dottorrent Documentation

Release 1.10.0

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dottorrent is a high-level Python 3 library for creating .torrent files.

CHAPTER 1

Features

- Fast (capable of several hundred MB/s)
- Full Unicode support
- Automatic and manual piece size selection
- HTTP/web seeds support (BEP 19)
- Private flag support (BEP 27)
- Source string support
- Info hash generation for created torrents
- User-definable comment field, creation date, creator, etc.
- Filename pattern exclusion
- Per-file MD5 hash inclusion

Contents:

1.1 Installation

1.1.1 Requirements

- Python 3.3+ (Python 3.5+ recommended)
- See `requirements.txt` for additional dependencies.

Stable releases are available on PyPI and can be installed using `pip`.

```
pip install dottorrent
```

To install from the latest development sources, clone the git repo and run `pip install .`

1.2 Library

The dottorrent library can be used in a Python script or program to create .torrent files.

class dottorrent.**Torrent**(*path*, *trackers=None*, *web_seeds=None*, *piece_size=None*, *private=False*, *source=None*, *creation_date=None*, *comment=None*, *created_by=None*, *include_md5=False*, *exclude=None*)

Parameters

- **path** – path to a file or directory from which to create the torrent
- **trackers** – list/iterable of tracker URLs
- **web_seeds** – list/iterable of HTTP/FTP seed URLs
- **piece_size** – Piece size in bytes. Must be >= 16 KB and a power of 2. If None, `get_info()` will be used to automatically select a piece size.
- **private** – The private flag. If True, DHT/PEX will be disabled.
- **source** – An optional source string for the torrent.
- **exclude** – A list of filename patterns that should be excluded from the torrent.
- **creation_date** – An optional datetime object representing the torrent creation date.
- **comment** – An optional comment string for the torrent.
- **created_by** – name/version of the program used to create the .torrent. If None, defaults to the value of `DEFAULT_CREATOR`.
- **include_md5** – If True, also computes and stores MD5 hashes for each file.

data

Returns the data dictionary for the torrent.

Note: `generate()` must be called first.

---

dump()

Returns The bencoded torrent data as a byte string.

Note: `generate()` must be called first.

---

generate(*callback=None*)

Computes and stores piece data. Returns `True` on success, `False` otherwise.

Parameters **callback** – progress/cancellation callable with method signature `(filename, pieces_completed, pieces_total)`. Useful for reporting progress if dottorrent is used in a GUI/threaded context, and if torrent generation needs to be cancelled. The callable's return value should evaluate to `True` to trigger cancellation.

get_info()

Scans the input path and automatically determines the optimal piece size based on ~1500 pieces (up to MAX_PIECE_SIZE) along with other basic info, including total size (in bytes), the total number of files, piece size (in bytes), and resulting number of pieces. If `piece_size` has already been set, the custom value will be used instead.

Returns `(total_size, total_files, piece_size, num_pieces)`

info_hash

Returns The SHA-1 info hash of the torrent. Useful for generating magnet links.

Note: `generate()` must be called first.

info_hash_base32

Returns the base32 info hash of the torrent. Useful for generating magnet links.

Note: `generate()` must be called first.

piece_size

save(*fp*)

Saves the torrent to `fp`, a file(-like) object opened in binary writing (`wb`) mode.

Note: `generate()` must be called first.

trackers

web_seeds

1.2.1 Example Usage

```
from dottorrent import Torrent

t = Torrent('/my/data/', trackers=['http://tracker.openbittorrent.com:80/announce'])
t.generate()
with open('mydata.torrent', 'wb') as f:
        t.save(f)
```

1.3 Changelog

1.3.1 1.10.0

- Expose torrent data dictionary as a public property
- Refactor dottorrent CLI into its own package

1.3.2 1.9.2

- Always set announce key, even for multi-tracker torrents (https://github.com/kz26/dottorrent-gui/issues/15)

1.3.3 1.9.1

- Fix unreferenced piece size error in CLI

1.3.4 1.9.0

- Increase MAX_PIECE_SIZE to 64 MiB
- Minor docstring improvements

1.3.5 1.8.0

- Human-friendly piece size specification in CLI
- Minor string formatting improvements

1.3.6 1.7.0

- Implement filename pattern exclusion from PR #7 (–exclude, -x)

1.3.7 1.6.0

- Add support for source strings (–source option)
- Exclude hidden dotfiles from being added
- Exclude hidden files on Windows (requires Python 3.5+)
- Refactor - CLI tool is now simply *dottorrent*

1.3.8 1.5.3

- Use relative paths instead of absolute paths for directory mode path generation
- Add invalid input path check in get_info() and generate()

1.3.9 1.5.2

- Use humanfriendly.format_size in binary mode
- Pin major versions of dependencies in requirements.txt and setup.py

1.3.10 1.5.1

- Fix filename clobbering when filename contains parent path string (issue #2)

1.3.11 1.5.0

- Allow both file and directory names to be specified for output_path (PR #1, @mahkitah)

1.3.12 1.4.3

- dottorrent_cli: Change output_path to output_file for clarity

1.3.13 1.4.2

- Rename dottorrent_cli.py to dottorrent_cli

1.3.14 1.4.1

- Ignore empty files in get_info() and generate()

1.3.15 1.4.0

- Use custom exceptions (see exceptions.py)
- Add check for empty input

1.3.16 1.3.0

- Unicode support

1.3.17 1.2.2

- Fix auto piece sizing in generate() with small files

1.3.18 1.2.0

- Switch to BEP 19 (GetRight style) web seeds

1.3.19 1.1.1

- Return True/False in generate()

1.3.20 1.1.0

- Move include_md5 option to Torrent constructor
- Add cancellation functionality to generate function via existing callback
- get_info() now always scans/rescans the input path instead of checking for cached data
- Documentation improvements

1.3.21 1.0.2

- Raise exception when path is a directory and no files exist

1.3.22 1.0.1

- Change bencoder.pyx minimum version dependency to 1.1.1
- Add none/now to CLI date option
- Minor tweaks

1.3.23 1.0.0

- Initial release.

CHAPTER 2

Indices and tables

- genindex
- modindex
- search

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