
py-media_copy

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INDICES AND TABLES

1.1 TODO

1.1.1 Milestones

All v0.0.x-versions are considered alpha-stage! **Any version jump could break anything (i.e. no semantic versioning below 0.99.x), first stable is expected to be v0.99.1.**

Versions:

- *TODO*
 - *Milestones*
 - *v0.0.1++*
 - *v0.99.0*
 - *v1.0.0*

1.1.2 v0.0.1++

- [x] Proof of concept GUI (rudimentary controls, interaction with script)
- [x] Copy a single file from S to T, check checksums
- [-] Copy same file from T to B, check checksums
- [x] Dupli-check a single file against history
- [x] Dupli-check a single file against T (& B) files
- [x] Make **v0.0.1** code (except GUI) capable for multiple files
- [x] **Offer parameters**
 - [-] Check parameters (done mostly, some missing yet)
- [x] **File renaming**
 - [x] Some wildcards, dates/time
 - [x] User-chosen prefix
 - [x] Counter
- [x] **File overwrite-protection:**

- [x] Sources
 - [x] Targets
- [x] Include/exclude files per extension
- [x] **Offer presets for settings (Saving/storing presets)**
 - [] LOW: Store paths relative when feasible
 - [] LOW: `re.sub(r'[?a-zA-z0-9-_', '', param['preset'])` (i.e. preset names only alphanumeric plus dash and underscore)
- [] **Implement GUI for setting things up (output via console)**
 - [] Create fallback to script-only for people without GUI-dependencies
 - [] ? Implement output via GUI ?
- [] ? Prevent computer from going to sleep ? (needs investigation whether feasible or not)
- [x] Evaluate `exception` for as much functions as possible.
- [x] LOW: Option to ignore files with date before/after set date (i.e. only files before 2020-04-01).
- [] LOW: create a paranoid-mode that re-reads hash values, maybe in second hash (e.g. CRC32/xxhash and blake2)

1.1.3 v0.99.0

- [] All of the above are tested and work reasonably (beta-stage)
- [] Create `devel-branch`
- [] Create binaries for Win/OSX/Linux, add to releases
- [] Create source package with only necessary stuff (vs. `master/devel branch's requirements.txt`)

1.1.4 v1.0.0

- [] Like **v0.99.x**, but long-term tested. *(Therefore, not likely to be released soon - this should become a production tool and as such, I don't want your files to vanish!)*
- [] Create 1.0.0 release (binaries & source package)

1.2 License

pyranoid_copy - A tool to copy, [rename,] and verify your files.

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To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively state the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

```
<one line to give the program's name and a brief idea of what it does.>
Copyright (C) <year> <name of author>
```

```
This program is free software: you can redistribute it and/or modify
it under the terms of the GNU General Public License as published by
the Free Software Foundation, either version 3 of the License, or
(at your option) any later version.
```

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This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program. If not, see <<https://www.gnu.org/licenses/>>.

Also add information on how to contact you by electronic and paper mail.

If the program does terminal interaction, make it output a short notice like this when it starts in an interactive mode:

```
<program> Copyright (C) <year> <name of author>
This program comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
This is free software, and you are welcome to redistribute it
under certain conditions; type `show c' for details.
```

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, your program's commands might be different; for a GUI interface, you would use an "about box".

You should also get your employer (if you work as a programmer) or school, if any, to sign a "copyright disclaimer" for the program, if necessary. For more information on this, and how to apply and follow the GNU GPL, see <<https://www.gnu.org/licenses/>>.

The GNU General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Lesser General Public License instead of this License. But first, please read <<https://www.gnu.org/licenses/why-not-lgpl.html>>.

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README

2.1 What is pyranoid copy

A lightweight & granular file copy tool built for DITs and photographers.

This tool should become the successor to my [media-copytool](#) (which is scripted entirely in PowerShell and Windows only). The reason that I created media-copytool is because none of the existing Digital Asset Management (DAM) programs (to my knowledge) offered the options for importing files from media cards that I wanted (see [Proposed features](#)). pyranoid_copy will be written in Python to maximise compatibility.

Note that as of now, this tool is not even finished in a rough state - I am still in the progress of writing the main features and testing them.

2.2 Proposed features

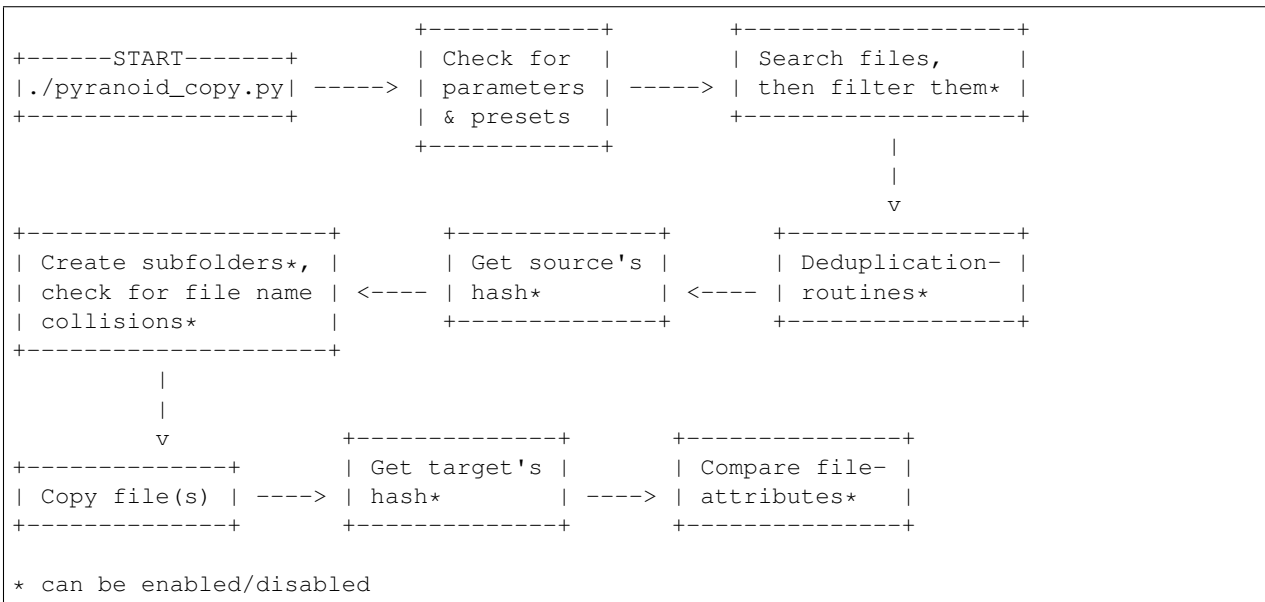
- Will work on all (desktop) OSs that are supported by [Python 3.5](#),
- Optimised for copying large quantities of mission critical files, e.g. wedding photos,
- Lightweight,
- Standalone binaries (i.e. `pyranoid_copy.exe`) available,
- **Highly granular controls:**
 - Use one or multiple source and/or target path(s),
 - Rename files while copying them (magic strings available!),
 - Create subfolders (magic strings available!),
 - Filter files to copy – inclusion & exclusion possible,
- Option to avoid overwriting existing files by searching iterations of the name that are not yet used,
- **Option to avoid duplicates based on:**
 - a history file (user specified [JSON file](#)),
 - duplicate files in the input folder(s),
 - duplicate files in the target path,
- Option to prevent the device from going to sleep (likely by using a built-in version of [espresso-python](#)),

- Proper documentation (*or so I hope ;-)*)

2.3 Details

- Lightweight **PySimpleGUI** for the parameters with CLI as option,
- Standalone planned / as little extra dependencies as feasible (and all on **pip**) with decent usability (planned at the moment: **tqdm** required, **colorama** recommended, **crc32c** if desired) for “source” installation (i.e. not using the binaries, but the script file itself),
- (Smart) renaming options for files and subfolders: **Strftime magic strings** (e.g. `%Y-%m-%d` for `2019-11-31`),
- Redundancy checks against history file / target-folder / multiple inputs,
- Checking CRC32 of every file after clearing the disk cache, thus reducing the risk of a bad copy,
- Include/exclude by regex pattern(s) (e.g. `.*\ .jpg` - see **my regex101.com example** for what this does).

A high-level overview:



2.4 Installation

This will probably change once this repo is in a working state. At the moment:

```
# get the repository:
git clone https://github.com/flolilo/pyranoid_copy.git
cd ./pyranoid_copy

# create virtual environment, activate it:
python -m venv ./venv
<Powershell:> & ./venv/Scripts/activate.ps1
<sh:> source ./venv/bin/activate

# install requirements:
```

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```
python -m pip install -r ./requirements.txt  
  
# run pyranoid_copy:  
python ./pyranoid_copy.py
```

2.5 Contribution

You do not even need to have a GitHub account to report issues - simply mail to pyranoid_copy@fire.fundersclub.com. (It will *not* publish your mail address or name!)

Please add as much information as possible - e.g. the used OS, Python version, pyranoid version, where the error occurred, what the error is, ...

For all versions < 0.99.x, please see [TODO.rst](#) - it may be that your issue is already seen as a milestone.

Any help would be appreciated!

2.6 Milestones

See [TODO.rst](#).

2.7 Licenses

See [LICENSE.rst](#) - You can use all of my code under either the *GNU GPLv3* or the *BSD 3-Clause Clear* license. Please note that third party software is used in this project, but as of now, it requires the user to download the software (and agree to the respective license agreement). If this changes in the future, it will be reflected in this document.

As coding should not be about reinventing the wheel, some code is copied verbatim (though most of the time, it does need modifications) from internet sources. See the `# CREDIT:` comments for links to my sources.