bot.send_*` family of methods) or channel posts, if the bot is an admin in that channel. However, this behaviour is undocumented and might be changed by Telegram.

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_live_location (*latitude=None*, *longitude=None*, *location=None*, *reply_markup=None*, *timeout=None*, *api_kwargs=None*, *horizontal_accuracy=None*, *heading=None*, *proximity_alert_radius=None*)

Shortcut for:

```
bot.edit_message_live_location(chat_id=message.chat_id,
                              message_id=message.message_id,
```

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```
*args,  
**kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.edit_message_live_location()`.

Note: You can only edit messages that the bot sent itself (i.e. of the `bot.send_*` family of methods) or channel posts, if the bot is an admin in that channel. However, this behaviour is undocumented and might be changed by Telegram.

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_media (*media=None, reply_markup=None, timeout=None, api_kwargs=None*)

Shortcut for:

```
bot.edit_message_media(chat_id=message.chat_id,  
                       message_id=message.message_id,  
                       *args,  
                       **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.edit_message_media()`.

Note: You can only edit messages that the bot sent itself (i.e. of the `bot.send_*` family of methods) or channel posts, if the bot is an admin in that channel. However, this behaviour is undocumented and might be changed by Telegram.

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_reply_markup (*reply_markup=None, timeout=None, api_kwargs=None*)

Shortcut for:

```
bot.edit_message_reply_markup(chat_id=message.chat_id,  
                              message_id=message.message_id,  
                              *args,  
                              **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.edit_message_reply_markup()`.

Note: You can only edit messages that the bot sent itself (i.e. of the `bot.send_*` family of methods) or channel posts, if the bot is an admin in that channel. However, this behaviour is undocumented and might be changed by Telegram.

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_text (*text*, *parse_mode=None*, *disable_web_page_preview=None*, *reply_markup=None*, *timeout=None*, *api_kwargs=None*, *entities=None*)

Shortcut for:

```
bot.edit_message_text(chat_id=message.chat_id,
                      message_id=message.message_id,
                      *args,
                      **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.edit_message_text()`.

Note: You can only edit messages that the bot sent itself (i.e. of the `bot.send_*` family of methods) or channel posts, if the bot is an admin in that channel. However, this behaviour is undocumented and might be changed by Telegram.

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

Return type `telegram.Message`

property 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=None*, *timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.forward_message(chat_id=chat_id,
                    from_chat_id=update.effective_message.chat_id,
                    message_id=update.effective_message.message_id,
                    *args,
                    **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.forward_message()`.

Returns On success, instance representing the message forwarded.

Return type `telegram.Message`

get_game_high_scores (*user_id*, *timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.get_game_high_scores(chat_id=message.chat_id,
                         message_id=message.message_id,
                         *args,
                         **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.get_game_high_scores()`.

Note: You can only edit messages that the bot sent itself (i.e. of the `bot.send_*` family of methods) or channel posts, if the bot is an admin in that channel. However, this behaviour is undocumented and might be changed by Telegram.

Returns `List[telegram.GameHighScore]`

property link

Convenience property. If the chat of the message is not a private chat or normal group, 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 be an entity that belongs to this message.

Returns The text of the given entity.

Return type `str`

Raises **RuntimeError** – If the message has no caption.

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 code-point 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

Raises **RuntimeError** – If the message has no text.

pin (*disable_notification=None, timeout=None, api_kwargs=None*)

Shortcut for:

```
bot.pin_chat_message(chat_id=message.chat_id,
                    message_id=message.message_id,
                    *args,
                    **kwargs)
```

For the documentation of the arguments, please see [*telegram.Bot.pin_chat_message\(\)*](#).

Returns On success, True is returned.

Return type bool

reply_animation (*animation, duration=None, width=None, height=None, thumb=None, caption=None, parse_mode=None, disable_notification=None, reply_to_message_id=None, reply_markup=None, timeout=20, api_kwargs=None, allow_sending_without_reply=None, caption_entities=None, filename=None, quote=None*)

Shortcut for:

```
bot.send_animation(update.effective_message.chat_id, *args, **kwargs)
```

For the documentation of the arguments, please see [*telegram.Bot.send_animation\(\)*](#).

Parameters **quote** (bool, optional) – If set to True, the animation 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 (*audio, duration=None, performer=None, title=None, caption=None, disable_notification=None, reply_to_message_id=None, reply_markup=None, timeout=20, parse_mode=None, thumb=None, api_kwargs=None, allow_sending_without_reply=None, caption_entities=None, filename=None, quote=None*)

Shortcut for:

```
bot.send_audio(update.effective_message.chat_id, *args, **kwargs)
```

For the documentation of the arguments, please see [*telegram.Bot.send_audio\(\)*](#).

Parameters **quote** (bool, optional) – If set to True, the audio 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_chat_action (*action*, *timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.send_chat_action(update.effective_message.chat_id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_chat_action()`.

New in version 13.2.

Returns On success, True is returned.

Return type bool

reply_contact (*phone_number=None*, *first_name=None*, *last_name=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *contact=None*, *vcard=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *quote=None*)

Shortcut for:

```
bot.send_contact(update.effective_message.chat_id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_contact()`.

Parameters **quote** (bool, optional) – If set to True, the contact 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_copy (*from_chat_id*, *message_id*, *caption=None*, *parse_mode=None*, *caption_entities=None*, *disable_notification=None*, *reply_to_message_id=None*, *allow_sending_without_reply=None*, *reply_markup=None*, *timeout=None*, *api_kwargs=None*, *quote=None*)

Shortcut for:

```
bot.copy_message(chat_id=message.chat.id,
                 from_chat_id=from_chat_id,
                 message_id=message_id,
                 *args,
                 **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.copy_message()`.

Parameters **quote** (bool, optional) – If set to True, the copy 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.

New in version 13.1.

Returns On success, returns the MessageId of the sent message.

Return type `telegram.MessageId`

reply_dice (*disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *emoji=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *quote=None*)

Shortcut for:

```
bot.send_dice(update.effective_message.chat_id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_dice()`.

Parameters `quote` (bool, optional) – If set to True, the dice 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 (document, filename=None, caption=None, disable_notification=None,
                reply_to_message_id=None, reply_markup=None, timeout=20,
                parse_mode=None, thumb=None, api_kwargs=None, dis-
                able_content_type_detection=None, allow_sending_without_reply=None,
                caption_entities=None, quote=None)
```

Shortcut for:

```
bot.send_document(update.effective_message.chat_id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_document()`.

Parameters `quote` (bool, optional) – If set to True, the document 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_game (game_short_name, disable_notification=None, reply_to_message_id=None,
            reply_markup=None, timeout=None, api_kwargs=None, al-
            low_sending_without_reply=None, quote=None)
```

Shortcut for:

```
bot.send_game(update.effective_message.chat_id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_game()`.

Parameters `quote` (bool, optional) – If set to True, the game 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.

New in version 13.2.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

```
reply_html (text, disable_web_page_preview=None, disable_notification=None, re-
            ply_to_message_id=None, reply_markup=None, timeout=None, api_kwargs=None,
            allow_sending_without_reply=None, entities=None, quote=None)
```

Shortcut for:

```
bot.send_message(
    update.effective_message.chat_id,
    parse_mode=ParseMode.HTML,
    *args,
    **kwargs,
)
```

Sends a message with HTML formatting.

For the documentation of the arguments, please see `telegram.Bot.send_message()`.

Parameters **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.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

reply_invoice (`title`, `description`, `payload`, `provider_token`, `currency`, `prices`, `start_parameter=None`, `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=None`, `reply_to_message_id=None`, `reply_markup=None`, `provider_data=None`, `send_phone_number_to_provider=None`, `send_email_to_provider=None`, `timeout=None`, `api_kwargs=None`, `allow_sending_without_reply=None`, `quote=None`, `max_tip_amount=None`, `suggested_tip_amounts=None`)

Shortcut for:

```
bot.send_invoice(update.effective_message.chat_id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_invoice()`.

Warning: As of API 5.2 `start_parameter` is an optional argument and therefore the order of the arguments had to be changed. Use keyword arguments to make sure that the arguments are passed correctly.

New in version 13.2.

Changed in version 13.5: As of Bot API 5.2, the parameter `start_parameter` is optional.

Parameters **quote** (bool, optional) – If set to True, the invoice 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_location (`latitude=None`, `longitude=None`, `disable_notification=None`, `reply_to_message_id=None`, `reply_markup=None`, `timeout=None`, `location=None`, `live_period=None`, `api_kwargs=None`, `horizontal_accuracy=None`, `heading=None`, `proximity_alert_radius=None`, `allow_sending_without_reply=None`, `quote=None`)

Shortcut for:

```
bot.send_location(update.effective_message.chat_id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_location()`.

Parameters **quote** (bool, optional) – If set to True, the location 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 (`text`, `disable_web_page_preview=None`, `disable_notification=None`, `reply_to_message_id=None`, `reply_markup=None`, `timeout=None`, `api_kwargs=None`, `allow_sending_without_reply=None`, `entities=None`, `quote=None`)

Shortcut for:

```
bot.send_message(
    update.effective_message.chat_id,
    parse_mode=ParseMode.MARKDOWN,
    *args,
    **kwargs,
)
```

Sends a message with Markdown version 1 formatting.

For the documentation of the arguments, please see `telegram.Bot.send_message()`.

Note: `telegram.ParseMode.MARKDOWN` is a legacy mode, retained by Telegram for backward compatibility. You should use `reply_markdown_v2()` instead.

Parameters `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.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

reply_markdown_v2 (*text*, *disable_web_page_preview=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *entities=None*, *quote=None*)

Shortcut for:

```
bot.send_message(
    update.effective_message.chat_id,
    parse_mode=ParseMode.MARKDOWN_V2,
    *args,
    **kwargs,
)
```

Sends a message with markdown version 2 formatting.

For the documentation of the arguments, please see `telegram.Bot.send_message()`.

Parameters `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.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

reply_media_group (*media*, *disable_notification=None*, *reply_to_message_id=None*, *timeout=20*, *api_kwargs=None*, *allow_sending_without_reply=None*, *quote=None*)

Shortcut for:

```
bot.send_media_group(update.effective_message.chat_id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_media_group()`.

Parameters `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.error.TelegramError` –

reply_photo (*photo*, *caption=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *parse_mode=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *caption_entities=None*, *filename=None*, *quote=None*)

Shortcut for:

```
bot.send_photo(update.effective_message.chat_id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_photo()`.

Parameters **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 (*question*, *options*, *is_anonymous=True*, *type='regular'*, *allows_multiple_answers=False*, *correct_option_id=None*, *is_closed=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *explanation=None*, *explanation_parse_mode=None*, *open_period=None*, *close_date=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *explanation_entities=None*, *quote=None*)

Shortcut for:

```
bot.send_poll(update.effective_message.chat_id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_poll()`.

Parameters **quote** (bool, optional) – If set to `True`, the poll 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 (*sticker*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *api_kwargs=None*, *allow_sending_without_reply=None*, *quote=None*)

Shortcut for:

```
bot.send_sticker(update.effective_message.chat_id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_sticker()`.

Parameters **quote** (bool, optional) – If set to `True`, the sticker 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 (*text*, *parse_mode=None*, *disable_web_page_preview=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *entities=None*, *quote=None*)

Shortcut for:

```
bot.send_message(update.effective_message.chat_id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_message()`.

Parameters **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.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

reply_venue (`latitude=None`, `longitude=None`, `title=None`, `address=None`, `foursquare_id=None`, `disable_notification=None`, `reply_to_message_id=None`, `reply_markup=None`, `timeout=None`, `venue=None`, `foursquare_type=None`, `api_kwargs=None`, `google_place_id=None`, `google_place_type=None`, `allow_sending_without_reply=None`, `quote=None`)

Shortcut for:

```
bot.send_venue(update.effective_message.chat_id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_venue()`.

Parameters **quote** (bool, optional) – If set to True, the venue 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 (`video`, `duration=None`, `caption=None`, `disable_notification=None`, `reply_to_message_id=None`, `reply_markup=None`, `timeout=20`, `width=None`, `height=None`, `parse_mode=None`, `supports_streaming=None`, `thumb=None`, `api_kwargs=None`, `allow_sending_without_reply=None`, `caption_entities=None`, `filename=None`, `quote=None`)

Shortcut for:

```
bot.send_video(update.effective_message.chat_id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_video()`.

Parameters **quote** (bool, optional) – If set to True, the video 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 (`video_note`, `duration=None`, `length=None`, `disable_notification=None`, `reply_to_message_id=None`, `reply_markup=None`, `timeout=20`, `thumb=None`, `api_kwargs=None`, `allow_sending_without_reply=None`, `filename=None`, `quote=None`)

Shortcut for:

```
bot.send_video_note(update.effective_message.chat_id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_video_note()`.

Parameters **quote** (bool, optional) – If set to True, the video note 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 (*voice*, *duration=None*, *caption=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *parse_mode=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *caption_entities=None*, *filename=None*, *quote=None*)

Shortcut for:

```
bot.send_voice(update.effective_message.chat_id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_voice()`.

Parameters **quote** (bool, optional) – If set to True, the voice note 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`

set_game_score (*user_id*, *score*, *force=None*, *disable_edit_message=None*, *timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.set_game_score(chat_id=message.chat_id,
                  message_id=message.message_id,
                  *args,
                  **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.set_game_score()`.

Note: You can only edit messages that the bot sent itself (i.e. of the `bot.send_*` family of methods) or channel posts, if the bot is an admin in that channel. However, this behaviour is undocumented and might be changed by Telegram.

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

Return type `telegram.Message`

stop_live_location (*reply_markup=None*, *timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.stop_message_live_location(chat_id=message.chat_id,
                              message_id=message.message_id,
                              *args,
                              **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.stop_message_live_location()`.

Note: You can only edit messages that the bot sent itself (i.e. of the `bot.send_*` family of methods) or channel posts, if the bot is an admin in that channel. However, this behaviour is undocumented and might be changed by Telegram.

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

Return type `telegram.Message`

stop_poll (*reply_markup=None*, *timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.stop_poll(chat_id=message.chat_id,
              message_id=message.message_id,
              *args,
              **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.stop_poll()`.

Returns On success, the stopped Poll with the final results is returned.

Return type `telegram.Poll`

property 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`

property 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`

property text_markdown

Creates an Markdown-formatted string from the markup entities found in the message using `telegram.ParseMode.MARKDOWN`.

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.

Note: `telegram.ParseMode.MARKDOWN` is a legacy mode, retained by Telegram for backward compatibility. You should use `text_markdown_v2()` instead.

Returns Message text with entities formatted as Markdown.

Return type `str`

property text_markdown_urled

Creates an Markdown-formatted string from the markup entities found in the message using `telegram.ParseMode.MARKDOWN`.

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.

Note: `telegram.ParseMode.MARKDOWN` is a legacy mode, retained by Telegram for backward compatibility. You should use `text_markdown_v2_urled()` instead.

Returns Message text with entities formatted as Markdown.

Return type `str`

property text_markdown_v2

Creates an Markdown-formatted string from the markup entities found in the message using `telegram.ParseMode.MARKDOWN_V2`.

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`

property `text_markdown_v2_urled`

Creates an Markdown-formatted string from the markup entities found in the message using `telegram.ParseMode.MARKDOWN_V2`.

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`

`to_dict()`

See `telegram.TelegramObject.to_dict()`.

`unpin(timeout=None, api_kwargs=None)`

Shortcut for:

```
bot.unpin_chat_message(chat_id=message.chat_id,
                       message_id=message.message_id,
                       *args,
                       **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.unpin_chat_message()`.

Returns On success, `True` is returned.

Return type `bool`

3.2.35 telegram.MessageAutoDeleteTimerChanged

class `telegram.MessageAutoDeleteTimerChanged` (*message_auto_delete_time*,
 ***kwargs*)

Bases: `telegram.base.TelegramObject`

This object represents a service message about a change in auto-delete timer settings.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `message_auto_delete_time` is equal.

New in version 13.4.

Parameters

- **`message_auto_delete_time`** (`int`) – New auto-delete time for messages in the chat.
- **`**kwargs`** (`dict`) – Arbitrary keyword arguments.

`message_auto_delete_time`

New auto-delete time for messages in the chat.

Type `int`

3.2.36 telegram.MessageId

class telegram.**MessageId** (*message_id*, ****kwargs**)

Bases: telegram.base.TelegramObject

This object represents a unique message identifier.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *message_id* is equal.

message_id

Unique message identifier

Type int

3.2.37 telegram.MessageEntity

class telegram.**MessageEntity** (*type*, *offset*, *length*, *url=None*, *user=None*, *language=None*, ****kwargs**)

Bases: telegram.base.TelegramObject

This object represents one special entity in a text message. For example, hashtags, usernames, URLs, etc.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *type*, *offset* and *length* are equal.

Parameters

- **type** (str) – Type of the entity. Can be mention (@username), hashtag, bot_command, url, email, phone_number, bold (bold text), italic (italic text), strikethrough, 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 user taps on the text.
- **user** (telegram.User, optional) – For *TEXT_MENTION* only, the mentioned user.
- **language** (str, optional) – For *PRE* only, the programming language of the entity text.

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

language

Optional. Programming language of the entity text.

Type `str`

ALL_TYPES: `ClassVar[List[str]] = ['mention', 'hashtag', 'cashtag', 'phone_number', telegram.constants.MESSAGEENTITY_ALL_TYPES]`

List of all the types

BOLD: `ClassVar[str] = 'bold'`
`telegram.constants.MESSAGEENTITY_BOLD`

BOT_COMMAND: `ClassVar[str] = 'bot_command'`
`telegram.constants.MESSAGEENTITY_BOT_COMMAND`

CASHTAG: `ClassVar[str] = 'cashtag'`
`telegram.constants.MESSAGEENTITY_CASHTAG`

CODE: `ClassVar[str] = 'code'`
`telegram.constants.MESSAGEENTITY_CODE`

EMAIL: `ClassVar[str] = 'email'`
`telegram.constants.MESSAGEENTITY_EMAIL`

HASHTAG: `ClassVar[str] = 'hashtag'`
`telegram.constants.MESSAGEENTITY_HASHTAG`

ITALIC: `ClassVar[str] = 'italic'`
`telegram.constants.MESSAGEENTITY_ITALIC`

MENTION: `ClassVar[str] = 'mention'`
`telegram.constants.MESSAGEENTITY_MENTION`

PHONE_NUMBER: `ClassVar[str] = 'phone_number'`
`telegram.constants.MESSAGEENTITY_PHONE_NUMBER`

PRE: `ClassVar[str] = 'pre'`
`telegram.constants.MESSAGEENTITY_PRE`

STRIKETHROUGH: `ClassVar[str] = 'strikethrough'`
`telegram.constants.MESSAGEENTITY_STRIKETHROUGH`

TEXT_LINK: `ClassVar[str] = 'text_link'`
`telegram.constants.MESSAGEENTITY_TEXT_LINK`

TEXT_MENTION: `ClassVar[str] = 'text_mention'`
`telegram.constants.MESSAGEENTITY_TEXT_MENTION`

UNDERLINE: `ClassVar[str] = 'underline'`
`telegram.constants.MESSAGEENTITY_UNDERLINE`

URL: `ClassVar[str] = 'url'`
`telegram.constants.MESSAGEENTITY_URL`

classmethod `de_json(data, bot)`
See `telegram.TelegramObject.de_json()`.

3.2.38 telegram.ParseMode

class telegram.ParseMode

Bases: object

This object represents a Telegram Message Parse Modes.

```
HTML: ClassVar[str] = 'HTML'
    telegram.constants.PARSEMODE_HTML

MARKDOWN: ClassVar[str] = 'Markdown'
    telegram.constants.PARSEMODE_MARKDOWN
```

Note: `MARKDOWN` is a legacy mode, retained by Telegram for backward compatibility. You should use `MARKDOWN_V2` instead.

```
MARKDOWN_V2: ClassVar[str] = 'MarkdownV2'
    telegram.constants.PARSEMODE_MARKDOWN_V2
```

3.2.39 telegram.PhotoSize

class telegram.PhotoSize(*file_id, file_unique_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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `file_unique_id` is equal.

Parameters

- **file_id** (str) – Identifier for this file, which can be used to download or reuse the file.
- **file_unique_id** (str) – Unique identifier for this file, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the 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.

file_id

Identifier for this file.

Type str

file_unique_id

Unique identifier for this file, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the 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`

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

For the documentation of the arguments, please see `telegram.Bot.get_file()`.

Returns `telegram.File`

Raises `telegram.error.TelegramError` –

3.2.40 telegram.Poll

class `telegram.Poll` (*id, question, options, total_voter_count, is_closed, is_anonymous, type, allows_multiple_answers, correct_option_id=None, explanation=None, explanation_entities=None, open_period=None, close_date=None, **kwargs*)
Bases: `telegram.base.TelegramObject`

This object contains information about a poll.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *id* is equal.

id
Unique poll identifier.

Type `str`

question
Poll question, 1-300 characters.

Type `str`

options
List of poll options.

Type `List[PollOption]`

total_voter_count
Total number of users that voted in the poll.

Type `int`

is_closed
True, if the poll is closed.

Type `bool`

is_anonymous
True, if the poll is anonymous.

Type `bool`

type
Poll type, currently can be `REGULAR` or `QUIZ`.

Type `str`

allows_multiple_answers
True, if the poll allows multiple answers.

Type `bool`

correct_option_id

Optional. Identifier of the correct answer option.

Type `int`

explanation

Optional. Text that is shown when a user chooses an incorrect answer or taps on the lamp icon in a quiz-style poll.

Type `str`

explanation_entities

Optional. Special entities like usernames, URLs, bot commands, etc. that appear in the *explanation*.

Type `List[telegram.MessageEntity]`

open_period

Optional. Amount of time in seconds the poll will be active after creation.

Type `int`

close_date

Optional. Point in time when the poll will be automatically closed.

Type `datetime.datetime`

Parameters

- **id** (`str`) – Unique poll identifier.
- **question** (`str`) – Poll question, 1-300 characters.
- **options** (`List[PollOption]`) – List of poll options.
- **is_closed** (`bool`) – True, if the poll is closed.
- **is_anonymous** (`bool`) – True, if the poll is anonymous.
- **type** (`str`) – Poll type, currently can be *REGULAR* or *QUIZ*.
- **allows_multiple_answers** (`bool`) – True, if the poll allows multiple answers.
- **correct_option_id** (`int`, optional) – 0-based identifier of the correct answer option. Available only for polls in the quiz mode, which are closed, or was sent (not forwarded) by the bot or to the private chat with the bot.
- **explanation** (`str`, optional) – Text that is shown when a user chooses an incorrect answer or taps on the lamp icon in a quiz-style poll, 0-200 characters.
- **explanation_entities** (`List[telegram.MessageEntity]`, optional) – Special entities like usernames, URLs, bot commands, etc. that appear in the *explanation*.
- **open_period** (`int`, optional) – Amount of time in seconds the poll will be active after creation.
- **close_date** (`datetime.datetime`, optional) – Point in time (Unix timestamp) when the poll will be automatically closed. Converted to `datetime.datetime`.

MAX_OPTION_LENGTH: `ClassVar[int] = 100`

telegram.constants.MAX_POLL_OPTION_LENGTH

MAX_QUESTION_LENGTH: `ClassVar[int] = 300`

telegram.constants.MAX_POLL_QUESTION_LENGTH

QUIZ: `ClassVar[str] = 'quiz'`

telegram.constants.POLL QUIZ

```
REGULAR: ClassVar[str] = 'regular'
telegram.constants.POLL_REGULAR
```

```
classmethod de_json(data, bot)
    See telegram.TelegramObject.de_json().
```

```
parse_explanation_entities(types=None)
    Returns a dict that maps telegram.MessageEntity to str. It contains entities from this poll's
    explanation 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 `explanation_entities` attribute, since it calculates the correct substring from the message text based on UTF-16 codepoints. See `parse_explanation_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_explanation_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 code-point 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

Raises `RuntimeError` – If the poll has no explanation.

```
to_dict()
    See telegram.TelegramObject.to_dict().
```

3.2.41 telegram.PollAnswer

```
class telegram.PollAnswer(poll_id, user, option_ids, **kwargs)
    Bases: telegram.base.TelegramObject
```

This object represents an answer of a user in a non-anonymous poll.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `poll_id`, `user` and `options_ids` are equal.

```
poll_id
    Unique poll identifier.
```

Type str

```
user
    The user, who changed the answer to the poll.
```

Type `telegram.User`

option_ids

Identifiers of answer options, chosen by the user.

Type `List[int]`

Parameters

- **poll_id** (`str`) – Unique poll identifier.
- **user** (`telegram.User`) – The user, who changed the answer to the poll.
- **option_ids** (`List[int]`) – 0-based identifiers of answer options, chosen by the user. May be empty if the user retracted their vote.

classmethod `de_json(data, bot)`

See `telegram.TelegramObject.de_json()`.

3.2.42 telegram.PollOption

class `telegram.PollOption(text, voter_count, **kwargs)`

Bases: `telegram.base.TelegramObject`

This object contains information about one answer option in a poll.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `text` and `voter_count` are equal.

Parameters

- **text** (`str`) – Option text, 1-100 characters.
- **voter_count** (`int`) – Number of users that voted for this option.

text

Option text, 1-100 characters.

Type `str`

voter_count

Number of users that voted for this option.

Type `int`

MAX_LENGTH: `ClassVar[int] = 100`

`telegram.constants.MAX_POLL_OPTION_LENGTH`

3.2.43 telegram.ProximityAlertTriggered

class `telegram.ProximityAlertTriggered(traveler, watcher, distance, **kwargs)`

Bases: `telegram.base.TelegramObject`

This object represents the content of a service message, sent whenever a user in the chat triggers a proximity alert set by another user.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `traveler`, `watcher` and `distance` are equal.

Parameters

- **traveler** (`telegram.User`) – User that triggered the alert
- **watcher** (`telegram.User`) – User that set the alert
- **distance** (`int`) – The distance between the users

traveler

User that triggered the alert

Type `telegram.User`

watcher

User that set the alert

Type `telegram.User`

distance

The distance between the users

Type `int`

classmethod `de_json` (*data*, *bot*)

See `telegram.TelegramObject.de_json()`.

3.2.44 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`).

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.

Note: User will not be able to summon this keyboard; if you want to hide the keyboard from sight but keep it accessible, use `telegram.ReplyKeyboardMarkup.one_time_keyboard`.

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 `telegram.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.

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`

3.2.45 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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their the size of *keyboard* and all the buttons are equal.

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.
- **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.

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

```
classmethod from_button(button, resize_keyboard=False, one_time_keyboard=False, selective=False, **kwargs)
```

Shortcut for:

```
ReplyKeyboardMarkup([button], **kwargs)
```

Return a 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.
- **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 a 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.
- **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 a `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.
- **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.

to_dict()

See `telegram.TelegramObject.to_dict()`.

3.2.46 telegram.ReplyMarkup

class `telegram.ReplyMarkup`

Bases: `telegram.base.TelegramObject`

Base class for Telegram ReplyMarkup Objects.

See `telegram.InlineKeyboardMarkup`, `telegram.ReplyKeyboardMarkup`, `telegram.ReplyKeyboardRemove` and `telegram.ForceReply` for detailed use.

3.2.47 telegram.TelegramObject

class `telegram.TelegramObject`

Bases: `object`

Base class for most Telegram objects.

classmethod `de_json`(*data*, *bot*)

Converts JSON data to a Telegram object.

Parameters

- **data** (Dict[str, ...]) – The JSON data.
- **bot** (`telegram.Bot`) – The bot associated with this object.

Returns The Telegram object.

classmethod `de_list` (*data*, *bot*)

Converts JSON data to a list of Telegram objects.

Parameters

- **data** (`Dict[str, ...]`) – The JSON data.
- **bot** (`telegram.Bot`) – The bot associated with these objects.

Returns A list of Telegram objects.

to_dict ()

Gives representation of object as dict.

Returns dict

to_json ()

Gives a JSON representation of object.

Returns str

3.2.48 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, poll_answer=None, my_chat_member=None, chat_member=None, **kwargs)
```

Bases: `telegram.base.TelegramObject`

This object represents an incoming update.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `update_id` is equal.

Note: At most one of the optional parameters can be present in any given update.

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. If there are no new updates for at least a week, then identifier of the next update will be chosen randomly instead of sequentially.
- **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 stopped polls and polls, which are sent by the bot.
- **poll_answer** (*telegram.PollAnswer*, optional) – A user changed their answer in a non-anonymous poll. Bots receive new votes only in polls that were sent by the bot itself.
- **my_chat_member** (*telegram.ChatMemberUpdated*, optional) – The bot's chat member status was updated in a chat. For private chats, this update is received only when the bot is blocked or unblocked by the user.

New in version 13.4.

- **chat_member** (*telegram.ChatMemberUpdated*, optional) – A chat member's status was updated in a chat. The bot must be an administrator in the chat and must explicitly specify 'chat_member' in the list of 'allowed_updates' to receive these updates (see *telegram.Bot.get_updates()*, *telegram.Bot.set_webhook()*, *telegram.ext.Updater.start_polling()* and *telegram.ext.Updater.start_webhook()*).

New in version 13.4.

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

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 stopped polls and polls, which are sent by the bot.

Type `telegram.Poll`

poll_answer

Optional. A user changed their answer in a non-anonymous poll. Bots receive new votes only in polls that were sent by the bot itself.

Type `telegram.PollAnswer`

my_chat_member

Optional. The bot's chat member status was updated in a chat. For private chats, this update is received only when the bot is blocked or unblocked by the user.

New in version 13.4.

Type `telegram.ChatMemberUpdated`

chat_member

Optional. A chat member's status was updated in a chat. The bot must be an administrator in the chat and must explicitly specify 'chat_member' in the list of 'allowed_updates' to receive these updates (see `telegram.Bot.get_updates()`, `telegram.Bot.set_webhook()`, `telegram.ext.Updater.start_polling()` and `telegram.ext.Updater.start_webhook()`).

New in version 13.4.

Type `telegram.ChatMemberUpdated`

ALL_TYPES = ['message', 'edited_message', 'channel_post', 'edited_channel_post', 'inline_query', 'chosen_inline_result', 'callback_query', 'shipping_query', 'pre_checkout_query', 'poll', 'poll_answer', 'my_chat_member', 'chat_member']
`telegram.constants.UPDATE_ALL_TYPES`

New in version 13.5.

CALLBACK_QUERY = 'callback_query'
`telegram.constants.UPDATE_CALLBACK_QUERY`

New in version 13.5.

CHANNEL_POST = 'channel_post'
`telegram.constants.UPDATE_CHANNEL_POST`

New in version 13.5.

CHAT_MEMBER = 'chat_member'
`telegram.constants.UPDATE_CHAT_MEMBER`

New in version 13.5.

CHOSEN_INLINE_RESULT = 'chosen_inline_result'
`telegram.constants.UPDATE_CHOSEN_INLINE_RESULT`

New in version 13.5.

EDITED_CHANNEL_POST = 'edited_channel_post'
`telegram.constants.UPDATE_EDITED_CHANNEL_POST`

New in version 13.5.

```
EDITED_MESSAGE = 'edited_message'  
telegram.constants.UPDATE_EDITED_MESSAGE
```

New in version 13.5.

```
INLINE_QUERY = 'inline_query'  
telegram.constants.UPDATE_INLINE_QUERY
```

New in version 13.5.

```
MESSAGE = 'message'  
telegram.constants.UPDATE_MESSAGE
```

New in version 13.5.

```
MY_CHAT_MEMBER = 'my_chat_member'  
telegram.constants.UPDATE_MY_CHAT_MEMBER
```

New in version 13.5.

```
POLL = 'poll'  
telegram.constants.UPDATE_POLL
```

New in version 13.5.

```
POLL_ANSWER = 'poll_answer'  
telegram.constants.UPDATE_POLL_ANSWER
```

New in version 13.5.

```
PRE_CHECKOUT_QUERY = 'pre_checkout_query'  
telegram.constants.UPDATE_PRE_CHECKOUT_QUERY
```

New in version 13.5.

```
SHIPPING_QUERY = 'shipping_query'  
telegram.constants.UPDATE_SHIPPING_QUERY
```

New in version 13.5.

callback_query

channel_post

chat_member

chosen_inline_result

classmethod de_json (*data, bot*)
See *telegram.TelegramObject.de_json()*.

edited_channel_post

edited_message

property 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*, *poll* and *poll_answer*.

Type *telegram.Chat*

property 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*, *poll* and *poll_answer*.

Type *telegram.Message*

property 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`

inline_query**message****my_chat_member****poll****poll_answer****pre_checkout_query****shipping_query****update_id**

3.2.49 telegram.User

```
class telegram.User(id, first_name, is_bot, last_name=None, user-
                    name=None, language_code=None, can_join_groups=None,
                    can_read_all_group_messages=None, supports_inline_queries=None,
                    bot=None, **kwargs)
```

Bases: `telegram.base.TelegramObject`

This object represents a Telegram user or bot.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `id` is equal.

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 bots first name.
- **last_name** (`str`, optional) – User’s or bots last name.
- **username** (`str`, optional) – User’s or bots username.
- **language_code** (`str`, optional) – IETF language tag of the user’s language.
- **can_join_groups** (`str`, optional) – True, if the bot can be invited to groups. Returned only in `telegram.Bot.get_me` requests.
- **can_read_all_group_messages** (`str`, optional) – True, if privacy mode is disabled for the bot. Returned only in `telegram.Bot.get_me` requests.
- **supports_inline_queries** (`str`, optional) – True, if the bot supports inline queries. Returned only in `telegram.Bot.get_me` requests.
- **bot** (`telegram.Bot`, optional) – The Bot to use for instance methods.

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`

can_join_groups

Optional. `True`, if the bot can be invited to groups. Returned only in `telegram.Bot.get_me` requests.

Type `str`

can_read_all_group_messages

Optional. `True`, if privacy mode is disabled for the bot. Returned only in `telegram.Bot.get_me` requests.

Type `str`

supports_inline_queries

Optional. `True`, if the bot supports inline queries. Returned only in `telegram.Bot.get_me` requests.

Type `str`

bot

Optional. The Bot to use for instance methods.

Type `telegram.Bot`

bot**can_join_groups****can_read_all_group_messages**

copy_message (`chat_id`, `message_id`, `caption=None`, `parse_mode=None`, `caption_entities=None`, `disable_notification=None`, `reply_to_message_id=None`, `allow_sending_without_reply=None`, `reply_markup=None`, `timeout=None`, `api_kwargs=None`)

Shortcut for:

```
bot.copy_message(from_chat_id=update.effective_user.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.copy_message()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

first_name**property full_name**

Convenience property. The user's `first_name`, followed by (if available) `last_name`.

Type `str`

get_profile_photos (*offset=None, limit=100, timeout=None, api_kwargs=None*)

Shortcut for:

```
bot.get_user_profile_photos(update.effective_user.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.get_user_profile_photos()`.

id

is_bot

language_code

last_name

property 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*)

Note: `telegram.ParseMode.MARKDOWN` is a legacy mode, retained by Telegram for backward compatibility. You should use `mention_markdown_v2()` instead.

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 (version 1).

Return type `str`

mention_markdown_v2 (*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 (version 2).

Return type `str`

property name

Convenience property. If available, returns the user's `username` prefixed with "@". If `username` is not available, returns `full_name`.

Type `str`

pin_message (*message_id, disable_notification=None, timeout=None, api_kwargs=None*)

Shortcut for:

```
bot.pin_chat_message(chat_id=update.effective_user.id,
                     *args,
                     **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.pin_chat_message()`.

Returns On success, `True` is returned.

Return type `bool`

send_action (*action*, *timeout=None*, *api_kwargs=None*)

Alias for [send_chat_action](#)

send_animation (*animation*, *duration=None*, *width=None*, *height=None*, *thumb=None*, *caption=None*, *parse_mode=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *api_kwargs=None*, *allow_sending_without_reply=None*, *caption_entities=None*, *filename=None*)

Shortcut for:

```
bot.send_message(update.effective_user.id, *args, **kwargs)
```

For the documentation of the arguments, please see [telegram.Bot.send_animation\(\)](#).

Returns On success, instance representing the message posted.

Return type [telegram.Message](#)

send_audio (*audio*, *duration=None*, *performer=None*, *title=None*, *caption=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *parse_mode=None*, *thumb=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *caption_entities=None*, *filename=None*)

Shortcut for:

```
bot.send_message(update.effective_user.id, *args, **kwargs)
```

For the documentation of the arguments, please see [telegram.Bot.send_audio\(\)](#).

Returns On success, instance representing the message posted.

Return type [telegram.Message](#)

send_chat_action (*action*, *timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.send_message(update.effective_user.id, *args, **kwargs)
```

For the documentation of the arguments, please see [telegram.Bot.send_chat_action\(\)](#).

Returns On success.

Return type `True`

send_contact (*phone_number=None*, *first_name=None*, *last_name=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=None*, *contact=None*, *vcard=None*, *api_kwargs=None*, *allow_sending_without_reply=None*)

Shortcut for:

```
bot.send_message(update.effective_user.id, *args, **kwargs)
```

For the documentation of the arguments, please see [telegram.Bot.send_contact\(\)](#).

Returns On success, instance representing the message posted.

Return type [telegram.Message](#)

send_copy (*from_chat_id*, *message_id*, *caption=None*, *parse_mode=None*, *caption_entities=None*, *disable_notification=None*, *reply_to_message_id=None*, *allow_sending_without_reply=None*, *reply_markup=None*, *timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.copy_message(chat_id=update.effective_user.id, *args, **kwargs)
```

For the documentation of the arguments, please see [telegram.Bot.copy_message\(\)](#).

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_dice (*disable_notification=None, reply_to_message_id=None, reply_markup=None, timeout=None, emoji=None, api_kwargs=None, allow_sending_without_reply=None*)

Shortcut for:

```
bot.send_message(update.effective_user.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_dice()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_document (*document, filename=None, caption=None, disable_notification=None, reply_to_message_id=None, reply_markup=None, timeout=20, parse_mode=None, thumb=None, api_kwargs=None, disable_content_type_detection=None, allow_sending_without_reply=None, caption_entities=None*)

Shortcut for:

```
bot.send_message(update.effective_user.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_document()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_game (*game_short_name, disable_notification=None, reply_to_message_id=None, reply_markup=None, timeout=None, api_kwargs=None, allow_sending_without_reply=None*)

Shortcut for:

```
bot.send_message(update.effective_user.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_game()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_invoice (*title, description, payload, provider_token, currency, prices, start_parameter=None, 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=None, reply_to_message_id=None, reply_markup=None, provider_data=None, send_phone_number_to_provider=None, send_email_to_provider=None, timeout=None, api_kwargs=None, allow_sending_without_reply=None, max_tip_amount=None, suggested_tip_amounts=None*)

Shortcut for:

```
bot.send_message(update.effective_user.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_invoice()`.

Warning: As of API 5.2 `start_parameter` is an optional argument and therefore the order of the arguments had to be changed. Use keyword arguments to make sure that the arguments are passed correctly.

Changed in version 13.5: As of Bot API 5.2, the parameter `start_parameter` is optional.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_location (*latitude=None, longitude=None, disable_notification=None, reply_to_message_id=None, reply_markup=None, timeout=None, location=None, live_period=None, api_kwargs=None, horizontal_accuracy=None, heading=None, proximity_alert_radius=None, allow_sending_without_reply=None*)

Shortcut for:

```
bot.send_message(update.effective_user.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_location()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_media_group (*media, disable_notification=None, reply_to_message_id=None, timeout=20, api_kwargs=None, allow_sending_without_reply=None*)

Shortcut for:

```
bot.send_message(update.effective_user.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_media_group()`.

Returns] On success, instance representing the message posted.

Return type List[`telegram.Message`

send_message (*text, parse_mode=None, disable_web_page_preview=None, disable_notification=None, reply_to_message_id=None, reply_markup=None, timeout=None, api_kwargs=None, allow_sending_without_reply=None, entities=None*)

Shortcut for:

```
bot.send_message(update.effective_user.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_message()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_photo (*photo, caption=None, disable_notification=None, reply_to_message_id=None, reply_markup=None, timeout=20, parse_mode=None, api_kwargs=None, allow_sending_without_reply=None, caption_entities=None, filename=None*)

Shortcut for:

```
bot.send_message(update.effective_user.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_photo()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_poll (*question, options, is_anonymous=True, type='regular', allows_multiple_answers=False, correct_option_id=None, is_closed=None, disable_notification=None, reply_to_message_id=None, reply_markup=None, timeout=None, explanation=None, explanation_parse_mode=None, open_period=None, close_date=None, api_kwargs=None, allow_sending_without_reply=None, explanation_entities=None*)

Shortcut for:

```
bot.send_message(update.effective_user.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_poll()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_sticker (*sticker*, *disable_notification=None*, *reply_to_message_id=None*,
reply_markup=None, *timeout=20*, *api_kwargs=None*, *allow_sending_without_reply=None*)

Shortcut for:

```
bot.send_message(update.effective_user.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_sticker()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_venue (*latitude=None*, *longitude=None*, *title=None*, *address=None*,
foursquare_id=None, *disable_notification=None*, *reply_to_message_id=None*,
reply_markup=None, *timeout=None*, *venue=None*, *foursquare_type=None*,
api_kwargs=None, *google_place_id=None*, *google_place_type=None*, *allow_sending_without_reply=None*)

Shortcut for:

```
bot.send_message(update.effective_user.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_venue()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_video (*video*, *duration=None*, *caption=None*, *disable_notification=None*, *reply_to_message_id=None*,
reply_markup=None, *timeout=20*, *width=None*, *height=None*, *parse_mode=None*, *supports_streaming=None*,
thumb=None, *api_kwargs=None*, *allow_sending_without_reply=None*, *caption_entities=None*,
filename=None)

Shortcut for:

```
bot.send_message(update.effective_user.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_video()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_video_note (*video_note*, *duration=None*, *length=None*, *disable_notification=None*, *reply_to_message_id=None*,
reply_markup=None, *timeout=20*, *thumb=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *filename=None*)

Shortcut for:

```
bot.send_message(update.effective_user.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_video_note()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

send_voice (*voice*, *duration=None*, *caption=None*, *disable_notification=None*, *reply_to_message_id=None*, *reply_markup=None*, *timeout=20*, *parse_mode=None*, *api_kwargs=None*, *allow_sending_without_reply=None*, *caption_entities=None*, *filename=None*)

Shortcut for:

```
bot.send_message(update.effective_user.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.send_voice()`.

Returns On success, instance representing the message posted.

Return type `telegram.Message`

supports_inline_queries

unpin_all_messages (*timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.unpin_all_chat_messages(chat_id=update.effective_user.id,
                           *args,
                           **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.unpin_all_chat_messages()`.

Returns On success, True is returned.

Return type `bool`

unpin_message (*timeout=None*, *api_kwargs=None*, *message_id=None*)

Shortcut for:

```
bot.unpin_chat_message(chat_id=update.effective_user.id,
                       *args,
                       **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.unpin_chat_message()`.

Returns On success, True is returned.

Return type `bool`

username

3.2.50 telegram.UserProfilePhotos

class `telegram.UserProfilePhotos` (*total_count*, *photos*, ***kwargs*)

Bases: `telegram.base.TelegramObject`

This object represent a user's profile pictures.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `total_count` and `photos` are equal.

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).

total_count

Total number of profile pictures.

Type `int`

photos

Requested profile pictures.

Type List[List[*telegram.PhotoSize*]]

classmethod de_json (*data*, *bot*)

See *telegram.TelegramObject.de_json()*.

to_dict ()

See *telegram.TelegramObject.to_dict()*.

3.2.51 telegram.Venue

class telegram.Venue (*location*, *title*, *address*, *foursquare_id=None*, *foursquare_type=None*,
google_place_id=None, *google_place_type=None*, ****kwargs**)

Bases: telegram.base.TelegramObject

This object represents a venue.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *location* and *title* are equal.

Note: Foursquare details and Google Pace details are mutually exclusive. However, this behaviour is undocumented and might be changed by Telegram.

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”).
- **google_place_id** (*str*, optional) – Google Places identifier of the venue.
- **google_place_type** (*str*, optional) – Google Places type of the venue. (See [supported types](#).)
- ****kwargs** (*dict*) – Arbitrary keyword arguments.

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.

Type `str`

google_place_id

Optional. Google Places identifier of the venue.

Type `str`

google_place_type

Optional. Google Places type of the venue.

Type `str`

classmethod de_json (*data*, *bot*)

See `telegram.TelegramObject.de_json()`.

3.2.52 telegram.Video

```
class telegram.Video(file_id, file_unique_id, width, height, duration, thumb=None,  
                    mime_type=None, file_size=None, bot=None, file_name=None,  
                    **kwargs)
```

Bases: `telegram.base.TelegramObject`

This object represents a video file.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `file_unique_id` is equal.

Parameters

- **file_id** (`str`) – Identifier for this file, which can be used to download or reuse the file.
- **file_unique_id** (`str`) – Unique identifier for this file, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the 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.
- **file_name** (`str`, optional) – Original filename as defined by sender.
- **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.

file_id

Identifier for this file.

Type `str`

file_unique_id

Unique identifier for this file, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the 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`

file_name
Optional. Original filename as defined by sender.

Type `str`

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`

classmethod `de_json(data, bot)`
See `telegram.TelegramObject.de_json()`.

get_file (`timeout=None`, `api_kwargs=None`)
Convenience wrapper over `telegram.Bot.get_file`

For the documentation of the arguments, please see `telegram.Bot.get_file()`.

Returns `telegram.File`

Raises `telegram.error.TelegramError` –

3.2.53 telegram.VideoNote

class `telegram.VideoNote` (`file_id`, `file_unique_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).

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `file_unique_id` is equal.

Parameters

- **file_id** (`str`) – Identifier for this file, which can be used to download or reuse the file.
- **file_unique_id** (`str`) – Unique identifier for this file, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the file.
- **length** (`int`) – Video width and height (diameter of the video message) 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.

file_id

Identifier for this file.

Type str

file_unique_id

Unique identifier for this file, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the 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*

classmethod de_json (data, bot)

See *telegram.TelegramObject.de_json()*.

get_file (timeout=None, api_kwargs=None)

Convenience wrapper over *telegram.Bot.get_file*

For the documentation of the arguments, please see *telegram.Bot.get_file()*.

Returns *telegram.File*

Raises *telegram.error.TelegramError* –

3.2.54 telegram.Voice

class telegram.Voice (file_id, file_unique_id, duration, mime_type=None, file_size=None, bot=None, **kwargs)

Bases: telegram.base.TelegramObject

This object represents a voice note.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *file_unique_id* is equal.

Parameters

- **file_id** (*str*) – Identifier for this file, which can be used to download or reuse the file.
- **file_unique_id** (*str*) – Unique identifier for this file, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the 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.

file_id

Identifier for this file.

Type *str*

file_unique_id

Unique identifier for this file, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the 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*

get_file (*timeout=None*, *api_kwargs=None*)

Convenience wrapper over *telegram.Bot.get_file*

For the documentation of the arguments, please see *telegram.Bot.get_file()*.

Returns *telegram.File*

Raises *telegram.error.TelegramError* –

3.2.55 telegram.VoiceChatStarted

class *telegram.VoiceChatStarted* (***kwargs*)

Bases: *telegram.base.TelegramObject*

This object represents a service message about a voice chat started in the chat. Currently holds no information.

New in version 13.4.

3.2.56 telegram.VoiceChatEnded

class telegram.VoiceChatEnded(*duration*, ****_kwargs**)

Bases: telegram.base.TelegramObject

This object represents a service message about a voice chat ended in the chat.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *duration* are equal.

New in version 13.4.

Parameters

- **duration** (int) – Voice chat duration in seconds.
- ****kwargs** (dict) – Arbitrary keyword arguments.

duration

Voice chat duration in seconds.

Type int

3.2.57 telegram.VoiceChatScheduled

class telegram.VoiceChatScheduled(*start_date*, ****_kwargs**)

Bases: telegram.base.TelegramObject

This object represents a service message about a voice chat scheduled in the chat.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *start_date* are equal.

Parameters

- **start_date** (datetime.datetime) – Point in time (Unix timestamp) when the voice chat is supposed to be started by a chat administrator
- ****kwargs** (dict) – Arbitrary keyword arguments.

start_date

Point in time (Unix timestamp) when the voice chat is supposed to be started by a chat administrator

Type datetime.datetime

classmethod de_json(*data*, *bot*)

See *telegram.TelegramObject.de_json()*.

to_dict ()

See *telegram.TelegramObject.to_dict()*.

3.2.58 telegram.VoiceChatParticipantsInvited

class telegram.VoiceChatParticipantsInvited(*users*, ****_kwargs**)

Bases: telegram.base.TelegramObject

This object represents a service message about new members invited to a voice chat.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *users* are equal.

New in version 13.4.

Parameters

- **users** (List[*telegram.User*]) – New members that were invited to the voice chat.
- ****kwargs** (dict) – Arbitrary keyword arguments.

users

New members that were invited to the voice chat.

Type List[*telegram.User*]

classmethod de_json (*data*, *bot*)

See *telegram.TelegramObject.de_json()*.

to_dict ()

See *telegram.TelegramObject.to_dict()*.

3.2.59 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,  
                             ip_address=None, **kwargs)
```

Bases: *telegram.base.TelegramObject*

This object represents a Telegram WebhookInfo.

Contains information about the current status of a webhook.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *url*, *has_custom_certificate*, *pending_update_count*, *ip_address*, *last_error_date*, *last_error_message*, *max_connections* and *allowed_updates* are equal.

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.
- **ip_address** (*str*, optional) – Currently used webhook IP address.
- **last_error_date** (*int*, optional) – Unix time for the most recent error that happened when trying to deliver 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, except *telegram.Update.chat_member*.

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*

ip_address

Optional. Currently used webhook IP address.

Type `str`

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. Defaults to all update types, except `telegram.Update.chat_member`.

Type `List[str]`

3.2.60 Stickers

`telegram.Sticker`

```
class telegram.Sticker(file_id, file_unique_id, width, height, is_animated, 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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `file_unique_id` is equal.

Parameters

- **file_id** (`str`) – Identifier for this file, which can be used to download or reuse the file.
- **file_unique_id** (`str`) – Unique identifier for this file, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the file.
- **width** (`int`) – Sticker width.
- **height** (`int`) – Sticker height.
- **is_animated** (`bool`) – True, if the sticker is animated.
- **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.
- **bot** (`telegram.Bot`, optional) – The Bot to use for instance methods.
- **(obj (**kwargs) – dict)**: Arbitrary keyword arguments.

file_id

Identifier for this file.

Type `str`

file_unique_id

Unique identifier for this file, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the file.

Type `str`

width

Sticker width.

Type `int`

height

Sticker height.

Type `int`

is_animated

True, if the sticker is animated.

Type `bool`

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`

classmethod `de_json(data, bot)`

See `telegram.TelegramObject.de_json()`.

get_file (`timeout=None`, `api_kwargs=None`)

Convenience wrapper over `telegram.Bot.get_file`

For the documentation of the arguments, please see `telegram.Bot.get_file()`.

Returns `telegram.File`

Raises `telegram.error.TelegramError` –

telegram.StickerSet

```
class telegram.StickerSet (name, title, is_animated, contains_masks, stickers, thumb=None,
                           **kwargs)
```

Bases: telegram.base.TelegramObject

This object represents a sticker set.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *name* is equal.

name

Sticker set name.

Type str

title

Sticker set title.

Type str

is_animated

True, if the sticker set contains animated stickers.

Type bool

contains_masks

True, if the sticker set contains masks.

Type bool

stickers

List of all set stickers.

Type List[*telegram.Sticker*]

thumb

Optional. Sticker set thumbnail in the .WEBP or .TGS format.

Type *telegram.PhotoSize*

Parameters

- **name** (str) – Sticker set name.
- **title** (str) – Sticker set title.
- **is_animated** (bool) – True, if the sticker set contains animated stickers.
- **contains_masks** (bool) – True, if the sticker set contains masks.
- **stickers** (List[*telegram.Sticker*]) – List of all set stickers.
- **thumb** (*telegram.PhotoSize*, optional) – Sticker set thumbnail in the .WEBP or .TGS format.

```
classmethod de_json (data, bot)
```

See *telegram.TelegramObject.de_json()*.

```
to_dict ()
```

See *telegram.TelegramObject.to_dict()*.

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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *point*, *x_shift*, *y_shift* and, *scale* are equal.

point

The part of the face relative to which the mask should be placed. One of 'forehead', 'eyes', 'mouth', or 'chin'.

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

Note: type should be one of the following: *forehead*, *eyes*, *mouth* or *chin*. You can use the class constants for those.

Parameters

- **point** (str) – The part of the face relative to which the mask should be placed. One of 'forehead', 'eyes', 'mouth', or 'chin'.
- **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: ClassVar[str] = 'chin'

telegram.constants.STICKER_CHIN

EYES: ClassVar[str] = 'eyes'

telegram.constants.STICKER_EYES

FOREHEAD: ClassVar[str] = 'forehead'

telegram.constants.STICKER_FOREHEAD

MOUTH: ClassVar[str] = 'mouth'

telegram.constants.STICKER_MOUTH

classmethod de_json(*data*, *bot*)

See *telegram.TelegramObject.de_json()*.

3.2.61 Inline Mode

telegram.InlineQuery

class telegram.InlineQuery(*id*, *from_user*, *query*, *offset*, *location=None*, *bot=None*, *chat_type=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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *id* is equal.

Note: In Python `from` is a reserved word, use `from_user` instead.

Parameters

- **id** (*str*) – Unique identifier for this query.
- **from_user** (*telegram.User*) – Sender.
- **query** (*str*) – Text of the query (up to 256 characters).
- **offset** (*str*) – Offset of the results to be returned, can be controlled by the bot.
- **chat_type** (*str*, optional) – Type of the chat, from which the inline query was sent. Can be either *telegram.Chat.SENDER* for a private chat with the inline query sender, *telegram.Chat.PRIVATE*, *telegram.Chat.GROUP*, *telegram.Chat.SUPERGROUP* or *telegram.Chat.CHANNEL*. The chat type should be always known for requests sent from official clients and most third-party clients, unless the request was sent from a secret chat.

New in version 13.5.

- **location** (*telegram.Location*, optional) – Sender location, only for bots that request user location.
- **bot** (*telegram.Bot*, optional) – The Bot to use for instance methods.
- ****kwargs** (*dict*) – Arbitrary keyword arguments.

id

Unique identifier for this query.

Type *str*

from_user

Sender.

Type *telegram.User*

query

Text of the query (up to 256 characters).

Type *str*

offset

Offset of the results to be returned, can be controlled by the bot.

Type *str*

location

Optional. Sender location, only for bots that request user location.

Type *telegram.Location*

chat_type

Type of the chat, from which the inline query was sent.

New in version 13.5.

Type `str`, optional

MAX_RESULTS: `ClassVar[int] = 50`

`telegram.constants.MAX_INLINE_QUERY_RESULTS`

New in version 13.2.

answer (*results*, *cache_time*=300, *is_personal*=None, *next_offset*=None, *switch_pm_text*=None, *switch_pm_parameter*=None, *timeout*=None, *current_offset*=None, *api_kwargs*=None, *auto_pagination*=False)

Shortcut for:

```
bot.answer_inline_query(update.inline_query.id,
                        *args,
                        current_offset=self.offset if auto_pagination else
↪None,
                        **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.answer_inline_query()`.

Parameters **auto_pagination** (`bool`, optional) – If set to `True`, *offset* will be passed as *current_offset* to `telegram.Bot.answer_inline_query()`. Defaults to `False`.

Raises **TypeError** – If both *current_offset* and *auto_pagination* are supplied.

classmethod **de_json** (*data*, *bot*)

See `telegram.TelegramObject.de_json()`.

telegram.InlineQueryResult

class `telegram.InlineQueryResult` (*type*, *id*, ***kwargs*)

Bases: `telegram.base.TelegramObject`

Baseclass for the `InlineQueryResult*` classes.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *id* is equal.

Note: All URLs passed in inline query results will be available to end users and therefore must be assumed to be *public*.

Parameters

- **type** (`str`) – Type of the result.
- **id** (`str`) – Unique identifier for this result, 1-64 Bytes.
- ****kwargs** (`dict`) – Arbitrary keyword arguments.

type

Type of the result.

Type `str`

id

Unique identifier for this result, 1-64 Bytes.

Type `str`

`to_dict()`
See `telegram.TelegramObject.to_dict()`.

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`.

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.

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`

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, caption_entities=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.

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) – Performer.
- **audio_duration** (`str`, optional) – Audio duration in seconds.
- **caption** (`str`, optional) – Caption, 0-1024 characters after entities parsing.
- **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.
- **caption_entities** (`List[telegram.MessageEntity]`, optional) – List of special entities that appear in the caption, which can be specified instead of `parse_mode`.
- **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.

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. Performer.

Type `str`

audio_duration
Optional. Audio duration in seconds.

Type `str`

caption
Optional. Caption, 0-1024 characters after entities parsing.

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`

caption_entities
Optional. List of special entities that appear in the caption, which can be specified instead of [parse_mode](#).

Type `List[telegram.MessageEntity]`

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](#)

telegram.InlineQueryResultCachedAudio

```
class telegram.InlineQueryResultCachedAudio(id, audio_file_id, caption=None,
                                             reply_markup=None, input_message_content=None,
                                             parse_mode=None, caption_entities=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 a message with the specified content instead of the audio.

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 after entities parsing.
- **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.
- **caption_entities** (List[*telegram.MessageEntity*], optional) – List of special entities that appear in the caption, which can be specified instead of *parse_mode*.
- **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.

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 after entities parsing.

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*

caption_entities

Optional. List of special entities that appear in the caption, which can be specified instead of *parse_mode*.

Type List[*telegram.MessageEntity*]

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*

telegram.InlineQueryResultCachedDocument

```
class telegram.InlineQueryResultCachedDocument (id, title, document_file_id, de-
                                                scription=None, caption=None,
                                                reply_markup=None, input_message_content=None,
                                                parse_mode=None, caption_entities=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.

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 of the document to be sent, 0-1024 characters after entities parsing.
- **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.
- **caption_entities** (`List[telegram.MessageEntity]`, optional) – List of special entities that appear in the caption, which can be specified instead of `parse_mode`.
- **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.

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 of the document to be sent, 0-1024 characters after entities parsing.

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`

caption_entities

Optional. List of special entities that appear in the caption, which can be specified instead of `parse_mode`.

Type `List[telegram.MessageEntity]`

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`

telegram.InlineQueryResultCachedGif

```
class telegram.InlineQueryResultCachedGif(id, gif_file_id, title=None, caption=None, reply_markup=None, input_message_content=None, parse_mode=None, caption_entities=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.

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 of the GIF file to be sent, 0-1024 characters after entities parsing.
- **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.
- **caption_entities** (`List[telegram.MessageEntity]`, optional) – List of special entities that appear in the caption, which can be specified instead of `parse_mode`.
- **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.

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 of the GIF file to be sent, 0-1024 characters after entities parsing.

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`

caption_entities
Optional. List of special entities that appear in the caption, which can be specified instead of [parse_mode](#).

Type `List[telegram.MessageEntity]`

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](#)

telegram.InlineQueryResultCachedMpeg4Gif

```
class telegram.InlineQueryResultCachedMpeg4Gif(id, mpeg4_file_id, title=None, caption=None, reply_markup=None, input_message_content=None, parse_mode=None, caption_entities=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.

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 of the MPEG-4 file to be sent, 0-1024 characters after entities parsing.

- **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.
- **caption_entities** (`List[telegram.MessageEntity]`, optional) – List of special entities that appear in the caption, which can be specified instead of `parse_mode`.
- **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.

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 of the MPEG-4 file to be sent, 0-1024 characters after entities parsing.

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`

caption_entities

Optional. List of special entities that appear in the caption, which can be specified instead of `parse_mode`.

Type `List[telegram.MessageEntity]`

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`

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, caption_entities=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.

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 of the photo to be sent, 0-1024 characters after entities parsing.
- **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.
- **caption_entities** (List[`telegram.MessageEntity`], optional) – List of special entities that appear in the caption, which can be specified instead of `parse_mode`.
- **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.

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 of the photo to be sent, 0-1024 characters after entities parsing.

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`

caption_entities

Optional. List of special entities that appear in the caption, which can be specified instead of `parse_mode`.

Type `List[telegram.MessageEntity]`

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`

telegram.InlineQueryResultCachedSticker

```
class telegram.InlineQueryResultCachedSticker(id, sticker_file_id, re-  
                                              ply_markup=None, in-  
                                              put_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.

Parameters

- **id** (`str`) – Unique identifier for this result, 1-64 bytes.
- **sticker_file_id** (`str`) – A valid file identifier of the sticker.
- **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.

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`

telegram.InlineQueryResultCachedVideo

```
class telegram.InlineQueryResultCachedVideo (id, video_file_id, title, description=None,
                                              caption=None, reply_markup=None,
                                              input_message_content=None,
                                              parse_mode=None, caption_entities=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.

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 of the video to be sent, 0-1024 characters after entities parsing.
- **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.
- **caption_entities** (`List[telegram.MessageEntity]`, optional) – List of special entities that appear in the caption, which can be specified instead of `parse_mode`.
- **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.

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 of the video to be sent, 0-1024 characters after entities parsing.

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`

caption_entities

Optional. List of special entities that appear in the caption, which can be specified instead of `parse_mode`.

Type `List[telegram.MessageEntity]`

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`

telegram.InlineQueryResultCachedVoice

```
class telegram.InlineQueryResultCachedVoice(id, voice_file_id, title, caption=None, reply_markup=None, input_message_content=None, parse_mode=None, caption_entities=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.

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 after entities parsing.
- **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.
- **caption_entities** (`List[telegram.MessageEntity]`, optional) – List of special entities that appear in the caption, which can be specified instead of `parse_mode`.
- **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 message.
- ****kwargs** (dict) – Arbitrary keyword arguments.

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 after entities parsing.

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

caption_entities

Optional. List of special entities that appear in the caption, which can be specified instead of *parse_mode*.

Type List[*telegram.MessageEntity*]

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 message.

Type *telegram.InputMessageContent*

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.

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.

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`

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,
                                           caption_entities=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.

Parameters

- **id** (`str`) – Unique identifier for this result, 1-64 bytes.
- **title** (`str`) – Title for the result.
- **caption** (`str`, optional) – Caption of the document to be sent, 0-1024 characters after entities parsing.
- **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.
- **caption_entities** (`List[telegram.MessageEntity]`, optional) – List of special entities that appear in the caption, which can be specified instead of `parse_mode`.
- **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.

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 of the document to be sent, 0-1024 characters after entities parsing.

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`

caption_entities

Optional. List of special entities that appear in the caption, which can be specified instead of `parse_mode`.

Type `List[telegram.MessageEntity]`

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`

telegram.InlineQueryResultGame

```
class telegram.InlineQueryResultGame(id, game_short_name, reply_markup=None,
                                     **kwargs)
```

Bases: telegram.inline.inlinequeryresult.InlineQueryResult

Represents a *telegram.Game*.

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.

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*

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,
                                     thumb_mime_type=None, caption_entities=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.

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 (JPEG or GIF) or animated (MPEG4) thumbnail for the result.

- **thumb_mime_type** (*str*, optional) – MIME type of the thumbnail, must be one of 'image/jpeg', 'image/gif', or 'video/mp4'. Defaults to 'image/jpeg'.
- **title** (*str*, optional) – Title for the result.
- **caption** (*str*, optional) – Caption of the GIF file to be sent, 0-1024 characters after entities parsing.
- **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.
- **caption_entities** (List[*telegram.MessageEntity*], optional) – List of special entities that appear in the caption, which can be specified instead of *parse_mode*.
- **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 animation.
- ****kwargs** (*dict*) – Arbitrary keyword arguments.

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 (JPEG or GIF) or animated (MPEG4) thumbnail for the result.

Type *str*

thumb_mime_type

Optional. MIME type of the thumbnail.

Type *str*

title

Optional. Title for the result.

Type *str*

caption

Optional. Caption of the GIF file to be sent, 0-1024 characters after entities parsing.

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`

caption_entities

Optional. List of special entities that appear in the caption, which can be specified instead of `parse_mode`.

Type `List[telegram.MessageEntity]`

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 animation.

Type `telegram.InputMessageContent`

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, horizontal_accuracy=None, heading=None, proximity_alert_radius=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.

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.
- **horizontal_accuracy** (`float`, optional) – The radius of uncertainty for the location, measured in meters; 0-1500.
- **live_period** (`int`, optional) – Period in seconds for which the location can be updated, should be between 60 and 86400.
- **heading** (`int`, optional) – For live locations, a direction in which the user is moving, in degrees. Must be between 1 and 360 if specified.
- **proximity_alert_radius** (`int`, optional) – For live locations, a maximum distance for proximity alerts about approaching another chat member, in meters. Must be between 1 and 100000 if specified.
- **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.

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*

horizontal_accuracy

Optional. The radius of uncertainty for the location, measured in meters.

Type *float*

live_period

Optional. Period in seconds for which the location can be updated, should be between 60 and 86400.

Type *int*

heading

Optional. For live locations, a direction in which the user is moving, in degrees.

Type *int*

proximity_alert_radius

Optional. For live locations, a maximum distance for proximity alerts about approaching another chat member, in meters.

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`

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,
                                           thumb_mime_type=None,    caption_entities=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.

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.
- **thumb_mime_type** (`str`) – Optional. MIME type of the thumbnail, must be one of 'image/jpeg', 'image/gif', or 'video/mp4'. Defaults to 'image/jpeg'.
- **title** (`str`, optional) – Title for the result.
- **caption** (`str`, optional) – Caption of the MPEG-4 file to be sent, 0-1024 characters after entities parsing.
- **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.
- **caption_entities** (`List[telegram.MessageEntity]`, optional) – List of special entities that appear in the caption, which can be specified instead of `parse_mode`.
- **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 animation.
- ****kwargs** (`dict`) – Arbitrary keyword arguments.

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 (JPEG or GIF) or animated (MPEG4) thumbnail for the result.

Type `str`

thumb_mime_type
Optional. MIME type of the thumbnail.

Type `str`

title
Optional. Title for the result.

Type `str`

caption
Optional. Caption of the MPEG-4 file to be sent, 0-1024 characters after entities parsing.

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`

caption_entities
Optional. List of special entities that appear in the caption, which can be specified instead of [*parse_mode*](#).

Type `List[telegram.MessageEntity]`

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 animation.

Type [*telegram.InputMessageContent*](#)

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, caption_entities=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.

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 of the photo to be sent, 0-1024 characters after entities parsing.
- **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.
- **caption_entities** (`List[telegram.MessageEntity]`, optional) – List of special entities that appear in the caption, which can be specified instead of `parse_mode`.
- **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.

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 of the photo to be sent, 0-1024 characters after entities parsing.
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`

caption_entities
Optional. List of special entities that appear in the caption, which can be specified instead of `parse_mode`.
Type `List[telegram.MessageEntity]`

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`

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, google_place_id=None,
                                       google_place_type=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.

Note: Foursquare details and Google Place details are mutually exclusive. However, this behaviour is undocumented and might be changed by Telegram.

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”).)
- **google_place_id** (`str`, optional) – Google Places identifier of the venue.
- **google_place_type** (`str`, optional) – Google Places type of the venue. (See [supported types](#).)
- **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.

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.

Type `str`

google_place_id

Optional. Google Places identifier of the venue.

Type `str`

google_place_type

Optional. Google Places type of the venue.

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`

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,
                                       caption_entities=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.

Note: If an `InlineQueryResultVideo` message contains an embedded video (e.g., YouTube), you must replace its content using `input_message_content`.

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 after entities parsing.
- **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.
- **caption_entities** (*List[telegram.MessageEntity]*, optional) – List of special entities that appear in the caption, which can be specified instead of *parse_mode*.
- **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. This field is required if *InlineQueryResultVideo* is used to send an HTML-page as a result (e.g., a YouTube video).
- ****kwargs** (*dict*) – Arbitrary keyword arguments.

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 of the video to be sent, 0-1024 characters after entities parsing.

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`

caption_entities

Optional. List of special entities that appear in the caption, which can be specified instead of `parse_mode`.

Type `List[telegram.MessageEntity]`

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. This field is required if `InlineQueryResultVideo` is used to send an HTML-page as a result (e.g., a YouTube video).

Type `telegram.InputMessageContent`

telegram.InlineQueryResultVoice

```
class telegram.InlineQueryResultVoice(id, voice_url, title, voice_duration=None,
                                       caption=None, reply_markup=None, input_message_content=None, parse_mode=None,
                                       caption_entities=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.

Parameters

- **id** (`str`) – Unique identifier for this result, 1-64 bytes.
- **voice_url** (`str`) – A valid URL for the voice recording.
- **title** (`str`) – Recording title.
- **caption** (`str`, optional) – Caption, 0-1024 characters after entities parsing.
- **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.
- **caption_entities** (`List[telegram.MessageEntity]`, optional) – List of special entities that appear in the caption, which can be specified instead of `parse_mode`.

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

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

Recording title.

Type str

caption

Optional. Caption, 0-1024 characters after entities parsing.

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

caption_entities

Optional. List of special entities that appear in the caption, which can be specified instead of *parse_mode*.

Type List[*telegram.MessageEntity*]

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 recording.

Type *telegram.InputMessageContent*

telegram.InputMessageContent

class telegram.InputMessageContent

Bases: telegram.base.TelegramObject

Base class for Telegram InputMessageContent Objects.

See: `telegram.InputContactMessageContent`, `telegram.InputInvoiceMessageContent`, `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*, *entities=None*, ***kwargs*)

Bases: telegram.inline.inputmessagecontent.InputMessageContent

Represents the content of a text message to be sent as the result of an inline query.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *message_text* is equal.

Parameters

- **message_text** (str) – Text of the message to be sent, 1-4096 characters after entities parsing. 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. See the constants in `telegram.ParseMode` for the available modes.
- **entities** (List[`telegram.MessageEntity`], optional) – List of special entities that appear in the caption, which can be specified instead of *parse_mode*.
- **disable_web_page_preview** (bool, optional) – Disables link previews for links in the sent message.
- ****kwargs** (dict) – Arbitrary keyword arguments.

message_text

Text of the message to be sent, 1-4096 characters after entities parsing.

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. See the constants in `telegram.ParseMode` for the available modes.

Type str

entities

Optional. List of special entities that appear in the caption, which can be specified instead of *parse_mode*.

Type List[`telegram.MessageEntity`]

disable_web_page_preview

Optional. Disables link previews for links in the sent message.

Type bool

to_dict()

See `telegram.TelegramObject.to_dict()`.

telegram.InputLocationMessageContent

```
class telegram.InputLocationMessageContent (latitude, longitude, live_period=None,
                                             horizontal_accuracy=None, heading=None,
                                             proximity_alert_radius=None,
                                             **kwargs)
```

Bases: telegram.inline.inputmessagecontent.InputMessageContent

Represents the content of a location message to be sent as the result of an inline query.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *latitude* and *longitude* are equal.

Parameters

- **latitude** (float) – Latitude of the location in degrees.
- **longitude** (float) – Longitude of the location in degrees.
- **horizontal_accuracy** (float, optional) – The radius of uncertainty for the location, measured in meters; 0-1500.
- **live_period** (int, optional) – Period in seconds for which the location can be updated, should be between 60 and 86400.
- **heading** (int, optional) – For live locations, a direction in which the user is moving, in degrees. Must be between 1 and 360 if specified.
- **proximity_alert_radius** (int, optional) – For live locations, a maximum distance for proximity alerts about approaching another chat member, in meters. Must be between 1 and 100000 if specified.
- ****kwargs** (dict) – Arbitrary keyword arguments.

latitude

Latitude of the location in degrees.

Type float

longitude

Longitude of the location in degrees.

Type float

horizontal_accuracy

Optional. The radius of uncertainty for the location, measured in meters.

Type float

live_period

Optional. Period in seconds for which the location can be updated.

Type int

heading

Optional. For live locations, a direction in which the user is moving, in degrees.

Type int

proximity_alert_radius

Optional. For live locations, a maximum distance for proximity alerts about approaching another chat member, in meters.

Type int

telegram.InputVenueMessageContent

```
class telegram.InputVenueMessageContent(latitude, longitude, title, address,  
                                         foursquare_id=None, foursquare_type=None,  
                                         google_place_id=None,  
                                         google_place_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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *latitude*, *longitude* and *title* are equal.

Note: Foursquare details and Google Pace details are mutually exclusive. However, this behaviour is undocumented and might be changed by Telegram.

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”.)
- **google_place_id** (str, optional) – Google Places identifier of the venue.
- **google_place_type** (str, optional) – Google Places type of the venue. (See [supported types](#).)
- ****kwargs** (dict) – Arbitrary keyword arguments.

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.

Type str

google_place_id

Optional. Google Places identifier of the venue.

Type `str`

google_place_type

Optional. Google Places type of the venue.

Type `str`

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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `phone_number` is equal.

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.

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`

telegram.InputInvoiceMessageContent

```
class telegram.InputInvoiceMessageContent (title, description, payload, provider_token,
                                          currency, prices, max_tip_amount=None,
                                          suggested_tip_amounts=None,
                                          provider_data=None, 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,
                                          send_phone_number_to_provider=None,
                                          send_email_to_provider=None,
                                          is_flexible=None, **kwargs)
```

Bases: telegram.inline.inputmessagecontent.InputMessageContent

Represents the content of a invoice message to be sent as the result of an inline query.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *title*, *description*, *payload*, *provider_token*, *currency* and *prices* are equal.

New in version 13.5.

Parameters

- **title** (*str*) – Product name, 1-32 characters
- **description** (*str*) – Product description, 1-255 characters
- **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*) – Payment provider token, obtained via [@Botfather](#).
- **currency** (*str*) – Three-letter ISO 4217 currency code, see more on [currencies](#)
- **prices** (List[[telegram.LabeledPrice](#)]) – Price breakdown, a JSON-serialized list of components (e.g. product price, tax, discount, delivery cost, delivery tax, bonus, etc.)
- **max_tip_amount** (*int*, optional) – The maximum accepted amount for tips in the smallest units of the currency (integer, not float/double). For example, for a maximum tip of US\$ 1.45 pass `max_tip_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). Defaults to 0.
- **suggested_tip_amounts** (List[*int*], optional) – A JSON-serialized array of suggested amounts of tip in the smallest units of the currency (integer, not float/double). At most 4 suggested tip amounts can be specified. The suggested tip amounts must be positive, passed in a strictly increased order and must not exceed *max_tip_amount*.
- **provider_data** (*str*, optional) – A JSON-serialized object for data about the invoice, which will be shared with the payment provider. A detailed description of the required fields should be provided by the payment provider.
- **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** (*int*, 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 address 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.
- ****kwargs** (dict) – Arbitrary keyword arguments.

title

Product name, 1-32 characters

Type str

description

Product description, 1-255 characters

Type str

payload

Bot-defined invoice payload, 1-128 bytes. This will not be displayed to the user, use for your internal processes.

Type str

provider_token

Payment provider token, obtained via [@Botfather](#).

Type str

currency

Three-letter ISO 4217 currency code, see more on [currencies](#)

Type str

prices

Price breakdown, a JSON-serialized list of components.

Type List[[telegram.LabeledPrice](#)]

max_tip_amount

Optional. The maximum accepted amount for tips in the smallest units of the currency (integer, not float/double).

Type int

suggested_tip_amounts

Optional. A JSON-serialized array of suggested amounts of tip in the smallest units of the currency (integer, not float/double).

Type List[int]

provider_data

Optional. A JSON-serialized object for data about the invoice, which will be shared with the payment provider.

Type str

photo_url

Optional. URL of the product photo for the invoice.

Type `str`

photo_size
Optional. Photo size.

Type `int`

photo_width
Optional. Photo width.

Type `int`

photo_height
Optional. Photo height.

Type `int`

need_name
Optional. Pass `True`, if you require the user's full name to complete the order.

Type `bool`

need_phone_number
Optional. Pass `True`, if you require the user's phone number to complete the order

Type `bool`

need_email
Optional. Pass `True`, if you require the user's email address to complete the order.

Type `bool`

need_shipping_address
Optional. Pass `True`, if you require the user's shipping address to complete the order

Type `bool`

send_phone_number_to_provider
Optional. Pass `True`, if user's phone number should be sent to provider.

Type `bool`

send_email_to_provider
Optional. Pass `True`, if user's email address should be sent to provider.

Type `bool`

is_flexible
Optional. Pass `True`, if the final price depends on the shipping method.

Type `bool`

classmethod `de_json(data, bot)`
See `telegram.TelegramObject.de_json()`.

to_dict()
See `telegram.TelegramObject.to_dict()`.

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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `result_id` is equal.

Note:

- In Python `from` is a reserved word, use `from_user` instead.
 - It is necessary to enable inline feedback via [@Botfather](#) in order to receive these objects in updates.
-

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.

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`

classmethod de_json (*data, bot*)

See `telegram.TelegramObject.de_json()`.

3.2.62 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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *label* and *amount* are equal.

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.

label

Portion label.

Type *str*

amount

Price of the product in the smallest units of the currency.

Type *int*

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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *title*, *description*, *start_parameter*, *currency* and *total_amount* are equal.

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`. 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.

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`

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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `country_code`, `state`, `city`, `street_line1`, `street_line2` and `post_cod` are equal.

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.

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`

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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *name*, *phone_number*, *email* and *shipping_address* are equal.

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.

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*

classmethod de_json (*data*, *bot*)

See *telegram.TelegramObject.de_json()*.

telegram.ShippingOption

```
class telegram.ShippingOption (id, title, prices, **kwargs)
Bases: telegram.base.TelegramObject
```

This object represents one shipping option.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *id* is equal.

Parameters

- **id** (`str`) – Shipping option identifier.
- **title** (`str`) – Option title.
- **prices** (`List[telegram.LabeledPrice]`) – List of price portions.
- ****kwargs** (`dict`) – Arbitrary keyword arguments.

id
Shipping option identifier.
Type `str`

title
Option title.
Type `str`

prices
List of price portions.
Type `List[telegram.LabeledPrice]`

to_dict()
See `telegram.TelegramObject.to_dict()`.

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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `telegram_payment_charge_id` and `provider_payment_charge_id` are equal.

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.

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`

classmethod `de_json(data, bot)`
See `telegram.TelegramObject.de_json()`.

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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `id` is equal.

Note: In Python `from` is a reserved word, use `from_user` instead.

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.

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`**answer** (*ok*, *shipping_options=None*, *error_message=None*, *timeout=None*, *api_kwargs=None*)

Shortcut for:

```
bot.answer_shipping_query(update.shipping_query.id, *args, **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.answer_shipping_query()`.

classmethod de_json (*data*, *bot*)See `telegram.TelegramObject.de_json()`.

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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `id` is equal.

Note: In Python `from` is a reserved word, use `from_user` instead.

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.

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`

answer (*ok, error_message=None, timeout=None, api_kwargs=None*)

Shortcut for:

```
bot.answer_pre_checkout_query(update.pre_checkout_query.id, *args, ↪
↪ **kwargs)
```

For the documentation of the arguments, please see `telegram.Bot.answer_pre_checkout_query()`.

classmethod de_json (*data, bot*)

See `telegram.TelegramObject.de_json()`.

3.2.63 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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *title*, *description* and *photo* are equal.

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 `telegram.Bot.set_game_score()`, or manually edited using `telegram.Bot.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](#).

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 `telegram.Bot.set_game_score()`, or manually edited using `telegram.Bot.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`

classmethod de_json(data, bot)

See `telegram.TelegramObject.de_json()`.

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 code-point 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`

Raises **RuntimeError** – If this game has no text.

to_dict ()

See *telegram.TelegramObject.to_dict()*.

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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *position*, *user* and *score* are equal.

Parameters

- **position** (`int`) – Position in high score table for the game.
- **user** (*telegram.User*) – User.
- **score** (`int`) – Score.

position

Position in high score table for the game.

Type `int`

user

User.

Type *telegram.User*

score

Score.

Type `int`

classmethod **de_json** (*data, bot*)

See *telegram.TelegramObject.de_json()*.

3.2.64 Passport

telegram.PassportElementError

class telegram.**PassportElementError** (*source, type, message, **kwargs*)

Bases: telegram.base.TelegramObject

Baseclass for the PassportElementError* classes.

This object represents an error in the Telegram Passport element which was submitted that should be resolved by the user.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *source* and *type* are equal.

Parameters

- **source** (*str*) – Error source.
- **type** (*str*) – The section of the user’s Telegram Passport which has the error.
- ****kwargs** (*dict*) – Arbitrary keyword arguments.

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*

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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their source, *type*, *file_hash*, and *message* are equal.

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.

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`

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 list of files with the document scans changes.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their source, *type*, *file_hashes*, and *message* are equal.

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.

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_hashes
List of base64-encoded file hashes.
Type `List[str]`

message
Error message.
Type `str`

telegram.PassportElementErrorReverseSide

class telegram.**PassportElementErrorReverseSide** (*type*, *file_hash*, *message*, ***kwargs*)
Bases: telegram.passport.passportelementerrors.PassportElementError

Represents an issue with the reverse side of a document. The error is considered resolved when the file with the reverse side of the document changes.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their source, *type*, *file_hash*, and *message* are equal.

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.

type

The section of the user's Telegram Passport which has the issue, one of "driver_license", "identity_card".

Type *str*

file_hash

Base64-encoded hash of the file with the reverse side of the document.

Type *str*

message

Error message.

Type *str*

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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their source, *type*, *file_hash*, and *message* are equal.

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.

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*

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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their source, *type*, *field_name*, *data_hash* and *message* are equal.

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.

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

telegram.PassportElementErrorSelfie

```
class telegram.PassportElementErrorSelfie(type, file_hash, message, **kwargs)
```

Bases: telegram.passport.passportelementerrors.PassportElementError

Represents an issue with the selfie with a document. The error is considered resolved when the file with the selfie changes.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their source, *type*, *file_hash*, and *message* are equal.

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 selfie.
- **message** (str) – Error message.

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

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 selfie.

Type str

message

Error message.

Type str

telegram.PassportElementErrorTranslationFile

```
class telegram.PassportElementErrorTranslationFile(type, file_hash, message,  
                                                  **kwargs)
```

Bases: telegram.passport.passportelementerrors.PassportElementError

Represents an issue with one of the files that constitute the translation of a document. The error is considered resolved when the file changes.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their source, *type*, *file_hash*, and *message* are equal.

Parameters

- **type** (str) – Type of element of the user's Telegram Passport which has the issue, one of "passport", "driver_license", "identity_card", "internal_passport", "utility_bill", "bank_statement", "rental_agreement", "passport_registration", "temporary_registration".
- **file_hash** (str) – Base64-encoded hash of the file.
- **message** (str) – Error message.
- ****kwargs** (dict) – Arbitrary keyword arguments.

type

Type of element of the user's Telegram Passport which has the issue, one of "passport", "driver_license", "identity_card", "internal_passport", "utility_bill", "bank_statement", "rental_agreement", "passport_registration", "temporary_registration".

Type str

file_hash

Base64-encoded hash of the file.

Type str

message

Error message.

Type str

telegram.PassportElementErrorTranslationFiles

```
class telegram.PassportElementErrorTranslationFiles(type, file_hashes, message,  
                                                    **kwargs)
```

Bases: telegram.passport.passportelementerrors.PassportElementError

Represents an issue with the translated version of a document. The error is considered resolved when a file with the document translation changes.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their source, *type*, *file_hashes*, and *message* are equal.

Parameters

- **type** (str) – Type of element of the user's Telegram Passport which has the issue, one of "passport", "driver_license", "identity_card", "internal_passport", "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.

type

Type of element of the user's Telegram Passport which has the issue, one of "passport", "driver_license", "identity_card", "internal_passport", "utility_bill", "bank_statement", "rental_agreement", "passport_registration", "temporary_registration".

Type str

file_hashes

List of base64-encoded file hashes.

Type List[str]

message

Error message.

Type str

telegram.PassportElementErrorUnspecified

```
class telegram.PassportElementErrorUnspecified(type, element_hash, message,  
                                                **kwargs)
```

Bases: telegram.passport.passportelementerrors.PassportElementError

Represents an issue in an unspecified place. The error is considered resolved when new data is added.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their source, *type*, *element_hash*, and *message* are equal.

Parameters

- **type** (str) – Type of element of the user's Telegram Passport which has the issue.
- **element_hash** (str) – Base64-encoded element hash.
- **message** (str) – Error message.
- ****kwargs** (dict) – Arbitrary keyword arguments.

type

Type of element of the user's Telegram Passport which has the issue.

Type str

element_hash
Base64-encoded element hash.
Type `str`

message
Error message.
Type `str`

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`

classmethod `de_json` (*data, bot*)
See `telegram.TelegramObject.de_json()`.

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`

to_dict ()
See `telegram.TelegramObject.to_dict()`.

telegram.SecureData

```
class telegram.SecureData(personal_details=None, passport=None, internal_passport=None,  
                        driver_license=None, identity_card=None, address=None, util-  
                        ity_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

classmethod de_json (*data, bot*)

See *telegram.TelegramObject.de_json()*.

telegram.SecureValue

class telegram.SecureValue (*data=None, front_side=None, reverse_side=None, selfie=None, files=None, translation=None, bot=None, **kwargs*)

Bases: telegram.base.TelegramObject

This object represents the credentials that were used to decrypt the encrypted value. All fields are optional and depend on the type of field.

data

Credentials for encrypted Telegram Passport data. Available for “personal_details”, “passport”, “driver_license”, “identity_card”, “identity_passport” and “address” types.

Type *telegram.DataCredentials*, optional

front_side

Credentials for encrypted document’s front side. Available for “passport”, “driver_license”, “identity_card” and “internal_passport”.

Type *telegram.FileCredentials*, optional

reverse_side

Credentials for encrypted document’s reverse side. Available for “driver_license” and “identity_card”.

Type *telegram.FileCredentials*, optional

selfie

Credentials for encrypted selfie of the user with a document. Can be available for “passport”, “driver_license”, “identity_card” and “internal_passport”.

Type *telegram.FileCredentials*, optional

translation

Credentials for an encrypted translation of the document. Available for “passport”, “driver_license”, “identity_card”, “internal_passport”, “utility_bill”, “bank_statement”, “rental_agreement”, “passport_registration” and “temporary_registration”.

Type List[*telegram.FileCredentials*], optional

files

Credentials for encrypted files. Available for “utility_bill”, “bank_statement”, “rental_agreement”, “passport_registration” and “temporary_registration” types.

Type List[*telegram.FileCredentials*], optional

classmethod de_json (*data, bot*)

See *telegram.TelegramObject.de_json()*.

to_dict ()

See *telegram.TelegramObject.to_dict()*.

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`

to_dict()
See `telegram.TelegramObject.to_dict()`.

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_native

First Name in the language of the user's country of residence.

Type `str`

middle_name_native

Optional. Middle Name in the language of the user's country of residence.

Type `str`

last_name_native

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.

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`.

Parameters

- **data** (List[`telegram.EncryptedPassportElement`]) – Array with encrypted information about documents and other Telegram Passport elements that was shared with the bot.
- **credentials** (`telegram.EncryptedCredentials`) – Encrypted credentials.
- **bot** (`telegram.Bot`, optional) – The Bot to use for instance methods.
- ****kwargs** (dict) – Arbitrary keyword arguments.

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

classmethod de_json (data, bot)

See `telegram.TelegramObject.de_json()`.

property 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`

property 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`]

to_dict ()

See `telegram.TelegramObject.to_dict()`.

telegram.PassportFile

class telegram.**PassportFile** (*file_id, file_unique_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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *file_unique_id* is equal.

Parameters

- **file_id** (*str*) – Identifier for this file, which can be used to download or reuse the file.
- **file_unique_id** (*str*) – Unique identifier for this file, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the 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.

file_id

Identifier for this file.

Type *str*

file_unique_id

Unique identifier for this file, which is supposed to be the same over time and for different bots. Can't be used to download or reuse the 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*

classmethod **de_json_decrypted** (*data, bot, credentials*)

Variant of *telegram.TelegramObject.de_json()* that also takes into account passport credentials.

Parameters

- **data** (*Dict[str, ...]*) – The JSON data.
- **bot** (*telegram.Bot*) – The bot associated with this object.
- **credentials** (*telegram.FileCredentials*) – The credentials

Returns

Return type *telegram.PassportFile*

classmethod `de_list_decrypted(data, bot, credentials)`

Variant of `telegram.TelegramObject.de_list()` that also takes into account passport credentials.

Parameters

- **data** (`Dict[str, ...]`) – The JSON data.
- **bot** (`telegram.Bot`) – The bot associated with these objects.
- **credentials** (`telegram.FileCredentials`) – The credentials

Returns

Return type `List[telegram.PassportFile]`

get_file (`timeout=None, api_kwargs=None`)

Wrapper over `telegram.Bot.get_file`. Will automatically assign the correct credentials to the returned `telegram.File` if originating from `telegram.PassportData.decrypted_data`.

For the documentation of the arguments, please see `telegram.Bot.get_file()`.

Returns `telegram.File`

Raises `telegram.error.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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their `type`, `data`, `phone_number`, `email`, `files`, `front_side`, `reverse_side` and `selfie` are equal.

Note: This object is decrypted only when originating from `telegram.PassportData.decrypted_data`.

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 | telegram.IdDocument | telegram.ResidentialAddress | 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.

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* | *telegram.IdDocument* | *telegram.ResidentialAddress* | 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*

classmethod de_json(data, bot)

See *telegram.TelegramObject.de_json()*.

classmethod de_json_decrypted(data, bot, credentials)

Variant of *telegram.TelegramObject.de_json()* that also takes into account passport credentials.

Parameters

- **data** (`Dict[str, ...]`) – The JSON data.
- **bot** (*telegram.Bot*) – The bot associated with this object.
- **credentials** (*telegram.FileCredentials*) – The credentials

Returns

Return type *telegram.EncryptedPassportElement*

to_dict()

See *telegram.TelegramObject.to_dict()*.

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.

Objects of this class are comparable in terms of equality. Two objects of this class are considered equal, if their *data*, *hash* and *secret* are equal.

Note: This object is decrypted only when originating from *telegram.PassportData.decrypted_credentials*.

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.

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*

property 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*

property 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*

3.2.65 utils

telegram.utils.helpers Module

This module contains helper functions.

`telegram.utils.helpers.DEFAULT_20:` *telegram.utils.helpers.DefaultValue* = 20
Default 20

Type *DefaultValue*

`telegram.utils.helpers.DEFAULT_FALSE:` *telegram.utils.helpers.DefaultValue* = False
Default False

Type *DefaultValue*

`telegram.utils.helpers.DEFAULT_NONE:` *telegram.utils.helpers.DefaultValue* = None
Default None

Type *DefaultValue*

class telegram.utils.helpers.DefaultValue (*value=None*)

Bases: Generic[telegram.utils.helpers.DVType]

Wrapper for immutable default arguments that allows to check, if the default value was set explicitly. Usage:

```
DefaultOne = DefaultValue(1)
def f(arg=DefaultOne):
    if arg is DefaultOne:
        print('`arg` is the default')
        arg = arg.value
    else:
        print('`arg` was set explicitly')
    print(f'`arg` = {str(arg)}')
```

This yields:

```
>>> f()
`arg` is the default
`arg` = 1
>>> f(1)
`arg` was set explicitly
`arg` = 1
>>> f(2)
`arg` was set explicitly
`arg` = 2
```

Also allows to evaluate truthiness:

```
default = DefaultValue(value)
if default:
    ...
```

is equivalent to:

```
default = DefaultValue(value)
if value:
    ...
```

`repr(DefaultValue(value))` returns `repr(value)` and `str(DefaultValue(value))` returns `f'DefaultValue({value})'`.

Parameters **value** (*obj*) – The value of the default argument

value

The value of the default argument

Type *obj*

static `get_value(obj)`

Shortcut for:

```
return obj.value if isinstance(obj, DefaultValue) else obj
```

Parameters **obj** (*object*) – The object to process

Returns The value

Return type Same type as input, or the value of the input

telegram.utils.helpers.create_deep_linked_url (*bot_username,* *payload=None,*
 group=False)

Creates a deep-linked URL for this *bot_username* with the specified *payload*. See <https://core.telegram.org/bots#deep-linking> to learn more.

The *payload* may consist of the following characters: A-Z, a-z, 0-9, `_`, `-`

Note: Works well in conjunction with `CommandHandler("start", callback, filters = Filters.regex('payload'))`

Examples

```
create_deep_linked_url(bot.get_me().username, "some-params")
```

Parameters

- **bot_username** (`str`) – The username to link to
- **payload** (`str`, optional) – Parameters to encode in the created URL
- **group** (`bool`, optional) – If `True` the user is prompted to select a group to add the bot to. If `False`, opens a one-on-one conversation with the bot. Defaults to `False`.

Returns An URL to start the bot with specific parameters

Return type `str`

`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** (`telegram.Update` | `telegram.Message`) – The update or message to extract from.

Returns One of `Message.MESSAGE_TYPES`

Return type `str`

`telegram.utils.helpers.encode_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 transform to JSON.

Returns The JSON-serialized conversations dict

Return type `str`

`telegram.utils.helpers.escape_markdown(text, version=1, entity_type=None)`

Helper function to escape telegram markup symbols.

Parameters

- **text** (`str`) – The text.

- **version** (int | str) – Use to specify the version of telegrams Markdown. Either 1 or 2. Defaults to 1.
- **entity_type** (str, optional) – For the entity types PRE, CODE and the link part of TEXT_LINKS, only certain characters need to be escaped in MarkdownV2. See the official API documentation for details. Only valid in combination with version=2, will be ignored else.

telegram.utils.helpers.**from_timestamp** (unixtime, tzinfo=<UTC>)

Converts an (integer) unix timestamp to a timezone aware datetime object. None s are left alone (i.e. from_timestamp (None) is None).

Parameters

- **unixtime** (int) – Integer POSIX timestamp.
- **tzinfo** (datetime.tzinfo, optional) – The timezone to which the timestamp is to be converted to. Defaults to UTC.

Returns Timezone aware equivalent datetime.datetime value if unixtime is not None; else None.

telegram.utils.helpers.**get_signal_name** (signum)

Returns the signal name of the given signal number.

telegram.utils.helpers.**is_local_file** (obj)

Checks if a given string is a file on local system.

Parameters **obj** (str) – The string to check.

telegram.utils.helpers.**mention_html** (user_id, name)

Parameters

- **user_id** (int) – The user's id which you want to mention.
- **name** (str) – The name the mention is showing.

Returns The inline mention for the user as HTML.

Return type str

telegram.utils.helpers.**mention_markdown** (user_id, name, version=1)

Parameters

- **user_id** (int) – The user's id which you want to mention.
- **name** (str) – The name the mention is showing.
- **version** (int | str) – Use to specify the version of Telegram's Markdown. Either 1 or 2. Defaults to 1.

Returns The inline mention for the user as Markdown.

Return type str

telegram.utils.helpers.**parse_file_input** (file_input, tg_type=None, attach=None, filename=None)

Parses input for sending files:

- For string input, if the input is an absolute path of a local file, adds the file:// prefix. If the input is a relative path of a local file, computes the absolute path and adds the file:// prefix. Returns the input unchanged, otherwise.
- pathlib.Path objects are treated the same way as strings.
- For IO and bytes input, returns an telegram.InputFile.
- If tg_type is specified and the input is of that type, returns the file_id attribute.

Parameters

- **file_input** (`str` | `bytes` | *filelike object* | Telegram media object) – The input to parse.
- **tg_type** (`type`, optional) – The Telegram media type the input can be. E.g. `telegram.Animation`.
- **attach** (`bool`, optional) – Whether this file should be send as one file or is part of a collection of files. Only relevant in case an `telegram.InputFile` is returned.
- **filename** (`str`, optional) – The filename. Only relevant in case an `telegram.InputFile` is returned.

Returns The parsed input or the untouched `file_input`, in case it's no valid file input.

Return type `str` | `telegram.InputFile` | `object`

`telegram.utils.helpers.to_float_timestamp` (*time_object*, *reference_timestamp=None*, *tzinfo=None*)

Converts a given time object to a float POSIX timestamp. Used to convert different time specifications to a common format. The time object can be relative (i.e. indicate a time increment, or a time of day) or absolute. object objects from the `datetime` module that are timezone-naive will be assumed to be in UTC, if `bot` is not passed or `bot.defaults` is `None`.

Parameters

- **time_object** (`int` | `float` | `datetime.timedelta` | `datetime.datetime` | `datetime.time`) – Time value to convert. The semantics of this parameter will depend on its type:
 - `int` or `float` will be interpreted as “seconds from `reference_t`”
 - `datetime.timedelta` will be interpreted as “time increment from `reference_t`”
 - `datetime.datetime` will be interpreted as an absolute date/time value
 - `datetime.time` will be interpreted as a specific time of day
- **reference_timestamp** (`float`, optional) – POSIX timestamp that indicates the absolute time from which relative calculations are to be performed (e.g. when `t` is given as an `int`, indicating “seconds from `reference_t`”). Defaults to now (the time at which this function is called).

If `t` is given as an absolute representation of date & time (i.e. a `datetime.datetime` object), `reference_timestamp` is not relevant and so its value should be `None`. If this is not the case, a `ValueError` will be raised.
- **tzinfo** (`pytz.BaseTzInfo`, optional) – If `t` is a naive object from the `datetime` module, it will be interpreted as this timezone. Defaults to `pytz.utc`.

Note: Only to be used by `telegram.ext`.

Returns

The return value depends on the type of argument `t`. If `t` is given as a time increment (i.e. as a `int`, `float` or `datetime.timedelta`), then the return value will be `reference_t + t`.

Else if it is given as an absolute date/time value (i.e. a `datetime.datetime` object), the equivalent value as a POSIX timestamp will be returned.

Finally, if it is a time of the day without date (i.e. a `datetime.time` object), the return value is the nearest future occurrence of that time of day.

Return type `float` | `None`

Raises

- **TypeError** – If `t`'s type is not one of those described above.
- **ValueError** – If `t` is a `datetime.datetime` and `reference_timestamp` is not `None`.

`telegram.utils.helpers.to_timestamp(dt_obj, reference_timestamp=None, tzinfo=None)`
Wrapper over `to_float_timestamp()` which returns an integer (the float value truncated down to the nearest integer).

See the documentation for `to_float_timestamp()` for more details.

telegram.utils.promise.Promise

class `telegram.utils.promise.Promise`
Shortcut for `telegram.ext.utils.promise.Promise`.

Deprecated since version 13.2: Use `telegram.ext.utils.promise.Promise` instead.

telegram.utils.request.Request

class `telegram.utils.request.Request` (`con_pool_size=1`, `proxy_url=None`, `url-lib3_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. Defaults to `5.0`.
- **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. Defaults to `5.0`.

property `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** (`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).
- **filename** (`str`) – The filename within the path to download the file.

post (`url`, `data`, `timeout=None`)
Request an URL.

Parameters

- **url** (`str`) – The web location we want to retrieve.
- **data** (`Dict[str, str | int]`, optional) – A dict of key/value pairs.
- **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 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).

stop ()

Performs cleanup on shutdown.

telegram.utils.types Module

This module contains custom typing aliases.

`telegram.utils.types.DVInput`

Generic type for bot method parameters which can have defaults. `DVInput[type]` is the same as `Union[DefaultValue, type]`.

alias of `Union[DefaultValue[DVType], DVType]`

`telegram.utils.types.FileInput`

Valid input for passing files to Telegram. Either a file id as string, a file like object, a local file path as string, `pathlib.Path` or the file contents as bytes.

alias of `Union[str, bytes, IO, InputFile, pathlib.Path]`

`telegram.utils.types.FileLike`

Either an open file handler or a `telegram.InputFile`.

alias of `Union[IO, InputFile]`

`telegram.utils.types.JSONDict`

Dictionary containing response from Telegram or data to send to the API.

alias of `Dict[str, Any]`

`telegram.utils.types.OVDVInput`

Generic type for bot method parameters which can have defaults. `OVDVInput[type]` is the same as `Optional[Union[DefaultValue, type]]`.

alias of `Optional[Union[DefaultValue[DVType], DVType]]`

`telegram.utils.types.SLT`

Single instance or list/tuple of instances.

alias of `Union[RT, List[RT], Tuple[RT, ...]]`

3.3 Changelog

3.3.1 Changelog

Version 13.6

Released 2021-06-06

New Features:

- Arbitrary `callback_data` (#1844)
- Add `ContextTypes` & `BasePersistence.refresh_user/chat/bot_data` (#2262)
- Add `Filters.attachment` (#2528)
- Add `pattern` Argument to `ChosenInlineResultHandler` (#2517)

Major Changes:

- Add `slots` (#2345)

Minor changes, CI improvements, Doc fixes and Type hinting:

- Doc Fixes (#2495, #2510)
- Add `max_connections` Parameter to `Updater.start_webhook` (#2547)
- Fix for `Promise.done_callback` (#2544)
- Improve Code Quality (#2536, #2454)
- Increase Test Coverage of `CallbackQueryHandler` (#2520)
- Stabilize CI (#2522, #2537, #2541)
- Fix `send_phone_number_to_provider` argument for `Bot.send_invoice` (#2527)
- Handle Classes as Input for `BasePersistence.replace/insert_bot` (#2523)
- Bump Tornado Version and Remove Workaround from #2067 (#2494)

Version 13.5

Released 2021-04-30

Major Changes:

- Full support of Bot API 5.2 (#2489).

Note: The `start_parameter` argument of `Bot.send_invoice` and the corresponding shortcuts is now optional, so the order of parameters had to be changed. Make sure to update your method calls accordingly.

- Update `ChatActions`, Deprecating `ChatAction.RECORD_AUDIO` and `ChatAction.UPLOAD_AUDIO` (#2460)

New Features:

- Convenience Utilities & Example for Handling `ChatMemberUpdated` (#2490)
- `Filters.forwarded_from` (#2446)

Minor changes, CI improvements, Doc fixes and Type hinting:

- Improve Timeouts in `ConversationHandler` (#2417)
- Stabilize CI (#2480)

- Doc Fixes (#2437)
- Improve Type Hints of Data Filters (#2456)
- Add Two UserWarnings (#2464)
- Improve Code Quality (#2450)
- Update Fallback Test-Bots (#2451)
- Improve Examples (#2441, #2448)

Version 13.4.1

Released 2021-03-14

Hot fix release:

- Fixed a bug in `setup.py` (#2431)

Version 13.4

Released 2021-03-14

Major Changes:

- Full support of Bot API 5.1 (#2424)

Minor changes, CI improvements, doc fixes and type hinting:

- Improve `Updater.set_webhook` (#2419)
- Doc Fixes (#2404)
- Type Hinting Fixes (#2425)
- Update `pre-commit` Settings (#2415)
- Fix Logging for Vendored `urllib3` (#2427)
- Stabilize Tests (#2409)

Version 13.3

Released 2021-02-19

Major Changes:

- Make `cryptography` Dependency Optional & Refactor Some Tests (#2386, #2370)
- Deprecate `MessageQueue` (#2393)

Bug Fixes:

- Refactor `Defaults` Integration (#2363)
- Add Missing `telegram.SecureValue` to `init` and Docs (#2398)

Minor changes:

- Doc Fixes (#2359)

Version 13.2

Released 2021-02-02

Major Changes:

- Introduce `python-telegram-bot-raw` (#2324)
- Explicit Signatures for Shortcuts (#2240)

New Features:

- Add Missing Shortcuts to Message (#2330)
- Rich Comparison for Bot (#2320)
- Add `run_async` Parameter to `ConversationHandler` (#2292)
- Add New Shortcuts to Chat (#2291)
- Add New Constant `MAX_ANSWER_CALLBACK_QUERY_TEXT_LENGTH` (#2282)
- Allow Passing Custom Filename For All Media (#2249)
- Handle Bytes as File Input (#2233)

Bug Fixes:

- Fix Escaping in Nested Entities in Message Properties (#2312)
- Adjust Calling of `Dispatcher.update_persistence` (#2285)
- Add `quote` kwarg to `Message.reply_copy` (#2232)
- `ConversationHandler`: Docs & `edited_channel_post` behavior (#2339)

Minor changes, CI improvements, doc fixes and type hinting:

- Doc Fixes (#2253, #2225)
- Reduce Usage of `typing.Any` (#2321)
- Extend Deeplinking Example (#2335)
- Add `pyupgrade` to pre-commit Hooks (#2301)
- Add PR Template (#2299)
- Drop Nightly Tests & Update Badges (#2323)
- Update Copyright (#2289, #2287)
- Change Order of Class DocStrings (#2256)
- Add macOS to Test Matrix (#2266)
- Start Using Versioning Directives in Docs (#2252)
- Improve Annotations & Docs of Handlers (#2243)

Version 13.1

Released 2020-11-29

Major Changes:

- Full support of Bot API 5.0 (#2181, #2186, #2190, #2189, #2183, #2184, #2188, #2185, #2192, #2196, #2193, #2223, #2199, #2187, #2147, #2205)

New Features:

- Add `Defaults.run_async` (#2210)
- Improve and Expand `CallbackQuery` Shortcuts (#2172)

- Add XOR Filters and make `Filters.name` a Property (#2179)
- Add `Filters.document.file_extension` (#2169)
- Add `Filters.caption_regex` (#2163)
- Add `Filters.chat_type` (#2128)
- Handle Non-Binary File Input (#2202)

Bug Fixes:

- Improve Handling of Custom Objects in `BasePersistence.insert/replace_bot` (#2151)
- Fix bugs in `replace/insert_bot` (#2218)

Minor changes, CI improvements, doc fixes and type hinting:

- Improve Type hinting (#2204, #2118, #2167, #2136)
- Doc Fixes & Extensions (#2201, #2161)
- Use F-Strings Where Possible (#2222)
- Rename kwargs to `_kwargs` where possible (#2182)
- Comply with PEP561 (#2168)
- Improve Code Quality (#2131)
- Switch Code Formatting to Black (#2122, #2159, #2158)
- Update Wheel Settings (#2142)
- Update `timerbot.py` to v13.0 (#2149)
- Overhaul Constants (#2137)
- Add Python 3.9 to Test Matrix (#2132)
- Switch Codecov to GitHub Action (#2127)
- Specify Required pytz Version (#2121)

Version 13.0

Released 2020-10-07

For a detailed guide on how to migrate from v12 to v13, see this [wiki page](#).

Major Changes:

- Deprecate old-style callbacks, i.e. set `use_context=True` by default (#2050)
- Refactor Handling of Message VS Update Filters (#2032)
- Deprecate `Message.default_quote` (#1965)
- Refactor persistence of Bot instances (#1994)
- Refactor `JobQueue` (#1981)
- Refactor handling of kwargs in Bot methods (#1924)
- Refactor `Dispatcher.run_async`, deprecating the `@run_async` decorator (#2051)

New Features:

- Type Hinting (#1920)
- Automatic Pagination for `answer_inline_query` (#2072)
- `Defaults.tzinfo` (#2042)
- Extend rich comparison of objects (#1724)

- Add `Filters.via_bot` (#2009)
- Add missing shortcuts (#2043)
- Allow `DispatcherHandlerStop` in `ConversationHandler` (#2059)
- Make Errors picklable (#2106)

Minor changes, CI improvements, doc fixes or bug fixes:

- Fix Webhook not working on Windows with Python 3.8+ (#2067)
- Fix setting thumbs with `send_media_group` (#2093)
- Make `MessageHandler` filter for `Filters.update` first (#2085)
- Fix `PicklePersistence.flush()` with only `bot_data` (#2017)
- Add test for clean argument of `Updater.start_polling/webhook` (#2002)
- Doc fixes, refinements and additions (#2005, #2008, #2089, #2094, #2090)
- CI fixes (#2018, #2061)
- Refine `pollbot.py` example (#2047)
- Refine Filters in examples (#2027)
- Rename `echobot` examples (#2025)
- Use Lock-Bot to lock old threads (#2048, #2052, #2049, #2053)

Version 12.8

Released 2020-06-22

Major Changes:

- Remove Python 2 support (#1715)
- Bot API 4.9 support (#1980)
- IDs/Usernames of `Filters.user` and `Filters.chat` can now be updated (#1757)

Minor changes, CI improvements, doc fixes or bug fixes:

- Update contribution guide and stale bot (#1937)
- Remove `NullHandlers` (#1913)
- Improve and expand examples (#1943, #1995, #1983, #1997)
- Doc fixes (#1940, #1962)
- Add `User.send_poll()` shortcut (#1968)
- Ignore private attributes in `TelegramObject.to_dict()` (#1989)
- Stabilize CI (#2000)

Version 12.7

Released 2020-05-02

Major Changes:

- Bot API 4.8 support. **Note:** The `Dice` object now has a second positional argument `emoji`. This is relevant, if you instantiate `Dice` objects manually. (#1917)
- Added `tzinfo` argument to `helpers.from_timestamp`. It now returns an timezone aware object. This is relevant for `Message.date`, `Message.forward_date`, `Message.edit_date`, `Poll.close_date` and `ChatMember.until_date` (#1621)

New Features:

- New method `run_monthly` for the `JobQueue` (#1705)
- `Job.next_t` now gives the datetime of the jobs next execution (#1685)

Minor changes, CI improvements, doc fixes or bug fixes:

- Stabilize CI (#1919, #1931)
- Use ABCs `@abstractmethod` instead of raising `NotImplementedError` for `Handler`, `BasePersistence` and `BaseFilter` (#1905)
- Doc fixes (#1914, #1902, #1910)

Version 12.6.1

Released 2020-04-11

Bug fixes:

- Fix serialization of `reply_markup` in media messages (#1889)

Version 12.6

Released 2020-04-10

Major Changes:

- Bot API 4.7 support. **Note:** In `Bot.create_new_sticker_set` and `Bot.add_sticker_to_set`, the order of the parameters had be changed, as the `png_sticker` parameter is now optional. (#1858)

Minor changes, CI improvements or bug fixes:

- Add tests for `swtich_inline_query(_current_chat)` with empty string (#1635)
- Doc fixes (#1854, #1874, #1884)
- Update issue templates (#1880)
- Favor concrete types over “Iterable” (#1882)
- Pass last valid `CallbackContext` to `TIMEOUT` handlers of `ConversationHandler` (#1826)
- Tweak handling of persistence and update persistence after job calls (#1827)
- Use `checkout@v2` for GitHub actions (#1887)

Version 12.5.1

Released 2020-03-30

Minor changes, doc fixes or bug fixes:

- Add missing docs for *PollHandler* and *PollAnswerHandler* (#1853)
- Fix wording in *Filters* docs (#1855)
- Reorder tests to make them more stable (#1835)
- Make *ConversationHandler* attributes immutable (#1756)
- Make *PrefixHandler* attributes *command* and *prefix* editable (#1636)
- Fix UTC as default *tzinfo* for *Job* (#1696)

Version 12.5

Released 2020-03-29

New Features:

- *Bot.link* gives the *t.me* link of the bot (#1770)

Major Changes:

- Bot API 4.5 and 4.6 support. (#1508, #1723)

Minor changes, CI improvements or bug fixes:

- Remove legacy CI files (#1783, #1791)
- Update pre-commit config file (#1787)
- Remove builtin names (#1792)
- CI improvements (#1808, #1848)
- Support Python 3.8 (#1614, #1824)
- Use stale bot for auto closing stale issues (#1820, #1829, #1840)
- Doc fixes (#1778, #1818)
- Fix typo in *edit_message_media* (#1779)
- In examples, answer CallbackQueries and use *edit_message_text* shortcut (#1721)
- Revert accidental change in vendored urllib3 (#1775)

Version 12.4.2

Released 2020-02-10

Bug Fixes

- Pass correct *parse_mode* to *InlineResults* if *bot.defaults* is *None* (#1763)
- Make sure PP can read files that dont have *bot_data* (#1760)

Version 12.4.1

Released 2020-02-08

This is a quick release for [#1744](#) which was accidentally left out of v12.4.0 though mentioned in the release notes.

Version 12.4.0

Released 2020-02-08

New features:

- Set default values for arguments appearing repeatedly. We also have a [wiki page for the new defaults](#). ([#1490](#))
- Store data in `CallbackContext.bot_data` to access it in every callback. Also persists. ([#1325](#))
- `Filters.poll` allows only messages containing a poll ([#1673](#))

Major changes:

- `Filters.text` now accepts messages that start with a slash, because `CommandHandler` checks for `MessageEntity.BOT_COMMAND` since v12. This might lead to your `MessageHandlers` receiving more updates than before ([#1680](#)).
- `Filters.command` now checks for `MessageEntity.BOT_COMMAND` instead of just a leading slash. Also by `Filters.command(False)` you can now filter for messages containing a command *anywhere* in the text ([#1744](#)).

Minor changes, CI improvements or bug fixes:

- Add `dispatcher` argument to `Updater` to allow passing a customized `Dispatcher` ([#1484](#))
- Add missing names for `Filters` ([#1632](#))
- Documentation fixes ([#1624](#), [#1647](#), [#1669](#), [#1703](#), [#1718](#), [#1734](#), [#1740](#), [#1642](#), [#1739](#), [#1746](#))
- CI improvements ([#1716](#), [#1731](#), [#1738](#), [#1748](#), [#1749](#), [#1750](#), [#1752](#))
- Fix spelling issue for `encode_conversations_to_json` ([#1661](#))
- Remove double assignment of `Dispatcher.job_queue` ([#1698](#))
- Expose dispatcher as property for `CallbackContext` ([#1684](#))
- Fix `None` check in `JobQueue._put()` ([#1707](#))
- Log datetimes correctly in `JobQueue` ([#1714](#))
- Fix false `Message.link` creation for private groups ([#1741](#))
- Add option `--with-upstream-urllib3` to `setup.py` to allow using non-vendored version ([#1725](#))
- Fix persistence for nested `ConversationHandlers` ([#1679](#))
- Improve handling of non-decodable server responses ([#1623](#))
- Fix download for files without `file_path` ([#1591](#))
- `test_webhook_invalid_posts` is now considered flaky and retried on failure ([#1758](#))

Version 12.3.0

Released 2020-01-11

New features:

- *Filters.caption* allows only messages with caption (#1631).
- Filter for exact messages/captions with new capability of *Filters.text* and *Filters.caption*. Especially useful in combination with *ReplyKeyboardMarkup*. (#1631).

Major changes:

- Fix inconsistent handling of naive datetimes (#1506).

Minor changes, CI improvements or bug fixes:

- Documentation fixes (#1558, #1569, #1579, #1572, #1566, #1577, #1656).
- Add mutex protection on *ConversationHandler* (#1533).
- Add *MAX_PHOTOSIZE_UPLOAD* constant (#1560).
- Add args and kwargs to *Message.forward()* (#1574).
- Transfer to GitHub Actions CI (#1555, #1556, #1605, #1606, #1607, #1612, #1615, #1645).
- Fix deprecation warning with Py3.8 by vendored *urllib3* (#1618).
- Simplify assignments for optional arguments (#1600)
- Allow private groups for *Message.link* (#1619).
- Fix wrong signature call for *ConversationHandler.TIMEOUT* handlers (#1653).

Version 12.2.0

Released 2019-10-14

New features:

- Nested *ConversationHandlers* (#1512).

Minor changes, CI improvements or bug fixes:

- Fix CI failures due to non-backward compat attrs dependency (#1540).
- *travis.yml*: *TEST_OFFICIAL* removed from *allowed_failures*.
- Fix typos in examples (#1537).
- Fix *Bot.to_dict* to use proper *first_name* (#1525).
- Refactor *test_commandhandler.py* (#1408).
- Add Python 3.8 (RC version) to Travis testing matrix (#1543).
- *test_bot.py*: Add *to_dict* test (#1544).
- Flake config moved into *setup.cfg* (#1546).

Version 12.1.1

Released 2019-09-18

Hot fix release

Fixed regression in the vendored urllib3 (#1517).

Version 12.1.0

Released 2019-09-13

Major changes:

- Bot API 4.4 support (#1464, #1510)
- Add `get_file` method to `Animation` & `ChatPhoto`. Add, `get_small_file` & `get_big_file` methods to `ChatPhoto` (#1489)
- Tools for deep linking (#1049)

Minor changes and/or bug fixes:

- Documentation fixes (#1500, #1499)
- Improved examples (#1502)

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 compatible 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 unittest 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 initialization of Updater (PR #793).
- Catch exceptions in error handler for 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 connecting to Telegram servers (Issue #720).
- ConversationHandler - 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 comparison 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 `ChatMigratedException`
- 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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