
PyMISP Documentation

Release master

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CHAPTER 1

README

PyMISP - Python Library to access MISP

PyMISP is a Python library to access [MISP](#) platforms via their REST API.

PyMISP allows you to fetch events, add or update events/attributes, add or update samples or search for attributes.

2.1 Requirements

- [requests](#)

2.2 Install from pip

```
pip3 install pymisp
```

2.3 Install the latest version from repo

```
git clone https://github.com/MISP/PyMISP.git && cd PyMISP
git submodule update --init
pip3 install -I .
```

2.4 Samples and how to use PyMISP

Various examples and samples scripts are in the [examples/](#) directory.

In the examples directory, you will need to change the `keys.py.sample` to enter your MISP url and API key.

```
cd examples
cp keys.py.sample keys.py
vim keys.py
```

The API key of MISP is available in the Automation section of the MISP web interface.

To test if your URL and API keys are correct, you can test with examples/last.py to fetch the last 10 events published.

```
cd examples
python3 last.py -l 10
```

2.5 Debugging

You have two options there:

1. Pass `debug=True` to PyMISP and it will enable logging.DEBUG to stderr on the whole module
2. Use the python logging module directly:

```
import logging
logger = logging.getLogger('pymisp')

# Configure it as you wish, for example, enable DEBUG mode:
logger.setLevel(logging.DEBUG)
```

Or if you want to write the debug output to a file instead of stderr:

```
import pymisp
import logging

logger = logging.getLogger('pymisp')
logging.basicConfig(level=logging.DEBUG, filename="debug.log", filemode='w',
    ↪ format=pymisp.FORMAT)
```

2.6 Documentation

PyMISP API documentation is available.

Documentation can be generated with epydoc:

```
epydoc --url https://github.com/MISP/PyMISP --graph all --name PyMISP --pdf pymisp -o ↪
    ↪ doc
```

2.7 Everything is a Mutable Mapping

... or at least everything that can be imported/exported from/to a json blob

AbstractMISP is the master class, and inherit `collections.MutableMapping` which means the class can be represented as a python dictionary.

The abstraction assumes every property that should not be seen in the dictionary is prepended with a `_`, or its name is added to the private list `__not_jsonable` (accessible through `update_not_jsonable` and `set_not_jsonable`).

This master class has helpers that will make it easy to load, and export, to, and from, a json string.

`MISPEvent`, `MISPAttribute`, `MISPObjReference`, `MISPObjAttribute`, and `MISPObj` are subclasses of `AbstractMISP`, which mean that they can be handled as python dictionaries.

2.8 MISP Objects

Creating a new MISP object generator should be done using a pre-defined template and inherit `AbstractMISPObjGenerator`.

Your new `MISPObj` generator need to generate attributes, and add them as class properties using `add_attribute`.

When the object is sent to MISP, all the class properties will be exported to the JSON export.

`pymisp.deprecated` (*func*)

This is a decorator which can be used to mark functions as deprecated. It will result in a warning being emitted when the function is used.

3.1 PyMISP

class `pymisp.PyMISP` (*url, key, ssl=True, out_type='json', debug=None, proxies=None, cert=None, asynch=False*)

Python API for MISP

Parameters

- **url** – URL of the MISP instance you want to connect to
- **key** – API key of the user you want to use
- **ssl** – can be True or False (to check or not the validity of the certificate. Or a CA_BUNDLE in case of self signed certificate (the concatenation of all the *.crt of the chain)
- **out_type** – Type of object (json) NOTE: XML output isn't supported anymore, keeping the flag for compatibility reasons.
- **debug** – Write all the debug information to stderr
- **proxies** – Proxy dict as describes here: <http://docs.python-requests.org/en/master/user/advanced/#proxies>
- **cert** – Client certificate, as described there: <http://docs.python-requests.org/en/master/user/advanced/#client-side-certificates>
- **asynch** – Use asynchronous processing where possible

add_asn (*event, asn, category='Network activity', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)
Add network ASN

add_attachment (*event, attachment, category='Artifacts dropped', to_ids=False, comment=None, distribution=None, proposal=False, filename=None, **kwargs*)

Add an attachment to the MISP event

Parameters

- **event** – The event to add an attachment to
- **attachment** – Either a file handle or a path to a file - will be uploaded
- **filename** – Explicitly defined attachment filename

add_detection_name (*event, name, category='Antivirus detection', to_ids=False, comment=None, distribution=None, proposal=False, **kwargs*)

Add AV detection name(s)

add_domain (*event, domain, category='Network activity', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add domain(s)

add_domain_ip (*event, domain, ip, category='Network activity', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add domainlip

add_domains_ips (*event, domain_ips, category='Network activity', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add multiple domainlip

add_email_attachment (*event, email, category='Payload delivery', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add an email attachment

add_email_dst (*event, email, category='Payload delivery', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add a destination email

add_email_header (*event, email, category='Payload delivery', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add an email header

add_email_src (*event, email, category='Payload delivery', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add a source email

add_email_subject (*event, email, category='Payload delivery', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add an email subject

add_event (*event*)

Add a new event

Parameters event – Event as JSON object / string to add

add_feed (*source_format, url, name, input_source, provider, **kwargs*)

Delete a feed

add_filename (*event, filename, category='Artifacts dropped', to_ids=False, comment=None, distribution=None, proposal=False, **kwargs*)

Add filename(s)

add_hashes (*event, category='Artifacts dropped', filename=None, md5=None, sha1=None, sha256=None, ssdeep=None, comment=None, to_ids=True, distribution=None, proposal=False, **kwargs*)

Add hashe(s) to an existing event

- add_hostname** (*event, hostname, category='Network activity', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)
Add hostname(s)
- add_internal_comment** (*event, reference, category='Internal reference', to_ids=False, comment=None, distribution=None, proposal=False, **kwargs*)
Add an internal comment
- add_internal_link** (*event, reference, category='Internal reference', to_ids=False, comment=None, distribution=None, proposal=False, **kwargs*)
Add an internal link
- add_internal_other** (*event, reference, category='Internal reference', to_ids=False, comment=None, distribution=None, proposal=False, **kwargs*)
Add an internal reference (type other)
- add_internal_text** (*event, reference, category='Internal reference', to_ids=False, comment=None, distribution=None, proposal=False, **kwargs*)
Add an internal text
- add_ipdst** (*event, ipdst, category='Network activity', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)
Add destination IP(s)
- add_ipsrc** (*event, ipsrc, category='Network activity', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)
Add source IP(s)
- add_mutex** (*event, mutex, category='Artifacts dropped', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)
Add mutex(es)
- add_named_attribute** (*event, type_value, value, category=None, to_ids=False, comment=None, distribution=None, proposal=False, **kwargs*)
Add one or more attributes to an existing event
- add_net_other** (*event, netother, category='Network activity', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)
Add a free text entry
- add_object** (*event_id, *args, **kwargs*)
Add an object :param event_id: Event ID of the event to attach the object to :param template_id: Template ID of the template related to that event (not required) :param misp_object: MISPObjct to attach
- add_object_reference** (*misp_object_reference*)
Add a reference to an object
- add_other_comment** (*event, reference, category='Other', to_ids=False, comment=None, distribution=None, proposal=False, **kwargs*)
Add other comment
- add_other_counter** (*event, reference, category='Other', to_ids=False, comment=None, distribution=None, proposal=False, **kwargs*)
Add other counter
- add_other_text** (*event, reference, category='Other', to_ids=False, comment=None, distribution=None, proposal=False, **kwargs*)
Add other text
- add_pattern** (*event, pattern, in_file=True, in_memory=False, category='Artifacts dropped', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)
Add a pattern(s) in file or in memory

add_pipe (*event, named_pipe, category='Artifacts dropped', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add pipes(s)

add_regkey (*event, regkey, rvalue=None, category='Artifacts dropped', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add a registry key

add_regkeys (*event, regkeys_values, category='Artifacts dropped', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add a registry keys

add_snort (*event, snort, category='Network activity', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add SNORT rule(s)

add_target_email (*event, target, category='Targeting data', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add an target email

add_target_external (*event, target, category='Targeting data', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add an target external

add_target_location (*event, target, category='Targeting data', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add an target location

add_target_machine (*event, target, category='Targeting data', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add an target machine

add_target_org (*event, target, category='Targeting data', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add an target organisation

add_target_user (*event, target, category='Targeting data', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add an target user

add_threat_actor (*event, target, category='Attribution', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add an threat actor

add_traffic_pattern (*event, pattern, category='Network activity', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add pattern(s) in traffic

add_url (*event, url, category='Network activity', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add url(s)

add_useragent (*event, useragent, category='Network activity', to_ids=True, comment=None, distribution=None, proposal=False, **kwargs*)

Add user agent(s)

add_yara (*event, yara, category='Payload delivery', to_ids=False, comment=None, distribution=None, proposal=False, **kwargs*)

Add yara rule(es)

av_detection_link (*event, link, category='Antivirus detection', to_ids=False, comment=None, distribution=None, proposal=False, **kwargs*)

Add AV detection link(s)

cache_all_feeds ()
Alias for cache_feeds_all

cache_feed (*feed_id*)
Cache a specific feed

cache_feeds_all ()
Cache all the feeds

cache_feeds_freetext ()
Cache all the freetext feeds

cache_feeds_misp ()
Cache all the MISP feeds

change_analysis_status (*event, analysis_status*)
Change the analysis status of an event

change_comment (*attribute_uuid, comment*)
Change the comment of attribute

change_distribution (*event, distribution*)
Change the distribution of an event

change_sharing_group (*event, sharing_group_id*)
Change the sharing group of an event

change_threat_level (*event, threat_level_id*)
Change the threat level of an event

change_toids (*attribute_uuid, to_ids*)
Change the toids flag

compare_feeds ()
Generate the comparison matrix for all the MISP feeds

delete_attribute (*attribute_id, hard_delete=False*)
Delete an attribute by ID

delete_event (*event_id*)
Delete an event

Parameters event_id – Event id to delete

delete_feed (*feed_id*)
Delete a feed

delete_object (*id*)
Deletes an object

delete_object_reference (*id*)
Deletes a reference to an object

direct_call (*url, data=None*)
Very lightweight call that posts a data blob (python dictionary or json string) on the URL

disable_noticelist (*noticelist_id*)
Disable a noticelist by id.

disable_tag (*tag_id*)
Disable a tag by id.

disable_taxonomy (*taxonomy_id*)
Disable a taxonomy by id.

disable_taxonomy_tags (*taxonomy_id*)

Disable all the tags of a taxonomy by id.

disable_warninglist (*warninglist_id*)

Disable a warninglist by id.

download_all_suricata ()

Download all suricata rules events.

download_last (*last*)

Download the last published events.

Parameters last – can be defined in days, hours, minutes (for example 5d or 12h or 30m)

download_samples (*sample_hash=None, event_id=None, all_samples=False, unzip=True*)

Download samples, by hash or event ID. If there are multiple samples in one event, use the `all_samples` switch

Parameters

- **sample_hash** – hash of sample
- **event_id** – ID of event
- **all_samples** – download all samples
- **unzip** – whether to unzip or keep zipped

Returns A tuple with (success, [[event_id, sample_hash, sample_as_bytesio], [event_id, ...]])

In case of legacy sample, the `sample_hash` will be replaced by the zip's filename

download_suricata_rule_event (*event_id*)

Download one suricata rule event.

Parameters event_id – ID of the event to download (same as `get`)

edit_feed (*feed_id, **kwargs*)

Delete a feed

edit_object (*misp_object, object_id=None*)

Edit an existing object

edit_tag (*tag_id, name=None, colour=None, exportable=None, hide_tag=None, org_id=None, count=None, user_id=None, numerical_value=None, attribute_count=None*)

Edit only the provided parameters of a tag.

edit_tag_json (*json_file, tag_id*)

Edit the tag using a json file.

enable_noticelist (*noticelist_id*)

Enable a noticelist by id.

enable_tag (*tag_id*)

Enable a tag by id.

enable_taxonomy (*taxonomy_id*)

Enable a taxonomy by id.

enable_taxonomy_tags (*taxonomy_id*)

Enable all the tags of a taxonomy by id.

enable_warninglist (*warninglist_id*)

Enable a warninglist by id.

fast_publish (*event_id*, *alert=False*)

Does the same as the publish method, but just try to publish the event even with one single HTTP GET. The default is to not send a mail as it is assumed this method is called on update.

fetch_feed (*feed_id*)

Fetch one single feed

flatten_error_messages (*response*)

Dirty dirty method to normalize the error messages between the API calls. Any response containing the a key 'error' or 'errors' failed at some point, we make one single list out of it.

freetext (*event_id*, *string*, *adhereToWarninglists=False*, *distribution=None*, *returnMetaAttributes=False*)

Pass a text to the freetext importer

get (*eid*)

Get an event by event ID

get_all_attributes_txt (*type_attr*, *tags=False*, *eventId=False*, *allowNonIDS=False*, *date_from=False*, *date_to=False*, *last=False*, *enforceWarninglist=False*, *allowNotPublished=False*)

Get all attributes from a specific type as plain text. Only published and IDS flagged attributes are exported, except if stated otherwise.

get_all_tags (*quiet=False*)

Get all the tags used on the instance

get_api_version ()

Returns the current version of PyMISP installed on the system

get_api_version_master ()

Get the most recent version of PyMISP from github

get_attachment (*attribute_id*)

Get an attachment (not a malware sample) by attribute ID. Returns the attachment as a bytestream, or a dictionary containing the error message.

Parameters *attribute_id* – Attribute ID to fetched

get_attributes_statistics (*context='type'*, *percentage=None*)

Get attributes statistics from the MISP instance

get_csv (*eventid=None*, *attributes=[]*, *object_attributes=[]*, *misp_types=[]*, *context=False*, *ignore=False*, *last=None*)

Get MISP values in CSV format :param eventid: The event ID to query :param attributes: The column names to export from normal attributes (i.e. uuid, value, type, ...) :param object_attributes: The column names to export from attributes within objects (i.e. uuid, value, type, ...) :param misp_types: MISP types to get (i.e. ip-src, hostname, ...) :param context: Add event level context (event_info,event_member_org,event_source_org,event_distribution,event_threat_level_id,event_analysis,event_date,event_date_published) :param ignore: Returns the attributes even if the event isn't published, or the attribute doesn't have the to_ids flag set

get_event (*event_id*)

Get an event

Parameters *event_id* – Event id to get

get_events_last_modified (*search_from*, *search_to=None*)

Download the last modified events.

Parameters

- **search_from** – Beginning of the interval. Can be either a timestamp, or a date (2000-12-21)
- **search_to** – End of the interval. Can be either a timestamp, or a date (2000-12-21)

get_feed (*feed_id*)

Get the content of a single feed

get_feeds_list ()

Get the content of all the feeds

get_galaxies ()

Get all the galaxies.

get_galaxy (*galaxy_id*)

Get a galaxy by id.

get_index (*filters=None*)

Return the index.

Warning, there's a limit on the number of results

get_live_query_acl ()

This should return an empty list, unless the ACL is outdated.

get_noticelist (*noticelist_id*)

Get a noticelist by id.

get_noticelists ()

Get all the noticelists.

get_object_template_id (*object_uuid*)

Gets the template ID corresponding the UUID passed as parameter

get_object_templates_list ()

Returns the list of Object templates available on the MISP instance

get_recommended_api_version ()

Returns the recommended API version from the server

get_roles_list ()

Get the list of existing roles

get_sharing_groups ()

Get the existing sharing groups

get_stix_event (*event_id=None, with_attachments=False, from_date=False, to_date=False, tags=False*)

Get an event/events in STIX format

get_tag (*tag_id*)

Get a tag by id.

get_tags_list ()

Get the list of existing tags.

get_tags_statistics (*percentage=None, name_sort=None*)

Get tags statistics from the MISP instance

get_taxonomies_list ()

Get all the taxonomies.

get_taxonomy (*taxonomy_id*)

Get a taxonomy by id.

get_taxonomy_tags_list (*taxonomy_id*)
Get all the tags of a taxonomy by id.

get_version ()
Returns the version of the instance.

get_version_master ()
Get the most recent version from github

get_warninglist (*warninglist_id*)
Get a warninglist by id.

get_warninglists ()
Get all the warninglists.

get_yara (*event_id*)
Get the yara rules from an event

new_event (*distribution=None, threat_level_id=None, analysis=None, info=None, date=None, published=False, orgc_id=None, org_id=None, sharing_group_id=None*)
Create and add a new event

new_tag (*name=None, colour='#00ace6', exportable=False, hide_tag=False*)
Create a new tag

proposal_accept (*proposal_id*)
Accept a proposal

proposal_add (*event_id, attribute*)
Add a proposal

proposal_discard (*proposal_id*)
Discard a proposal

proposal_edit (*attribute_id, attribute*)
Edit a proposal

proposal_view (*event_id=None, proposal_id=None*)
View a proposal

publish (*event, alert=True*)
Publish event (with or without alert email) :param event: pass event or event id (as string or int) to publish
:param alert: set to True by default (send alerting email) if False will not send alert :return publish status

pushEventToZMQ (*event_id*)
Force push an event on ZMQ

search (*controller='events', async_callback=None, **kwargs*)
Search via the Rest API

Parameters

- **values** – values to search for
- **not_values** – values *not* to search for
- **type_attribute** – Type of attribute
- **category** – Category to search
- **org** – Org reporting the event
- **tags** – Tags to search for
- **not_tags** – Tags *not* to search for

- **date_from** – First date
- **date_to** – Last date
- **last** – Last published events (for example 5d or 12h or 30m)
- **eventid** – Event ID(s) | str or list
- **withAttachments** – return events with or without the attachments
- **uuid** – search by uuid
- **publish_timestamp** – the publish timestamp
- **timestamp** – the timestamp of the last modification. Can be a list (from->to)
- **enforceWarninglist** – Enforce the warning lists
- **searchall** – full text search on the database
- **metadata** – return only metadata if True
- **published** – return only published events
- **to_ids** – return only the attributes with the to_ids flag set
- **deleted** – also return the deleted attributes
- **event_timestamp** – the timestamp of the last modification of the event (attributes controller only)). Can be a list (from->to)
- **async_callback** – The function to run when results are returned

search_all (*value*)

Search a value in the whole database

search_index (*published=None, eventid=None, tag=None, datefrom=None, dateuntil=None, eventinfo=None, threatlevel=None, distribution=None, analysis=None, attribute=None, org=None, async_callback=None, normalize=False, timestamp=None*)

Search only at the index level. Use ! in front of value as NOT, default OR If using async, give a callback that takes 2 args, session and response: basic usage is `pymisp.search_index(..., async_callback=lambda ses,resp: print(resp.json()))`

Parameters

- **published** – Published (0,1)
- **eventid** – Event ID(s) | str or list
- **tag** – Tag(s) | str or list
- **datefrom** – First date, in format YYYY-MM-DD
- **dateuntil** – Last date, in format YYYY-MM-DD
- **eventinfo** – Event info(s) to match | str or list
- **threatlevel** – Threat level(s) (1,2,3,4) | str or list
- **distribution** – Distribution level(s) (0,1,2,3) | str or list
- **analysis** – Analysis level(s) (0,1,2) | str or list
- **org** – Organisation(s) | str or list
- **async_callback** – Function to call when the request returns (if running async)
- **normalize** – Normalize output | True or False

- **timestamp** – Interval since last update (in second, or 1d, 1h, ...)

search_sightings (*context=""*, *async_callback=None*, ***kwargs*)

Search sightings via the REST API :context: The context of the search, could be attribute, event or False :param context_id: ID of the attribute or event if context is specified :param type_sighting: Type of the sighting :param date_from: From date :param date_to: To date :param publish_timestamp: Last published sighting (e.g. 5m, 3h, 7d) :param org_id: The org_id :param source: The source of the sighting :param include_attribute: Should the result include attribute data :param include_event: Should the result include event data :param async_callback: The function to run when results are returned

Example

```
>>> misp.search_sightings({'publish_timestamp': '30d'}) # search sightings_
↳ for the last 30 days on the instance
[ ... ]
>>> misp.search_sightings('attribute', {'id': 6, 'include_attribute': 1}) #
↳ return list of sighting for attribute 6 along with the attribute itself
[ ... ]
>>> misp.search_sightings('event', {'id': 17, 'include_event': 1, 'org_id': 2}
↳) # return list of sighting for event 17 filtered with org id 2
```

set_sightings (*sightings*)

Push a sighting (python dictionary or MISPSighting) or a list of sightings

sharing_group_org_add (*sharing_group*, *organisation*, *extend=False*)

Add an organisation to a sharing group. :sharing_group: Sharing group's local instance ID, or Sharing group's global UUID :organisation: Organisation's local instance ID, or Organisation's global UUID, or Organisation's name as known to the current instance :extend: Allow the organisation to extend the group

sharing_group_org_remove (*sharing_group*, *organisation*)

Remove an organisation from a sharing group. :sharing_group: Sharing group's local instance ID, or Sharing group's global UUID :organisation: Organisation's local instance ID, or Organisation's global UUID, or Organisation's name as known to the current instance

sharing_group_server_add (*sharing_group*, *server*, *all_orgs=False*)

Add a server to a sharing group. :sharing_group: Sharing group's local instance ID, or Sharing group's global UUID :server: Server's local instance ID, or URL of the Server, or Server's name as known to the current instance :all_orgs: Add all the organisations of the server to the group

sharing_group_server_remove (*sharing_group*, *server*)

Remove a server from a sharing group. :sharing_group: Sharing group's local instance ID, or Sharing group's global UUID :server: Server's local instance ID, or URL of the Server, or Server's name as known to the current instance

sighting (*value=None*, *uuid=None*, *id=None*, *source=None*, *type=None*, *timestamp=None*, ***kwargs*)

Set a single sighting. :value: Value of the attribute the sighting is related too. Pushing this object will update the sighting count of each attributes with this value on the instance

Uuid UUID of the attribute to update

Id ID of the attribute to update

Source Source of the sighting

Type Type of the sighting

Timestamp Timestamp associated to the sighting

sighting_list (*element_id*, *scope='attribute'*, *org_id=False*)

Get the list of sighting. :param element_id: could be an event id or attribute id :type element_id: int :param scope: could be attribute or event :return: A json list of sighting corresponding to the search :rtype: list

Example

```
>>> misp.sighting_list(4731) # default search on attribute
[ ... ]
>>> misp.sighting_list(42, event) # return list of sighting for event 42
[ ... ]
>>> misp.sighting_list(element_id=42, org_id=2, scope=event) # return list of_
↳sighting for event 42 filtered with org id 2
```

sighting_per_id (*attribute_id*)

Add a sighting to an attribute (by attribute ID)

sighting_per_json (*json_file*)

Push a sighting (JSON file)

sighting_per_uuid (*attribute_uuid*)

Add a sighting to an attribute (by attribute UUID)

tag (*uuid*, *tag*)

Tag an event or an attribute

test_connection ()

Test the auth key

toggle_warninglist (*warninglist_id=None*, *warninglist_name=None*, *force_enable=None*)

Toggle (enable/disable) the status of a warninglist by ID. :param warninglist_id: ID of the WarningList :param force_enable: Force the warning list in the enabled state (does nothing if already enabled)

untag (*uuid*, *tag*)

Untag an event or an attribute

update (*event*)

Update an event by ID

update_attribute (*attribute_id*, *attribute*)

Update an attribute

Parameters

- **attribute_id** – Attribute id/uuid to update
- **attribute** – Attribute as JSON object / string to add

update_event (*event_id*, *event*)

Update an event

Parameters

- **event_id** – Event id to update
- **event** – Event as JSON object / string to add

update_galaxies ()

Update all the galaxies.

update_noticelists ()

Update all the noticelists.

update_taxonomies ()

Update all the taxonomies.

update_warninglists ()
Update all the warninglists.

upload_sample (*filename, filepath_or_bytes, event_id, distribution=None, to_ids=True, category=None, comment=None, info=None, analysis=None, threat_level_id=None, advanced_extraction=False*)
Upload a sample

upload_samplelist (*filepaths, event_id, distribution=None, to_ids=True, category=None, comment=None, info=None, analysis=None, threat_level_id=None, advanced_extraction=False*)
Upload a list of samples

view_feed (*feed_ids*)
Alias for `get_feed`

view_feeds ()
Alias for `get_feeds_list`

3.2 MISPAbstract

class `pymisp.AbstractMISP` (***kwargs*)

edited

Recursively check if an object has been edited and update the flag accordingly to the parent objects

from_dict (***kwargs*)

Loading all the parameters as class properties, if they aren't *None*. This method aims to be called when all the properties requiring a special treatment are processed. Note: This method is used when you initialize an object with existing data so by default, the class is flagged as not edited.

from_json (*json_string*)

Load a JSON string

jsonable ()

This method is used by the JSON encoder

properties

All the class public properties that will be dumped in the dictionary, and the JSON export. Note: all the properties starting with a `_` (private), or listed in `__not_jsonable` will be skipped.

set_not_jsonable (**args*)

Set `__not_jsonable` to a new list

to_dict ()

Dump the class to a dictionary. This method automatically removes the timestamp recursively in every object that has been edited in order to let MISP update the event accordingly.

to_json ()

Dump recursively any class of type MISPAbstract to a json string

update_not_jsonable (**args*)

Add entries to the `__not_jsonable` list

3.3 MISPEncode

```
class pymisp.MISPEncode (skipkeys=False, ensure_ascii=True, check_circular=True, allow_nan=True, sort_keys=False, indent=None, separators=None, default=None)
```

default (*obj*)

Implement this method in a subclass such that it returns a serializable object for *o*, or calls the base implementation (to raise a `TypeError`).

For example, to support arbitrary iterators, you could implement `default` like this:

```
def default(self, o):  
    try:  
        iterable = iter(o)  
    except TypeError:  
        pass  
    else:  
        return list(iterable)  
    # Let the base class default method raise the TypeError  
    return JSONEncoder.default(self, o)
```

3.4 MISPEvent

```
class pymisp.MISPEvent (describe_types=None, strict_validation=False, **kwargs)
```

add_attribute (*type, value, **kwargs*)

Add an attribute. *type* and *value* are required but you can pass all other parameters supported by `MISPAtribute`

add_attribute_tag (*tag, attribute_identifier*)

Add a tag to an existing attribute, raise an Exception if the attribute doesn't exist. *:tag:* Tag name as a string, `MISPTag` instance, or dictionary *:attribute_identifier:* can be an ID, UUID, or the value.

add_object (*obj=None, **kwargs*)

Add an object to the Event, either by passing a `MISPObject`, or a dictionary

add_proposal (*shadow_attribute=None, **kwargs*)

Alias for `add_shadow_attribute`

add_shadow_attribute (*shadow_attribute=None, **kwargs*)

Add a tag to the attribute (by name or a `MISPTag` object)

clear () → None. Remove all items from D.

delete_attribute (*attribute_id*)

Delete an attribute, you can search by ID or UUID

edited

Recursively check if an object has been edited and update the flag accordingly to the parent objects

from_dict (***kwargs*)

Loading all the parameters as class properties, if they aren't `None`. This method aims to be called when all the properties requiring a special treatment are processed. Note: This method is used when you initialize an object with existing data so by default, the class is flagged as not edited.

from_json (*json_string*)

Load a JSON string

get (*k*, *d*) → *D*[*k*] if *k* in *D*, else *d*. *d* defaults to None.

get_attribute_tag (*attribute_identifier*)

Return the tags associated to an attribute or an object attribute. *:attribute_identifier:* can be an ID, UUID, or the value.

get_object_by_id (*object_id*)

Get an object by ID (the ID is the one set by the server when creating the new object)

get_object_by_uuid (*object_uuid*)

Get an object by UUID (UUID is set by the server when creating the new object)

items () → a set-like object providing a view on *D*'s items

jsonable ()

This method is used by the JSON encoder

keys () → a set-like object providing a view on *D*'s keys

load (*json_event*, *validate=False*)

Load a JSON dump from a pseudo file or a JSON string

load_file (*event_path*)

Load a JSON dump from a file on the disk

pop (*k*, *d*) → *v*, remove specified key and return the corresponding value.

If key is not found, *d* is returned if given, otherwise *KeyError* is raised.

popitem () → (*k*, *v*), remove and return some (key, value) pair

as a 2-tuple; but raise *KeyError* if *D* is empty.

properties

All the class public properties that will be dumped in the dictionary, and the JSON export. Note: all the properties starting with a *_* (private), or listed in *__not_jsonable* will be skipped.

publish ()

Mark the attribute as published

set_date (*date*, *ignore_invalid=False*)

Set a date for the event (string, datetime, or date object)

set_not_jsonable (**args*)

Set *__not_jsonable* to a new list

setdefault (*k*, *d*) → *D*.*get*(*k*,*d*), also set *D*[*k*]=*d* if *k* not in *D*

to_dict ()

Dump the lass to a dictionary. This method automatically removes the timestamp recursively in every object that has been edited in order to let MISP update the event accordingly.

to_json ()

Dump recursively any class of type *MISPAbstract* to a json string

unpublish ()

Mark the attribute as un-published (set publish flag to false)

update (*[E]*, ***F*) → None. Update *D* from mapping/iterable *E* and *F*.

If *E* present and has a *.keys()* method, does: for *k* in *E*: *D*[*k*] = *E*[*k*] If *E* present and lacks *.keys()* method, does: for (*k*, *v*) in *E*: *D*[*k*] = *v* In either case, this is followed by: for *k*, *v* in *F*.*items*(): *D*[*k*] = *v*

update_not_jsonable (*args)
Add entries to the __not_jsonable list

values () → an object providing a view on D's values

3.5 MISPAtribute

class pymisp.**MISPAtribute** (describe_types=None, strict=False)

add_proposal (shadow_attribute=None, **kwargs)
Alias for add_shadow_attribute

add_shadow_attribute (shadow_attribute=None, **kwargs)
Add a tag to the attribute (by name or a MISPTag object)

clear () → None. Remove all items from D.

delete ()
Mark the attribute as deleted (soft delete)

edited
Recursively check if an object has been edited and update the flag accordingly to the parent objects

from_dict (**kwargs)
Loading all the parameters as class properties, if they aren't None. This method aims to be called when all the properties requiring a special treatment are processed. Note: This method is used when you initialize an object with existing data so by default, the class is flagged as not edited.

from_json (json_string)
Load a JSON string

get (k[, d]) → D[k] if k in D, else d. d defaults to None.

items () → a set-like object providing a view on D's items

jsonable ()
This method is used by the JSON encoder

keys () → a set-like object providing a view on D's keys

known_types
Returns a list of all the known MISP attributes types

malware_binary
Returns a BytesIO of the malware (if the attribute has one, obvs).

pop (k[, d]) → v, remove specified key and return the corresponding value.
If key is not found, d is returned if given, otherwise KeyError is raised.

popitem () → (k, v), remove and return some (key, value) pair
as a 2-tuple; but raise KeyError if D is empty.

properties
All the class public properties that will be dumped in the dictionary, and the JSON export. Note: all the properties starting with a _ (private), or listed in __not_jsonable will be skipped.

set_not_jsonable (*args)
Set __not_jsonable to a new list

setdefault (k[, d]) → D.get(k,d), also set D[k]=d if k not in D

to_dict ()
Dump the lass to a dictionary. This method automatically removes the timestamp recursively in every object that has been edited is order to let MISP update the event accordingly.

to_json ()
Dump recursively any class of type MISPAbstract to a json string

update ([*E*], ***F*) → None. Update D from mapping/iterable E and F.
If E present and has a .keys() method, does: for k in E: D[k] = E[k] If E present and lacks .keys() method, does: for (k, v) in E: D[k] = v In either case, this is followed by: for k, v in F.items(): D[k] = v

update_not_jsonable (**args*)
Add entries to the __not_jsonable list

values () → an object providing a view on D's values

3.6 MISPObject

class pymisp.MISPObject (*name*, *strict=False*, *standalone=False*, *default_attributes_parameters={}*, ***kwargs*)

add_attribute (*object_relation*, ***value*)
Add an attribute. *object_relation* is required and the value key is a dictionary with all the keys supported by MISPAtribute

add_reference (*referenced_uuid*, *relationship_type*, *comment=None*, ***kwargs*)
Add a link (uuid) to an other object

clear () → None. Remove all items from D.

edited
Recursively check if an object has been edited and update the flag accordingly to the parent objects

from_dict (***kwargs*)
Loading all the parameters as class properties, if they aren't *None*. This method aims to be called when all the properties requiring a special treatment are processed. Note: This method is used when you initialize an object with existing data so by default, the class is flagged as not edited.

from_json (*json_string*)
Load a JSON string

get (*k*[, *d*]) → D[k] if k in D, else d. d defaults to None.

get_attributes_by_relation (*object_relation*)
Returns the list of attributes with the given object relation in the object

has_attributes_by_relation (*list_of_relations*)
True if all the relations in the list are defined in the object

items () → a set-like object providing a view on D's items

jsonable ()
This method is used by the JSON encoder

keys () → a set-like object providing a view on D's keys

pop (*k*[, *d*]) → v, remove specified key and return the corresponding value.
If key is not found, d is returned if given, otherwise *KeyError* is raised.

popitem () → (k, v), remove and return some (key, value) pair
as a 2-tuple; but raise *KeyError* if D is empty.

properties

All the class public properties that will be dumped in the dictionary, and the JSON export. Note: all the properties starting with a `_` (private), or listed in `__not_jsonable` will be skipped.

set_not_jsonable (*args)

Set `__not_jsonable` to a new list

setdefault (k[, d]) → D.get(k,d), also set D[k]=d if k not in D**to_dict** (strict=False)

Dump the lass to a dictionary. This method automatically removes the timestamp recursively in every object that has been edited in order to let MISP update the event accordingly.

to_json (strict=False)

Dump recursively any class of type `MISPAbstract` to a json string

update ([E], **F) → None. Update D from mapping/iterable E and F.

If E present and has a `.keys()` method, does: for k in E: D[k] = E[k] If E present and lacks `.keys()` method, does: for (k, v) in E: D[k] = v In either case, this is followed by: for k, v in F.items(): D[k] = v

update_not_jsonable (*args)

Add entries to the `__not_jsonable` list

values () → an object providing a view on D's values

3.7 MISPObjectAttribute

class pymisp.MISPObjectAttribute (definition)

add_proposal (shadow_attribute=None, **kwargs)

Alias for `add_shadow_attribute`

add_shadow_attribute (shadow_attribute=None, **kwargs)

Add a tag to the attribute (by name or a `MISPTag` object)

clear () → None. Remove all items from D.**delete** ()

Mark the attribute as deleted (soft delete)

edited

Recursively check if an object has been edited and update the flag accordingly to the parent objects

from_dict (object_relation, value, **kwargs)

Loading all the parameters as class properties, if they aren't `None`. This method aims to be called when all the properties requiring a special treatment are processed. Note: This method is used when you initialize an object with existing data so by default, the class is flagged as not edited.

from_json (json_string)

Load a JSON string

get (k[, d]) → D[k] if k in D, else d. d defaults to None.**items** () → a set-like object providing a view on D's items**jsonable** ()

This method is used by the JSON encoder

keys () → a set-like object providing a view on D's keys

known_types

Returns a list of all the known MISP attributes types

malware_binary

Returns a BytesIO of the malware (if the attribute has one, obvs).

pop ($k[, d]$) → v , remove specified key and return the corresponding value.

If key is not found, d is returned if given, otherwise `KeyError` is raised.

popitem () → (k, v), remove and return some (key, value) pair

as a 2-tuple; but raise `KeyError` if D is empty.

properties

All the class public properties that will be dumped in the dictionary, and the JSON export. Note: all the properties starting with a `_` (private), or listed in `__not_jsonable` will be skipped.

set_not_jsonable (**args*)

Set `__not_jsonable` to a new list

setdefault ($k[, d]$) → $D.get(k,d)$, also set $D[k]=d$ if k not in D

to_dict ()

Dump the lass to a dictionary. This method automatically removes the timestamp recursively in every object that has been edited in order to let MISP update the event accordingly.

to_json ()

Dump recursively any class of type `MISPAbstract` to a json string

update ($[E], **F$) → `None`. Update D from mapping/iterable E and F .

If E present and has a `.keys()` method, does: for k in E : $D[k] = E[k]$ If E present and lacks `.keys()` method, does: for (k, v) in E : $D[k] = v$ In either case, this is followed by: for k, v in $F.items()$: $D[k] = v$

update_not_jsonable (**args*)

Add entries to the `__not_jsonable` list

values () → an object providing a view on D 's values

3.8 MISPObjectReference

class `pymisp.MISPObjectReference`

clear () → `None`. Remove all items from D .

edited

Recursively check if an object has been edited and update the flag accordingly to the parent objects

from_dict (*object_uuid, referenced_uuid, relationship_type, comment=None, **kwargs*)

Loading all the parameters as class properties, if they aren't `None`. This method aims to be called when all the properties requiring a special treatment are processed. Note: This method is used when you initialize an object with existing data so by default, the class is flagged as not edited.

from_json (*json_string*)

Load a JSON string

get ($k[, d]$) → $D[k]$ if k in D , else d . d defaults to `None`.

items () → a set-like object providing a view on D 's items

jsonable ()

This method is used by the JSON encoder

keys () → a set-like object providing a view on D's keys

pop (*k*, *d*) → *v*, remove specified key and return the corresponding value.
If key is not found, *d* is returned if given, otherwise `KeyError` is raised.

popitem () → (*k*, *v*), remove and return some (key, value) pair
as a 2-tuple; but raise `KeyError` if D is empty.

properties

All the class public properties that will be dumped in the dictionary, and the JSON export. Note: all the properties starting with a `_` (private), or listed in `__not_jsonable` will be skipped.

set_not_jsonable (**args*)
Set `__not_jsonable` to a new list

setdefault (*k*, *d*) → *D.get(k,d)*, also set *D[k]=d* if *k* not in *D*

to_dict ()

Dump the lass to a dictionary. This method automatically removes the timestamp recursively in every object that has been edited in order to let MISP update the event accordingly.

to_json ()

Dump recursively any class of type `MISPAbstract` to a json string

update (*[E]*, ***F*) → *None*. Update *D* from mapping/iterable *E* and *F*.
If *E* present and has a `.keys()` method, does: for *k* in *E*: *D[k] = E[k]* If *E* present and lacks `.keys()` method, does: for (*k*, *v*) in *E*: *D[k] = v* In either case, this is followed by: for *k*, *v* in *F.items()*: *D[k] = v*

update_not_jsonable (**args*)
Add entries to the `__not_jsonable` list

values () → an object providing a view on D's values

3.9 MISPTag

`class pymisp.MISPTag`

clear () → *None*. Remove all items from *D*.

edited

Recursively check if an object has been edited and update the flag accordingly to the parent objects

from_dict (*name*, ***kwargs*)

Loading all the parameters as class properties, if they aren't *None*. This method aims to be called when all the properties requiring a special treatment are processed. Note: This method is used when you initialize an object with existing data so by default, the class is flagged as not edited.

from_json (*json_string*)

Load a JSON string

get (*k*, *d*) → *D[k]* if *k* in *D*, else *d*. *d* defaults to *None*.

items () → a set-like object providing a view on D's items

jsonable ()

This method is used by the JSON encoder

keys () → a set-like object providing a view on D's keys

pop (*k*, *d*) → *v*, remove specified key and return the corresponding value.
If key is not found, *d* is returned if given, otherwise `KeyError` is raised.

popitem () → (k, v), remove and return some (key, value) pair as a 2-tuple; but raise `KeyError` if D is empty.

properties

All the class public properties that will be dumped in the dictionary, and the JSON export. Note: all the properties starting with a `_` (private), or listed in `__not_jsonable` will be skipped.

set_not_jsonable (*args)

Set `__not_jsonable` to a new list

setdefault (k[, d]) → D.get(k,d), also set D[k]=d if k not in D

to_dict ()

Dump the lass to a dictionary. This method automatically removes the timestamp recursively in every object that has been edited in order to let MISP update the event accordingly.

to_json ()

Dump recursively any class of type `MISPAbstract` to a json string

update ([E], **F) → None. Update D from mapping/iterable E and F.

If E present and has a `.keys()` method, does: for k in E: D[k] = E[k] If E present and lacks `.keys()` method, does: for (k, v) in E: D[k] = v In either case, this is followed by: for k, v in F.items(): D[k] = v

update_not_jsonable (*args)

Add entries to the `__not_jsonable` list

values () → an object providing a view on D's values

3.10 MISPUser

class pymisp.MISPUser

clear () → None. Remove all items from D.

edited

Recursively check if an object has been edited and update the flag accordingly to the parent objects

from_dict (**kwargs)

Loading all the parameters as class properties, if they aren't `None`. This method aims to be called when all the properties requiring a special treatment are processed. Note: This method is used when you initialize an object with existing data so by default, the class is flagged as not edited.

from_json (json_string)

Load a JSON string

get (k[, d]) → D[k] if k in D, else d. d defaults to None.

items () → a set-like object providing a view on D's items

jsonable ()

This method is used by the JSON encoder

keys () → a set-like object providing a view on D's keys

pop (k[, d]) → v, remove specified key and return the corresponding value.

If key is not found, d is returned if given, otherwise `KeyError` is raised.

popitem () → (k, v), remove and return some (key, value) pair as a 2-tuple; but raise `KeyError` if D is empty.

properties

All the class public properties that will be dumped in the dictionary, and the JSON export. Note: all the properties starting with a `_` (private), or listed in `__not_jsonable` will be skipped.

set_not_jsonable (*args)

Set `__not_jsonable` to a new list

setdefault (k[, d]) → D.get(k,d), also set D[k]=d if k not in D**to_dict** ()

Dump the lass to a dictionary. This method automatically removes the timestamp recursively in every object that has been edited in order to let MISP update the event accordingly.

to_json ()

Dump recursively any class of type `MISPAbstract` to a json string

update ([E], **F) → None. Update D from mapping/iterable E and F.

If E present and has a `.keys()` method, does: for k in E: D[k] = E[k] If E present and lacks `.keys()` method, does: for (k, v) in E: D[k] = v In either case, this is followed by: for k, v in F.items(): D[k] = v

update_not_jsonable (*args)

Add entries to the `__not_jsonable` list

values () → an object providing a view on D's values

3.11 MISPOrganisation

class pymisp.MISPOrganisation**clear** () → None. Remove all items from D.**edited**

Recursively check if an object has been edited and update the flag accordingly to the parent objects

from_dict (**kwargs)

Loading all the parameters as class properties, if they aren't `None`. This method aims to be called when all the properties requiring a special treatment are processed. Note: This method is used when you initialize an object with existing data so by default, the class is flagged as not edited.

from_json (json_string)

Load a JSON string

get (k[, d]) → D[k] if k in D, else d. d defaults to None.**items** () → a set-like object providing a view on D's items**jsonable** ()

This method is used by the JSON encoder

keys () → a set-like object providing a view on D's keys**pop** (k[, d]) → v, remove specified key and return the corresponding value.

If key is not found, d is returned if given, otherwise `KeyError` is raised.

popitem () → (k, v), remove and return some (key, value) pair

as a 2-tuple; but raise `KeyError` if D is empty.

properties

All the class public properties that will be dumped in the dictionary, and the JSON export. Note: all the properties starting with a `_` (private), or listed in `__not_jsonable` will be skipped.

set_not_jsonable (*args)

Set __not_jsonable to a new list

setdefault (k[, d]) → D.get(k,d), also set D[k]=d if k not in D

to_dict ()

Dump the lass to a dictionary. This method automatically removes the timestamp recursively in every object that has been edited in order to let MISP update the event accordingly.

to_json ()

Dump recursively any class of type MISPAbstract to a json string

update ([E], **F) → None. Update D from mapping/iterable E and F.

If E present and has a .keys() method, does: for k in E: D[k] = E[k] If E present and lacks .keys() method, does: for (k, v) in E: D[k] = v In either case, this is followed by: for k, v in F.items(): D[k] = v

update_not_jsonable (*args)

Add entries to the __not_jsonable list

values () → an object providing a view on D's values

4.1 File Object

```
class pymisp.tools.FileObject (filepath=None, pseudofile=None, filename=None, standalone=True, **kwargs)
```

```
add_attribute (object_relation, **value)
```

Add an attribute. *object_relation* is required and the value key is a dictionary with all the keys supported by MISPAtribute

```
add_reference (referenced_uuid, relationship_type, comment=None, **kwargs)
```

Add a link (uuid) to an other object

```
clear () → None. Remove all items from D.
```

```
edited
```

Recursively check if an object has been edited and update the flag accordingly to the parent objects

```
from_dict (**kwargs)
```

Loading all the parameters as class properties, if they aren't *None*. This method aims to be called when all the properties requiring a special treatment are processed. Note: This method is used when you initialize an object with existing data so by default, the class is flagged as not edited.

```
from_json (json_string)
```

Load a JSON string

```
generate_attributes ()
```

Contains the logic where all the values of the object are gathered

```
get (k[, d]) → D[k] if k in D, else d. d defaults to None.
```

```
get_attributes_by_relation (object_relation)
```

Returns the list of attributes with the given object relation in the object

```
has_attributes_by_relation (list_of_relations)
```

True if all the relations in the list are defined in the object

items () → a set-like object providing a view on D's items

jsonable ()

This method is used by the JSON encoder

keys () → a set-like object providing a view on D's keys

pop (*k*, *d*) → *v*, remove specified key and return the corresponding value.

If key is not found, *d* is returned if given, otherwise `KeyError` is raised.

popitem () → (*k*, *v*), remove and return some (key, value) pair

as a 2-tuple; but raise `KeyError` if *D* is empty.

properties

All the class public properties that will be dumped in the dictionary, and the JSON export. Note: all the properties starting with a `_` (private), or listed in `__not_jsonable` will be skipped.

set_not_jsonable (**args*)

Set `__not_jsonable` to a new list

setdefault (*k*, *d*) → *D.get(k,d)*, also set *D[k]=d* if *k* not in *D*

to_dict (*strict=False*)

Dump the class to a dictionary. This method automatically removes the timestamp recursively in every object that has been edited in order to let MISP update the event accordingly.

to_json (*strict=False*)

Dump recursively any class of type `MISPAbstract` to a json string

update (*[E]*, ***F*) → `None`. Update *D* from mapping/iterable *E* and *F*.

If *E* present and has a `.keys()` method, does: for *k* in *E*: *D[k] = E[k]* If *E* present and lacks `.keys()` method, does: for (*k*, *v*) in *E*: *D[k] = v* In either case, this is followed by: for *k*, *v* in *F.items()*: *D[k] = v*

update_not_jsonable (**args*)

Add entries to the `__not_jsonable` list

values () → an object providing a view on D's values

4.2 ELF Object

class `pymisp.tools.ELFObject` (*parsed=None*, *filepath=None*, *pseudofile=None*, *standalone=True*, ***kwargs*)

add_attribute (*object_relation*, ***value*)

Add an attribute. *object_relation* is required and the value key is a dictionary with all the keys supported by `MISPAttribute`

add_reference (*referenced_uuid*, *relationship_type*, *comment=None*, ***kwargs*)

Add a link (uuid) to an other object

clear () → `None`. Remove all items from *D*.

edited

Recursively check if an object has been edited and update the flag accordingly to the parent objects

from_dict (***kwargs*)

Loading all the parameters as class properties, if they aren't `None`. This method aims to be called when all the properties requiring a special treatment are processed. Note: This method is used when you initialize an object with existing data so by default, the class is flagged as not edited.

from_json (*json_string*)
Load a JSON string

generate_attributes ()
Contains the logic where all the values of the object are gathered

get (*k*, *d*) → D[k] if k in D, else d. d defaults to None.

get_attributes_by_relation (*object_relation*)
Returns the list of attributes with the given object relation in the object

has_attributes_by_relation (*list_of_relations*)
True if all the relations in the list are defined in the object

items () → a set-like object providing a view on D's items

jsonable ()
This method is used by the JSON encoder

keys () → a set-like object providing a view on D's keys

pop (*k*, *d*) → v, remove specified key and return the corresponding value.
If key is not found, d is returned if given, otherwise KeyError is raised.

popitem () → (k, v), remove and return some (key, value) pair
as a 2-tuple; but raise KeyError if D is empty.

properties
All the class public properties that will be dumped in the dictionary, and the JSON export. Note: all the properties starting with a _ (private), or listed in __not_jsonable will be skipped.

set_not_jsonable (*args)
Set __not_jsonable to a new list

setdefault (*k*, *d*) → D.get(k,d), also set D[k]=d if k not in D

to_dict (*strict=False*)
Dump the lass to a dictionary. This method automatically removes the timestamp recursively in every object that has been edited is order to let MISP update the event accordingly.

to_json (*strict=False*)
Dump recursively any class of type MISPAbstract to a json string

update ([*E*], ***F*) → None. Update D from mapping/iterable E and F.
If E present and has a .keys() method, does: for k in E: D[k] = E[k] If E present and lacks .keys() method, does: for (k, v) in E: D[k] = v In either case, this is followed by: for k, v in F.items(): D[k] = v

update_not_jsonable (*args)
Add entries to the __not_jsonable list

values () → an object providing a view on D's values

class pymisp.tools.**ELFSectionObject** (*section*, *standalone=True*, ***kwargs*)

add_attribute (*object_relation*, ***value*)
Add an attribute. object_relation is required and the value key is a dictionary with all the keys supported by MISPAttribute

add_reference (*referenced_uuid*, *relationship_type*, *comment=None*, ***kwargs*)
Add a link (uuid) to an other object

clear () → None. Remove all items from D.

edited

Recursively check if an object has been edited and update the flag accordingly to the parent objects

from_dict (***kwargs*)

Loading all the parameters as class properties, if they aren't *None*. This method aims to be called when all the properties requiring a special treatment are processed. Note: This method is used when you initialize an object with existing data so by default, the class is flagged as not edited.

from_json (*json_string*)

Load a JSON string

generate_attributes ()

Contains the logic where all the values of the object are gathered

get (*k*, *d*) → *D*[*k*] if *k* in *D*, else *d*. *d* defaults to *None*.

get_attributes_by_relation (*object_relation*)

Returns the list of attributes with the given object relation in the object

has_attributes_by_relation (*list_of_relations*)

True if all the relations in the list are defined in the object

items () → a set-like object providing a view on *D*'s items

jsonable ()

This method is used by the JSON encoder

keys () → a set-like object providing a view on *D*'s keys

pop (*k*, *d*) → *v*, remove specified key and return the corresponding value.

If key is not found, *d* is returned if given, otherwise *KeyError* is raised.

popitem () → (*k*, *v*), remove and return some (key, value) pair

as a 2-tuple; but raise *KeyError* if *D* is empty.

properties

All the class public properties that will be dumped in the dictionary, and the JSON export. Note: all the properties starting with a *_* (private), or listed in *__not_jsonable* will be skipped.

set_not_jsonable (**args*)

Set *__not_jsonable* to a new list

setdefault (*k*, *d*) → *D*.*get*(*k*,*d*), also set *D*[*k*]=*d* if *k* not in *D*

to_dict (*strict=False*)

Dump the class to a dictionary. This method automatically removes the timestamp recursively in every object that has been edited in order to let MISP update the event accordingly.

to_json (*strict=False*)

Dump recursively any class of type *MISPAbstract* to a json string

update (*[E]*, ***F*) → *None*. Update *D* from mapping/iterable *E* and *F*.

If *E* present and has a *.keys()* method, does: for *k* in *E*: *D*[*k*] = *E*[*k*] If *E* present and lacks *.keys()* method, does: for (*k*, *v*) in *E*: *D*[*k*] = *v* In either case, this is followed by: for *k*, *v* in *F*.*items*(): *D*[*k*] = *v*

update_not_jsonable (**args*)

Add entries to the *__not_jsonable* list

values () → an object providing a view on *D*'s values

4.3 PE Object

class pymisp.tools.PEObject (*parsed=None, filepath=None, pseudofile=None, standalone=True, **kwargs*)

add_attribute (*object_relation, **value*)

Add an attribute. *object_relation* is required and the value key is a dictionary with all the keys supported by MISPAtribute

add_reference (*referenced_uuid, relationship_type, comment=None, **kwargs*)

Add a link (uuid) to an other object

clear () → None. Remove all items from D.

edited

Recursively check if an object has been edited and update the flag accordingly to the parent objects

from_dict (***kwargs*)

Loading all the parameters as class properties, if they aren't *None*. This method aims to be called when all the properties requiring a special treatment are processed. Note: This method is used when you initialize an object with existing data so by default, the class is flagged as not edited.

from_json (*json_string*)

Load a JSON string

generate_attributes ()

Contains the logic where all the values of the object are gathered

get (*k[, d]*) → D[k] if k in D, else d. d defaults to None.

get_attributes_by_relation (*object_relation*)

Returns the list of attributes with the given object relation in the object

has_attributes_by_relation (*list_of_relations*)

True if all the relations in the list are defined in the object

items () → a set-like object providing a view on D's items

jsonable ()

This method is used by the JSON encoder

keys () → a set-like object providing a view on D's keys

pop (*k[, d]*) → v, remove specified key and return the corresponding value.

If key is not found, d is returned if given, otherwise *KeyError* is raised.

popitem () → (k, v), remove and return some (key, value) pair

as a 2-tuple; but raise *KeyError* if D is empty.

properties

All the class public properties that will be dumped in the dictionary, and the JSON export. Note: all the properties starting with a *_* (private), or listed in *__not_jsonable* will be skipped.

set_not_jsonable (**args*)

Set *__not_jsonable* to a new list

setdefault (*k[, d]*) → D.get(k,d), also set D[k]=d if k not in D

to_dict (*strict=False*)

Dump the lass to a dictionary. This method automatically removes the timestamp recursively in every object that has been edited in order to let MISP update the event accordingly.

to_json (*strict=False*)

Dump recursively any class of type MISPAbstract to a json string

update (*[E]*, ***F*) → None. Update D from mapping/iterable E and F.

If E present and has a .keys() method, does: for k in E: D[k] = E[k] If E present and lacks .keys() method, does: for (k, v) in E: D[k] = v In either case, this is followed by: for k, v in F.items(): D[k] = v

update_not_jsonable (**args*)

Add entries to the __not_jsonable list

values () → an object providing a view on D's values

class pymisp.tools.PESectionObject (*section, standalone=True, **kwargs*)

add_attribute (*object_relation, **value*)

Add an attribute. object_relation is required and the value key is a dictionary with all the keys supported by MISPAtribute

add_reference (*referenced_uuid, relationship_type, comment=None, **kwargs*)

Add a link (uuid) to an other object

clear () → None. Remove all items from D.

edited

Recursively check if an object has been edited and update the flag accordingly to the parent objects

from_dict (***kwargs*)

Loading all the parameters as class properties, if they aren't None. This method aims to be called when all the properties requiring a special treatment are processed. Note: This method is used when you initialize an object with existing data so by default, the class is flagged as not edited.

from_json (*json_string*)

Load a JSON string

generate_attributes ()

Contains the logic where all the values of the object are gathered

get (*k[, d]*) → D[k] if k in D, else d. d defaults to None.

get_attributes_by_relation (*object_relation*)

Returns the list of attributes with the given object relation in the object

has_attributes_by_relation (*list_of_relations*)

True if all the relations in the list are defined in the object

items () → a set-like object providing a view on D's items

jsonable ()

This method is used by the JSON encoder

keys () → a set-like object providing a view on D's keys

pop (*k[, d]*) → v, remove specified key and return the corresponding value.

If key is not found, d is returned if given, otherwise KeyError is raised.

popitem () → (k, v), remove and return some (key, value) pair

as a 2-tuple; but raise KeyError if D is empty.

properties

All the class public properties that will be dumped in the dictionary, and the JSON export. Note: all the properties starting with a _ (private), or listed in __not_jsonable will be skipped.

set_not_jsonable (*args)
Set __not_jsonable to a new list

setdefault (k[, d]) → D.get(k,d), also set D[k]=d if k not in D

to_dict (strict=False)
Dump the class to a dictionary. This method automatically removes the timestamp recursively in every object that has been edited in order to let MISP update the event accordingly.

to_json (strict=False)
Dump recursively any class of type MISPAbstract to a json string

update ([E], **F) → None. Update D from mapping/iterable E and F.
If E present and has a .keys() method, does: for k in E: D[k] = E[k] If E present and lacks .keys() method, does: for (k, v) in E: D[k] = v In either case, this is followed by: for k, v in F.items(): D[k] = v

update_not_jsonable (*args)
Add entries to the __not_jsonable list

values () → an object providing a view on D's values

4.4 Mach-O Object

class pymisp.tools.MachOObject (parsed=None, filepath=None, pseudofile=None, standalone=True, **kwargs)

add_attribute (object_relation, **value)
Add an attribute. object_relation is required and the value key is a dictionary with all the keys supported by MISPAttribute

add_reference (referenced_uuid, relationship_type, comment=None, **kwargs)
Add a link (uuid) to an other object

clear () → None. Remove all items from D.

edited
Recursively check if an object has been edited and update the flag accordingly to the parent objects

from_dict (**kwargs)
Loading all the parameters as class properties, if they aren't None. This method aims to be called when all the properties requiring a special treatment are processed. Note: This method is used when you initialize an object with existing data so by default, the class is flagged as not edited.

from_json (json_string)
Load a JSON string

generate_attributes ()
Contains the logic where all the values of the object are gathered

get (k[, d]) → D[k] if k in D, else d. d defaults to None.

get_attributes_by_relation (object_relation)
Returns the list of attributes with the given object relation in the object

has_attributes_by_relation (list_of_relations)
True if all the relations in the list are defined in the object

items () → a set-like object providing a view on D's items

jsonable ()
This method is used by the JSON encoder

keys () → a set-like object providing a view on D's keys

pop (*k*, *d*) → *v*, remove specified key and return the corresponding value.
If key is not found, *d* is returned if given, otherwise `KeyError` is raised.

popitem () → (*k*, *v*), remove and return some (key, value) pair
as a 2-tuple; but raise `KeyError` if D is empty.

properties

All the class public properties that will be dumped in the dictionary, and the JSON export. Note: all the properties starting with a `_` (private), or listed in `__not_jsonable` will be skipped.

set_not_jsonable (**args*)
Set `__not_jsonable` to a new list

setdefault (*k*, *d*) → *D.get(k,d)*, also set *D[k]=d* if *k* not in *D*

to_dict (*strict=False*)

Dump the class to a dictionary. This method automatically removes the timestamp recursively in every object that has been edited in order to let MISP update the event accordingly.

to_json (*strict=False*)

Dump recursively any class of type `MISPAbstract` to a json string

update (*[E]*, ***F*) → `None`. Update *D* from mapping/iterable *E* and *F*.

If *E* present and has a `.keys()` method, does: for *k* in *E*: *D[k] = E[k]* If *E* present and lacks `.keys()` method, does: for (*k*, *v*) in *E*: *D[k] = v* In either case, this is followed by: for *k*, *v* in *F.items()*: *D[k] = v*

update_not_jsonable (**args*)
Add entries to the `__not_jsonable` list

values () → an object providing a view on D's values

class `pymisp.tools.MachOSectionObject` (*section*, *standalone=True*, ***kwargs*)

add_attribute (*object_relation*, ***value*)

Add an attribute. *object_relation* is required and the value key is a dictionary with all the keys supported by `MISPAttribute`

add_reference (*referenced_uuid*, *relationship_type*, *comment=None*, ***kwargs*)

Add a link (uuid) to an other object

clear () → `None`. Remove all items from *D*.

edited

Recursively check if an object has been edited and update the flag accordingly to the parent objects

from_dict (***kwargs*)

Loading all the parameters as class properties, if they aren't `None`. This method aims to be called when all the properties requiring a special treatment are processed. Note: This method is used when you initialize an object with existing data so by default, the class is flagged as not edited.

from_json (*json_string*)

Load a JSON string

generate_attributes ()

Contains the logic where all the values of the object are gathered

get (*k*, *d*) → *D[k]* if *k* in *D*, else *d*. *d* defaults to `None`.

get_attributes_by_relation (*object_relation*)

Returns the list of attributes with the given object relation in the object

has_attributes_by_relation (*list_of_relations*)

True if all the relations in the list are defined in the object

items () → a set-like object providing a view on D's items

jsonable ()

This method is used by the JSON encoder

keys () → a set-like object providing a view on D's keys

pop (*k*, *d*) → *v*, remove specified key and return the corresponding value.
If key is not found, *d* is returned if given, otherwise `KeyError` is raised.

popitem () → (*k*, *v*), remove and return some (key, value) pair
as a 2-tuple; but raise `KeyError` if D is empty.

properties

All the class public properties that will be dumped in the dictionary, and the JSON export. Note: all the properties starting with a `_` (private), or listed in `__not_jsonable` will be skipped.

set_not_jsonable (**args*)

Set `__not_jsonable` to a new list

setdefault (*k*, *d*) → *D.get(k,d)*, also set *D[k]=d* if *k* not in *D*

to_dict (*strict=False*)

Dump the class to a dictionary. This method automatically removes the timestamp recursively in every object that has been edited in order to let MISP update the event accordingly.

to_json (*strict=False*)

Dump recursively any class of type `MISPAbstract` to a json string

update (*[E]*, ***F*) → `None`. Update *D* from mapping/iterable *E* and *F*.

If *E* present and has a `.keys()` method, does: for *k* in *E*: *D[k] = E[k]* If *E* present and lacks `.keys()` method, does: for (*k*, *v*) in *E*: *D[k] = v* In either case, this is followed by: for *k*, *v* in *F.items()*: *D[k] = v*

update_not_jsonable (**args*)

Add entries to the `__not_jsonable` list

values () → an object providing a view on D's values

4.5 VT Report Object

```
class pymisp.tools.VTReportObject (apikey, indicator, vt_proxies=None, standalone=True,
                                   **kwargs)
```

VirusTotal Report

Apikey VirusTotal API key (private works, but only public features are supported right now)

Indicator IOC to search VirusTotal for

add_attribute (*object_relation*, ***value*)

Add an attribute. *object_relation* is required and the value key is a dictionary with all the keys supported by `MISPAttribute`

add_reference (*referenced_uuid*, *relationship_type*, *comment=None*, ***kwargs*)

Add a link (uuid) to an other object

clear () → `None`. Remove all items from *D*.

edited

Recursively check if an object has been edited and update the flag accordingly to the parent objects

from_dict (***kwargs*)

Loading all the parameters as class properties, if they aren't *None*. This method aims to be called when all the properties requiring a special treatment are processed. Note: This method is used when you initialize an object with existing data so by default, the class is flagged as not edited.

from_json (*json_string*)

Load a JSON string

generate_attributes ()

Parse the VirusTotal report for relevant attributes

get (*k*, *d*) → *D*[*k*] if *k* in *D*, else *d*. *d* defaults to *None*.

get_attributes_by_relation (*object_relation*)

Returns the list of attributes with the given object relation in the object

has_attributes_by_relation (*list_of_relations*)

True if all the relations in the list are defined in the object

items () → a set-like object providing a view on *D*'s items

jsonable ()

This method is used by the JSON encoder

keys () → a set-like object providing a view on *D*'s keys

pop (*k*, *d*) → *v*, remove specified key and return the corresponding value.

If key is not found, *d* is returned if given, otherwise *KeyError* is raised.

popitem () → (*k*, *v*), remove and return some (key, value) pair

as a 2-tuple; but raise *KeyError* if *D* is empty.

properties

All the class public properties that will be dumped in the dictionary, and the JSON export. Note: all the properties starting with a *_* (private), or listed in *__not_jsonable* will be skipped.

set_not_jsonable (**args*)

Set *__not_jsonable* to a new list

setdefault (*k*, *d*) → *D*.*get*(*k*,*d*), also set *D*[*k*]=*d* if *k* not in *D*

to_dict (*strict=False*)

Dump the class to a dictionary. This method automatically removes the timestamp recursively in every object that has been edited in order to let MISP update the event accordingly.

to_json (*strict=False*)

Dump recursively any class of type *MISPAbstract* to a json string

update (*[E]*, ***F*) → *None*. Update *D* from mapping/iterable *E* and *F*.

If *E* present and has a *.keys()* method, does: for *k* in *E*: *D*[*k*] = *E*[*k*] If *E* present and lacks *.keys()* method, does: for (*k*, *v*) in *E*: *D*[*k*] = *v* In either case, this is followed by: for *k*, *v* in *F*.*items*(): *D*[*k*] = *v*

update_not_jsonable (**args*)

Add entries to the *__not_jsonable* list

values () → an object providing a view on *D*'s values

4.6 STIX

`pymisp.tools.stix.load_stix(stix, distribution=3, threat_level_id=2, analysis=0)`

Returns a *MISPEvent* object from a STIX package

`pymisp.tools.stix.make_stix_package(misp_event, to_json=False, to_xml=False)`

Returns a STIXPackage from a MISPEvent.

Optionally can return the package in json or xml.

4.7 OpenIOC

`tools.load_openioc()`

`tools.load_openioc_file()`

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