mwdblib

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API DOCUMENTATION

If you want to learn about mwdblib usage, check out 8. Automating things using REST API and mwdblib in mwdb-core User Guide.

CHAPTER

ONE

CORE INTERFACE (MWDB)

class mwdblib.**MWDB**(*api: Optional[mwdblib.api.api.APIClient] = None*, ***api_options: Any*)

Main object used for communication with MWDB REST API

Parameters

- **api_url** – MWDB API URL that ends with '/api/'.
- **api_key** – MWDB API key
- **username** – MWDB account username
- **password** – MWDB account password
- **verify_ssl** – Verify SSL certificate correctness (default: True)
- **obey_ratelimiter** – If false, HTTP 429 errors will cause an exception like all other error codes. If true (default), library will transparently handle them by sleeping for a specified duration.
- **retry_on_downtime** – If true, requests will be automatically retried after 10 seconds on HTTP 502/504 and ConnectionError.
- **max_downtime_retries** – Number of retries caused by temporary downtime
- **downtime_timeout** – How long we need to wait between retries (in seconds)
- **retry_idempotent** – Retry idempotent POST requests (default). The only thing that is really non-idempotent in current API is *MWDBObject.add_comment()*, so it's not a big deal. You can turn it off if possible doubled comments are problematic in your MWDB instance.
- **use_keyring** – If true (default), APIClient uses keyring to fetch stored credentials. If not, they're fetched from plaintext configuration.
- **emit_warnings** – If true (default), warnings are emitted by APIClient
- **config_path** – Path to the configuration file (default is *~/.mwdb*). If None, configuration file will not be used by APIClient
- **api** (*mwdblib.APIClient*, optional) – Custom *APIClient* to be used for communication with MWDB

New in version 2.6.0: API request will sleep for a dozen of seconds when rate limit has been exceeded.

New in version 3.2.0: You can enable `retry_on_downtime` to automatically retry requests in case of HTTP 502/504 or ConnectionError.

Changed in version 4.0.0: *MWDB* by default uses credentials and api_url set by *mwdb login*. If you don't want to automatically fetch them from configuration, pass *config_path=None* to the constructor

New in version 4.0.0: Added `use_keyring`, `emit_warnings` and `config_path` options. `username` and `password` can be passed directly to the constructor.

Usage example:

```
from mwdblib import MWDB

mwdb = MWDB()
mwdb.login("example", "<password>")

file = mwdb.query_file("3629344675705286607dd0f680c66c19f7e310a1")
```

count(*query: Optional[str] = None*) → int

Returns number of objects matching provided query in Lucene syntax. If you already know type of objects you want to count, use specialized variants:

- *count_files()*
- *count_configs()*
- *count_blobs()*

Usage example:

```
from mwdblib import MWDB

mwdb = MWDB()

# Count samples tagged as evil and with size less than 100kB
result = mwdb.count_files("tag:evil AND file.size:[0 TO 100000]")
```

Parameters **query** (*str, optional*) – Query in Lucene syntax

Return type int

Raises requests.exceptions.HTTPError

count_blobs(*query: Optional[str] = None*) → int

Returns number of blobs matching provided query in Lucene syntax.

Parameters **query** (*str, optional*) – Query in Lucene syntax

Return type int

Raises requests.exceptions.HTTPError

count_configs(*query: Optional[str] = None*) → int

Returns number of configs matching provided query in Lucene syntax.

Parameters **query** (*str, optional*) – Query in Lucene syntax

Return type int

Raises requests.exceptions.HTTPError

count_files(*query: Optional[str] = None*) → int

Returns number of files matching provided query in Lucene syntax.

Parameters **query** (*str, optional*) – Query in Lucene syntax

Return type int

Raises requests.exceptions.HTTPError

listen_for_blobs(*last_object: Union[mwdblib.blob.MWDBBlob, str, None] = None*, *blocking: bool = True*, *interval: int = 15*, *query: Optional[str] = None*) → Iterator[mwdblib.blob.MWDBBlob]

Listens for recent blobs and yields newly added.

See also:

More details can be found here: *listen_for_objects()*

New in version 3.2.0: Added listen_for_* methods

New in version 3.4.0: Added query parameter

New in version 3.4.0: The listen_for_* methods will now try to prevent you from iterating over the whole database by throwing an exception if they detect that there is something wrong with the pivot object

Parameters

- **last_object** (*MWDBBlob or str*) – MWDBBlob instance or object hash
- **blocking** (*bool, optional*) – Enable blocking mode (default)
- **interval** (*int, optional*) – Interval for periodic queries in blocking mode (default is 15 seconds)
- **query** (*str, optional*) – Lucene query to be used for listening for only specific blobs

Return type Iterator[*MWDBBlob*]

listen_for_configs(*last_object: Union[mwdblib.config.MWDBConfig, str, None] = None*, *blocking: bool = True*, *interval: int = 15*, *query: Optional[str] = None*) → Iterator[mwdblib.config.MWDBConfig]

Listens for recent configs and yields newly added.

See also:

More details can be found here: *listen_for_objects()*

New in version 3.2.0: Added listen_for_* methods

New in version 3.4.0: Added query parameter

New in version 3.4.0: The listen_for_* methods will now try to prevent you from iterating over the whole database by throwing an exception if they detect that there is something wrong with the pivot object

Parameters

- **last_object** (*MWDBConfig or str*) – MWDBConfig instance or object hash
- **blocking** (*bool, optional*) – Enable blocking mode (default)
- **interval** (*int, optional*) – Interval for periodic queries in blocking mode (default is 15 seconds)
- **query** (*str, optional*) – Lucene query to be used for listening for only specific configs

Return type Iterator[*MWDBConfig*]

listen_for_files(*last_object: Union[mwdblib.file.MWDBFile, str, None] = None*, *blocking: bool = True*, *interval: int = 15*, *query: Optional[str] = None*) → Iterator[mwdblib.file.MWDBFile]

Listens for recent files and yields newly added.

See also:

More details can be found here: *listen_for_objects()*

New in version 3.2.0: Added listen_for_* methods

New in version 3.4.0: Added query parameter

New in version 3.4.0: The listen_for_* methods will now try to prevent you from iterating over the whole database by throwing an exception if they detect that there is something wrong with the pivot object

Parameters

- **last_object** (*MWDBFile or str*) – MWDBFile instance or object hash
- **blocking** (*bool, optional*) – Enable blocking mode (default)
- **interval** (*int, optional*) – Interval for periodic queries in blocking mode (default is 15 seconds)
- **query** (*str, optional*) – Lucene query to be used for listening for only specific files

Return type Iterator[*MWDBFile*]

listen_for_objects(*last_object: Union[mwdblib.object.MWDBObject, str, None] = None*, *blocking: bool = True*, *interval: int = 15*, *query: Optional[str] = None*) → Iterator[mwdblib.object.MWDBObject]

Listens for recent objects and yields newly added.

In blocking mode (default) if last_object is provided: the method fetches the latest objects until the provided object is reached and yields new objects from the oldest one. Otherwise, the method periodically asks for recent objects until a new object appears. The default request interval is 15 seconds.

In a non-blocking mode: a generator stops if there are no more objects to fetch.

last_object argument accepts both identifier and MWDBObject instance. If the object identifier is provided: method firstly checks whether the object exists in repository and has the correct type.

If you already know type of object you are looking for, use specialized variants:

- *listen_for_files()*
- *listen_for_configs()*
- *listen_for_blobs()*

Warning: Make sure that last_object is valid in MWDB instance. If you provide MWDBObject that doesn't exist, mwdblib will iterate over all objects and you can quickly hit your rate limit. Library is trying to protect you from that as much as possible by checking type and object existence, but it's still possible to do something unusual.

Additionally, if using the `query` parameter and passing the `last_object` pivot, make sure that the passed object actually matches the query criteria. Otherwise the mechanism that catches faulty pivots will signal that there's something wrong and raise an exception.

New in version 3.2.0: Added listen_for_* methods

New in version 3.4.0: Added query parameter

New in version 3.4.0: The listen_for_* methods will now try to prevent you from iterating over the whole database by throwing an exception if they detect that there is something wrong with the pivot object

Parameters

- **last_object** (*MWDBObject or str*) – MWDBObject instance or object hash

- **blocking** (*bool, optional*) – Enable blocking mode (default)
- **interval** (*int, optional*) – Interval for periodic queries in blocking mode (default is 15 seconds)
- **query** (*str, optional*) – Lucene query to be used for listening for only specific objects

Return type Iterator[*MWDBObject*]

login (*username: Optional[str] = None*, *password: Optional[str] = None*) → None
Performs user authentication using provided username and password.

> **Warning:** Keep in mind that password-authenticated sessions are short lived, so password needs to be stored in *APIClient* object. Consider generating a new API key in your MWDB profile.

New in version 2.4.0: MWDB tries to reauthenticate on first Unauthorized exception

New in version 2.5.0: username and password arguments are optional. If one of the credentials is not provided via arguments, user will be asked for it.

New in version 2.6.0: *MWDB.login()* will warn if login is called after setting up API key

Changed in version 4.0.0: *MWDB.login()* no longer warns about password-authenticated sessions or credentials that are already set up.

Parameters

- **username** (*str*) – User name
- **password** (*str*) – Password

Raises requests.exceptions.HTTPError

logout () → None
Performs session logout and removes previously set API key.

property options
Returns object with current configuration of MWDB client

New in version 4.0.0: Added MWDB.options property.

query (*hash: str*, *raise_not_found: bool = True*) → Optional[mwdblib.object.MWDBObject]
Queries for object using provided hash. If you already know type of object you are looking for, use specialized variants:

- *query_file()*
- *query_config()*
- *query_blob()*

New in version 2.4.0: Added raise_not_found optional argument

Changed in version 3.0.0: Fallback to *query_file()* if other hash than SHA256 was provided

Parameters

- **hash** (*str*) – Object hash (identifier, MD5, SHA-1, SHA-2)
- **raise_not_found** (*bool, optional*) – If True (default), method raises HTTPError when object is not found

Return type *MWDBObject* or None (if raise_not_found=False)

Raises requests.exceptions.HTTPError

query_blob(*hash: str*, *raise_not_found: bool = True*) → Optional[mwdblib.blob.MWDBBlob]
Queries for blob object using provided hash

Parameters

- **hash** (*str*) – Object hash (SHA-256 identifier)
- **raise_not_found** (*bool*) – If True (default), method raises HTTPError when object is not found

Return type *MWDBBlob* or None (if raise_not_found=False)

Raises requests.exceptions.HTTPError

query_config(*hash: str*, *raise_not_found: bool = True*) → Optional[mwdblib.config.MWDBConfig]
Queries for configuration object using provided hash

Parameters

- **hash** (*str*) – Object hash (SHA-256 identifier)
- **raise_not_found** (*bool*) – If True (default), method raises HTTPError when object is not found

Return type *MWDBConfig* or None (if raise_not_found=False)

Raises requests.exceptions.HTTPError

query_file(*hash: str*, *raise_not_found: bool = True*) → Optional[mwdblib.file.MWDBFile]
Queries for file using provided hash

Parameters

- **hash** (*str*) – Object hash (identifier, MD5, SHA-1, SHA-2)
- **raise_not_found** (*bool*) – If True (default), method raises HTTPError when object is not found

Return type *MWDBFile* or None (if raise_not_found=False)

Raises requests.exceptions.HTTPError

recent_blobs() → Iterator[mwdblib.blob.MWDBBlob]
Retrieves recently uploaded blob objects

Return type Iterator[*MWDBBlob*]

Raises requests.exceptions.HTTPError

recent_configs() → Iterator[mwdblib.config.MWDBConfig]
Retrieves recently uploaded configuration objects

Return type Iterator[*MWDBConfig*]

Raises requests.exceptions.HTTPError

recent_files() → Iterator[mwdblib.file.MWDBFile]
Retrieves recently uploaded files

Return type Iterator[*MWDBFile*]

Raises requests.exceptions.HTTPError

recent_objects() → Iterator[mwdblib.object.MWDBObject]
Retrieves recently uploaded objects If you already know type of object you are looking for, use specialized variants:

- *recent_files()*
- *recent_configs()*
- *recent_blobs()*

Usage example:

```
from mwdblib import MWDB
from itertools import islice

mwdb = MWDB()
mwdb.login("admin", "password123")

# recent_files is generator, do not execute list(recent_files)!
files = islice(mwdb.recent_files(), 25)
print([(f.name, f.tags) for f in files])
```

Return type Iterator[*MWDBObject*]

Raises requests.exceptions.HTTPError

search (*query: str*) → Iterator[mwdblib.object.MWDBObject]

Advanced search for objects using Lucene syntax. If you already know type of objects you are looking for, use specialized variants:

- *search_files()*
- *search_configs()*
- *search_blobs()*

Usage example:

```
from mwdblib import MWDB

# Search for samples tagged as evil and with size less than 100kB
results = mwdb.search_files("tag:evil AND file.size:[0 TO 100000]")
```

Parameters **query** (*str*) – Search query

Return type Iterator[*MWDBObject*]

Raises requests.exceptions.HTTPError

search_blobs (*query: str*) → Iterator[mwdblib.blob.MWDBBlob]

Advanced search for blob objects using Lucene syntax.

Parameters **query** (*str*) – Search query

Return type Iterator[*MWDBBlob*]

Raises requests.exceptions.HTTPError

search_configs (*query: str*) → Iterator[mwdblib.config.MWDBConfig]

Advanced search for configuration objects using Lucene syntax.

Parameters **query** (*str*) – Search query

Return type Iterator[*MWDBConfig*]

Raises requests.exceptions.HTTPError

search_files(*query: str*) → Iterator[mwdblib.file.MWDBFile]
Advanced search for files using Lucene syntax.

Parameters **query** (*str*) – Search query

Return type Iterator[*MWDBFile*]

Raises requests.exceptions.HTTPError

upload_blob(*name: str*, *type: str*, *content: str*, *parent: Union[mwdblib.object.MWDBObject, str, None] = None*, *metakeys: Optional[Dict[str, Union[str, List[str]]]] = None*, *attributes: Optional[Dict[str, Union[Any, List[Any]]]] = None*, *tags: Optional[List[str]] = None*, *share_with: Optional[str] = None*, *private: bool = False*, *public: bool = False*) → mwdblib.blob.MWDBBlob
Upload blob object

Parameters

- **name** (*str*) – Blob name (see also *MWDBBlob.blob_name*)
- **type** (*str*) – Blob type (see also *MWDBBlob.blob_type*)
- **content** (*str*) – Blob content (see also *MWDBBlob.content*)
- **parent** (*MWDBObject* or str, optional) – Parent object or parent identifier
- **metakeys** (*dict, optional*) – Dictionary with string attributes (to be used for MWDB Core older than 2.6.0)
- **attributes** (*dict, optional*) – Dictionary with attributes to be set after upload. If you want to set many values with the same key: use list as value. Attributes support object values that are JSON-serializable.
- **tags** (*list, optional*) – Dictionary with tags to be set after upload.
- **share_with** (*str, optional*) – Group name you want to share object with
- **private** (*bool, optional*) – True if sample should be uploaded as private
- **public** (*bool, optional*) – True if sample should be visible for everyone

Return type *MWDBBlob*

New in version 4.0.0: Added `attributes` and `tags` arguments. They are supported by MWDB Core >= 2.6.0, use `metakeys` if your MWDB Core version is older.

upload_config(*family: str*, *cfg: Dict[str, Any]*, *config_type: str = 'static'*, *parent: Union[mwdblib.object.MWDBObject, str, None] = None*, *metakeys: Optional[Dict[str, Union[str, List[str]]]] = None*, *attributes: Optional[Dict[str, Union[Any, List[Any]]]] = None*, *tags: Optional[List[str]] = None*, *share_with: Optional[str] = None*, *private: bool = False*, *public: bool = False*) → mwdblib.config.MWDBConfig
Upload configuration object

Parameters

- **family** (*str*) – Malware family name (see also *MWDBConfig.family*)
- **cfg** (*dict*) – Dict object with configuration (see also *MWDBConfig.cfg*)
- **config_type** (*str, optional*) – Configuration type (default: static, see also *MWDBConfig.type*)
- **parent** (*MWDBObject* or str, optional) – Parent object or parent identifier

- **metakeys** (*dict, optional*) – Dictionary with string attributes (to be used for MWDB Core older than 2.6.0)
- **attributes** (*dict, optional*) – Dictionary with attributes to be set after upload. If you want to set many values with the same key: use list as value. Attributes support object values that are JSON-serializable.
- **tags** (*list, optional*) – Dictionary with tags to be set after upload.
- **share_with** (*str, optional*) – Group name you want to share object with
- **private** (*bool, optional*) – True if sample should be uploaded as private
- **public** (*bool, optional*) – True if sample should be visible for everyone

Return type *MWDBConfig*

New in version 4.0.0: Added `attributes` and `tags` arguments. They are supported by MWDB Core >= 2.6.0, use `metakeys` if your MWDB Core version is older.

```
mwdb.upload_config(
    "evil",
    {
        "botnet": "mal0123",
        "version": 2019,
        "urls": [
            "http://example.com",
            "http://example.com/2"
        ]
    }
    parent="362934467570528660 7dd0f680c66c19f7e310a1",
    public=True)
```

upload_file(*name: str, content: Union[bytes, BinaryIO], parent: Union[mwdblib.object.MWDBObject, str, None] = None, metakeys: Optional[Dict[str, Union[str, List[str]]]] = None, attributes: Optional[Dict[str, Union[Any, List[Any]]]] = None, tags: Optional[List[str]] = None, share_with: Optional[str] = None, private: bool = False, public: bool = False*) → mwdblib.file.MWDBFile

Upload file object

Parameters

- **name** (*str*) – Original file name (see also *MWDBFile.file_name*)
- **content** (*bytes or BinaryIO*) – File contents
- **parent** (*MWDBObject* or str, optional) – Parent object or parent identifier
- **metakeys** (*dict, optional*) – Dictionary with string attributes (to be used for MWDB Core older than 2.6.0)
- **attributes** (*dict, optional*) – Dictionary with attributes to be set after upload. If you want to set many values with the same key: use list as value. Attributes support object values that are JSON-serializable.
- **tags** (*list, optional*) – Dictionary with tags to be set after upload.
- **share_with** (*str, optional*) – Group name you want to share object with
- **private** (*bool, optional*) – True if sample should be uploaded as private
- **public** (*bool, optional*) – True if sample should be visible for everyone

Return type *MWDBFile*

New in version 4.0.0: Added `attributes` and `tags` arguments. They are supported by MWDB Core >= 2.6.0, use `metakeys` if your MWDB Core version is older.

Usage example:

```
mwdb.upload_file(
    "malware.exe",
    open("malware.exe", "rb").read(),
    parent="362934467570528660 7dd0f680c66c19f7e310a1",
    public=True)
```

class mwdblib.**APIClient**(*_auth_token: Optional[str] = None*, ***api_options: Any*)

Client for MWDB REST API that performs authentication and low-level API request/response handling.

If you want to send arbitrary request to MWDB API, use `get()`, `post()`, `put()` and `delete()` methods using `MWDB.api` property.

```
mwdb = MWDB()
...
# Deletes object with given sha256
mwdb.api.delete(f'object/{sha256}')
```

request(*method: str*, *url: str*, *noauth: bool = False*, *raw: bool = False*, **args: Any*, ***kwargs: Any*) → Any

Sends request to MWDB API.

Other keyword arguments are the same as in requests library.

Parameters

- **method** – HTTP method
- **url** – Relative url of API endpoint
- **noauth** –

  Don't check if user is authenticated before sending request (default: False)
- **raw** – Return raw response bytes instead of parsed JSON (default: False)

static requires(*required_version: str*, *always_check_version: bool = False*) → Callable

Method decorator that provides server version requirement and fallback to older implementation if available.

To optimize requests sent by CLI: first method is called always if server version is not already available. If it fails with EndpointNotFoundError, server version is fetched and used to determine if fallback is available.

If your method fails on something different than missing endpoint, you can check version always by enabling `always_check_version` flag.

CHAPTER

TWO

OBJECT TYPES

class mwdblib.**MWDBObject**(*api: mwdblib.api.api.APIClient*, *data: Dict[str, Any]*)

Represents abstract, generic MWDB object.

Should never be instantiated directly.

If you really need to get synthetic instance - use internal *create()* static method.

add_child(*child: Union[MWDBObject, str]*) → None

Adds reference to child with current object as parent

Parameters **child** (*MWDBObject or str*) – Object or object identifier (sha256)

add_comment(*comment: str*) → None

Adds comment

Parameters **comment** (*str*) – Comment string

add_metakey(*key: str*, *value: str*) → None

Adds metakey attribute

Deprecated since version 4.0.0: For MWDB Core >=2.6.0 use `add_attribute` instead

Parameters

- **key** (*str*) – Attribute key
- **value** (*str*) – Attribute value

add_tag(*tag: str*) → None

Tags object using specified tag

Parameters **tag** (*str*) – Tag string

property analyses

Returns list of Karton analyses related with this object

Requires MWDB Core >= 2.3.0.

New in version 4.0.0.

property attributes

Returns dict object with attributes.

Requires MWDB Core >= 2.6.0.

New in version 4.0.0.

Returns Dict object containing attributes

property children

Returns list of child objects

Returns List of child objects

property comments
Returns list of comments

Returns List of comment objects

Example - print all comments of last object commented as "malware":

```
comments = next(mwdb.search_files('comment:"*malware*"')).comments
for comment in comments:
    print("{} {}".format(comment.author, comment.comment))
```

property content
Returns stringified contents of object

New in version 3.0.0: Added *MWDBObject.content* property

static create(*api: mwdblib.api.api.APIClient*, *data: Dict[str, Any]*) → mwdblib.object.MWDBObject
Creates specialized MWDBObject subclass instance based on specified `data`

flush() → None
Flushes local object state in case of pending updates. All object-specific properties will be lazy-loaded using API

property id
Object identifier (sha256)

property metakeys
Returns dict object with metakeys.

Deprecated since version 4.0.0: For MWDB Core >=2.6.0 use *attributes* instead

Returns Dict object containing metakey attributes

property object_type
Object type ('file', 'static_config' or 'text_blob')

property parents
Returns list of parent objects

Returns List of parent objects

remove() → None
Remove specific object from mwdb

The object should be treated as invalidated after using this method .

remove_tag(*tag: str*) → None
Untags object using specified tag

Parameters **tag** (*str*) – Tag string

property sha256
Object identifier (sha256)

share_with(*group: str*) → None
Share object with specified group

New in version 3.0.0: Added *MWDBObject.share_with()* method

Parameters **group** (*str*) – Group name

property shares
Returns list of shares

Returns List of share objects

property tags
Returns list of tags

Returns List of tags

property upload_time
Returns timestamp of first object upload

Returns datetime object with object upload timestamp

class mwdblib.**MWDBFile**(*api: mwdblib.api.api.APIClient*, *data: MWDBElementData*)

property config
Returns latest config related with this object

Return type *MWDBConfig* or None

Returns Latest configuration if found

property content
Returns file contents, calling `MWDBFile.download()` if contents were not loaded yet

property file_name
Sample original name

property file_size
Sample size in bytes

property file_type
Sample type

property name
Alias for *file_name* property

property size
Alias for *file_size* property

property type
Alias for *file_type* property

class mwdblib.**MWDBConfig**(*api: mwdblib.api.api.APIClient*, *data: Dict[str, Any]*)

property cfg
Raw dict object with configuration

See also:

config_dict

property config
dict object with configuration. In-blob keys are mapped to MWDBBlob objects.

property config_dict
Raw dict object with configuration (in-blob keys are not mapped to *MWDBBlob* objects)

property content
Returns raw dict object as JSON bytes

Return type bytes

property family
Configuration family

property type
Configuration type ('static' or 'dynamic')

class mwdblib.**MWDBBlob**(*api: mwdblib.api.api.APIClient*, *data: Dict[str, Any]*)

property blob_name
Blob name

property blob_size
Blob size in bytes

property blob_type
Blob semantic type

property config
Returns latest config related with this object

Returns Latest configuration if found

property content
Contains blob content

Changed in version 3.0.0: Returned type is guaranteed to be utf8-encoded bytes

property last_seen

Returns datetime object when blob was last seen in MWDB

property name
Alias for *blob_name* property

property size
Alias for *blob_size* property

property type
Alias for *blob_type* property

CHAPTER

THREE

SECONDARY OBJECTS

class mwdblib.comment.**MWDBComment**(*api: APIClient*, *data: MWDBElementData*, *parent: MWDBObject*)

Represents comment for MWDB object

property author
Comment author

property comment
Comment text

delete() → None
Deletes this comment

property id
Comment identifier

property timestamp
Comment timestamp

class mwdblib.share.**MWDBShare**(*api: APIClient*, *data: MWDBElementData*, *parent: mwdblib.object.MWDBObject*)

Represents share entry in MWDB object

property group
Returns a group name that object is shared with

Returns Group name

property reason
Returns why object was shared

property timestamp
Returns timestamp of share

Returns datetime object with object share timestamp

class mwdblib.share.**MWDBShareReason**(*api: APIClient*, *share_data: MWDBElementData*)

Represents the reason why object was shared with specified group

property what
Returns what was shared

property who
Returns who caused action returned by *why* property.

Returns User login

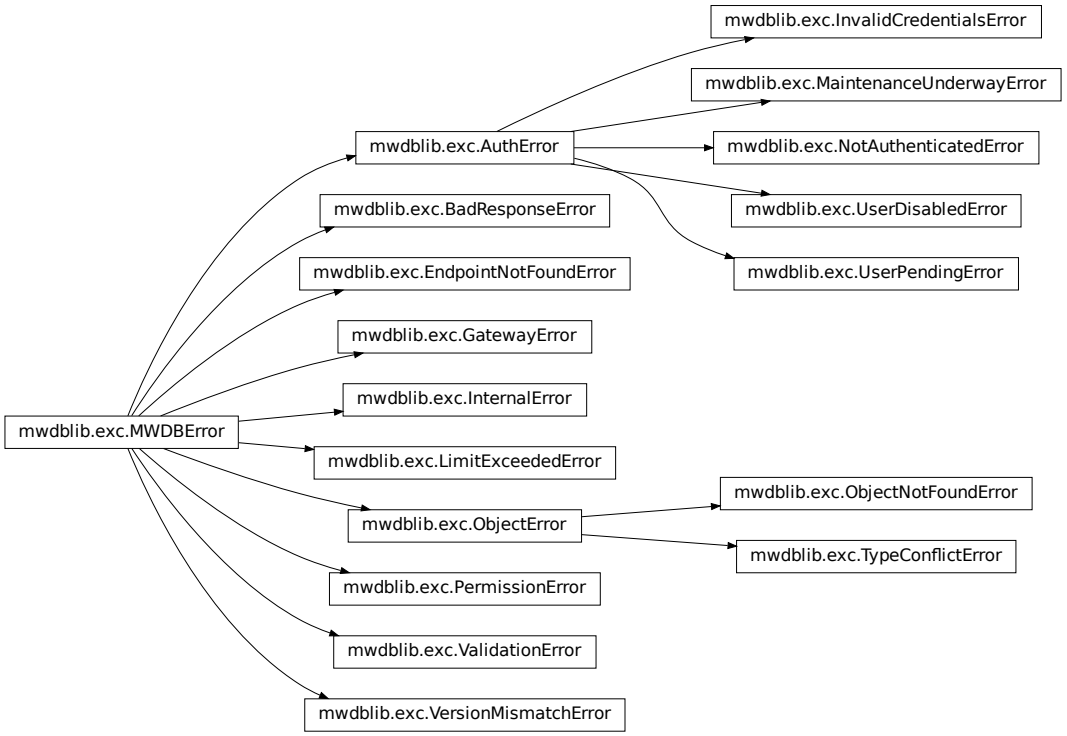
property why
Returns why it was shared

Returns One of actions: ‘queried’, ‘shared’, ‘added’, ‘migrated’

CHAPTER

FOUR

EXCEPTION OBJECTS



class mwdblib.exc.**MWDBError**(*message: Optional[str] = None*, *http_error: Optional[requests.exceptions.HTTPError] = None*)

Generic class for MWDB exceptions

Parameters

- **message** (*str*) – Error message
- **http_error** (requests.exceptions.HTTPError) – Original HTTP error

class mwdblib.exc.**AuthError**(*message: Optional[str] = None*, *http_error: Optional[requests.exceptions.HTTPError] = None*)

Authentication error, raised on HTTP 401: Unauthorized.

class mwdblib.exc.**ValidationError**(*message: Optional[str] = None*, *http_error: Optional[requests.exceptions.HTTPError] = None*)

Validation error, raised on HTTP 400: Bad Request. Check the message to find more information about this error.

Most possible causes are:

- Search query syntax is incorrect
- Metakey has wrong format
- User/group name has wrong format
- Unexpected None's are provided as an argument

class mwdblib.exc.**ObjectError**(*message: Optional[str] = None*, *http_error: Optional[requests.exceptions.HTTPError] = None*)

Object error, raised when specified object cannot be accessed or uploaded.

class mwdblib.exc.**PermissionError**(*message: Optional[str] = None*, *http_error: Optional[requests.exceptions.HTTPError] = None*)

Permission error, raised when permissions are unsufficient (HTTP 403: Forbidden).

class mwdblib.exc.**LimitExceededError**(*message: Optional[str] = None*, *http_error: Optional[requests.exceptions.HTTPError] = None*)

Rate limit exceeded error. MWDB will try to throttle requests unless *obey_ratelimiter* flag is set.

class mwdblib.exc.**InternalError**(*message: Optional[str] = None*, *http_error: Optional[requests.exceptions.HTTPError] = None*)

Internal error. Something really bad occurred on the server side.

class mwdblib.exc.**NotAuthenticatedError**(*message: Optional[str] = None*, *http_error: Optional[requests.exceptions.HTTPError] = None*)

Authentication is required for specified request but credentials are not set. Use `MWDB.login()` or set API key.

class mwdblib.exc.**InvalidCredentialsError**(*message: Optional[str] = None*, *http_error: Optional[requests.exceptions.HTTPError] = None*)

Provided wrong password, API key has wrong format or was revoked.

class mwdblib.exc.**UserPendingError**(*message: Optional[str] = None*, *http_error: Optional[requests.exceptions.HTTPError] = None*)

User has just been registered and is waiting for acceptance.

class mwdblib.exc.**UserDisabledError**(*message: Optional[str] = None*, *http_error: Optional[requests.exceptions.HTTPError] = None*)

User is banned. Contact your administrator for more information.

class mwdblib.exc.**MaintenanceUnderwayError**(*message: Optional[str] = None*, *http_error: Optional[requests.exceptions.HTTPError] = None*)

MWDB has been turned into maintenance mode. Try again later.

class mwdblib.exc.**ObjectNotFoundError**(*message: Optional[str] = None*, *http_error: Optional[requests.exceptions.HTTPError] = None*)

Object is not found, because it doesn't exist or you are not permitted to access it.

class mwdblib.exc.**TypeConflictError**(*message: Optional[str] = None*, *http_error: Optional[requests.exceptions.HTTPError] = None*)

Object you want to upload exists yet and has different type. Use `MWDB.query()` to find it.

If you don't have access (*`ObjectNotFoundError`* is raised), try to upload it as config or blob.

Double check whether the data you want to upload are meaningful (not an empty file or single string).

class mwdblib.exc.**BadResponseError**(*message: Optional[str] = None*, *http_error: Optional[requests.exceptions.HTTPError] = None*)

Can't decode JSON response from server. Probably APIClient.api_url points to the MWDB web app instead of MWDB REST API.

class mwdblib.exc.**GatewayError**(*message: Optional[str] = None*, *http_error: Optional[requests.exceptions.HTTPError] = None*)

Bad Gateway or Gateway Timeout. It is serious but usually temporary, can be caused by new version deploy or lack of resources.

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