
PhotoScript

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PHOTOSCRIPT

1.1 What is PhotoScript

PhotoScript provides a python wrapper around Apple Photos applescript interface. With PhotoScript you can interact with Photos using python. Runs only on MacOS. Tested on MacOS Catalina.

1.2 Installation

PhotoScript uses setuptools, thus simply run:

```
python3 setup.py install
```

1.3 Example

```
""" Simple example showing use of photoscript """

import photoscript

photoslib = photoscript.PhotosLibrary()

photoslib.activate()
print(f"Running Photos version: {photoslib.version}")

album = photoslib.album("Album1")
photos = album.photos

for photo in photos:
    print(f"{photo.title}, {photo.description}, {photo.keywords}")

new_album = photoslib.create_album("New Album")
photoslib.import_photos(["/Users/rhet/Downloads/test.jpeg"], album=new_album)

photoslib.quit()
```

1.4 See Also

- [osxphotos](#): Python package that provides read-only access to the Photos library including all associated meta-data.

DOCUMENTATION

2.1 photoscript package

2.1.1 photoscript module

class `photoscript.PhotosLibrary`

activate ()

activate Photos.app

album (**name*, *uuid=None*, *top_level=False*)

Album instance by name or id

Parameters

- **name** – name of album
- **uuid** – id of album
- **top_level** – if True, searches only top level albums; default = False

Returns Album object or None if album could not be found

Raises **ValueError** if both name and id passed or neither passed. –

Must pass only name or id but not both. If more than one album with same name, returns the first one found.

album_names (*top_level=False*)

List of album names in the Photos library

Parameters **top_level** – if True, returns only top-level albums otherwise also returns albums in sub-folders; default is False

albums (*top_level=False*)

list of Album objects for all albums

create_album (*name*, *folder=None*)

creates an album

Parameters

- **name** – name of new album
- **folder** – Folder object in which to create new album. If None, creates top-level album. Default is None.

Returns Album object for newly created album

Raises `AppleScriptError` if error creating the album –

`create_folder` (*name*, *folder=None*)
creates a folder

Parameters

- **name** – name of new folder
- **folder** – Folder object in which to create the new folder. If `None`, creates top-level folder. Default is `None`.

Returns Folder object for newly created folder

Raises `AppleScriptError` if folder cannot be created –

`delete_album` (*album*)
deletes album (but does not delete photos in the album)

Parameters **album** – an Album object for album to delete

`delete_folder` (*folder*)
Deletes folder

Parameters **folder** – a Folder object for folder to delete

`property favorites`
Album object for the Favorites album

`folder` (**name*, *uuid=None*, *top_level=True*)
Folder instance by name or uuid

Parameters

- **name** – name of folder
- **uuid** – id of folder
- **top_level** – if `True`, only searches top level folders by name; default is `True`

Returns Folder object or `None` if folder could not be found

Raises `ValueError` if both name and id passed or neither passed. –

Must pass only name or id but not both. If more than one folder with same name, returns first one found.

`folder_by_path` (*folder_path*)
Return folder in the library by path

Parameters **folder_path** – list of folder names in descending path order, e.g. [`“Folder”`, `“SubFolder1”`, `“SubFolder2”`]

Returns Folder object for folder at *folder_path* or `None` if not found

`folder_names` (*top_level=False*)
List of folder names in the Photos library

Parameters **top_level** – if `True`, returns only top-level folders otherwise also returns sub-folders; default is `False`

`folders` (*top_level=True*)
list of Folder objects for all folders

`property frontmost`
True if Photos.app is front most app otherwise False

property hidden

True if Photos is hidden (or not running), False if Photos is visible

hide()

Tell Photos to hide it's window

import_photos (*photo_paths*, *album=None*, *skip_duplicate_check=False*)

import photos

Parameters

- **photo_paths** – list of file paths to import as str or pathlib.Path
- **album** – optional, Album object for album to import into
- **skip_duplicate_check** – if True, Photos will not check for duplicates on import, default is False.

Returns list of Photo objects for imported photos

NOTE: If you attempt to import a duplicate photo and skip_duplicate_check != True, Photos will block with drop-down sheet until the user clicks “Cancel, Import, or Don’t Import.”

make_album_folders (*album_name*, *folder_path*)

Make album in a folder path. If either the album or any component of the folder path doesn't exist, it will be created. If album or folder path does exist, no duplicate is created. Folder path is created recursively if needed.

Parameters

- **album_name** – name of album to create. If album already exists, returns existing album.
- **folder_path** – list of folder names in descending path order, e.g. [“Folder”, “SubFolder1”, “SubFolder2”].

Returns Album object.

Raises

- **ValueError** if *folder_path* is empty or *album_name* is None. –
- **TypeError** if *folder_path* is not a list. –

make_folders (*folder_path*)

Recursively makes folders and subfolders. Works similar to [os.makedirs](#). If any component of *folder_path* already exists, does not raise error.

Parameters **folder_path** – list of folder names in descending path order, e.g. [“Folder”, “SubFolder1”, “SubFolder2”]

Returns Folder object for the final sub folder

Raises

- **ValueError** if *folder_path* is empty –
- **TypeError** if *folder_path* is not a list –

property name

name of Photos.app

photos (*search=None, uuid=None*)

List of Photo objects for items in the library Note: for a large library, calling photos() may run a *very* long time (minutes)

Parameters

- **search** – optional text string to search for (returns matching items)
- **uuid** – list of UUIDs to get
- **may pass search or uuid but not both** (*you*) –

Returns List of Photo objects or [] if no photos found

Raises ValueError if both search and uuid are passed –

quit ()

quit Photos.app

property running

True if Photos is running, otherwise False

property selection

List of Photo objects for currently selected photos or [] if no selection

property version

version of Photos.app as str

class photoscript.**Album** (*uuid*)

add (*photos*)

add photos from the library to album

Parameters **photos** – list of Photo objects to add to album

export (*path, original=True, edited=True, timeout=120*)

Export photos in album to path

Parameters

- **path** – path to export to
- **original** – if True exports original photo
- **edited** – if True, exports edited version, if one exists
- **timeout** – number of seconds to timeout waiting for Photos to respond

Returns list of names of exported photos

import_photos (*photo_paths, skip_duplicate_check=False*)

import photos

Parameters

- **photos** – list of file paths to import
- **skip_duplicate_check** – if True, Photos will not check for duplicates on import, default is False

Returns list of Photo objects for impoted photos

property name

name of album (read/write)

property parent

Return parent Folder object

property parent_id

parent container id

path_str (*delim*='/')**Return internal library path to album as string.** e.g. "Folder/SubFolder/AlbumName"**Parameters** *delim* – character to use as delimiter between path elements; default is "/"**Raises** **ValueError** if *delim* is not a single character –**photos** ()

list of Photo objects for photos contained in album

remove (*photos*)**Remove photos from album.** Note: Photos does not provide a way to remove photos from an album via AppleScript. This method actually creates a new Album with the same name as the original album and copies all photos from original album with exception of those to remove to the new album then deletes the old album.**Parameters** *photos* – list of Photo objects to remove**Returns** new Album object for the new album with photos removed.**remove_by_id** (*photo_ids*)**Remove photos from album.** Note: Photos does not provide a way to remove photos from an album via AppleScript. This method actually creates a new Album with the same name as the original album and copies all photos from original album with exception of those to remove to the new album then deletes the old album.**Parameters** *photo_ids* – list of photo ids to remove**Returns** new Album object for the new album with photos removed.**property title**

title of album (alias for Album.name)

property uuid

UUID of Album (read only)

class photoscript.**Folder** (*uuid*)**album** (*name*)

Return Album object contained in this folder for album named name or None if no matching album

property albums

list of Album objects for albums contained in folder

create_album (*name*)

Creates an album in this folder

Parameters *name* – name of new album**Returns** Album object for newly created album

create_folder (*name*)

creates a folder in this folder

Returns Folder object for newly created folder

folder (*name*)

Folder object for first subfolder folder named name.

Parameters **name** – name of folder to to return

Returns Folder object for first subfolder who's name matches name or None if not found

property name

name of folder

property parent

Return parent Folder object

property parent_id

parent container id

path ()

Return list of Folder objects this folder is contained in. path()[0] is the top-level folder this folder is contained in and path()[-1] is the immediate parent of this folder. Returns empty list if folder is not contained in another folders.

path_str (*delim*='/')

Return internal library path to folder as string. e.g. "Folder/SubFolder"

Parameters **delim** – character to use as delimiter between path elements; default is "/"

Raises ValueError if delim is not a single character –

property subfolders

list of Folder objects for immediate sub-folders contained in folder

property title

title of folder (alias for Folder.name)

property uuid

UUID of folder

class photoscript.**Photo** (*uuid*)

property altitude

GPS altitude of photo in meters

property date

date of photo as timezone-naive datetime.datetime object

property description

description of photo

duplicate ()

duplicates the photo and returns Photo object for the duplicate

export (*path*, *original=True*, *edited=True*, *timeout=120*)

Export photo

Parameters

- **path** – path to export to

- **original** – if True exports original photo
- **edited** – if True, exports edited version, if one exists
- **timeout** – number of seconds to timeout waiting for Photos to respond

Returns name of exported photo

property favorite

return favorite status (boolean)

property filename

filename of photo

property height

height of photo in pixels

property keywords

list of keywords for photo

property location

The GPS latitude and longitude, in a tuple of 2 numbers or None. Latitude in range -90.0 to 90.0, longitude in range -180.0 to 180.0.

property name

name of photo

property title

title of photo (alias for name)

property uuid

UUID of Photo

property width

width of photo in pixels

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