
py42

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Contents

1 Features	3
2 Content	5
Python Module Index	127
Index	129

license versions

py42 is a Python wrapper around the Code42 REST APIs that also provides several utility methods. Use py42 to develop your own tools for working with Code42 data while avoiding the overhead of session / authentication management.

CHAPTER 1

Features

- Managing users, organizations, and devices.
- Searching file events, alerts and auditlogs.
- Adding/Removing employees from detection lists.
- Managing cases.

2.1 User Guides

2.1.1 Getting started with py42

- *Licensing*
- *Installation*
- *Authentication*
- *Troubleshooting and Support*

Licensing

This project uses the MIT License.

Installation

You can install py42 from PyPI, from source, or from distribution.

From PyPI

The easiest and most common way is to use `pip`:

```
pip install py42
```

To install a previous version of py42 via `pip`, add the version number. For example, to install version 0.4.1, you would enter:

```
pip install py42==0.4.1
```

Visit the [project history](#) on PyPI to see all published versions.

From source

Alternatively, you can install py42 directly from [source code](#):

```
git clone https://github.com/code42/py42.git
```

When it finishes downloading, from the root project directory, run:

```
python setup.py install
```

From distribution

If you want create a `.tar` ball for installing elsewhere, run this command from the project's root directory:

```
python setup.py sdist
```

After it finishes building, the `.tar` ball will be located in the newly created `dist` directory. To install it, enter:

```
pip install py42-[VERSION].tar.gz
```

Authentication

Important: py42 currently only supports token-based authentication.

To initialize the `py42.sdk.SDKClient`, you must provide your credentials (basic authentication). If you are writing a script, we recommend using a secure password storage library, such as `keyring`, for retrieving passwords. However, subsequent requests use JWT authentication.

If your account uses [two-factor authentication](#), include the time-based one-time password (TOTP) when you initialize the `py42.sdk.SDKClient`. You can also provide a callable object that returns a TOTP. If you pass a callable, it will be called whenever a new TOTP is required to renew the authentication token.

Troubleshooting and support

Debug mode

Debug mode may be useful if you are trying to determine if you are experiencing permissions issues. When debug mode is on, py42 logs HTTP request data to the console's `stderr`. Use the following as a guide for how to turn on debug mode in py42:

```
import py42.sdk
import py42.settings
import logging

py42.settings.debug.level = logging.DEBUG
```

To provide your own logger, just replace `py42.settings.debug.logger`:

```

custom_logger = logging.getLogger("my_app")
handler = logging.FileHandler("my_app.log")
custom_logger.addHandler(handler)

py42.settings.debug.logger = custom_logger

```

File an issue on GitHub

If you are experiencing an issue with py42, you can create a *New issue* at the project repository. See the [Github guide on creating an issue](#) for more information.

Contact Code42 Support

If you don't have a GitHub account and are experiencing issues, contact [Code42 support](#).

What's next?

Learn the basics by following the [py42 Basics guide](#).

2.1.2 py42 Basics

This guide explains the basic concepts of py42. Learning these basics can help you gain confidence in writing your own scripts.

- *py42 Basics*
 - *Initialization*
 - *Paging*
 - *Py42Response*
 - *Dates*
 - *Exceptions*

The examples from this guide are intended as blanket concepts that apply to other areas in py42. For example, paging over users and devices works the same way as over departing employees and alerts.

Initialization

To use py42, you must initialize the SDK:

```

import py42.sdk

sdk = py42.sdk.from_local_account("https://console.us.code42.com", "my_username", "my_
↳password")

```

If your account uses [two-factor authentication](#), include the time-based one-time password:

```

sdk = py42.sdk.from_local_account("https://console.us.code42.com", "my_username", "my_
↳password", totp="123456")

```

Alternatively, define a function that returns the time-based one-time password:

```
def promptForPassword():
    return input("Please input your authentication code: ")

sdk = py42.sdk.from_local_account("https://console.us.code42.com", "my_username", "my_
→password", totp=promptForPassword)
```

Alternatively, define a function that returns the auth token based on user's authentication approach

```
import json
import requests
from requests.auth import HTTPBasicAuth
def jwt_provider():
    res = requests.get(
        'https://console.us.code42.com/api/v3/auth/jwt?useBody=true',
        auth=HTTPBasicAuth('username', 'password')
    )
    res_json = json.loads(res.text)
    return res_json['data']['v3_user_token']

sdk_client = py42.sdk.from_jwt_provider("https://console.us.code42.com", jwt_provider)
```

Paging

py42 clients often have a method with the name (or name prefix) `get_all` which handles iterating over pages of response items. Here are some examples:

- `py42.sdk.devices.get_all()`
- `py42.sdk.users.get_all()`
- `py42.sdk.legalhold.get_all_matters()`
- `py42.sdk.orgs.get_all()`

These methods each return a [python generator](#). Looping over the pages returned by the generator gives you access to the actual list of items. Use the code snippet below as an example for working with generators and paging in py42:

```
# Prints the username and notes for all departing employees

pages = sdk.detectionlists.departing_employee.get_all() # pages has 'generator' type
for page in pages: # page has 'Py42Response' type
    employees = page["items"]
    for employee in employees:
        username = employee["userName"]
        notes = employee["notes"]
        print(f"{employee}: {notes}")
```

Each page is a typical py42 response. The next section covers what you can do with `Py42Response` objects.

Py42Response

py42 clients return `Py42Response` objects which are intentionally similar to `requests.Response` objects. The `Py42Response` class hides unneeded metadata found on the raw `requests.Response.text` (which is available as `Py42Response.raw_text`), making it easier to get the most useful parts of the response. Also, the object is subscriptable, meaning you can access it with keys or indices (depending on the JSON type underneath data on Code42 API responses):

```
user = response["users"][0]
item = list_response[0]["itemProperty"]
```

To see all the keys on a response, observe its `.text` attribute. By printing the response, you essentially print its text property:

```
# Prints details about the response from a getting a detection list user.

response = sdk.detectionlists.get_user("test.user@example.com")
print(response) # JSON as Dictionary - same as print(response.text)
print(response.raw_text) # Raw API response
print(response.status_code) # 200
cloud_usernames = response["cloudUsernames"]
# if the response might not contain the property you're looking for,
# check to see if it exists with data.get
cloud_usernames = response.data.get("cloudUsernames")
if cloud_usernames:
    print(cloud_usernames)
```

Dates

Most dates in py42 support POSIX timestamps for date parameters. As an example, see `:class:sdk.queries.fileevents.filters.event_filter.EventTimestamp` which is used for querying file events by their event timestamp.

```
from datetime import datetime, timedelta

import py42.sdk
import py42.util
from py42.sdk.queries.fileevents.file_event_query import FileEventQuery
from py42.sdk.queries.fileevents.filters.event_filter import EventTimestamp

sdk = py42.sdk.from_local_account("https://console.us.code42.com", "my_username", "my_
→password")

# Get the epoch date 14 days in the past
query_date = datetime.utcnow() - timedelta(days=14)
query_epoch = (query_date - datetime.utcfromtimestamp(0)).total_seconds()

query = FileEventQuery(EventTimestamp.on_or_after(query_epoch))

response = sdk.securitydata.search_file_events(query)

# Print all the md5 Checksums from every file event within the past 14 days.
file_events = response["fileEvents"]
for event in file_events:
    print(event["md5Checksum"])
```

Exceptions

py42 throws some of its own exceptions when failures occur. py42 exceptions are found in the `py42.sdk.exceptions` module. Some of the available exceptions are:

- `Py42ForbiddenError`: (403) With your currently signed-in account, you don't have the necessary permissions to perform the action you were trying to do.

- Py42UnauthorizedError: (401) The username or password is incorrect.
- Py42InternalServerError: (500) Likely an unhandled issue on our servers.

For example, you are making a `create_sdk()` function and want to print a more user-friendly message when the provided username or password are incorrect:

```
import keyring
import py42.sdk
from py42.exceptions import Py42UnauthorizedError

def create_sdk(username):
    """Tries to initialize SDK. If unauthorized, prints message and exits."""
    try:
        password = keyring.get_password("my_program", username)
        return py42.sdk.from_local_account("www.authority.example.com", username,
        ↪password)
    except Py42UnauthorizedError:
        print("Invalid username or password.")
        exit(1)
```

2.1.3 Executing Searches

py42 features a powerful, flexible query system for quickly and easily searching file events and alerts. This guide explains the syntax for building queries and executing searches.

Search File Events

First, import the required modules and classes and create the SDK:

```
import py42.sdk
from py42.sdk.queries.fileevents.filters import *
from py42.sdk.queries.fileevents.file_event_query import FileEventQuery

sdk = py42.sdk.from_local_account("https://console.us.code42.com", "my_username", "my_
↪password")
```

You must create `query_filter.FilterGroup` objects to conduct searches. Filter groups have a type (in the form of a class), such as `EmailSender`, and an operator (in the form of a function), such as `is_in()`. Some example filter groups look like this:

```
email_filter = EmailSender.is_in(["test.user@example.com", "test.sender@example.com"])
exposure_filter = ExposureType.exists()
ip_filter = PrivateIPAddress.eq("127.0.0.1")
```

It is also possible to create `query_filter.FilterGroups` from raw JSON. For example:

```
raw_json = """{"filterClause":"AND","filters":[{"display":null,"value":"PID","operator
↪":"WITHIN_THE_LAST","term":"eventTimestamp"}]}"""
json_dict = json.loads(raw_json)
filter_group = FilterGroup.from_dict(json_dict)
```

There are two operators when building `file_event_query.FileEventQuery` objects: `any()` and `all()`. `any()` gets results where at least one of the filters is true and `all()` gets results where all of the filters are true.

```
any_query = FileEventQuery.any(email_filter, exposure_filter)
all_query = FileEventQuery.all(exposure_filter, ip_filter)
```

For convenience, the `FileEventQuery` constructor works the same way as `all()`:

```
all_query = FileEventQuery(exposure_filter, ip_filter)
```

You can put filters in an iterable and unpack them (using the `*` operator) in a `FileEventQuery`. This is a common use case for programs that need to conditionally build up filters:

```
# Conditionally appends filters to a list for crafting a query

filter_list = []
if need_shared:
    filter_list.append(Shared.is_true())
elif need_actors:
    actor_filter = Actor.is_in(["foo@example.com", "baz@example.com"])
    filter_list.append(actor_filter)
# Notice the use of the '*' operator to unpack filter_list
query = FileEventQuery(*filter_list)
```

To execute the search, use `securitydata.SecurityModule.search_file_events()`:

```
# Prints the MD5 hashes of all the files that caused exposure events where files were
↳moved to an external drive.

query = FileEventQuery(ExposureType.eq(ExposureType.REMOVABLE_MEDIA))
response = sdk.securitydata.search_file_events(query)
file_events = response["fileEvents"]
for event in file_events:
    print(event["md5Checksum"])
```

If the number of events exceeds 10,000 against a query, use `securitydata.SecurityModule.search_all_file_events()`:

```
query = FileEventQuery(ExposureType.eq(ExposureType.REMOVABLE_MEDIA))
response = sdk.securitydata.search_all_file_events(query)
file_events = response["fileEvents"]
for event in file_events:
    print(event["md5Checksum"])
while response["nextPgToken"] is not None:
    response = sdk.securitydata.search_all_file_events(query, page_token=response[
↳"nextPgToken"])
    file_events = response["fileEvents"]
    for event in file_events:
        print(event["md5Checksum"])
```

Search Alerts

Alert searches work in a very similar way to file event searches.

To start, import the filters and query object:

```
from py42.sdk.queries.alerts.filters import *
from py42.sdk.queries.alerts.alert_query import AlertQuery
```

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```
# Create a query for getting all open alerts with severity either 'High' or 'Medium'.  
  
filters = [AlertState.eq(AlertState.OPEN), Severity.is_in([Severity.HIGH, Severity.  
->MEDIUM])]  
query = AlertQuery(*filters)
```

To execute the search, use the `alerts.AlertClient.search()` method:

```
# Prints the actor property from each search result  
response = sdk.alerts.search(query)  
alerts = response["alerts"]  
for alert in alerts:  
    print(alert["actor"])
```

2.1.4 Departing Employees

Add or Remove Users From the Departing Employees List

Use py42 to quickly and easily manage users on the Departing Employees list. This guide describes how to add users to and remove users from the Departing Employees list.

To add a user to the Departing Employees list, all you need to know is the user's Code42 user UID.

To get the user UID based on username:

```
user = sdk.users.get_by_username("username")  
uid = user["users"][0]["userId"]
```

`user_id` below refers to the user UID.

```
from py42.exceptions import Py42UserAlreadyAddedError  
  
# Add the departing employee  
try:  
    response = sdk.detectionlists.departing_employee.add(user_id, departure_date)  
except Py42UserAlreadyAddedError:  
    print("The user is already on the Departing Employee list.")
```

Important: If the user is already in the Departing Employees list, you will get an `py42.exceptions.Py42UserAlreadyAddedError`.

To remove a user from the Departing Employees list:

```
sdk.detectionlists.departing_employee.remove(user_id)
```

For complete details, see [Departing Employee](#).

2.1.5 High Risk Employees

Add or Remove Users From the High Risk Employee List

Use py42 to quickly and easily manage users on the High Risk Employee list. This guide describes how to add users to and remove users from the High Risk Employee list.

To add a user to the High Risk Employees list, all you need to know is the user's Code42 user UID.

To get the user UID based on username:

```
user = sdk.users.get_by_username("username")
uid = user["users"][0]["userId"]
```

`user_id` below refers to the user UID.

```
# Add the high risk employee
response = sdk.detectionlists.high_risk_employee.add(user_id)
```

Important: If the user is already in the High Risk Employee list, you will get a `py42.exceptions.Py42UserAlreadyAddedError`.

To remove a user from the High Risk Employee list:

```
sdk.detectionlists.high_risk_employee.remove(user_id)
```

Add or Remove Risk Factors From Users

You can add/remove risk factor tags from a high risk user programmatically using the `add_user_risk_tags()` and `remove_user_risk_tags()` methods in the `detectionlists` module. Both methods take the `user_id` of a high risk employee, and a list of tags that you want to add/remove:

```
from py42.constants import RiskTags

tag_list = [RiskTags.CONTRACT_EMPLOYEE, RiskTags.ELEVATED_ACCESS_PRIVILEGES]

# Add the risk tags
response = sdk.detectionlists.add_user_risk_tags(user_id, tag_list)

# Remove the risk tags
response = sdk.detectionlists.remove_user_risk_tags(user_id, tag_list)
```

Constants for Risk tags are available at [Risk Tags](#)

For complete details, see [High Risk Employee](#).

2.1.6 Get Active Devices From an Organization

Using py42, you can retrieve information about the active devices in your organization for various use cases. For example, you might want to create a simple report that illustrates how many devices are running each operating system in your Code42 environment. Your user role determines which devices you have access to.

To begin, initialize the SDK:

```
import py42.sdk
sdk = py42.sdk.from_local_account("https://console.us.code42.com", "my_username", "my_
↳password")
```

The DeviceClient.get_all() Function

Next, use `py42.sdk.clients.devices.DeviceClient` to search for active devices in your organization. Use the `active` parameter on the `get_all()` method.

The `active` parameter has three different states:

- If `active` is set to `True`, you will only get active devices.
- If `active` is set to `False`, you will only get deactivated devices.
- If you don't use `active`, you will get all devices.

The `get_all()` function returns a generator of pages of devices. The devices returned by `get_all()` are based on the role and permissions of the user authenticating the SDK.

Examples

Here is an example using `get_all()` to get all active devices in your organization(s):

```
# For each active device in your organization, print its GUID and operating system

response = sdk.devices.get_all(active=True)
for page in response:
    devices = page["computers"]
    for device in devices:
        print(f"{device['guid']} - {device['osName']}")
```

As another example, you might have the Cross Org Administrator role and want to get all the active devices for just one of your organizations. To do this, use the `py42.sdk.clients.devices.OrgClient.get_by_name()` method. The `get_by_name()` method returns a list of organizations matching the name you give it.

```
# For each active device in the engineering organization, print its GUID and
↳operating system.

# Assume there is only one org named "Engineering"
engineering_org = sdk.orgs.get_by_name("Engineering")[0]
engineering_org_uid = engineering_org["orgUid"]
response = sdk.devices.get_all(active=True, org_uid=engineering_org_uid)
for page in response:
    devices = page["computers"]
    for device in devices:
        print(f"{device['guid']} - {device['osName']}")
```

We got the org UID from the engineering organization and then passed it as a parameter to the method to get all the devices, thus getting all the active devices in the engineering organization.

2.1.7 View or Modify device settings

Use `py42` to easily view and update the settings for devices with the `DeviceSettings` object.

The `DeviceSettings` object is a wrapper around the complex nested dict that the Code42 Computer API endpoint expects, providing helper properties that can be used to get/set values, without having to know the underlying nested structure.

To get started, create a `DeviceSettings` object for a given device `guid`:

```
device_settings = sdk.devices.get_settings(908765043021)
```

Some common non-modifiable details about the device are accessible as read-only properties:

```
>>> device_settings.computer_id
12345
>>> device_settings.guid
908765043021
>>> device_settings.org_id
42
>>> device_settings.user_id
494842
>>> device_settings.version
1525200006800
>>> device_settings.available_destinations
{'632540230984925185': 'PROe Cloud, US - West', '43': 'PROe Cloud, US'}
```

And to change settings, in most cases you can just assign new values to the corresponding attribute:

```
>>> device_settings.name
"Admin's Computer"
>>> device_settings.name = "Bob's Laptop"
```

Because device backup settings are tied to a given “Backup Set”, of which there could be more than one, the `DeviceSettings.backup_sets` property returns a list of `BackupSet` wrapper classes that help manage backup configuration settings.

```
>>> device_settings.backup_sets
[<BackupSet: id: 1, name: 'Primary - Backup Set'>, <BackupSet: id: 298010138, name:
↳ 'Secondary (large files) - Backup Set'>]
```

See the [Configuring Backup Sets](#) guide for details on managing backup set settings.

For convenience and logging purposes, all changes are tracked in the `.changes` property of the `DeviceSettings` objects.

```
>>> device_settings.changes
{'destinations': '{"43": 'PROe Cloud, US <LOCKED>'} -> {'43': 'PROe Cloud, US <LOCKED>
↳ ', '632540230984925185': 'PROe Cloud, US - West'}"}
```

Once you’ve made all the desired changes to a `DeviceSettings` object, you can post the changes by passing it to the `sdk.devices.update_settings` method, which returns a `Py42Response` object with the server response:

```
>>> sdk.devices.update_settings(device_settings)
<Py42Response [status=200, data={'active': True, 'address': '192.168.74.144:4247',
↳ 'alertState': 0, 'alertStates': ['OK'], ...}]>
```

Advanced Usage

Because `DeviceSettings` is a subclass of `UserDict` with added attributes/methods to help easily access/modify setting values, the underlying dict that ultimately gets posted to the server is stored on the `.data` attribute of `DeviceSettings` instances, and a `DeviceSettings` object otherwise behaves like a normal dict.

If there is a setting that is not yet implemented by py42 as a helper method/attribute, those values can be manually managed by treating the `DeviceSettings` object as a normal dict.

For example, setting the “backup status email frequency” value to only send every 10 days, via the helper attribute:

```
>>> device_settings.backup_status_email_frequency_days = 10
```

And doing the same thing by setting the value manually on the underlying dict:

```
>>> device_settings["settings"]["serviceBackupConfig"]["backupStatusEmailFreqInMinutes  
↪"] = "14400"
```

The benefits of the py42 helper attributes/methods is that the values mimic what the Console UI uses (in this case days vs the minutes expected by the API endpoint), so you don’t have to worry about doing conversions yourself. But since the underlying dict is accessible, you aren’t constrained to only what py42 has so far implemented.

Warning: When manually changing values on the underlying dict, those aren’t registered in the `.changes` property and thus won’t be captured in debug logs by the `sdk.devices.update_settings()` method.

2.1.8 View or Modify organization settings

Use py42 to easily view and update the settings for organizations with the `OrgSettings` object.

The `OrgSettings` object is a wrapper around the complex dicts that the Code42 `Org` and `OrgSettings` API endpoints expect, providing helper properties that can be used to get/set values, without having to know the underlying complexity of the APIs.

To get started, create a `OrgSettings` object for a given `org_id`:

```
org_settings = sdk.orgs.get_settings(org_id)
```

Some common non-modifiable details about the org are accessible as read-only properties:

```
>>> org_settings.org_id  
424345  
>>> org_settings.registration_key  
'XXXX-YYYY-AAAA-BBBB'
```

And to change settings, in most cases you can just assign new values to the appropriate attribute:

```
>>> org_settings.name  
'Admin Test Org'  
>>> org_settings.name = "Admin Production Org"
```

Configuring device backup defaults for an org is very similar to [configuring backup settings for an individual device](#), the `OrgSetting` object has a `.device_defaults` property that contains a `DeviceSettingsDefaults` object providing convenience attributes/methods for configuring defaults for all devices in the org.

```
>>> org_settings.device_defaults.backup_status_email_enabled  
True  
>>> org_settings.device_defaults.warning_alert_days  
7  
>>> org_settings.device_defaults.warning_alert_days = 14
```

Backup set configurations are contained in the `.device_defaults.backup_sets` property, and return a list of `BackupSet` wrapper classes for each set configured for the org:

```
>>> org_setting.device_defaults.backup_sets
[<BackupSet: id: 1, name: 'Production Environment - Backup Set'>]
```

See the [Configuring Backup Sets](#) guide for details on managing backup set settings.

Once you've made all the desired changes to an `OrgSettings` object, you can post the changes by passing it to the `sdk.orgs.update_settings()` method.

Because there are two endpoints that manage different organization settings values (`/api/Org` and `/api/OrgSettings`), the `sdk.orgs.update_settings()` method might make up to two requests to the server, depending on what `OrgSetting` values were actually modified. Because of the potential for two response values, `orgs.update_settings()` returns a `OrgSettingsResponse` namedtuple with the responses from both endpoints (if applicable), along with an `error` flag that indicates if any errors occurred. If an error occurred, the `org_response` or `org_settings_response` attributes will contain the `Py42Exception` that was raised instead of the `Py42Response`.

```
>>> sdk.orgs.update_settings(org_settings)
OrgSettingsResponse(error=False, org_response=<Py42Response [status=200, data={'active
↳ ': True, 'blocked': False, 'classification': 'BASIC', 'configInheritanceCounts': {},
↳ ...}]>, org_settings_response=None)
```

2.1.9 Configuring Backup Sets

Code42 devices' backup configurations are managed by "Backup Sets", which can be configured either at the individual device level, or set as default configurations at the org level.

The `py42 BackupSet` class can be used to view and change the settings of a given backup set.

`BackupSet` instances are automatically constructed by `py42` and attached to their corresponding `DeviceSettings` or `OrgSettings` objects, and stored in the `.backup_sets` properties (`DeviceSettings.backup_sets` or `OrgSettings.device_defaults.backup_sets`).

The following examples will use an individual device's backup set, but all the methods/attributes are the same when configuring an org device default backup set.

Create a `DeviceSettings` object and get the primary backup set object:

```
>>> device_settings
>>> device_settings.backup_sets
[<BackupSet: id: 1, name: 'Primary - Backup Set'>, <BackupSet: id: 298010138, name:
↳ 'Secondary (large files) - Backup Set'>]
>>> bs = device_settings.backup_sets[0]
```

View/update destinations:

```
>>> bs.destinations
{'43': 'PROe Cloud, US <LOCKED>'}
>>>
>>> bs.add_destination(587738803578339329)
>>> bs.remove_destination(43)
>>> bs.destinations
{'632540230984925185': 'PROe Cloud, US - West'}
```

View/update backup file selection/exclusion lists:

```
>>> bs.included_files
['C:/Users/Bob/']
>>> bs.excluded_files
[]
>>>
>>> bs.included_files.append("D:/")
>>> bs.excluded_files.append("C:/Users/Bob/Downloads")
```

You can also replace the existing list with a new one:

```
>>> bs.included_files = ["C:/Users/", "D:/"]
```

View/update filename exclusion patterns:

```
>>> bs.filename_exclusions
['.*Photos/']
>>> bs.filename_exclusions.append(".*Pictures/")
```

2.1.10 Cases

Use py42 to quickly and easily manage cases.

Create, View, or Modify Cases

To get started, create a new case.

```
case = sdk.cases.create("new-case")
```

Once you've created a case, or if you're working with an existing one, you can use the case's number to view details about that case.

```
# view details about a case
case = sdk.cases.get(case_number)
```

You can also access a case by its number to update its details. For example, to update a case's status to CLOSED:

```
from py42.constants import CaseStatus
response = sdk.cases.update(case_number, status=CaseStatus.CLOSED)
```

Case statuses can be set to either OPEN or CLOSED. Constants for these statuses are available at [Case Status](#)

View Details for all OPEN Cases

This section describes how to view the details of all cases with an OPEN status.

```
from py42.constants import CaseStatus
response = sdk.cases.get_all(status=CaseStatus.OPEN)
for page in response:
    cases = page["cases"]
```

(continues on next page)

(continued from previous page)

```
for case in cases:
    print(case)
```

For complete details, see *Cases*.

2.1.11 Trust Settings

Use py42 to quickly and easily manage trusted activities and resources, including domains and Slack workspaces.

Create, View, or Modify Trusted Activities

To get started, create a new trusted activity resource.

```
from py42.constants import TrustedActivityType

response = sdk.trustedactivities.create(TrustedActivityType.DOMAIN, "test-domain.com")
```

Constants for the each type of trusted activity are available at [Trusted Activity Type](#)

Once you've created a trusted activity, or if you're working with an existing one, you can use the trusted activity's `resourceId` to view details about it.

```
response = sdk.trustedactivities.get(resource_id)
```

You can also access a trusted activity by its `resourceId` to update its details. For example, to add a description to a trusted activity:

```
response = sdk.trustedactivities.update(resource_id, description="This is a trusted_
↪activity.")
```

To clear the description of a trusted activity, pass an empty string `description=""` to the `update()` method.

Important: If you try to create with the same value as an already existing activity, you will get a `py42.exceptions.Py42TrustedActivityConflictError`.

View Details for all Trusted Domains

This section describes how to view the details of all trusted activities of the type `DOMAIN`.

```
from py42.constants import TrustedActivityType

response = sdk.trustedactivities.get_all(type=TrustedActivityType.DOMAIN)

for page in response:
    resources = page["trustResources"]
    for resource in resources:
        print(resource)
```

For complete details, see *Trusted Activities*.

2.2 Method Documentation

The main SDK object by which all other methods are accessed is created by calling `py42.sdk.from_local_account` or `py42.sdk.from_jwt_provider`. For example:

```
import py42.sdk

sdk = py42.sdk.from_local_account("console.us.code42.com", "john.doe@example.com",
    ↪ "my_pw")
# access properties on 'sdk' to explore all the available methods
```

Important: *py42* only supports token-based authentication.

Explore the complete public documentation for *py42* below.

2.2.1 Alerts

class `py42.clients.alerts.AlertsClient` (*alert_service*, *alert_rules_client*)
Bases: `object`

A client to expose alert API.

[Rest Documentation](#)

get_aggregate_data (*alert_id*)
Gets alert summary with details about observations.

Parameters `alert_id` (*str*) – Gets the details for the alert with the given ID.

Returns `py42.response.Py42Response`

get_all_alert_details (*query*)
Helper method that combines `search_all_pages()` and `get_details()` methods to get alert objects with alert “observations” details populated. Returns an iterator of alert detail objects.

Note: automatically overrides the `page_size` property on the query object to limit search to 100 results per page, as that is the max that `get_details()` can request at a time.

Parameters `query` (`py42.sdk.queries.alerts.alert_query.AlertQuery`) –
An alert query.

Returns An object that iterates over alert detail items.

Return type `generator`

get_details (*alert_ids*)
Gets the details for the alerts with the given IDs, including the file event query that, when passed into a search, would result in events that could have triggered the alerts.

[Rest Documentation](#)

Parameters `alert_ids` (*str or list[str]*) – The identification number(s) of the alerts for which you want to get details for. Note: The alerts backend accepts a maximum of 100 alerts per request.

Returns A response containing the alert details.

Return type `py42.response.Py42Response`

reopen (*alert_ids*, *reason=None*)

Reopens the resolved alerts with the given IDs.

Parameters

- **alert_ids** (*str* or *list[str]*) – The identification number(s) for the alerts to reopen. Note: The alerts backend accepts a maximum of 100 alerts per request.
- **reason** (*str*, *optional*) – The reason the alerts are reopened. Defaults to None.

Returns *py42.response.Py42Response*

resolve (*alert_ids*, *reason=None*)

Resolves the alerts with the given IDs.

Parameters

- **alert_ids** (*str* or *list[str]*) – The identification number(s) for the alerts to resolve. Note: The alerts backend accepts a maximum of 100 alerts per request.
- **reason** (*str*, *optional*) – The reason the alerts are now resolved. Defaults to None.

Returns *py42.response.Py42Response*

rules

A collection of methods for managing alert rules.

Returns *py42.services.alertrules.AlertRulesClient*

search (*query*, *page_num=1*, *page_size=None*)

Searches alerts using the given *py42.sdk.queries.alerts.alert_query.AlertQuery*.

Rest Documentation

Parameters

- **query** (*py42.sdk.queries.alerts.alert_query.AlertQuery*) – An alert query. See the *Executing Searches User Guide* to learn more about how to construct a query.
- **page_num** (*int*, *optional*) – The page number to get. Defaults to 1.
- **page_size** (*int*, *optional*) – The number of items per page. Defaults to *py42.settings.items_per_page*.

Returns A response containing the alerts that match the given query.

Return type *py42.response.Py42Response*

search_all_pages (*query*)

Searches alerts using the given *py42.sdk.queries.alerts.alert_query.AlertQuery*.

Rest Documentation

Parameters **query** (*py42.sdk.queries.alerts.alert_query.AlertQuery*) – An alert query. See the *Executing Searches User Guide* to learn more about how to construct a query.

Returns An object that iterates over *py42.response.Py42Response* objects that each contain a page of alerts that match the given query.

Return type generator

update_note (*alert_id*, *note*)

Updates an alert's note.

Parameters

- **alert_id** (*str*) – The identification number of an alert to add a note to.
- **note** (*str*) – A note to attach to the alert. Must be less than 2000 characters. Defaults to None.

Returns *py42.response.Py42Response*

update_state (*status, alert_ids, note=None*)

Updates the status of alerts.

Parameters

- **status** (*str*) – Status to set from OPEN, RESOLVED, PENDING, IN_PROGRESS
- **alert_ids** (*str or list[str]*) – The identification number(s) for the alerts to reopen. Note: The alerts backend accepts a maximum of 100 alerts per request.
- **note** (*str, optional*) – A note to attach to the alerts. Must be less than 2000 characters. Defaults to None.

Returns *py42.response.Py42Response*

Filter Classes

The following classes construct filters for file event queries. Each filter class corresponds to an alert detail. Call the appropriate classmethod on your desired filter class with the value you want to match and it will return a `FilterGroup` object that can be passed to `AlertQuery`'s `all()` or `any()` methods to create complex queries that match multiple filter rules.

See *Executing Searches* for more on building search queries.

class `py42.sdk.queries.alerts.filters.alert_filter.Actor`

Bases: *py42.sdk.queries.alerts.filters.alert_filter.AlertQueryFilterStringField*

Class that filters alerts based on the username that originated the event(s) that triggered the alert.

classmethod `contains` (*value*)

Creates a *FilterGroup* for filtering results where the value with key `self._term` contains the given value. Useful for creating CONTAINS filters that are not yet supported in py42 or programmatically crafting filter groups.

Parameters `value` (*str*) – The value used to match on.

Returns *FilterGroup*

classmethod `eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `is_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_contains` (*value*)

Creates a *FilterGroup* for filtering results where the value with key `self._term` does not contain

the given value. Useful for creating DOES_NOT_CONTAIN filters that are not yet supported in py42 or programmatically crafting filter groups.

Parameters `value` (*str*) – The value used to exclude on.

Returns *FilterGroup*

classmethod `not_eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.alerts.filters.alert_filter.AlertQueryFilterStringField`

Bases: `py42.sdk.queries.query_filter.QueryFilterStringField`

classmethod `contains` (*value*)

Creates a *FilterGroup* for filtering results where the value with key `self._term` contains the given value. Useful for creating CONTAINS filters that are not yet supported in py42 or programmatically crafting filter groups.

Parameters `value` (*str*) – The value used to match on.

Returns *FilterGroup*

classmethod `eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `is_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_contains` (*value*)

Creates a *FilterGroup* for filtering results where the value with key `self._term` does not contain the given value. Useful for creating DOES_NOT_CONTAIN filters that are not yet supported in py42 or programmatically crafting filter groups.

Parameters `value` (*str*) – The value used to exclude on.

Returns *FilterGroup*

classmethod `not_eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided *value_list*.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.alerts.filters.alert_filter.AlertQueryFilterTimestampField`
Bases: `py42.sdk.queries.query_filter.QueryFilterTimestampField`

Helper class for creating alert filters where the search value is a timestamp.

classmethod `in_range` (*start_value*, *end_value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is in range between the provided *start_value* and *end_value*.

Parameters

- **start_value** (*str or int or float or datetime*) – The start value used to filter results.
- **end_value** (*str or int or float or datetime*) – The end value used to filter results.

Returns *FilterGroup*

classmethod `on_or_after` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term`` is on or after the provided ``value.

Parameters `value` (*str or int or float or datetime*) – The value used to filter results.

Returns *FilterGroup*

classmethod `on_or_before` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is on or before the provided value.

Parameters `value` (*str or int or float or datetime*) – The value used to filter results.

Returns *FilterGroup*

classmethod `on_same_day` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is within the same calendar day as the provided value.

Parameters `value` (*str or int or float or datetime*) – The value used to filter results.

Returns *FilterGroup*

class `py42.sdk.queries.alerts.filters.alert_filter.AlertState`

Bases: `py42.sdk.queries.query_filter.QueryFilterStringField`, `py42.choices.Choices`

Class that filters alerts based on alert state.

Available options are:

- `AlertState.OPEN`

- `AlertState.DISMISSED`
- `AlertState.PENDING`
- `AlertState.IN_PROGRESS`

classmethod `choices()`

Returns attribute values for the given class.

Returns A list containing the attribute values of the given class.

Return type (list)

classmethod `eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `is_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.alerts.filters.alert_filter.DateObserved`

Bases: `py42.sdk.queries.alerts.filters.alert_filter.AlertQueryFilterTimestampField`

Class that filters alerts based on the timestamp the alert was triggered.

classmethod `in_range(start_value, end_value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is in range between the provided `start_value` and `end_value`.

Parameters

- **start_value** (*str or int or float or datetime*) – The start value used to filter results.
- **end_value** (*str or int or float or datetime*) – The end value used to filter results.

Returns *FilterGroup*

classmethod `on_or_after` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term`` is on or after the provided `value`.

Parameters `value` (*str or int or float or datetime*) – The value used to filter results.

Returns *FilterGroup*

classmethod `on_or_before` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is on or before the provided value.

Parameters `value` (*str or int or float or datetime*) – The value used to filter results.

Returns *FilterGroup*

classmethod `on_same_day` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is within the same calendar day as the provided value.

Parameters `value` (*str or int or float or datetime*) – The value used to filter results.

Returns *FilterGroup*

class `py42.sdk.queries.alerts.filters.alert_filter.Description`

Bases: `py42.sdk.queries.alerts.filters.alert_filter.AlertQueryFilterStringField`

Class that filters alerts based on rule description text.

classmethod `contains` (*value*)

Creates a *FilterGroup* for filtering results where the value with key `self._term` contains the given value. Useful for creating CONTAINS filters that are not yet supported in py42 or programmatically crafting filter groups.

Parameters `value` (*str*) – The value used to match on.

Returns *FilterGroup*

classmethod `eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided value.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `is_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_contains` (*value*)

Creates a *FilterGroup* for filtering results where the value with key `self._term` does not contain the given value. Useful for creating DOES_NOT_CONTAIN filters that are not yet supported in py42 or programmatically crafting filter groups.

Parameters `value` (*str*) – The value used to exclude on.

Returns *FilterGroup*

classmethod not_eq (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided *value*.

Parameters *value* (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod not_in (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided *value_list*.

Parameters *value_list* (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.alerts.filters.alert_filter.RuleId`

Bases: `py42.sdk.queries.query_filter.QueryFilterStringField`

Class that filters alerts based on rule identifier.

classmethod eq (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided *value*.

Parameters *value* (*str*) – The value to match on.

Returns *FilterGroup*

classmethod is_in (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided *value_list*.

Parameters *value_list* (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod not_eq (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided *value*.

Parameters *value* (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod not_in (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided *value_list*.

Parameters *value_list* (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.alerts.filters.alert_filter.RuleName`

Bases: `py42.sdk.queries.alerts.filters.alert_filter.AlertQueryFilterStringField`

Class that filters alerts based on rule name.

classmethod contains (*value*)

Creates a *FilterGroup* for filtering results where the value with key `self._term` contains the given *value*. Useful for creating CONTAINS filters that are not yet supported in py42 or programmatically crafting filter groups.

Parameters *value* (*str*) – The value used to match on.

Returns *FilterGroup*

classmethod `eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided *value*.

Parameters *value* (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `is_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided *value_list*.

Parameters *value_list* (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_contains` (*value*)

Creates a *FilterGroup* for filtering results where the value with key `self._term` does not contain the given value. Useful for creating DOES_NOT_CONTAIN filters that are not yet supported in py42 or programmatically crafting filter groups.

Parameters *value* (*str*) – The value used to exclude on.

Returns *FilterGroup*

classmethod `not_eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided *value*.

Parameters *value* (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided *value_list*.

Parameters *value_list* (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.alerts.filters.alert_filter.RuleSource`

Bases: `py42.sdk.queries.query_filter.QueryFilterStringField`, `py42.choices.Choices`

Class that filters alerts based on rule source.

Available options are:

- `RuleSource.ALERTING`
- `RuleSource.DEPARTING_EMPLOYEE`
- `RuleSource.HIGH_RISK_EMPLOYEE`

classmethod `choices` ()

Returns attribute values for the given class.

Returns A list containing the attribute values of the given class.

Return type (*list*)

classmethod `eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided *value*.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `is_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.alerts.filters.alert_filter.RuleType`

Bases: `py42.sdk.queries.query_filter.QueryFilterStringField`, `py42.choices.Choices`

Class that filters alerts based on rule type.

Available options are:

- `RuleType.ENDPOINT_EXFILTRATION`
- `RuleType.CLOUD_SHARE_PERMISSIONS`
- `RuleType.FILE_TYPE_MISMATCH`

classmethod `choices` ()

Returns attribute values for the given class.

Returns A list containing the attribute values of the given class.

Return type (*list*)

classmethod `eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `is_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided *value*.

Parameters *value* (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided *value_list*.

Parameters *value_list* (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.alerts.filters.alert_filter.Severity`

Bases: `py42.sdk.queries.query_filter.QueryFilterStringField`, `py42.choices.Choices`

Class that filters alerts based on severity.

Available options are:

- `Severity.CRITICAL`
- `Severity.HIGH`
- `Severity.MODERATE`
- `Severity.LOW`

classmethod `choices` ()

Returns attribute values for the given class.

Returns A list containing the attribute values of the given class.

Return type (*list*)

classmethod `eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided *value*.

Parameters *value* (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `is_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided *value_list*.

Parameters *value_list* (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided *value*.

Parameters *value* (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided *value_list*.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

`py42.sdk.queries.alerts.filters.alert_filter.create_contains_filter_group` (*term*, *value*)
Creates a *FilterGroup* for filtering results where the value with key `term` contains the given value. Useful for creating CONTAINS filters that are not yet supported in py42 or programmatically crafting filter groups.

Parameters

- **term** – (str): The term of the filter, such as actor.
- **value** (*str*) – The value used to match on.

Returns *FilterGroup*

`py42.sdk.queries.alerts.filters.alert_filter.create_not_contains_filter_group` (*term*, *value*)
Creates a *FilterGroup* for filtering results where the value with key `term` does not contain the given value. Useful for creating DOES_NOT_CONTAIN filters that are not yet supported in py42 or programmatically crafting filter groups.

Parameters

- **term** – (str): The term of the filter, such as actor.
- **value** (*str*) – The value used to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.alerts.alert_query.AlertQuery` (*args, **kwargs)

Bases: `py42.sdk.queries.BaseQuery`

Helper class for building Code42 Alert queries.

An `AlertQuery` instance's `all()` and `any()` take one or more *FilterGroup* objects to construct a query that can be passed to the `AlertService.search()` method. `all()` returns results that match all of the provided filter criteria, `any()` will return results that match any of the filters.

For convenience, the *AlertQuery* constructor does the same as `all()`.

Usage example:

```
state_filter = AlertState.eq(AlertState.OPEN)
rule_name_filter = RuleName.contains("EmailRule")
query = AlertQuery.all(state_filter, rule_name_filter)
```

2.2.2 Alert Rules

class `py42.clients.alertrules.AlertRulesClient` (*alerts_service*, *alert_rules_service*)

Bases: `object`

[Rest Documentation](#)

add_user (*rule_id*, *user_id*)

Update alert rule to monitor user aliases against the `Uid` for the given rule id. [Rest Documentation](#)

Parameters

- **rule_id** (*str*) – Observer Id of a rule to be updated.
- **user_id** (*str*) – The Code42 `userId` of the user to add to the alert

Returns `py42.response.Py42Response`

cloudshare

A collection of methods for managing cloud sharing alert rules.

Returns `py42.services.alertrules.cloud_share.CloudShareService`

exfiltration

A collection of methods for managing exfiltration alert rules.

Returns `py42.services.alertrules.exfiltration.ExfiltrationService`

filetypemismatch

A collection of methods for managing file type mismatch alert rules.

Returns `py42.services.alertrules.file_type_mismatch.FileTypeMismatchService`

get_all (*sort_key='CreatedAt', sort_direction='DESC'*)

Fetch all available rules.

Parameters

- **sort_key** (*str, optional*) – Sort results based by field. Defaults to ‘CreatedAt’.
- **sort_direction** (*str, optional*) – ASC or DESC. Constants available at `py42.constants.SortDirection`. Defaults to “DESC”

Returns An object that iterates over `py42.response.Py42Response` objects that each contain a page of rules.

Return type generator

get_all_by_name (*rule_name*)

Search for matching rules by name.

Parameters **rule_name** (*str*) – Rule name to search for, case insensitive search.

Returns An object that iterates over `py42.response.Py42Response` objects that each contain a page of rules with the given name.

Return type generator

get_by_observer_id (*observer_id*)

Get the rule with the matching observer ID.

Parameters **observer_id** (*str*) – The observer ID of the rule to return.

Returns `py42.response.Py42Response`

get_page (*sort_key='CreatedAt', sort_direction='DESC', page_num=1, page_size=None*)

Gets a page of alert rules. Note that you can use `page_size` here the same way as other methods that have a `page_size` parameter in `py42`. However, under the hood, it subtracts one from the given page size in the implementation as the Code42 alerts API expected the start page to be zero while the rest of the Code42 APIs expect the start page to be one.

Parameters

- **sort_key** (*str, optional*) – Sort results based by field. Defaults to “CreatedAt”.
- **sort_direction** (*str, optional*) – ASC or DESC. Constants available at `py42.constants.SortDirection`. Defaults to “DESC”.
- **page_num** (*int, optional*) – The page number to get. Defaults to 1.

- **page_size** (*int, optional*) – The number of items per page. Defaults to `py42.settings.items_per_page`.

Returns `py42.response.Py42Response`

remove_all_users (*rule_id*)

Update alert rule criteria to remove all users the from the alert rule.

[Rest Documentation](#)

Parameters **rule_id** (*str*) – Observer rule Id of a rule to be updated.

Returns `py42.response.Py42Response`

remove_user (*rule_id, user_id*)

Update alert rule criteria to remove a user and all its aliases from a rule. [Rest Documentation](#)

Parameters

- **rule_id** (*str*) – Observer rule Id of a rule to be updated.
- **user_id** (*str*) – The Code42 userUid of the user to remove from the alert

Returns `py42.response.Py42Response`

Exfiltration rules

class `py42.services.alertrules.ExfiltrationService` (*connection, tenant_id*)

Bases: `py42.services.BaseService`

get (*rule_id*)

Fetch exfiltration alert rule by rule id.

Parameters **rule_id** (*str*) – Observer rule Id of a rule to be fetched.

Returns `py42.response.Py42Response`

Cloud share rules

class `py42.services.alertrules.CloudShareService` (*connection, tenant_id*)

Bases: `py42.services.BaseService`

get (*rule_id*)

Fetch cloud share alert rule by rule id.

Parameters **rule_id** (*str*) – Observer rule Id of a rule to be fetched.

Returns `py42.response.Py42Response`

File type mismatch rules

class `py42.services.alertrules.FileTypeMismatchService` (*connection, tenant_id*)

Bases: `py42.services.BaseService`

get (*rule_id*)

Fetch File type mismatch alert rules by rule id.

Parameters **rule_id** (*str*) – Observer rule Id of a rule to be fetched.

Returns `py42.response.Py42Response`

2.2.3 Archive

class `py42.clients.archive.ArchiveClient` (*archive_accessor_factory*, *archive_service*)

Bases: `object`

A module for getting information about backup archives on storage nodes along with functionality for streaming a file from backup.

get_all_by_device_guid (*device_guid*)

Gets archive information for a device.

Parameters `device_guid` (*str*) – The GUID for the device.

Returns An object that iterates over `py42.response.Py42Response` objects that each contain a page of archives.

Return type generator

get_all_device_restore_history (*days*, *device_id*)

Gets all restore jobs from the past given days for the device with the given ID.

Parameters

- **days** (*int*) – Number of days of restore history to retrieve.
- **device_id** (*int*) – The identification number of the device to get restore history for.

Returns An object that iterates over `py42.response.Py42Response` objects that each contain a page of restore history.

Return type generator

get_all_org_cold_storage_archives (*org_id*, *include_child_orgs=True*,
sort_key='archiveHoldExpireDate', *sort_dir='asc'*)

Returns a detailed list of cold storage archive information for a given org ID.

Parameters

- **org_id** (*str*) – The ID of a Code42 organization.
- **include_child_orgs** (*bool*, *optional*) – Determines whether cold storage information from the Org's children is also returned. Defaults to True.
- **sort_key** (*str*, *optional*) – Sets the property by which the returned results will be sorted. Choose from `archiveHoldExpireDate`, `orgName`, `mountPointName`, `archiveBytes`, and `archiveType`. Defaults to `archiveHoldExpireDate`.
- **sort_dir** (*str*, *optional*) – Sets the order by which `sort_key` should be sorted. Choose from `asc` or `desc`. Defaults to `asc`.

Returns An object that iterates over `py42.response.Py42Response` objects that each contain a page of cold storage archive information.

Return type generator

get_all_org_restore_history (*days*, *org_id*)

Gets all restore jobs from the past given days for the organization with the given ID.

Parameters

- **days** (*int*) – Number of days of restore history to retrieve.
- **org_id** (*int*) – The identification number of the organization to get restore history for.

Returns An object that iterates over `py42.response.Py42Response` objects that each contain a page of restore history.

Return type generator

get_all_user_restore_history (*days*, *user_id*)

Gets all restore jobs from the past given days for the user with the given ID.

Parameters

- **days** (*int*) – Number of days of restore history to retrieve.
- **user_id** (*int*) – The identification number of the user to get restore history for.

Returns An object that iterates over `py42.response.Py42Response` objects that each contain a page of restore history.

Return type generator

get_backup_sets (*device_guid*, *destination_guid*)

Gets all backup set names/identifiers referring to a single destination for a specific device. [Learn more about backup sets.](#)

Parameters

- **device_guid** (*str*) – The GUID of the device to get backup sets for.
- **destination_guid** (*str*) – The GUID of the destination containing the archive to get backup sets for.

Returns A response containing the backup sets.

Return type `py42.response.Py42Response`

get_by_archive_guid (*archive_guid*)

Gets single archive information by GUID.

Parameters **archive_guid** (*str*) – The GUID for the archive.

Returns A response containing archive information.

Return type `py42.response.Py42Response`

stream_from_backup (*file_paths*, *device_guid*, *destination_guid=None*, *archive_password=None*, *encryption_key=None*, *show_deleted=None*, *file_size_calc_timeout=10*)

Streams a file from a backup archive to memory. This method uses the same endpoint as restoring from Console and therefore has all the same considerations.

[Support Documentation](#)

Parameters

- **file_paths** (*str* or *list of str*) – The path or list of paths to the files or directories in the archive.
- **device_guid** (*str*) – The GUID of the device the file belongs to.
- **destination_guid** (*str*, *optional*) – The GUID of the destination that stores the backup of the file. If `None`, it will use the first destination GUID it finds for your device. ‘destination_guid’ may be useful if the file is missing from one of your destinations or if you want to optimize performance. Defaults to `None`.
- **archive_password** (*str* or *None*, *optional*) – The password for the archive, if password-protected. This is only relevant to users with archive key password security. Defaults to `None`.

- **encryption_key** (*str or None, optional*) – A custom encryption key for decrypting an archive’s file contents, necessary for restoring files. This is only relevant to users with custom key archive security. Defaults to None.
- **show_deleted** (*bool, optional*) – Set to True to include deleted files when restoring a directory. Defaults to None.
- **file_size_calc_timeout** (*int, optional*) – Set to limit the amount of seconds spent calculating file sizes when crafting the request. Set to 0 or None to ignore file sizes altogether. Defaults to 10.

Returns A response containing the streamed content.

Return type `py42.response.Py42Response`

Usage example:

```
stream_response = sdk.archive.stream_from_backup("/full/path/to/file.txt",
↪ "1234567890")
with open("/path/to/save/file/to", "wb") as f:
    for chunk in stream_response.iter_content(chunk_size=128):
        if chunk:
            f.write(chunk)
```

In certain cases, you will have to unzip the results:

```
import zipfile
with zipfile.ZipFile("downloaded_directory.zip", "r") as zf:
    zf.extractall(".")
```

stream_to_device (*file_paths, device_guid, accepting_device_guid, restore_path, destination_guid=None, archive_password=None, encryption_key=None, show_deleted=None, overwrite_existing_files=False, file_size_calc_timeout=10*)

Streams a file from a backup archive to a specified device.

Parameters

- **file_paths** (*str or list of str*) – The path or list of paths to the files or directories in the archive.
- **device_guid** (*str*) – The GUID of the device the file belongs to.
- **accepting_device_guid** (*str*) – The GUID of the device accepting the restore.
- **restore_path** (*str, optional*) – The path on the accepting device where the restore will be saved. Alternatively, pass in the value `ORIGINAL_LOCATION` to restore the file to the original location, which may be the case if you are replacing a device.
- **destination_guid** (*str, optional*) – The GUID of the destination that stores the backup of the file. If None, it will use the first destination GUID it finds for your device. ‘destination_guid’ may be useful if the file is missing from one of your destinations or if you want to optimize performance. Defaults to None.
- **archive_password** (*str or None, optional*) – The password for the archive, if password-protected. This is only relevant to users with archive key password security. Defaults to None.
- **encryption_key** (*str or None, optional*) – A custom encryption key for decrypting an archive’s file contents, necessary for restoring files. This is only relevant to users with custom key archive security. Defaults to None.

- **show_deleted** (*bool, optional*) – Set to True to include deleted files when restoring a directory. Defaults to None.
- **overwrite_existing_files** (*bool, optional*) – to overwrite any existing files with the restored data. If False (the default), any existing files that match a path being restored will first get renamed.
- **file_size_calc_timeout** (*int, optional*) – Set to limit the amount of seconds spent calculating file sizes when crafting the request. Set to 0 or None to ignore file sizes altogether. Defaults to 10.

Returns `py42.response.Py42Response`.

update_cold_storage_purge_date (*archive_guid, purge_date*)

Updates the cold storage purge date for a specified archive.

Parameters

- **archive_guid** (*str*) – The identification number of the archive that should be updated
- **purge_date** (*str*) – The date on which the archive should be purged in yyyy-MM-dd format

Returns the response from the ColdStorage API.

Return type `py42.response.Py42Response`

2.2.4 Audit Logs

class `py42.clients.auditlogs.AuditLogsClient` (*audit_log_service*)

Bases: `object`

Rest documentation

get_all (*begin_time=None, end_time=None, event_types=None, user_ids=None, usernames=None, user_ip_addresses=None, affected_user_ids=None, affected_usernames=None, **kwargs*)

Retrieve audit logs, filtered based on given arguments. [Rest Documentation](#)

Parameters

- **begin_time** (*int or float or str or datetime, optional*) – Timestamp in milliseconds or str format “yyyy-MM-dd HH:MM:SS” or a datetime instance. Defaults to None.
- **end_time** (*int or float or str or datetime, optional*) – Timestamp in milliseconds or str format “yyyy-MM-dd HH:MM:SS” or a datetime instance. Defaults to None.
- **event_types** (*str or list, optional*) – A str or list of str of valid event types. Defaults to None.
- **user_ids** (*str or list, optional*) – A str or list of str of Code42 userUids. Defaults to None.
- **usernames** (*str or list, optional*) – A str or list of str of Code42 usernames. Defaults to None.
- **user_ip_addresses** (*str or list, optional*) – A str or list of str of user ip addresses. Defaults to None.
- **affected_user_ids** (*str or list, optional*) – A str or list of str of affected Code42 userUids. Defaults to None.

- **affected_usernames** (*str or list, optional*) – A str or list of str of affected Code42 usernames. Defaults to None.

Returns An object that iterates over `py42.response.Py42Response` objects that each contain a page of audit logs.

Return type generator

get_page (*page_num=1, page_size=None, begin_time=None, end_time=None, event_types=None, user_ids=None, usernames=None, user_ip_addresses=None, affected_user_ids=None, affected_usernames=None, **kwargs*)

Retrieve a page of audit logs, filtered based on given arguments.

Note: `page_num` here can be used same way as other methods that have a `page_num` parameter in `py42`. However, under the hood, it subtracts one from the given `page_num` in the implementation as the Code42 Audit-Logs API expects the start page to be zero. [Rest Documentation](#)

Parameters

- **page_num** (*int, optional*) – The page number to get. Defaults to 1.
- **page_size** (*int, optional*) – The number of items per page. Defaults to `py42.settings.items_per_page`.
- **begin_time** (*int or float or str or datetime, optional*) – Timestamp in milliseconds or str format “yyyy-MM-dd HH:MM:SS” or a datetime instance. Defaults to None.
- **end_time** (*int or float or str or datetime, optional*) – Timestamp in milliseconds or str format “yyyy-MM-dd HH:MM:SS” or a datetime instance. Defaults to None.
- **event_types** (*str or list, optional*) – A str or list of str of valid event types. Defaults to None.
- **user_ids** (*str or list, optional*) – A str or list of str of Code42 userUids. Defaults to None.
- **usernames** (*str or list, optional*) – A str or list of str of Code42 usernames. Defaults to None.
- **user_ip_addresses** (*str or list, optional*) – A str or list of str of user ip addresses. Defaults to None.
- **affected_user_ids** (*str or list, optional*) – A str or list of str of affected Code42 userUids. Defaults to None.
- **affected_usernames** (*str or list, optional*) – A str or list of str of affected Code42 usernames. Defaults to None.

Returns `py42.response.Py42Response`

2.2.5 Backup Sets

```
class py42.clients.settings.device_settings.BackupSet (settings_manager,  
                                                    backup_set_dict)
```

Bases: `collections.UserDict`

Helper class for managing device backup sets and Org device default backup sets.

add_destination (*destination_guid*)

Adds a destination to be used by this backup set. Raises a `Py42Error` if the supplied destination guid is not available to the parent device/org.

Parameters `destination_guid` (*str*, *int*) – The globally unique identifier of the destination to be added.

destinations

Returns a dict of the destinations used for backup for the backup set. Dict keys are the destination guides, values are the destination names.

excluded_files

Returns the list of files/folders excluded from the backup selection. Items can be added/removed from this list via normal list methods, or assigning a new list of files to this attribute to replace the existing one.

filename_exclusions

Returns the list of regex patterns used to exclude file paths from the backup selection. Items can be added/removed from this list via normal list methods, or assigning a new list of patterns to this attribute to replace the existing one.

included_files

Returns the list of files/folders included in the backup selection. Items can be added/removed from this list via normal list methods, or assigning a new list of files to this attribute to replace the existing one.

lock_destination (*destination_guid*)

Locks an in-use destination, disallowing the device owner from removing this destination from their backup. Raises a `Py42Error` if the supplied destination guid is not in use on this backup set, or not available to the parent device/org.

locked

Indicates whether the backup set as a whole is locked. If True, individual settings for this backup set (except for Destination settings), cannot be modified.

remove_destination (*destination_guid*)

Removes a destination from use by this backup set.

Parameters `destination_guid` (*str*, *int*) – The globally unique identifier of the destination to be removed.

unlock_destination (*destination_guid*)

Unlocks an in-use destination, allowing the device owner to remove this destination from their backup. Raises a `Py42Error` if the supplied destination guid is not in use on this backup set, or not available to the parent device/org.

2.2.6 Cases

class `py42.clients.cases.CaseStatus`

Bases: `py42.choices.Choices`

Constants available for setting the status of a case.

- OPEN
- CLOSED

class `py42.clients.cases.CasesClient` (*cases_service*, *cases_file_event_service*)

Bases: `object`

A client to expose cases API.

[Rest documentation](#)

create (*name*, *subject=None*, *assignee=None*, *description=None*, *findings=None*)
Creates a new case. [Rest documentation](#)

Parameters

- **name** (*str*) – Name of the case.
- **subject** (*str*, *optional*) – User UID of a subject of a case.
- **assignee** (*str*, *optional*) – User UID of the assignee.
- **description** (*str*, *optional*) – Description of the case
- **findings** (*str*, *optional*) – Observations of the case.

Returns *py42.response.Py42Response*

export_summary (*case_number*)
Provides case summary to download as a PDF file. [Rest documentation](#)

Parameters **case_number** (*int*) – Case number of the case.

Returns *py42.response.Py42Response*

file_events

A collection of methods for managing file events associated with a given case.

Returns *py42.services.casesfileevents.CasesFileEventsService*

get (*case_number*)
Retrieve case details by case number. [Rest documentation](#)

Parameters **case_number** (*int*) – Case number of the case.

Returns *py42.response.Py42Response*

get_all (*name=None*, *status=None*, *min_create_time=None*, *max_create_time=None*,
min_update_time=None, *max_update_time=None*, *subject=None*, *assignee=None*,
page_size=100, *sort_direction='asc'*, *sort_key='number'*, ***kwargs*)
Gets all cases. [Rest documentation](#)

Parameters

- **name** (*str*, *optional*) – Filter results by case name, matches partial names. Defaults to None.
- **status** (*str*, *optional*) – Filter results by case status. OPEN or CLOSED. Defaults to None. Constants available at *py42.constants.CaseStatus*.
- **min_create_time** (*str or int or float or datetime*, *optional*) – Filter results by case creation time, start time. str format %Y-%m-%d %H:%M:%S. Defaults to None.
- **max_create_time** (*str or int or float or datetime*, *optional*) – Filter results by case creation time, end time. str format %Y-%m-%d %H:%M:%S. Defaults to None.
- **min_update_time** (*str or int or float or datetime*, *optional*) – Filter results by last updated time, start time. str format %Y-%m-%d %H:%M:%S. Defaults to None.
- **max_update_time** (*str or int or float or datetime*, *optional*) – Filter results by last updated time, end time. str format %Y-%m-%d %H:%M:%S. Defaults to None.

- **subject** (*str, optional*) – Filter results based on User UID of a subject of a case. Defaults to None.
- **assignee** (*str, optional*) – Filter results based on User UID of an assignee of a case. Defaults to None.
- **page_size** (*int, optional*) – Number of results to return per page. Defaults to 100.
- **sort_direction** (*str, optional*) – The direction on which to sort the response, based on the corresponding sort key. *asc* or *desc*. Defaults to *asc*.
- **sort_key** (*str, optional*) – Values on which the response will be sorted. Defaults to “number”. Available options are *name, number, createdAt, updatedAt, status, assigneeUsername, subjectUsername*.

Returns An object that iterates over `py42.response.Py42Response` objects that each contain a page of cases.

Return type generator

`get_page` (*page_num, name=None, status=None, min_create_time=None, max_create_time=None, min_update_time=None, max_update_time=None, subject=None, assignee=None, page_size=100, sort_direction='asc', sort_key='number', **kwargs*)
Gets individual page of cases. [Rest documentation](#)

Parameters

- **page_num** (*int*) – The page number to request.
- **name** (*str, optional*) – Filter results by case name, matches partial names. Defaults to None.
- **status** (*str, optional*) – Filter results by case status. OPEN or CLOSED. Defaults to None. Constants available at `py42.constants.CaseStatus`.
- **min_create_time** (*str or int or float or datetime, optional*) – Filter results by case creation time, start time. str format `%Y-%m-%d %H:%M:%S`. Defaults to None.
- **max_create_time** (*str or int or float or datetime, optional*) – Filter results by case creation time, end time. str format `%Y-%m-%d %H:%M:%S`. Defaults to None.
- **min_update_time** (*str or int or float or datetime, optional*) – Filter results by last updated time, start time. str format `%Y-%m-%d %H:%M:%S`. Defaults to None.
- **max_update_time** (*str or int or float or datetime, optional*) – Filter results by last updated time, end time. str format `%Y-%m-%d %H:%M:%S`. Defaults to None.
- **subject** (*str, optional*) – Filter results based on User UID of a subject of a case. Defaults to None.
- **assignee** (*str, optional*) – Filter results based on User UID of an assignee of a case. Defaults to None.
- **page_size** (*int, optional*) – Number of results to return per page. Defaults to 100.
- **sort_direction** (*str, optional*) – The direction on which to sort the response, based on the corresponding sort key. *asc* or *desc*. Defaults to *asc*.

- **sort_key** (*str, optional*) – Values on which the response will be sorted. Defaults to “number”. Available options are *name, number, createdAt, updatedAt, status, assigneeUsername, subjectUsername*.

Returns *py42.response.Py42Response*

update (*case_number, name=None, subject=None, assignee=None, description=None, findings=None, status=None*)

Updates case details for the given case number. [Rest documentation](#)

Parameters

- **case_number** (*int*) – Case number of the case.
- **name** (*str, optional*) – Name of the case. Defaults to None.
- **subject** (*str, optional*) – A subject of the case. Defaults to None.
- **assignee** (*str, optional*) – User UID of the assignee. Defaults to None.
- **description** (*str, optional*) – Description of the case. Defaults to None.
- **findings** (*str, optional*) – Notes on the case. Defaults to None.
- **status** (*str, optional*) – Status of the case. OPEN or CLOSED. Defaults to None. Constants available at *py42.constants.CaseStatus*.

Returns *py42.response.Py42Response*

Cases File Events

class *py42.services.casesfileevents.CasesFileEventsService* (*connection*)
Bases: *py42.services.BaseService*

add (*case_number, event_id*)
Adds an event to the case.

Parameters

- **case_number** (*int*) – Case number of the case.
- **event_id** (*str*) – Event id to add to the case.

Returns *py42.response.Py42Response*

delete (*case_number, event_id*)
Deletes an event from the case.

Parameters

- **case_number** (*int*) – Case number of the case.
- **event_id** (*str*) – Event id to remove from case.

Returns *py42.response.Py42Response*

get (*case_number, event_id*)
Gets information of a specified event from the case.

Parameters

- **case_number** (*int*) – Case number of the case.
- **event_id** (*str*) – Event id to fetch from the case.

Returns *py42.response.Py42Response*

get_all (*case_number*)

Gets all events associated with the given case.

Parameters **case_number** (*int*) – Case number of the case.

Returns *py42.response.Py42Response*

2.2.7 Shared Constants

class `py42.constants.SortDirection`

Bases: `py42.choices.Choices`

Constants available to set Code42 request *sort_direction* when sorting returned lists in responses.

- ASC
- DESC

class `py42.constants.CaseStatus`

Bases: `py42.choices.Choices`

Constants available for setting the status of a case.

- OPEN
- CLOSED

class `py42.constants.RiskTags`

Bases: `py42.choices.Choices`

Constants available as risk tags for *add_user_risk_tags()* and *remove_user_risk_tags()*.

- FLIGHT_RISK
- HIGH_IMPACT_EMPLOYEE
- ELEVATED_ACCESS_PRIVILEGES
- PERFORMANCE_CONCERNS
- SUSPICIOUS_SYSTEM_ACTIVITY
- POOR_SECURITY_PRACTICES
- CONTRACT_EMPLOYEE

class `py42.constants.TrustedActivityType`

Bases: `py42.choices.Choices`

Constants available for setting the type of a trusted activity.

- DOMAIN
- SLACK

class `py42.constants.DepartingEmployeeFilters`

Bases: `py42.services.detectionlists._DetectionListFilters`, `py42.choices.Choices`

Constants available for filtering Departing Employee search results.

- OPEN
- EXFILTRATION_30_DAYS
- EXFILTRATION_24_HOURS

- LEAVING_TODAY

class py42.constants.HighRiskEmployeeFilters

Bases: py42.services.detectionlists._DetectionListFilters, py42.choices.Choices

Constants available for filtering High Risk Employee search results.

- OPEN
- EXFILTRATION_30_DAYS
- EXFILTRATION_24_HOURS

2.2.8 Detection Lists

class py42.clients.detectionlists.DetectionListsClient (*user_profile_service, departing_employee_service, high_risk_employee_service*)

Bases: object

Rest documentation

add_user_cloud_alias (*user_id, alias*)

Add a cloud alias to a user. [Rest Documentation](#)

Parameters

- **user_id** (*str or int*) – The userId of the user whose alias you want to update.
- **alias** (*str*) – The alias to be added.

Returns *py42.response.Py42Response*

add_user_risk_tags (*user_id, tags*)

Add one or more risk factor tags. [Rest Documentation](#)

Parameters

- **user_id** (*str or int*) – The userId of the user whose risk factor tag(s) you want to update.
- **tags** (*str or list of str*) – A single tag or multiple tags in a list to be added. For example: "tag1" or ["tag1", "tag2"].

Constants available at *py42.constants.RiskTags*

Returns *py42.response.Py42Response*

create_user (*username*)

Deprecated. Used to create a detection list profile for a user, but now that happens automatically. Thus, this method instead returns the response from an API call that gets the user's profile.

Parameters **username** (*str*) – The Code42 username of the user.

Returns *py42.response.Py42Response*

get_user (*username*)

Get user details by username. [Rest Documentation](#)

Parameters **username** (*str*) – The Code42 username of the user.

Returns *py42.response.Py42Response*

get_user_by_id (*user_id*)

Get user details by *user_id*. [Rest Documentation](#)

Parameters *user_id* (*str* or *int*) – The Code42 *userId* of the user.

Returns *py42.response.Py42Response*

refresh_user_scim_attributes (*user_id*)

Refresh SCIM attributes of a user. [Rest Documentation](#)

Parameters *user_id* (*str* or *int*) – The *userId* of the user whose attributes you wish to refresh.

Returns *py42.response.Py42Response*

remove_user_cloud_alias (*user_id*, *alias*)

Remove a cloud alias from a user. [Rest Documentation](#)

Parameters

- **user_id** (*str* or *int*) – The *userId* of the user whose alias needs to be removed.
- **alias** (*str*) – The alias to be removed.

Returns *py42.response.Py42Response*

remove_user_risk_tags (*user_id*, *tags*)

Remove one or more risk factor tags. [Rest Documentation](#)

Parameters

- **user_id** (*str* or *int*) – The *userId* of the user whose risk factor tag(s) needs you want to remove.
- **tags** (*str* or *list of str*) – A single tag or multiple tags in a list to be removed. For example: "tag1" or ["tag1", "tag2"].

Constants available at *py42.constants.RiskTags*

Returns *py42.response.Py42Response*

update_user_notes (*user_id*, *notes*)

Add or update notes related to the user. [Rest Documentation](#)

Parameters

- **user_id** (*str* or *int*) – The *userId* of the user whose notes you want to update.
- **notes** (*str*) – User profile notes.

Returns *py42.response.Py42Response*

Departing Employees

class *py42.services.detectionlists.departing_employee.DepartingEmployeeFilters*

Bases: *py42.services.detectionlists._DetectionListFilters*, *py42.choices.Choices*

Constants available for filtering Departing Employee search results.

- OPEN
- EXFILTRATION_30_DAYS
- EXFILTRATION_24_HOURS

- LEAVING_TODAY

```
class py42.services.detectionlists.departing_employee.DepartingEmployeeService (session,  
user_context,  
user_profile_serv)
```

Bases: `py42.services.BaseService`

A service for interacting with Code42 Departing Employee APIs.

add (*user_id*, *departure_date=None*)

Adds a user to the Departing Employees list. [REST Documentation](#)

Raises a `Py42UserAlreadyAddedError` when a user already exists in the Departing Employee detection list.

Parameters

- **user_id** (*str or int*) – The Code42 `userUid` of the user you want to add to the departing employees list.
- **departure_date** (*str or datetime, optional*) – Date in `yyyy-MM-dd` format or instance of `datetime`. Date is treated as UTC. Defaults to `None`.

Returns `py42.response.Py42Response`

get (*user_id*)

Gets departing employee data of a user. [REST Documentation](#)

Parameters **user_id** (*str or int*) – The Code42 `userUid` of the user.

Returns `py42.response.Py42Response`

get_all (*filter_type='OPEN', sort_key='CREATED_AT', sort_direction='DESC', page_size=100*)

Gets all Departing Employees.

Parameters

- **filter_type** (*str, optional*) – Constants available at `py42.constants.DepartingEmployeeFilters`. Defaults to “OPEN”.
- **sort_key** (*str, optional*) – Sort results based by field. Defaults to “CREATED_AT”.
- **sort_direction** (*str, optional*) – ASC or DESC. Defaults to “DESC”.
- **page_size** (*int, optional*) – The number of departing employees to return per page. Defaults to 100.

Returns An object that iterates over `py42.response.Py42Response` objects that each contain a page of departing employees.

Return type generator

get_page (*page_num, filter_type='OPEN', sort_key='CREATED_AT', sort_direction='DESC', page_size=100*)

Gets a single page of Departing Employees.

Parameters

- **page_num** (*int*) – The page number to request.
- **filter_type** (*str, optional*) – Constants available at `py42.constants.DepartingEmployeeFilters`. Defaults to “OPEN”.
- **sort_key** (*str, optional*) – Sort results based by field. Defaults to “CREATED_AT”.

- **sort_direction** (*str. optional*) – ASC or DESC. Defaults to “DESC”.
- **page_size** (*int, optional*) – The number of departing employees to return per page. Defaults to 100.

Returns *py42.response.Py42Response*

remove (*user_id*)

Removes a user from the Departing Employees list. [REST Documentation](#)

Parameters **user_id** (*str or int*) – The Code42 userUid of the user.

Returns *py42.response.Py42Response*

set_alerts_enabled (*alerts_enabled=True*)

Enable or disable email alerting on Departing Employee exposure events. [REST Documentation](#)

Parameters **alerts_enabled** (*bool*) – Set alerting to on (True) or off (False). Defaults to True.

Returns *py42.response.Py42Response*

update_departure_date (*user_id, departure_date*)

Add or modify details of an existing Departing Employee case. [REST Documentation](#)

Parameters

- **user_id** (*str*) – The Code42 userUid of the user.
- **departure_date** (*str or datetime*) – Date in yyyy-MM-dd format or instance of datetime. Date is treated as UTC.

Returns *py42.response.Py42Response*

High Risk Employee

class `py42.clients.detectionlists.RiskTags`

Bases: `py42.choices.Choices`

Constants available as risk tags for `add_user_risk_tags()` and `remove_user_risk_tags()`.

- FLIGHT_RISK
- HIGH_IMPACT_EMPLOYEE
- ELEVATED_ACCESS_PRIVILEGES
- PERFORMANCE_CONCERNS
- SUSPICIOUS_SYSTEM_ACTIVITY
- POOR_SECURITY_PRACTICES
- CONTRACT_EMPLOYEE

class `py42.services.detectionlists.high_risk_employee.HighRiskEmployeeFilters`

Bases: `py42.services.detectionlists._DetectionListFilters`, `py42.choices.Choices`

Constants available for filtering High Risk Employee search results.

- OPEN
- EXFILTRATION_30_DAYS
- EXFILTRATION_24_HOURS

```
class py42.services.detectionlists.high_risk_employee.HighRiskEmployeeService(connection,
                                                                              user_context,
                                                                              user_profile_service)
```

Bases: `py42.services.BaseService`

A service for interacting with High Risk Employee APIs.

add (*user_id*)

Adds a user to the High Risk Employee detection list.

Raises a `Py42UserAlreadyAddedError` when a user already exists in the High Risk Employee detection list. [REST Documentation](#)

Parameters *user_id* (*str or int*) – The Code42 `userId` of the user you want to add to the High Risk Employee detection list.

Returns `py42.response.Py42Response`

get (*user_id*)

Gets user information. [Rest Documentation](#)

Parameters *user_id* (*str or int*) – The Code42 `userId` of the user has been added to the High Risk Employee detection list.

Returns `py42.response.Py42Response`

get_all (*filter_type='OPEN', sort_key=None, sort_direction=None, page_size=100*)

Searches High Risk Employee list. Filter results by *filter_type*. [Rest Documentation](#)

Parameters

- **filter_type** (*str, optional*) – Constants available at `py42.constants.HighRiskEmployeeFilters`. Defaults to `OPEN`.
- **sort_key** (*str, optional*) – Sort results based by field. Defaults to `None`.
- **sort_direction** (*str, optional*) – `ASC` or `DESC`. Constants available at `py42.constants.SortDirection`. Defaults to `None`.
- **page_size** (*int, optional*) – The number of high risk employees to return per page. Defaults to `100`.

Returns An object that iterates over `py42.response.Py42Response` objects that each contain a page of users.

Return type generator

get_page (*page_num, filter_type='OPEN', sort_key=None, sort_direction=None, page_size=100*)

Gets a single page of High Risk Employees.

Parameters

- **page_num** (*int*) – The page number to request.
- **filter_type** (*str, optional*) – Constants available at `py42.constants.HighRiskEmployeeFilters`. Defaults to `"OPEN"`.
- **sort_key** (*str, optional*) – Sort results based by field. Defaults to `None`.
- **sort_direction** (*str, optional*) – `ASC` or `DESC`. Constants available at `py42.constants.SortDirection`. Defaults to `None`.
- **page_size** (*int, optional*) – The number of high risk employees to return per page. Defaults to `100`.

Returns `py42.response.Py42Response`

remove (*user_id*)

Removes a user from the High Risk Employee detection list. [Rest Documentation](#)

Parameters **user_id** (*str or int*) – The Code42 `userId` of the user you want to add to the High Risk Employee detection list.

Returns *py42.response.Py42Response*

set_alerts_enabled (*enabled=True*)

Enables alerts. [Rest Documentation](#)

Parameters **enabled** (*bool*) – Whether to enable alerts for all users.

Returns *py42.response.Py42Response*

2.2.9 Devices

class `py42.services.devices.DeviceService` (*connection*)

Bases: `py42.services.BaseService`

A class to interact with Code42 device/computer APIs.

block (*device_id*)

Blocks a device causing the user not to be able to log in to or restore from Code42 on that device.

Parameters **device_id** (*int*) – The identification number of the device.

Returns *py42.response.Py42Response*

deactivate (*device_id*)

Deactivates a device, causing backups to stop and archives to go to cold storage.

Parameters **device_id** (*int*) – The identification number of the device.

Returns *py42.response.Py42Response*

deauthorize (*device_id*)

Deauthorizes the device with the given ID. If used on a cloud connector device, it will remove the authorization token for that account.

Parameters **device_id** (*int*) – The identification number of the device.

Returns *py42.response.Py42Response*

get_agent_full_disk_access_state (*guid*)

Gets the full disk access status of a device.

Parameters **guid** (*str*) – The globally unique identifier of the device.

Returns A response containing settings information.

Return type *py42.response.Py42Response*

get_agent_state (*guid, property_name*)

Gets the agent state of the device.

Parameters

- **guid** (*str*) – The globally unique identifier of the device.
- **property_name** (*str*) – The name of the property to retrieve (e.g. *fullDiskAccess*).

Returns A response containing settings information.

Return type *py42.response.Py42Response*

get_all (*active=None, blocked=None, org_uid=None, user_uid=None, destination_guid=None, include_backup_usage=None, include_counts=True, q=None, **kwargs*)
Gets all device information.

When no arguments are passed, all records are returned. To filter results, specify respective arguments. For example, to retrieve all active and blocked devices, pass `active=true` and `blocked=true`.

Parameters

- **active** (*bool, optional*) – Filters results by device state. When set to `True`, gets all active devices. When set to `False`, gets all deactivated devices. When set to `None` or excluded, gets all devices regardless of state. Defaults to `None`.
- **blocked** (*bool, optional*) – Filters results by blocked status: `True` or `False`. Defaults to `None`.
- **org_uid** (*int, optional*) – The identification number of an Organization. Defaults to `None`.
- **user_uid** (*int, optional*) – The identification number of a User. Defaults to `None`.
- **destination_guid** (*str or int, optional*) – The globally unique identifier of the storage server that the device back up to. Defaults to `None`.
- **include_backup_usage** (*bool, optional*) – A flag to denote whether to include the destination and its backup stats. Defaults to `None`.
- **include_counts** (*bool, optional*) – A flag to denote whether to include total, warning, and critical counts. Defaults to `True`.
- **q** (*str, optional*) – Searches results flexibly by incomplete GUID, hostname, computer name, etc. Defaults to `None`.

Returns

An object that iterates over `py42.response.Py42Response` objects that each contain a page of devices.

The devices returned by `get_all()` are based on the role and permissions of the user authenticating the py42 SDK.

Return type generator

get_by_guid (*guid, include_backup_usage=None, **kwargs*)
Gets device information by GUID.

Parameters

- **guid** (*str*) – The globally unique identifier of the device.
- **include_backup_usage** (*bool, optional*) – A flag to denote whether to include the destination and its backup stats. Defaults to `None`.

Returns A response containing device information.

Return type `py42.response.Py42Response`

get_by_id (*device_id, include_backup_usage=None, **kwargs*)
Gets device information by ID.

Parameters

- **device_id** (*int*) – The identification number of the device.
- **include_backup_usage** (*bool, optional*) – A flag to denote whether to include the destination and its backup stats. Defaults to `None`.

Returns A response containing device information.

Return type `py42.response.Py42Response`

get_page (*page_num*, *active=None*, *blocked=None*, *org_uid=None*, *user_uid=None*, *destination_guid=None*, *include_backup_usage=None*, *include_counts=True*, *page_size=None*, *q=None*)

Gets a page of devices.

Parameters

- **page_num** (*int*) – The page number to request.
- **active** (*bool*, *optional*) – Filters results by device state. When set to True, gets all active devices. When set to False, gets all deactivated devices. When set to None or excluded, gets all devices regardless of state. Defaults to None.
- **blocked** (*bool*, *optional*) – Filters results by blocked status: True or False. Defaults to None.
- **org_uid** (*int*, *optional*) – The identification number of an Organization. Defaults to None.
- **user_uid** (*int*, *optional*) – The identification number of a User. Defaults to None.
- **destination_guid** (*str or int*, *optional*) – The globally unique identifier of the storage server that the device back up to. Defaults to None.
- **include_backup_usage** (*bool*, *optional*) – A flag to denote whether to include the destination and its backup stats. Defaults to None.
- **include_counts** (*bool*, *optional*) – A flag to denote whether to include total, warning, and critical counts. Defaults to True.
- **page_size** (*int*, *optional*) – The number of devices to return per page. Defaults to `py42.settings.items_per_page`.
- **q** (*str*, *optional*) – Searches results flexibly by incomplete GUID, hostname, computer name, etc. Defaults to None.

Returns `py42.response.Py42Response`

get_settings (*guid*)

Gets setting data for a device and returns a *DeviceSettings* object for the target device.

Parameters **guid** (*int*, *str*) – The globally unique identifier of the device.

Returns A class to help manage device settings.

Return type `py42.clients.settings.device_settings.DeviceSettings`

reactivate (*device_id*)

Activates a previously deactivated device.

Parameters **device_id** (*int*) – The identification number of the device.

Returns `py42.response.Py42Response`

unblock (*device_id*)

Unblocks a device, permitting a user to be able to login and restore again.

Parameters **device_id** (*int*) – The identification number of the device.

Returns `py42.response.Py42Response`

update_settings (*device_settings*)

Updates a device's settings based on changes to the passed in *DeviceSettings* instance.

Parameters `device_settings` (*DeviceSettings*) – An instance of *DeviceSettings* with desired modifications to settings.

Returns A response containing the result of the setting change.

Return type `py42.response.Py42Response`

2.2.10 Device Settings

class `py42.clients.settings.device_settings.DeviceSettings` (*device_dict*)
Bases: `py42.clients.settings.device_settings.DeviceSettingsDefaults`

Class used to manage an individual device's settings.

backup_sets = None

List of *BackupSet* objects used to manage this device's backup set configurations.

computer_id

Identifier of this device. Read-only.

device_id

Identifier of this device (alias of *.computer_id*). Read only.

external_reference

External reference field for this device.

guid

Globally unique identifier of this device. Read-only.

java_memory_heap_max

The maximum memory the client will use on its system

name

Name for this device.

notes

Notes field for this device.

org_id

Identifier of the organization this device belongs to. Read-only.

user_id

Identifier of the user this device belongs to. Read-only.

version

Latest reported Code42 client version number for this device. Read-only.

2.2.11 Exceptions

exception `py42.exceptions.Py42ActiveLegalHoldError` (*exception, resource, resource_id*)
Bases: `py42.exceptions.Py42BadRequestError`

An exception raised when attempting to deactivate a user or device that is in an active legal hold.

resource

The user or device resource.

resource_id

The resource ID.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42ArchiveFileNotFoundError` (*response*, *device_guid*, *file_path*)

Bases: `py42.exceptions.Py42ResponseError`

An exception raised when a resource file is not found or the path is invalid.

device_guid

The device GUID provided.

file_path

The file path provided.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42BadRequestError` (*exception*, *message=None*, **args*)

Bases: `py42.exceptions.Py42HTTPError`

A wrapper to represent an HTTP 400 error.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42BadRestoreRequestError` (*exception*)

Bases: `py42.exceptions.Py42BadRequestError`

An error raised when the given restore arguments are not compatible and cause a bad request.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42CaseAlreadyHasEventError` (*exception*)

Bases: `py42.exceptions.Py42BadRequestError`

An error raised when event is already associated to the case.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42CaseNameExistsError` (*exception*, *case_name*)

Bases: `py42.exceptions.Py42BadRequestError`

An error raised when trying to create a case with a name that already exists.

case_name

The case name.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42ChecksumNotFound`**Error** (*response*, *checksum_name*, *checksum_value*)

Bases: `py42.exceptions.Py42ResponseError`

An exception raised when a user-supplied hash could not successfully locate its corresponding resource.

checksum_name

The checksum name.

checksum_value

The checksum value.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42CloudAliasLimitExceeded`**Error** (*exception*, *message=None*)

Bases: `py42.exceptions.Py42BadRequestError`

An Exception raised when trying to add a cloud alias to a user when that user already has the max amount of supported cloud aliases.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42Conflict`**Error** (*exception*, *message=None*, *args)

Bases: `py42.exceptions.Py42HTTPError`

A wrapper to represent an HTTP 409 error.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42DescriptionLimitExceeded`**Error** (*exception*)

Bases: `py42.exceptions.Py42BadRequestError`

An error raised when description of a case exceeds the allowed char length limit.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42DeviceNotConnected`**Error** (*response*, *device_guid*)

Bases: `py42.exceptions.Py42ResponseError`

An exception raised when trying to push a restore to a device that is not connected to an Authority server.

device_guid
The device GUID.

response
The response prior to the error.

with_traceback()
Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42Error`
Bases: `Exception`

A generic, Py42 custom base exception.

with_traceback()
Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42FeatureUnavailableError` (*response*)
Bases: `py42.exceptions.Py42ResponseError`

An exception raised when a requested feature is not supported in your Code42 environment.

response
The response prior to the error.

with_traceback()
Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42ForbiddenError` (*exception, message=None, *args*)
Bases: `py42.exceptions.Py42HTTPError`

A wrapper to represent an HTTP 403 error.

response
The response prior to the error.

with_traceback()
Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42HTTPError` (*exception, message=None, *args*)
Bases: `py42.exceptions.Py42ResponseError`

A base custom class to manage all HTTP errors raised by an API endpoint.

response
The response prior to the error.

with_traceback()
Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42InternalServerError` (*exception, message=None, *args*)
Bases: `py42.exceptions.Py42HTTPError`

A wrapper to represent an HTTP 500 error.

response
The response prior to the error.

with_traceback()
Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42InvalidArchiveEncryptionKey` (*exception*)
Bases: `py42.exceptions.Py42HTTPError`

An exception raised the encryption key for an archive is invalid.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42InvalidArchivePassword` (*exception*)

Bases: `py42.exceptions.Py42HTTPError`

An exception raised when the password for unlocking an archive is invalid.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42InvalidCaseUserError` (*exception, user_uid*)

Bases: `py42.exceptions.Py42BadRequestError`

An error raised when a case subject or assignee is not a valid user.

response

The response prior to the error.

user

The user UID.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42InvalidEmailError` (*email, exception*)

Bases: `py42.exceptions.Py42InternalServerError`

An exception raised when trying to set an invalid email as a user's email.

email

The email being assigned to a user.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42InvalidPageTokenError` (*exception, page_token*)

Bases: `py42.exceptions.Py42BadRequestError`

An error raised when the page token given is invalid.

page_token

The page token.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42InvalidPasswordError` (*exception*)

Bases: `py42.exceptions.Py42InternalServerError`

An exception raised when trying to set an invalid password as a user's password.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42InvalidRuleError` (*exception, rule_id*)

Bases: `py42.exceptions.Py42NotFoundError`

An exception raised when the observer rule ID does not exist.

response

The response prior to the error.

rule_id

The observer rule ID.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42InvalidRuleOperationError` (*exception, rule_id, source*)

Bases: `py42.exceptions.Py42HTTPError`

An exception raised when trying to add or remove users to a system rule.

response

The response prior to the error.

rule_id

The rule ID.

source

The rule source.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42InvalidUsernameError` (*exception*)

Bases: `py42.exceptions.Py42InternalServerError`

An exception raised when trying to set an invalid username as a user's username.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42LegalHoldAlreadyActiveError` (*exception, legal_hold_matter_uid*)

Bases: `py42.exceptions.Py42BadRequestError`

An exception raised when trying to activate a Legal Hold Matter that is already active.

legal_hold_matter_uid

The legal hold matter UID.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42LegalHoldAlreadyDeactivatedError` (*exception*, *legal_hold_matter_uid*)

Bases: `py42.exceptions.Py42BadRequestError`

An exception raised when trying to deactivate a Legal Hold Matter that is already inactive.

legal_hold_matter_uid

The legal hold matter UID.

response

The response prior to the error.

with_traceback ()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42LegalHoldCriteriaMissingError` (*exception*)

Bases: `py42.exceptions.Py42BadRequestError`

An exception raised when a bad request was made to a Legal Hold endpoint.

response

The response prior to the error.

with_traceback ()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42LegalHoldNotFoundOrPermissionDeniedError` (*exception*, *re-source_uid*, *legal_hold_resource='matter'*)

Bases: `py42.exceptions.Py42ForbiddenError`

An exception raised when a legal hold matter is inaccessible from your account or the matter ID is not valid.

response

The response prior to the error.

uid

The UID of the legal hold resource.

with_traceback ()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42MFARequiredError` (*exception*, *message=None*)

Bases: `py42.exceptions.Py42UnauthorizedError`

Deprecated: An exception raised when a request requires multi-factor authentication

response

The response prior to the error.

with_traceback ()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42NotFoundError` (*exception*, *message=None*, **args*)

Bases: `py42.exceptions.Py42HTTPError`

A wrapper to represent an HTTP 404 error.

response

The response prior to the error.

with_traceback ()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42OrgNotFoundError` (*exception, org_uid*)

Bases: `py42.exceptions.Py42BadRequestError`

An exception raised when a 400 HTTP error message indicates that an organization was not found.

org_uid
” The org UID.

response
The response prior to the error.

with_traceback()
Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42ResponseError` (*response, message, *args*)

Bases: `py42.exceptions.Py42Error`

A base custom class to manage all errors raised because of an HTTP response.

response
The response prior to the error.

with_traceback()
Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42SessionInitializationError` (*exception*)

Bases: `py42.exceptions.Py42Error`

An exception raised when a user connection is invalid. A connection might be invalid due to connection timeout, invalid token, etc.

with_traceback()
Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42StorageSessionInitializationError` (*exception, message*)

Bases: `py42.exceptions.Py42HTTPError`

An exception raised when the user is not authorized to initialize a storage session. This may occur when trying to restore a file or trying to get events for file activity on removable media, in cloud sync folders, and browser uploads.

response
The response prior to the error.

with_traceback()
Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42TooManyRequestsError` (*exception, message=None, *args*)

Bases: `py42.exceptions.Py42HTTPError`

A wrapper to represent an HTTP 429 error.

response
The response prior to the error.

with_traceback()
Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42TrustedActivityConflictError` (*exception, value*)

Bases: `py42.exceptions.Py42ConflictError`

An error raised when theres a conflict with a trusted activity domain URL.

response

The response prior to the error.

value

The domain, URL or workspace name.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42TrustedActivityIdNotFound` (*exception, resource_id*)

Bases: `py42.exceptions.Py42NotFoundError`

An exception raised when the trusted activity ID does not exist.

resource_id

The resource ID.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42TrustedActivityInvalidChangeError` (*exception*)

Bases: `py42.exceptions.Py42BadRequestError`

An error raised when an invalid change is being made to a trusted activity.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42TrustedActivityInvalidCharacterError` (*exception*)

Bases: `py42.exceptions.Py42BadRequestError`

An error raised when an invalid character is in a trusted activity value.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42UnableToCreateProfileError` (*exception, username*)

Bases: `py42.exceptions.Py42BadRequestError`

An error raised when trying to call the method for creating a detection-list user when the user does not exist or is currently awaiting the profile to get created on the back-end. Note: you are no longer able to create detection-list profiles using the API; py42 only returns already existing profiles.

response

The response prior to the error.

username

The username of the user.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42UnauthorizedError` (*exception, message=None, *args*)

Bases: `py42.exceptions.Py42HTTPError`

A wrapper to represent an HTTP 401 error.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42UpdateClosedCaseError` (*exception*)

Bases: `py42.exceptions.Py42BadRequestError`

An error raised when trying to update a closed case.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42UserAlreadyAddedError` (*exception, user_id, list_name*)

Bases: `py42.exceptions.Py42BadRequestError`

An exception raised when the user is already added to group or list, such as the Departing Employee list.

response

The response prior to the error.

user_id

The user ID.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42UserAlreadyExistsError` (*exception, message=None*)

Bases: `py42.exceptions.Py42InternalServerError`

An exception raised when a user already exists

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42UserNotOnListError` (*exception, user_id, list_name*)

Bases: `py42.exceptions.Py42NotFoundError`

An exception raised when the user is not on a detection list.

list_name

The list name.

response

The response prior to the error.

user_id

The user ID.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

exception `py42.exceptions.Py42UsernameMustBeEmailError` (*exception*)

Bases: `py42.exceptions.Py42InternalServerError`

An exception raised when trying to set a non-email as a user's username in a cloud environment.

response

The response prior to the error.

with_traceback()

Exception.with_traceback(tb) – set self.__traceback__ to tb and return self.

py42.exceptions.**raise_py42_error**(*raised_error*)

Raises the appropriate py42.exceptions.Py42HttpError based on the given HTTPError's response status code.

2.2.12 File Event Queries

class py42.sdk.queries.fileevents.file_event_query.**FileEventQuery**(*args, **kwargs)

Bases: py42.sdk.queries.BaseQuery

Helper class for building Code42 Forensic Search queries.

A FileEventQuery instance's all() and any() take one or more *FilterGroup* objects to construct a query that can be passed to the FileEventService.search() method. all() returns results that match all of the provided filter criteria, any() will return results that match any of the filters.

For convenience, the *FileEventQuery* constructor does the same as all().

Usage example:

```
email_filter = EmailSender.is_in(["test.user@example.com", "test.sender@example.
↪com"])
exposure_filter = ExposureType.exists()
query = FileEventQuery.all(email_filter, exposure_filter)
```

Saved Searches

class py42.services.savedsearch.**SavedSearchService**(*connection, file_event_client*)

Bases: py42.services.BaseService

A service to interact with saved search APIs.

execute(*search_id, page_number=None, page_size=None*)

Executes a saved search for given search Id, returns up to the first 10,000 events.

Parameters

- **search_id**(*str*) – Unique search Id of the saved search.
- **page_number**(*int, optional*) – The consecutive group of results of size page_size in the result set to return. Defaults to None.
- **page_size**(*int, optional*) – The maximum number of results to be returned. Defaults to None.

Returns *py42.response.Py42Response*

get()

Fetch details of existing saved searches.

Returns *py42.response.Py42Response*

get_by_id(*search_id*)

Fetch the details of a saved search by its given search Id.

Parameters `search_id (str)` – Unique search Id of the saved search.

Returns `py42.response.Py42Response`

get_query (`search_id, page_number=None, page_size=None`)

Get the saved search in form of a query(`py42.sdk.queries.fileevents.file_event_query`).

Parameters

- **search_id** (`str`) – Unique search Id of the saved search.
- **page_number** (`int, optional`) – The consecutive group of results of size `page_size` in the result set to return. Defaults to None.
- **page_size** (`int, optional`) – The maximum number of results to be returned. Defaults to None.

Returns `py42.sdk.queries.fileevents.file_event_query`.
`FileEventQuery`

search_file_events (`search_id, page_number=None, page_size=None`)

Alias method for `execute()`. Executes a saved search for given search Id, returns up to the first 10,000 events.

To view more than the first 10,000 events:

- pass the `search_id` to `get_query()`
- pass the resulting query (`FileEventQuery`) to `search_all_file_events()`, use that method as normal.

Parameters

- **search_id** (`str`) – Unique search Id of the saved search.
- **page_number** (`int, optional`) – The consecutive group of results of size `page_size` in the result set to return. Defaults to None.
- **page_size** (`int, optional`) – The maximum number of results to be returned. Defaults to None.

Returns `py42.response.Py42Response`

Filter Classes

The following classes construct filters for file event queries. Each filter class corresponds to a file event detail. Call the appropriate classmethod on your desired filter class with the value you want to match and it will return a `FilterGroup` object that can be passed to `FileEventQuery`'s `all()` or `any()` methods to create complex queries that match multiple filter rules.

Example:

To search for events observed for certain set of documents, you can use the `FileName` and `MD5` filter classes to construct `FilterGroups` that will search for matching filenames or (in case someone renamed the sensitive file) the known MD5 hashes of the files:

```
filename_filter = FileName.is_in(['confidential_plans.docx', 'confidential_plan_
↳ projections.xlsx'])
md5_filter = MD5.is_in(['133765f4fff5e3038b9352a4d14e1532',
↳ 'ea16f0cbfc76f6eba292871f8a8c794b'])
```

See *Executing Searches* for more on building search queries.

Event Filters

`file_event_query.create_exists_filter_group()`

Creates a *FilterGroup* to find events where filter data exists. Useful for creating EXISTS filters that are not yet supported in py42 or programmatically crafting filter groups.

Parameters `term(str)` – The term of the filter.

Returns *FilterGroup*

`file_event_query.create_not_exists_filter_group()`

Creates a *FilterGroup* to find events where filter data does not exist. Useful for creating DOES_NOT_EXIST filters that are not yet supported in py42 or programmatically crafting filter groups.

Parameters `term(str)` – The term of the filter.

Returns *FilterGroup*

`file_event_query.create_greater_than_filter_group(value)`

Creates a *FilterGroup* for matching file events where the value with key `term` is greater than the given value. Useful for creating GREATER_THAN filters that are not yet supported in py42 or programmatically crafting filter groups.

Parameters

- **term** (*str*) – The term of the filter.
- **value** (*str or int*) – The value used to filter file events.

Returns *FilterGroup*

`file_event_query.create_less_than_filter_group(value)`

Creates a *FilterGroup* for matching file events where the value with key `term` is less than the given value. Useful for creating LESS_THAN filters that are not yet supported in py42 or programmatically crafting filter groups.

Parameters

- **term** (*str*) – The term of the filter.
- **value** (*str or int*) – The value used to filter file events.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.event_filter.EventTimestamp`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterTimestampField`, `py42.choices.Choices`

Class that filters events based on the timestamp of the event that occurred.

Available event timestamp constants are provided as class attributes, These constants should be used only with class method *within_the_last*:

- `EventTimestamp.FIFTEEN_MINUTES`
- `EventTimestamp.ONE_HOUR`
- `EventTimestamp.THREE_HOURS`
- `EventTimestamp.TWELVE_HOURS`
- `EventTimestamp.ONE_DAY`
- `EventTimestamp.THREE_DAYS`
- `EventTimestamp.SEVEN_DAYS`

- `EventTimestamp.FOURTEEN_DAYS`
- `EventTimestamp.THIRTY_DAYS`

Example:: `filter = EventTimestamp.within_the_last(EventTimestamp.SEVEN_DAYS)`

classmethod `choices()`

Returns attribute values for the given class.

Returns A list containing the attribute values of the given class.

Return type (list)

classmethod `in_range(start_value, end_value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is in range between the provided `start_value` and `end_value`.

Parameters

- **`start_value`** (*str or int or float or datetime*) – The start value used to filter results.
- **`end_value`** (*str or int or float or datetime*) – The end value used to filter results.

Returns *FilterGroup*

classmethod `on_or_after(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term`` is on or after the provided ``value.

Parameters `value` (*str or int or float or datetime*) – The value used to filter results.

Returns *FilterGroup*

classmethod `on_or_before(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is on or before the provided value.

Parameters `value` (*str or int or float or datetime*) – The value used to filter results.

Returns *FilterGroup*

classmethod `on_same_day(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is within the same calendar day as the provided value.

Parameters `value` (*str or int or float or datetime*) – The value used to filter results.

Returns *FilterGroup*

classmethod `within_the_last(value)`

Returns a *FilterGroup* that is useful for finding results where the key `self._term` is a timestamp-related term, such as `EventTimestamp._term`, and `value` is one of it's accepted values, such as one of the values in `EventTimestamp.choices()`.

Parameters `value` (*str*) – The value used to filter file events.

Returns *FilterGroup*

class py42.sdk.queries.fileevents.filters.event_filter.**EventType**

Bases: py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField,
py42.choices.Choices

Class that filters file events based on event type.

Available event types are provided as class attributes:

- EventType.CREATED
- EventType.DELETED
- EventType.EMAILED
- EventType.MODIFIED
- EventType.READ_BY_APP
- EventType.PRINTED

Example:

```
filter = EventType.isin([EventType.READ_BY_APP, EventType.EMAILED])
```

classmethod choices()

Returns attribute values for the given class.

Returns A list containing the attribute values of the given class.

Return type (list)

classmethod eq(value)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided value.

Parameters value (*str*) – The value to match on.

Returns *FilterGroup*

classmethod exists()

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod is_in(value_list)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided value_list.

Parameters value_list (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod not_eq(value)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided value.

Parameters value (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod not_exists()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod `not_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.event_filter.InsertionTimestamp`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterTimestampField`

Class that filters events based on the timestamp of when the event was actually added to the event store (which can be after the event occurred on the device itself).

value must be a POSIX timestamp. (see the *Dates* section of the Basics user guide for details on timestamp arguments in py42)

classmethod `in_range` (*start_value*, *end_value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is in range between the provided `start_value` and `end_value`.

Parameters

- **start_value** (*str or int or float or datetime*) – The start value used to filter results.
- **end_value** (*str or int or float or datetime*) – The end value used to filter results.

Returns *FilterGroup*

classmethod `on_or_after` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term`` is on or after the provided ``value.

Parameters `value` (*str or int or float or datetime*) – The value used to filter results.

Returns *FilterGroup*

classmethod `on_or_before` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is on or before the provided value.

Parameters `value` (*str or int or float or datetime*) – The value used to filter results.

Returns *FilterGroup*

classmethod `on_same_day` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is within the same calendar day as the provided value.

Parameters `value` (*str or int or float or datetime*) – The value used to filter results.

Returns *FilterGroup*

classmethod `within_the_last` (*value*)

Returns a *FilterGroup* that is useful for finding results where the key `self._term` is a timestamp-related term, such as `EventTimestamp._term`, and `value` is one of it's accepted values, such as one of the values in `EventTimestamp.choices()`.

Parameters `value` (*str*) – The value used to filter file events.

Returns *FilterGroup*

class py42.sdk.queries.fileevents.filters.event_filter.**Source**

Bases: py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField,
py42.choices.Choices

Class that filters events by event source.

Available source types are provided as class attributes:

- Source.ENDPOINT
- Source.GOOGLE_DRIVE
- Source.ONE_DRIVE
- Source.BOX
- Source.GMAIL
- Source.OFFICE_365

Example:

```
filter = Source.is_in([Source.ENDPOINT, Source.BOX])
```

classmethod choices ()

Returns attribute values for the given class.

Returns A list containing the attribute values of the given class.

Return type (list)

classmethod eq (value)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided value.

Parameters value (*str*) – The value to match on.

Returns *FilterGroup*

classmethod exists ()

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod is_in (value_list)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided value_list.

Parameters value_list (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod not_eq (value)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided value.

Parameters value (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod not_exists ()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod `not_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.event_filter.MimeTypeMismatch`

Bases: `py42.sdk.queries.query_filter.QueryFilterBooleanField`

Class that filters events by whether or not a file's mime type matches its extension type.

classmethod `is_false` ()

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is False.

Returns *FilterGroup*

classmethod `is_true` ()

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is True.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.event_filter.OutsideActiveHours`

Bases: `py42.sdk.queries.query_filter.QueryFilterBooleanField`

Class that filters events by whether or not they occurred outside a user's typical working hours

classmethod `is_false` ()

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is False.

Returns *FilterGroup*

classmethod `is_true` ()

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is True.

Returns *FilterGroup*

File Filters

class `py42.sdk.queries.fileevents.filters.file_filter.FileCategory`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`, `py42.choices.Choices`

Class that filters events by category of the file observed.

Available file categories are provided as class attributes:

- `FileCategory.AUDIO`
- `FileCategory.DOCUMENT`
- `FileCategory.EXECUTABLE`
- `FileCategory.IMAGE`
- `FileCategory.PDF`
- `FileCategory.PRESENTATION`

- `FileCategory.SCRIPT`
- `FileCategory.SOURCE_CODE`
- `FileCategory.SPREADSHEET`
- `FileCategory.VIDEO`
- `FileCategory.VIRTUAL_DISK_IMAGE`
- `FileCategory.ZIP`

classmethod `choices()`

Returns attribute values for the given class.

Returns A list containing the attribute values of the given class.

Return type (list)

classmethod `eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `exists()`

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod `is_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_exists()`

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod `not_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.file_filter.FileName`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events by the name of the file observed.

classmethod `eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `exists()`

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod `is_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_exists()`

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod `not_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.file_filter.FileOwner`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events by the owner of the file observed.

classmethod `eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `exists()`

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod `is_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod not_eq(*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided value.

Parameters value (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod not_exists()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod not_in(*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided *value_list*.

Parameters value_list (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.file_filter.FilePath`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events by path of the file observed.

classmethod eq(*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided value.

Parameters value (*str*) – The value to match on.

Returns *FilterGroup*

classmethod exists()

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod is_in(*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided *value_list*.

Parameters value_list (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod not_eq(*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided value.

Parameters value (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod not_exists()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod not_in(*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided *value_list*.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.file_filter.FileSize`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterComparableField`

Class that filters events by size of the file observed.

Size value must be bytes.

classmethod `greater_than` (*value*)

Returns a *FilterGroup* to find events where filter data is greater than the provided value.

Parameters `value` (*str or int or float*) – The value used to filter file events.

Returns *FilterGroup*

classmethod `less_than` (*value*)

Returns a *FilterGroup* to find events where filter data is less than than the provided value.

Parameters `value` (*str or int or float*) – The value used to filter file events.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.file_filter.MD5`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events by the MD5 hash of the file observed.

classmethod `eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided value.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `exists` ()

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod `is_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided value.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_exists` ()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod `not_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.file_filter.SHA256`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events by SHA256 hash of the file observed.

classmethod `eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided *value*.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `exists` ()

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod `is_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided *value_list*.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided *value*.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_exists` ()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod `not_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided *value_list*.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

Device Filters

class `py42.sdk.queries.fileevents.filters.device_filter.DeviceUsername`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events by the Code42 username of the device that observed the event.

classmethod `eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided *value*.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod exists()

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod is_in(value_list)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters value_list (list) – The list of values to match on.

Returns *FilterGroup*

classmethod not_eq(value)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters value (str) – The value to exclude on.

Returns *FilterGroup*

classmethod not_exists()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod not_in(value_list)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters value_list (list) – The list of values to exclude on.

Returns *FilterGroup*

class py42.sdk.queries.fileevents.filters.device_filter.OSHostname

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events by hostname of the device that observed the event.

classmethod eq(value)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters value (str) – The value to match on.

Returns *FilterGroup*

classmethod exists()

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod is_in(value_list)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters value_list (list) – The list of values to match on.

Returns *FilterGroup*

classmethod not_eq(value)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_exists()`

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod `not_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.device_filter.PrivateIPAddress`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events by private (LAN) IP address of the device that observed the event.

classmethod `eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `exists()`

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod `is_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_exists()`

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod `not_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.device_filter.PublicIPAddress`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events by public (WAN) IP address of the device that observed the event.

classmethod `eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `exists()`

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod `is_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_exists()`

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod `not_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.device_filter.DeviceSignedInUserName`
 Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events by signed in user of the device that observed the event.

classmethod `eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `exists()`

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod `is_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_exists` ()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod `not_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

Cloud Filters

class `py42.sdk.queries.fileevents.filters.cloud_filter.Actor`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events by the cloud service username of the event originator (applies to cloud data source events only).

classmethod `eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `exists` ()

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod `is_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_exists` ()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod not_in (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.cloud_filter.DirectoryID`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events by unique identifier of the cloud drive or folder where the event occurred (applies to cloud data source events only).

classmethod eq (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod exists ()

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod is_in (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod not_eq (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod not_exists ()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod not_in (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.cloud_filter.Shared`

Bases: `py42.sdk.queries.query_filter.QueryFilterBooleanField`

Class that filters events by the shared status of the file at the time the event occurred (applies to cloud data source events only).

classmethod `is_false()`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is False.

Returns *FilterGroup*

classmethod `is_true()`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is True.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.cloud_filter.SharedWith`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events by the list of users who had been granted access to the file at the time of the event (applies to cloud data source events only).

classmethod `eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `exists()`

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod `is_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_exists()`

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod `not_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.cloud_filter.SharingTypeAdded`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`,
`py42.choices.Choices`

Class that filters results to include events where a file's sharing permissions were changed to a value that increases exposure (applies to cloud data source events only).

Available options provided as class attributes:

- `SharingTypeAdded.SHARED_VIA_LINK`
- `SharingTypeAdded.IS_PUBLIC`
- `SharingTypeAdded.OUTSIDE_TRUSTED_DOMAIN`

classmethod `choices()`

Returns attribute values for the given class.

Returns A list containing the attribute values of the given class.

Return type (list)

classmethod `eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `exists()`

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod `is_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_exists()`

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod `not_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

Exposure Filters

class `py42.sdk.queries.fileevents.filters.exposure_filter.ExposureType`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`,

py42.choices.Choices

Class that filters events based on exposure type.

Available options are provided as class attributes:

- ExposureType.SHARED_VIA_LINK
- ExposureType.SHARED_TO_DOMAIN
- ExposureType.APPLICATION_READ
- ExposureType.CLOUD_STORAGE
- ExposureType.REMOVABLE_MEDIA
- ExposureType.IS_PUBLIC

classmethod choices()

Returns attribute values for the given class.

Returns A list containing the attribute values of the given class.

Return type (list)

classmethod eq(value)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters value (*str*) – The value to match on.

Returns *FilterGroup*

classmethod exists()

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod is_in(value_list)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters value_list (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod not_eq(value)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters value (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod not_exists()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod not_in(value_list)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters value_list (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.exposure_filter.ProcessName`
 Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events based on the process name involved in the exposure (applies to read by browser or other app events only).

classmethod `eq(value)`
 Returns a `FilterGroup` that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value (str)` – The value to match on.

Returns `FilterGroup`

classmethod `exists()`
 Returns a `FilterGroup` to find events where filter data exists.

Returns `FilterGroup`

classmethod `is_in(value_list)`
 Returns a `FilterGroup` that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list (list)` – The list of values to match on.

Returns `FilterGroup`

classmethod `not_eq(value)`
 Returns a `FilterGroup` that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value (str)` – The value to exclude on.

Returns `FilterGroup`

classmethod `not_exists()`
 Returns a `FilterGroup` to find events where filter data does not exist.

Returns `FilterGroup`

classmethod `not_in(value_list)`
 Returns a `FilterGroup` that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list (list)` – The list of values to exclude on.

Returns `FilterGroup`

class `py42.sdk.queries.fileevents.filters.exposure_filter.ProcessOwner`
 Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events based on the process owner that was involved in the exposure (applies to read by browser or other app events only).

classmethod `eq(value)`
 Returns a `FilterGroup` that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value (str)` – The value to match on.

Returns `FilterGroup`

classmethod `exists()`
 Returns a `FilterGroup` to find events where filter data exists.

Returns `FilterGroup`

classmethod `is_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_exists` ()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod `not_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMediaName`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events based on the name of the removable media involved in the exposure (applies to removable media events only).

classmethod `eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `exists` ()

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod `is_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_exists` ()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod not_in (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMediaVendor`
 Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events based on the vendor of the removable media device involved in the exposure (applies to removable media events only).

classmethod eq (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod exists ()

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod is_in (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod not_eq (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod not_exists ()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod not_in (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMediaMediaName`
 Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events based on the name of the removable media (as reported by the vendor/device, usually very similar to `RemovableMediaName`) involved in the exposure (applies to removable media events only).

classmethod `eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `exists` ()

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod `is_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_exists` ()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod `not_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMediaVolumeName`
Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events based on the name of the formatted volume (as reported by the operating system) of the removable media device involved in the exposure (applies to `removable media` events only).

classmethod `eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `exists` ()

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod `is_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod not_eq(*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided value.

Parameters *value* (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod not_exists()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod not_in(*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided *value_list*.

Parameters *value_list* (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMediaPartitionID`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events based on the unique identifier assigned (by the operating system) to the removable media involved in the exposure (applies to removable media events only).

classmethod eq(*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided value.

Parameters *value* (*str*) – The value to match on.

Returns *FilterGroup*

classmethod exists()

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod is_in(*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided *value_list*.

Parameters *value_list* (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod not_eq(*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided value.

Parameters *value* (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod not_exists()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod not_in(*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided *value_list*.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMediaSerialNumber`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events based on the serial number of the connected hardware as reported by the operating system (applies to `removable media` events only).

classmethod `eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided *value*.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `exists` ()

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod `is_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided *value_list*.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided *value*.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_exists` ()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod `not_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided *value_list*.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.exposure_filter.SyncDestination`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`, `py42.choices.Choices`

Class that filters events based on the name of the cloud service the file is synced with (applies to `synced to cloud service` events only).

Available options are provided as class attributes:

- `SyncDestination.ICLOUD`
- `SyncDestination.BOX`
- `SyncDestination.BOX_DRIVE`

- SyncDestination.GOOGLE_DRIVE
- SyncDestination.GOOGLE_BACKUP_AND_SYNC
- SyncDestination.DROPBOX
- SyncDestination.ONEDRIVE

classmethod choices()

Returns attribute values for the given class.

Returns A list containing the attribute values of the given class.

Return type (list)

classmethod eq(value)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters value (*str*) – The value to match on.

Returns *FilterGroup*

classmethod exists()

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod is_in(value_list)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters value_list (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod not_eq(value)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters value (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod not_exists()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod not_in(value_list)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters value_list (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class py42.sdk.queries.fileevents.filters.exposure_filter.SyncDestinationUsername

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events based on the username associated with the cloud service the file is synced with (applies to synced to cloud service events only).

classmethod eq(value)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `exists()`

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod `is_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_exists()`

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod `not_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.exposure_filter.TabURL`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events based on all the URLs of the browser tabs at the time the file contents were read by the browser (applies to read by browser or other app events only).

classmethod `eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `exists()`

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod `is_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod not_eq (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key *self._term* does not equal the provided *value*.

Parameters *value* (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod not_exists ()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod not_in (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key *self._term* is not in the provided *value_list*.

Parameters *value_list* (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.exposure_filter.WindowTitle`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events based on the name of all the browser tabs or application windows that were open when a browser or other app event occurred (applies to read by browser or other app events only).

classmethod eq (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key *self._term* equals the provided *value*.

Parameters *value* (*str*) – The value to match on.

Returns *FilterGroup*

classmethod exists ()

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod is_in (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key *self._term* is in the provided *value_list*.

Parameters *value_list* (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod not_eq (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key *self._term* does not equal the provided *value*.

Parameters *value* (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod not_exists ()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod not_in (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key *self._term* is not in the provided *value_list*.

Parameters *value_list* (*list*) – The list of values to exclude on.

Returns *FilterGroup*

Email Filters

class `py42.sdk.queries.fileevents.filters.email_filter.EmailPolicyName`

Bases: `py42.sdk.queries.query_filter.QueryFilterStringField`

Class that filters events based on the email DLP policy that detected this file (applies to emails sent via Microsoft Office 365 only).

classmethod `eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `is_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.email_filter.EmailSubject`

Bases: `py42.sdk.queries.query_filter.QueryFilterStringField`

Class that filters events based on the email's subject (applies to email events only).

classmethod `eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `is_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided *value*.

Parameters *value* (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided *value_list*.

Parameters *value_list* (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.email_filter.EmailRecipients`

Bases: `py42.sdk.queries.query_filter.QueryFilterStringField`

Class that filters events based on the email's recipient list (applies to email events only).

classmethod `eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided *value*.

Parameters *value* (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `is_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided *value_list*.

Parameters *value_list* (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided *value*.

Parameters *value* (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided *value_list*.

Parameters *value_list* (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.email_filter.EmailSender`

Bases: `py42.sdk.queries.query_filter.QueryFilterStringField`

Class that filters events based on the email's sender (applies to email events only).

classmethod `eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided *value*.

Parameters *value* (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `is_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.email_filter.EmailFrom`

Bases: `py42.sdk.queries.query_filter.QueryFilterStringField`

Class that filters events based on the display name of the email's sender, as it appears in the "From:" field in the email (applies to email events only).

classmethod `eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `is_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

Activity Filters

class `py42.sdk.queries.fileevents.filters.activity_filter.TrustedActivity`

Bases: `py42.sdk.queries.query_filter.QueryFilterBooleanField`

Class that filters events based on whether activity can be trusted.

classmethod `is_false()`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is False.

Returns *FilterGroup*

classmethod `is_true()`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is True.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.activity_filter.RemoteActivity`

Bases: `py42.sdk.queries.query_filter.QueryFilterBooleanField`

Class that filters events based on whether the activity was remote (took place outside of corporate IP range).

classmethod `is_false()`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is False.

Returns *FilterGroup*

classmethod `is_true()`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is True.

Returns *FilterGroup*

Printer Filters

class `py42.sdk.queries.fileevents.filters.print_filter.Printer`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events by printer name.

classmethod `eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `exists()`

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod `is_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod not_eq (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided *value*.

Parameters *value* (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod not_exists ()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod not_in (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided *value_list*.

Parameters *value_list* (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.fileevents.filters.print_filter.PrintJobName`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events by print job name.

classmethod eq (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided *value*.

Parameters *value* (*str*) – The value to match on.

Returns *FilterGroup*

classmethod exists ()

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod is_in (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided *value_list*.

Parameters *value_list* (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod not_eq (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided *value*.

Parameters *value* (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod not_exists ()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod not_in (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided *value_list*.

Parameters *value_list* (*list*) – The list of values to exclude on.

Returns *FilterGroup*

Risk Filters

class `py42.sdk.queries.fileevents.filters.risk_filter.RiskIndicator`

Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`

Class that filters events by risk indicator.

Available options are provided as class attributes:

- `RiskIndicator.CloudDataExposures.PUBLIC_CORPORATE_BOX`
- `RiskIndicator.CloudDataExposures.PUBLIC_CORPORATE_GOOGLE_DRIVE`
- `RiskIndicator.CloudDataExposures.PUBLIC_CORPORATE_ONEDRIVE`
- `RiskIndicator.CloudDataExposures.SENT_CORPORATE_GMAIL`
- `RiskIndicator.CloudDataExposures.SHARED_CORPORATE_BOX`
- `RiskIndicator.CloudDataExposures.SHARED_CORPORATE_GOOGLE_DRIVE`
- `RiskIndicator.CloudDataExposures.SHARED_CORPORATE_ONEDRIVE`
- `RiskIndicator.CloudStorageUploads.AMAZON_DRIVE`
- `RiskIndicator.CloudStorageUploads.BOX`
- `RiskIndicator.CloudStorageUploads.DROPBOX`
- `RiskIndicator.CloudStorageUploads.GOOGLE_DRIVE`
- `RiskIndicator.CloudStorageUploads.ICLOUD`
- `RiskIndicator.CloudStorageUploads.MEGA`
- `RiskIndicator.CloudStorageUploads.ONEDRIVE`
- `RiskIndicator.CloudStorageUploads.ZOHO`
- `RiskIndicator.CodeRepositoryUploads.BITBUCKET`
- `RiskIndicator.CodeRepositoryUploads.GITHUB`
- `RiskIndicator.CodeRepositoryUploads.GITLAB`
- `RiskIndicator.CodeRepositoryUploads.SOURCEFORGE`
- `RiskIndicator.CodeRepositoryUploads.STASH`
- `RiskIndicator.EmailServiceUploads.ONESIXTHREE_DOT_COM`
- `RiskIndicator.EmailServiceUploads.ONETWOSIX_DOT_COM`
- `RiskIndicator.EmailServiceUploads.AOL`
- `RiskIndicator.EmailServiceUploads.COMCAST`
- `RiskIndicator.EmailServiceUploads.GMAIL`
- `RiskIndicator.EmailServiceUploads.ICLOUD`
- `RiskIndicator.EmailServiceUploads.MAIL_DOT_COM`
- `RiskIndicator.EmailServiceUploads.OUTLOOK`
- `RiskIndicator.EmailServiceUploads.PROTONMAIL`

- RiskIndicator.EmailServiceUploads.QQMAIL
- RiskIndicator.EmailServiceUploads.SINA_MAIL
- RiskIndicator.EmailServiceUploads.SOHU_MAIL
- RiskIndicator.EmailServiceUploads.YAHOO
- RiskIndicator.EmailServiceUploads.ZOHO_MAIL
- RiskIndicator.ExternalDevices.AIRDROP
- RiskIndicator.ExternalDevices.REMOVABLE_MEDIA
- RiskIndicator.FileCategories.AUDIO
- RiskIndicator.FileCategories.DOCUMENT
- RiskIndicator.FileCategories.EXECUTABLE
- RiskIndicator.FileCategories.IMAGE
- RiskIndicator.FileCategories.PDF
- RiskIndicator.FileCategories.PRESENTATION
- RiskIndicator.FileCategories.SCRIPT
- RiskIndicator.FileCategories.SOURCE_CODE
- RiskIndicator.FileCategories.SPREADSHEET
- RiskIndicator.FileCategories.VIDEO
- RiskIndicator.FileCategories.VIRTUAL_DISK_IMAGE
- RiskIndicator.FileCategories.ZIP
- RiskIndicator.MessagingServiceUploads.FACEBOOK_MESSENGER
- RiskIndicator.MessagingServiceUploads.MICROSOFT_TEAMS
- RiskIndicator.MessagingServiceUploads.SLACK
- RiskIndicator.MessagingServiceUploads.WHATSAPP
- RiskIndicator.Other.OTHER
- RiskIndicator.Other.UNKNOWN
- RiskIndicator.SocialMediaUploads.FACEBOOK
- RiskIndicator.SocialMediaUploads.LINKEDIN
- RiskIndicator.SocialMediaUploads.REDDIT
- RiskIndicator.SocialMediaUploads.TWITTER
- RiskIndicator.UserBehavior.FILE_MISMATCH
- RiskIndicator.UserBehavior.OFF_HOURS
- RiskIndicator.UserBehavior.REMOTE
- RiskIndicator.UserBehavior.FIRST_DESTINATION_USE
- RiskIndicator.UserBehavior.RARE_DESTINATION_USE

class CloudDataExposures

Bases: py42.choices.Choices

```
classmethod choices ()
    Returns attribute values for the given class.
    Returns A list containing the attribute values of the given class.
    Return type (list)

class CloudStorageUploads
    Bases: py42.choices.Choices

    classmethod choices ()
        Returns attribute values for the given class.
        Returns A list containing the attribute values of the given class.
        Return type (list)

class CodeRepositoryUploads
    Bases: py42.choices.Choices

    classmethod choices ()
        Returns attribute values for the given class.
        Returns A list containing the attribute values of the given class.
        Return type (list)

class EmailServiceUploads
    Bases: py42.choices.Choices

    classmethod choices ()
        Returns attribute values for the given class.
        Returns A list containing the attribute values of the given class.
        Return type (list)

class ExternalDevices
    Bases: py42.choices.Choices

    classmethod choices ()
        Returns attribute values for the given class.
        Returns A list containing the attribute values of the given class.
        Return type (list)

class FileCategories
    Bases: py42.choices.Choices

    classmethod choices ()
        Returns attribute values for the given class.
        Returns A list containing the attribute values of the given class.
        Return type (list)

class MessagingServiceUploads
    Bases: py42.choices.Choices

    classmethod choices ()
        Returns attribute values for the given class.
        Returns A list containing the attribute values of the given class.
        Return type (list)

class Other
    Bases: py42.choices.Choices

    classmethod choices ()
        Returns attribute values for the given class.
        Returns A list containing the attribute values of the given class.
        Return type (list)
```

class SocialMediaUploadsBases: `py42.choices.Choices`**classmethod choices()**

Returns attribute values for the given class.

Returns A list containing the attribute values of the given class.**Return type** (list)**class UserBehavior**Bases: `py42.choices.Choices`**classmethod choices()**

Returns attribute values for the given class.

Returns A list containing the attribute values of the given class.**Return type** (list)**classmethod eq(value)**Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.**Parameters value** (*str*) – The value to match on.**Returns** *FilterGroup***classmethod exists()**Returns a *FilterGroup* to find events where filter data exists.**Returns** *FilterGroup***classmethod is_in(value_list)**Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.**Parameters value_list** (*list*) – The list of values to match on.**Returns** *FilterGroup***classmethod not_eq(value)**Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.**Parameters value** (*str*) – The value to exclude on.**Returns** *FilterGroup***classmethod not_exists()**Returns a *FilterGroup* to find events where filter data does not exist.**Returns** *FilterGroup***classmethod not_in(value_list)**Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.**Parameters value_list** (*list*) – The list of values to exclude on.**Returns** *FilterGroup***class py42.sdk.queries.fileevents.filters.risk_filter.RiskSeverity**Bases: `py42.sdk.queries.fileevents.file_event_query.FileEventFilterStringField`,
`py42.choices.Choices`

Class that filters events by risk severity.

Available options are provided as class attributes:

- RiskSeverity.LOW
- RiskSeverity.MODERATE
- RiskSeverity.HIGH
- RiskSeverity.CRITICAL
- RiskSeverity.NO_RISK_INDICATED

classmethod choices()

Returns attribute values for the given class.

Returns A list containing the attribute values of the given class.

Return type (list)

classmethod eq(value)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters value (*str*) – The value to match on.

Returns *FilterGroup*

classmethod exists()

Returns a *FilterGroup* to find events where filter data exists.

Returns *FilterGroup*

classmethod is_in(value_list)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters value_list (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod not_eq(value)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters value (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod not_exists()

Returns a *FilterGroup* to find events where filter data does not exist.

Returns *FilterGroup*

classmethod not_in(value_list)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters value_list (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class py42.sdk.queries.fileevents.filters.risk_filter.RiskScore

Bases: `py42.sdk.queries.query_filter.QueryFilterStringField`, `py42.sdk.queries.fileevents.file_event_query.FileEventFilterComparableField`

Class that filters events by risk score.

classmethod `eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided *value*.

Parameters *value* (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `greater_than` (*value*)

Returns a *FilterGroup* to find events where filter data is greater than the provided value.

Parameters *value* (*str or int or float*) – The value used to filter file events.

Returns *FilterGroup*

classmethod `is_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided *value_list*.

Parameters *value_list* (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `less_than` (*value*)

Returns a *FilterGroup* to find events where filter data is less than than the provided value.

Parameters *value* (*str or int or float*) – The value used to filter file events.

Returns *FilterGroup*

classmethod `not_eq` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided *value*.

Parameters *value* (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_in` (*value_list*)

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided *value_list*.

Parameters *value_list* (*list*) – The list of values to exclude on.

Returns *FilterGroup*

2.2.13 Legal Hold

class `py42.services.legalhold.LegalHoldService` (*connection*)

Bases: `py42.services.BaseService`

A service for interacting with Code42 Legal Hold APIs.

The `LegalHoldService` provides the ability to manage Code42 Legal Hold Policies and Matters. It can: - Create, view, and list all existing Policies. - Create, view, deactivate, reactivate, and list all existing Matters. - Add/remove Custodians from a Matter.

add_to_matter (*user_uid*, *legal_hold_uid*)

Add a user (Custodian) to a Legal Hold Matter.

Parameters

- **user_uid** (*str*) – The identifier of the user.
- **legal_hold_uid** (*str*) – The identifier of the Legal Hold Matter.

Returns *py42.response.Py42Response*

create_matter (*name, hold_policy_uid, description=None, notes=None, hold_ext_ref=None*)

Creates a new, active Legal Hold Matter.

Parameters

- **name** (*str*) – The name of the new Legal Hold Matter.
- **hold_policy_uid** (*str*) – The identifier of the Preservation Policy that will apply to this Matter.
- **description** (*str, optional*) – An optional description of the Matter. Defaults to None.
- **notes** (*str, optional*) – Optional notes information. Defaults to None.
- **hold_ext_ref** (*str, optional*) – Optional external reference information. Defaults to None.

Returns *py42.response.Py42Response*

create_policy (*name, policy=None*)

Creates a new Legal Hold Preservation Policy.

Parameters

- **name** (*str*) – The name of the new Policy.
- **policy** (*dict, optional*) – The desired Preservation Policy settings as a dict. Defaults to None (where the server-default backup set is used).

Returns *py42.response.Py42Response*

deactivate_matter (*legal_hold_uid*)

Deactivates and closes a Legal Hold Matter.

Parameters **legal_hold_uid** (*str*) – The identifier of the Legal Hold Matter.

Returns *py42.response.Py42Response*

get_all_events (*legal_hold_uid=None, min_event_date=None, max_event_date=None*)

Gets an individual page of Legal Hold events.

Parameters

- **legal_hold_uid** (*str, optional*) – Find LegalHoldEvents for the Legal Hold Matter with this unique identifier. Defaults to None.
- **min_event_date** (*str or int or float or datetime, optional*) – Find LegalHoldEvents whose eventDate is equal to or after this time. E.g. yyyy-MM-dd HH:MM:SS. Defaults to None.
- **max_event_date** (*str or int or float or datetime, optional*) – Find LegalHoldEvents whose eventDate is equal to or before this time. E.g. yyyy-MM-dd HH:MM:SS. Defaults to None.

Returns An object that iterates over *py42.response.Py42Response* objects that each contain a page of LegalHoldEvent objects.

Return type generator

get_all_matter_custodians (*legal_hold_uid=None, user_uid=None, user=None, active=True*)

Gets all Legal Hold memberships.

Each user (Custodian) who has been added to a Legal Hold Matter is returned by the server as a LegalHoldMembership object in the response body. If the object's active state is "INACTIVE", they have been removed from the Matter and are no longer subject to the Legal Hold retention rules. Users can be Custodians of multiple Legal Holds at once (and thus would be part of multiple LegalHoldMembership objects).

Parameters

- **legal_hold_uid** (*str, optional*) – Find LegalHoldMemberships for the Legal Hold Matter with this unique identifier. Defaults to None.
- **user_uid** (*str, optional*) – Find LegalHoldMemberships for the user with this identifier. Defaults to None.
- **user** (*str, optional*) – Find LegalHoldMemberships by flexibly searching on username, email, extUserRef, or last name. Will find partial matches. Defaults to None.
- **active** (*bool or None, optional*) – Find LegalHoldMemberships by their active state. True returns active LegalHoldMemberships, False returns inactive LegalHoldMemberships, None returns all LegalHoldMemberships regardless of state. Defaults to True.

Returns An object that iterates over `py42.response.Py42Response` objects that each contain a page of LegalHoldMembership objects.

Return type generator

get_all_matters (*creator_user_uid=None, active=True, name=None, hold_ext_ref=None*)

Gets all existing Legal Hold Matters.

Parameters

- **creator_user_uid** (*str, optional*) – Find Matters by the identifier of the user who created them. Defaults to None.
- **active** (*bool or None, optional*) – Find Matters by their active state. True returns active Matters, False returns inactive Matters, None returns all Matters regardless of state. Defaults to True.
- **name** (*str, optional*) – Find Matters with a 'name' that either equals or contains this value. Defaults to None.
- **hold_ext_ref** (*str, optional*) – Find Matters having a matching external reference field. Defaults to None.

Returns An object that iterates over `py42.response.Py42Response` objects that each contain a page of Legal Hold Matters.

Return type generator

get_custodians_page (*page_num, legal_hold_membership_uid=None, legal_hold_uid=None, user_uid=None, user=None, active=True, page_size=None*)

Gets an individual page of Legal Hold memberships. One of the following optional args is required to determine which custodians to retrieve:

legal_hold_membership_uid, legal_hold_uid, user_uid, user

Parameters

- **page_num** (*int*) – The page number to request.
- **legal_hold_membership_uid** (*str, optional*) – Find LegalHoldMemberships with a specific membership UID. Defaults to None.
- **legal_hold_uid** (*str, optional*) – Find LegalHoldMemberships for the Legal Hold Matter with this unique identifier. Defaults to None.

- **user_uid** (*str, optional*) – Find LegalHoldMemberships for the user with this identifier. Defaults to None.
- **user** (*str, optional*) – Find LegalHoldMemberships by flexibly searching on username, email, extUserRef, or last name. Will find partial matches. Defaults to None.
- **active** (*bool or None, optional*) – Find LegalHoldMemberships by their active state. True returns active LegalHoldMemberships, False returns inactive LegalHoldMemberships, None returns all LegalHoldMemberships regardless of state. Defaults to True.
- **page_size** (*int, optional*) – The size of the page. Defaults to `py42.settings.items_per_page`.

Returns

Return type `py42.response.Py42Response`

get_events_page (*legal_hold_uid=None, min_event_date=None, max_event_date=None, page_num=1, page_size=None*)

Gets an individual page of Legal Hold events.

Parameters

- **legal_hold_uid** (*str, optional*) – Find LegalHoldEvents for the Legal Hold Matter with this unique identifier. Defaults to None.
- **min_event_date** (*str or int or float or datetime, optional*) – Find LegalHoldEvents whose eventDate is equal to or after this time. E.g. yyyy-MM-dd HH:MM:SS. Defaults to None.
- **max_event_date** (*str or int or float or datetime, optional*) – Find LegalHoldEvents whose eventDate is equal to or before this time. E.g. yyyy-MM-dd HH:MM:SS. Defaults to None.
- **page_num** (*int*) – The page number to request. Defaults to 1.
- **page_size** (*int, optional*) – The size of the page. Defaults to `py42.settings.items_per_page`.

Returns

Return type `py42.response.Py42Response`

get_matter_by_uid (*legal_hold_uid*)

Gets a single Legal Hold Matter.

Parameters **legal_hold_uid** (*str*) – The identifier of the Legal Hold Matter.

Returns A response containing the Matter.

Return type `py42.response.Py42Response`

get_matters_page (*page_num, creator_user_uid=None, active=True, name=None, hold_ext_ref=None, page_size=None*)

Gets a page of existing Legal Hold Matters.

Parameters

- **page_num** (*int*) – The page number to request.
- **creator_user_uid** (*str, optional*) – Find Matters by the identifier of the user who created them. Defaults to None.

- **active** (*bool or None, optional*) – Find Matters by their active state. True returns active Matters, False returns inactive Matters, None returns all Matters regardless of state. Defaults to True.
- **name** (*str, optional*) – Find Matters with a ‘name’ that either equals or contains this value. Defaults to None.
- **hold_ext_ref** (*str, optional*) – Find Matters having a matching external reference field. Defaults to None.
- **page_size** (*int, optional*) – The number of legal hold items to return per page. Defaults to `py42.settings.items_per_page`.

Returns

Return type `py42.response.Py42Response`

get_policy_by_uid (*legal_hold_policy_uid*)

Gets a single Preservation Policy.

Parameters **legal_hold_policy_uid** (*str*) – The identifier of the Preservation Policy.

Returns A response containing the Policy.

Return type `py42.response.Py42Response`

get_policy_list ()

Gets a list of existing Preservation Policies.

Returns A response containing the list of Policies.

Return type `py42.response.Py42Response`

reactivate_matter (*legal_hold_uid*)

Reactivates and re-opens a closed Matter.

Parameters **legal_hold_uid** (*str*) – The identifier of the Legal Hold Matter.

Returns `py42.response.Py42Response`

remove_from_matter (*legal_hold_membership_uid*)

Remove a user (Custodian) from a Legal Hold Matter.

Parameters **legal_hold_membership_uid** (*str*) – The identifier of the LegalHold-Membership representing the Custodian to Matter relationship.

Returns `py42.response.Py42Response`

2.2.14 Orgs

class `py42.services.orgs.OrgService` (*connection*)

Bases: `py42.services.BaseService`

A service for interacting with Code42 organization APIs.

Use the OrgService to create and retrieve organizations. You can also use it to block and deactivate organizations.

block (*org_id*)

Blocks the organization with the given org ID as well as its child organizations. A blocked organization will not allow any of its users or devices to log in. New registrations will be rejected and all currently logged in clients will be logged out. Backups continue for any devices that are still active.

Parameters **org_id** (*int*) – An ID for an organization.

Returns `py42.response.Py42Response`

create_org (*org_name*, *org_ext_ref=None*, *notes=None*, *parent_org_uid=None*)

Creates a new organization.

Parameters

- **org_name** (*str*) – The name of the new organization.
- **org_ext_ref** (*str*, *optional*) – External reference information, such as a serial number, asset tag, employee ID, or help desk issue ID. Defaults to None.
- **notes** (*str*, *optional*) – Descriptive information about the organization. Defaults to None.
- **parent_org_uid** (*int*, *optional*) – The org UID for the parent organization. Defaults to None.

Returns `py42.response.Py42Response`

deactivate (*org_id*)

Deactivates the organization with the given ID, including all users, plans, and devices. Backups stop and archives move to cold storage.

Parameters **org_id** (*int*) – An ID for an organization.

Returns `py42.response.Py42Response`

get_agent_full_disk_access_states (*org_id*)

Gets the full disk access status for devices in an org.

Parameters **org_id** (*str*) – The org’s identifier.

Returns A response containing settings information.

Return type `py42.response.Py42Response`

get_agent_state (*org_id*, *property_name*)

Gets the agent state of the devices in the org.

Parameters

- **org_id** (*str*) – The org’s identifier.
- **property_name** (*str*) – The name of the property to retrieve (e.g. *fullDiskAccess*).

Returns A response containing settings information.

Return type `py42.response.Py42Response`

get_all (***kwargs*)

Gets all organizations.

Returns An object that iterates over `py42.response.Py42Response` objects that each contain a page of organizations.

Return type generator

get_by_id (*org_id*, (***kwargs*))

Gets the organization with the given ID.

Parameters **org_id** (*int*) – An ID for an organization.

Returns A response containing the organization.

Return type `py42.response.Py42Response`

get_by_uid (*org_uid*, ***kwargs*)

Gets the organization with the given UID.

Parameters **org_uid** (*str*) – A UID for an organization.

Returns A response containing the organization.

Return type *py42.response.Py42Response*

get_current (***kwargs*)

Gets the organization for the currently signed-in user.

Returns A response containing the organization for the currently signed-in user.

Return type *py42.response.Py42Response*

get_page (*page_num*, *page_size=None*, ***kwargs*)

Gets an individual page of organizations.

Parameters

- **page_num** (*int*) – The page number to request.
- **page_size** (*int*, *optional*) – The number of organizations to return per page. Defaults to *py42.settings.items_per_page*.
- **kwargs** (*dict*, *optional*) – Additional advanced-user arguments. Defaults to None.

Returns *py42.response.Py42Response*

get_settings (*org_id*)

Gets setting data for an org and returns an *OrgSettingsManager* for the target org.

Parameters **org_id** (*int*, *str*) – The identifier of the org.

Returns A class to help manage org settings.

Return type *py42.clients._settings_managers.OrgSettings*

reactivate (*org_id*)

Reactivates the organization with the given ID. Backups are *not* restarted automatically.

Parameters **org_id** (*int*) – An ID for an organization.

Returns *py42.response.Py42Response*

unblock (*org_id*)

Removes a block, if one exists, on an organization and its descendants with the given ID. All users in the organization remain blocked until they are unblocked individually.

Parameters **org_id** (*int*) – An ID for an organization.

Returns *py42.response.Py42Response*

update_settings (*org_settings*)

Updates an org's settings based on changes to the passed in *OrgSettings* instance.

Parameters **org_settings** (*OrgSettings*) – An *OrgSettings* instance with desired modifications to settings.

Returns A namedtuple containing the result of the setting change api calls.

Return type *py42.services.orgs.OrgSettings*

2.2.15 Org Settings

class py42.clients.settings.org_settings.**OrgSettings** (*org_settings, t_settings*)

Bases: collections.UserDict

Class used to manage an Organization's settings.

archive_hold_days

Number of days backup archives are held in cold storage after deactivation or destination removal from any devices in this Org.

backup_alert_recipient_emails

List of email addresses that organization backup alert emails get sent to (org admin users get these automatically).

backup_critical_email_days

The number of days devices in this org can go without any backup before "critical" alerts get sent to org admins.

backup_warning_email_days

The number of days devices in this org can go without any backup before "warning" alerts get sent to org admins.

endpoint_monitoring_background_priority_enabled

Determines if devices in this org have reduced priority in some IO bound tasks. If enabled, devices may see improved general device performance at the expense of some Code42 backup/security tasks taking longer.

endpoint_monitoring_browser_and_applications_enabled

Determines if browser and other application activity endpoint monitoring event capturing is enabled for this org.

endpoint_monitoring_cloud_sync_enabled

Determines if cloud sync endpoint monitoring event capturing is enabled for this org.

endpoint_monitoring_custom_applications_mac

List of additional applications the Code42 client monitors for file exfiltration activity.

See [Support Documentation](#) for more details.

endpoint_monitoring_custom_applications_win

List of additional applications the Code42 client monitors for file exfiltration activity.

See [Support Documentation](#) for more details.

endpoint_monitoring_enabled

Determines if endpoint monitoring settings are enabled for this org.

Disabling this property also disables "removable media", "cloud sync", "browser and application monitoring" and "printer detection" properties.

endpoint_monitoring_file_exfiltration_detection_exclusions

File types and file paths to exclude from file exfiltration detection.

See [Support Documentation](#) for more details on the shape of the body this setting expects.

endpoint_monitoring_file_metadata_collection_enabled

Determines if file metadata collection is enabled for this org.

endpoint_monitoring_file_metadata_collection_exclusions

File types and file paths to exclude from file metadata collection.

See [Support Documentation](#) for more details on the shape of the body this setting expects.

endpoint_monitoring_file_metadata_ingest_scan_enabled

Determines if file metadata collection does an initial full scan when first enabled on devices.

endpoint_monitoring_file_metadata_scan_enabled

Determines if file metadata collection regular full scans are enabled for this org.

endpoint_monitoring_printer_detection_enabled

Determines if printer endpoint monitoring event capturing is enabled for this org.

endpoint_monitoring_removable_media_enabled

Determines if removable media endpoint monitoring event capturing is enabled for this org.

external_reference

External reference field for this Org.

maximum_user_subscriptions

Number of users allowed to consume a license in this Org. Set to -1 for unlimited.

notes

Notes field for this Org.

org_backup_quota

Backup storage quota (in GB) for this organization. Set to -1 for unlimited.

org_id

The identifier for the org.

org_name

Name for this Org.

packets

The setting packets for any modifications to be posted to the /api/OrgSettings endpoint.

quota_settings_inherited

Determines if Org Quota settings (*maximum_user_subscriptions*, *org_backup_quota*, *user_backup_quota*, *archive_hold_days*) are inherited from parent organization.

Modifying one of the Org Quota attributes automatically sets this attribute to *False*.

registration_key

The registration key for the org.

reporting_settings_inherited

Determines if Org Reporting settings (*backup_warning_email_days*, *backup_critical_email_days*, *backup_alert_recipient_emails*) are inherited from parent organization.

Modifying one of the Org Reporting attributes automatically sets this attribute to *False*.

user_backup_quota

Backup storage quota (in GB) for each user in this organization. Set to -1 for unlimited.

web_restore_admin_limit

Limit (in MB) to amount of data restorable by admin users via web restore.

web_restore_enabled

Determines if web restores are enabled for devices in this org.

web_restore_user_limit

Limit (in MB) to amount of data restorable by non-admin users via web restore.

class py42.clients.settings.device_settings.**DeviceSettingsDefaults** (*device_dict*,
org_settings)

Bases: collections.UserDict

Class used for managing an Organization's Device Default settings. Also acts as a base class for *DeviceSettings* to manage individual device settings.

available_destinations

Returns a dict of destinations available to be used by devices. Dict keys are destination guids and values are destination names.

backup_status_email_enabled

Determines if the regularly scheduled backup status email is enabled.

backup_status_email_frequency_days

Determines the frequency of the regularly scheduled backup status email.

critical_alert_days

The number of days a device can go without any backup activity before "warning" alert threshold is passed.

critical_email_enabled

Determines if backup "critical" threshold email alerts are configured for this device.

warning_alert_days

The number of days a device can go without any backup activity before "warning" alert threshold is passed.

warning_email_enabled

Determines if backup "warning" threshold email alerts are configured for this device.

2.2.16 Response

class `py42.response.Py42Response` (*requests_response*)

Bases: `object`

encoding

The encoding used to decode the response text.

headers

A case-insensitive dictionary of response headers.

iter_content (*chunk_size=1, decode_unicode=False*)

Iterates over the response data. When `stream=True` is set on the request, this avoids reading the content at once into memory for large responses.

Parameters

- **chunk_size** (*int, optional*) – The number of bytes it should read into memory. A value of `None` will function differently depending on the value of *stream*. `stream=True` will read data as it arrives in whatever size the chunks are received. If `stream=False`, data is returned as a single chunk. This is not necessarily the length of each item. Defaults to 1.
- **decode_unicode** (*bool, optional*) – If `True`, content will be decoded using the best available encoding based on the response. Defaults to `False`.

raw_text

The `response.Response.text` property. It contains raw metadata that is not included in the `Py42Response.text` property.

status_code

An integer code of the response HTTP Status, e.g. 404 or 200.

text

The more useful parts of the HTTP response dumped into a dictionary.

url

The final URL location of response.

2.2.17 Security Data

```
class py42.clients.securitydata.SecurityDataClient (file_event_service,           preservation_data_service,  
                                                    saved_search_service,       storage_service_factory)
```

Bases: object

savedsearches

A collection of methods related to retrieving forensic search data.

Returns class: *py42.services.savedsearch.SavedSearchService*

search_all_file_events (*query, page_token=""*)

Searches for all file events, returning a page of events with a token in the response to retrieve next page.
[REST Documentation](#)

Parameters

- **query** (str or *py42.sdk.queries.fileevents.file_event_query.FileEventQuery*) – The file event query to filter search results.
- **page_token** (*str, optional*) – A token used to indicate the starting point for additional page results. For the first page, do not pass *page_token*. For all consecutive pages, pass the token from the previous response from field *nextPgToken*. Defaults to empty string.

Returns A response containing a page of events.

Return type *py42.response.Py42Response*

search_file_events (*query*)

Searches for file events, returns up to the first 10,000 events. [REST Documentation](#)

Parameters **query** (str or *py42.sdk.queries.fileevents.file_event_query.FileEventQuery*) – The file event query to filter search results.

Returns A response containing the first 10,000 events.

Return type *py42.response.Py42Response*

stream_file_by_md5 (*checksum*)

Stream file based on MD5 checksum.

Parameters **checksum** (*str*) – MD5 hash of the file.

Returns Returns a stream of the requested file.

stream_file_by_sha256 (*checksum*)

Stream file based on SHA256 checksum.

Parameters **checksum** (*str*) – SHA256 hash of the file.

Returns Returns a stream of the requested file.

2.2.18 Shared Query Filters

class py42.sdk.queries.query_filter.**FilterGroup** (*filter_list*, *filter_clause='AND'*)

Bases: object

Class for constructing a logical sub-group of related filters from a list of *QueryFilter* objects. Takes a list of *QueryFilter* objects and combines them logically using the passed in filter clause (AND or OR).

When `str()` is called on a *FilterGroup* instance, the combined filter items are transformed into a JSON string to be used as part of a Forensic Search or Alert query.

When `dict()` is called on a *FilterGroup* instance, the combined filter items are transformed into the Python *dict* equivalent of their JSON representation. This can be useful for programmatically manipulating a *FilterGroup* after it's been created.

filter_clause

The clause joining the filters, such as AND or OR.

filter_list

The list of *QueryFilter* objects in this group.

classmethod `from_dict` (*_dict*)

Creates an instance of *FilterGroup* from the values found in *_dict*. *_dict* must contain keys *filters* and *filterClause*.

Parameters *_dict* (*dict*) – A dictionary containing keys *term*, *operator*, and *value*.

Returns *FilterGroup*

class py42.sdk.queries.query_filter.**QueryFilter** (*term*, *operator*, *value=None*)

Bases: object

Class for constructing a single filter object for use in a search query.

When `str()` is called on a *QueryFilter* instance, the (*term*, *operator*, *value*) attribute combination is transformed into a JSON string to be used as part of a Forensic Search or Alert query.

When `dict()` is called on a *QueryFilter* instance, the (*term*, *operator*, *value*) attribute combination is transformed into the Python *dict* equivalent of their JSON representation. This can be useful for programmatically manipulating a *QueryFilter* after it's been created.

classmethod `from_dict` (*_dict*)

Creates an instance of *QueryFilter* from the values found in *_dict*. *_dict* must contain keys *term*, *operator*, and *value*.

Parameters *_dict* (*dict*) – A dictionary containing keys *term*, *operator*, and *value*.

Returns *QueryFilter*

operator

The operator between *term* and *value*, such as IS or *IS_NOT*.

term

The term of the filter, such as actor or sharedWith.

value

The value used to filter results.

class py42.sdk.queries.query_filter.**QueryFilterBooleanField**

Bases: object

Helper class for creating filters where the search value is a boolean.

classmethod `is_false()`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is False.

Returns *FilterGroup*

classmethod `is_true()`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is True.

Returns *FilterGroup*

class `py42.sdk.queries.query_filter.QueryFilterStringField`

Bases: `object`

Helper class for creating filters where the search value is a string.

classmethod `eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` equals the provided `value`.

Parameters `value` (*str*) – The value to match on.

Returns *FilterGroup*

classmethod `is_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to match on.

Returns *FilterGroup*

classmethod `not_eq(value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` does not equal the provided `value`.

Parameters `value` (*str*) – The value to exclude on.

Returns *FilterGroup*

classmethod `not_in(value_list)`

Returns a *FilterGroup* that is useful for finding results where the value with the key `self._term` is not in the provided `value_list`.

Parameters `value_list` (*list*) – The list of values to exclude on.

Returns *FilterGroup*

class `py42.sdk.queries.query_filter.QueryFilterTimestampField`

Bases: `object`

Helper class for creating filters where the search value is a timestamp.

classmethod `in_range(start_value, end_value)`

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is in range between the provided `start_value` and `end_value`.

Parameters

- **start_value** (*str or int or float or datetime*) – The start value used to filter results.
- **end_value** (*str or int or float or datetime*) – The end value used to filter results.

Returns *FilterGroup*

classmethod `on_or_after` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is on or after the provided `value`.

Parameters `value` (*str or int or float or datetime*) – The value used to filter results.

Returns *FilterGroup*

classmethod `on_or_before` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is on or before the provided `value`.

Parameters `value` (*str or int or float or datetime*) – The value used to filter results.

Returns *FilterGroup*

classmethod `on_same_day` (*value*)

Returns a *FilterGroup* that is useful for finding results where the value with key `self._term` is within the same calendar day as the provided `value`.

Parameters `value` (*str or int or float or datetime*) – The value used to filter results.

Returns *FilterGroup*

`py42.sdk.queries.query_filter.create_eq_filter_group` (*term, value*)

“Creates a *FilterGroup* for filtering results where the value with key `term` equals the given value. Useful for creating IS filters that are not yet supported in py42 or programmatically crafting filter groups.

Parameters

- **term** – (str): The term of the filter, such as `actor` or `sharedWith`.
- **value** (*str*) – The value used to match on.

Returns *FilterGroup*

`py42.sdk.queries.query_filter.create_filter_group` (*query_filter_list, filter_clause*)

Creates a *FilterGroup* object. Useful for programmatically crafting query filters, such as filters not yet defined in py42. Alternatively, if you want to create custom filter groups with already defined operators (such as *IS* or *IS_IN*), see the other methods in this module, such as `create_eq_filter_group` ().

Parameters

- **query_filter_list** (*list*) – a list of *QueryFilter* objects.
- **filter_clause** (*str*) – The clause joining the filters, such as `AND` or `OR`.

Returns *FilterGroup*

`py42.sdk.queries.query_filter.create_in_range_filter_group` (*term, start_value, end_value*)

“Creates a *FilterGroup* for filtering results where the value with key `term` is in the given range. Examples include values describing dates. Useful for creating a combination of `ON_OR_AFTER` and `ON_OR_BEFORE` filters that are not yet supported in py42 or programmatically crafting filter groups.

Parameters

- **term** – (str): The term of the filter, such as `eventTimestamp`.
- **start_value** (*str or int*) – The start value used to filter results.

- **end_value** (*str or int*) – The end value used to filter results.

Returns *FilterGroup*

`py42.sdk.queries.query_filter.create_is_in_filter_group(term, value_list)`

“Creates a *FilterGroup* for filtering results where the value with key `term` is one of several values. Useful for creating IS_IN filters that are not yet supported in py42 or programmatically crafting filter groups.

Parameters

- **term** – (str): The term of the filter, such as `actor` or `sharedWith`.
- **value_list** (*list*) – The list of values to match on.

Returns *FilterGroup*

`py42.sdk.queries.query_filter.create_not_eq_filter_group(term, value)`

“Creates a *FilterGroup* for filtering results where the value with key `term` does not equal the given value. Useful for creating IS_NOT filters that are not yet supported in py42 or programmatically crafting filter groups.

Parameters

- **term** – (str): The term of the filter, such as `actor` or `sharedWith`.
- **value** (*str*) – The value used to exclude on.

Returns *FilterGroup*

`py42.sdk.queries.query_filter.create_not_in_filter_group(term, value_list)`

“Creates a *FilterGroup* for filtering results where the value with key `term` is not one of several values. Useful for creating NOT_IN filters that are not yet supported in py42 or programmatically crafting filter groups.

Parameters

- **term** – (str): The term of the filter, such as `actor` or `sharedWith`.
- **value_list** (*list*) – The list of values to exclude on.

Returns *FilterGroup*

`py42.sdk.queries.query_filter.create_on_or_after_filter_group(term, value)`

“Creates a *FilterGroup* for filtering results where the value with key `term` is on or after the given value. Examples include values describing dates. Useful for creating ON_OR_AFTER filters that are not yet supported in py42 or programmatically crafting filter groups.

Parameters

- **term** – (str): The term of the filter, such as `eventTimestamp`.
- **value** (*str or int*) – The value used to filter results.

Returns *FilterGroup*

`py42.sdk.queries.query_filter.create_on_or_before_filter_group(term, value)`

“Creates a *FilterGroup* for filtering results where the value with key `term` is on or before the given value. Examples include values describing dates. Useful for creating ON_OR_BEFORE filters that are not yet supported in py42 or programmatically crafting filter groups.

Parameters

- **term** – (str): The term of the filter, such as `eventTimestamp`.
- **value** (*str or int*) – The value used to filter results.

Returns *FilterGroup*

`py42.sdk.queries.query_filter.create_query_filter` (*term, operator, value=None*)
 Creates a *QueryFilter* object. Useful for programmatically crafting query filters, such as filters not yet defined in py42.

Parameters

- **term** (*str*) – The term of the filter, such as actor or sharedWith.
- **operator** (*str*) – The operator between term and value, such as IS or *IS_NOT*.
- **value** (*str*) – The value used to filter results.

Returns *QueryFilter*

`py42.sdk.queries.query_filter.create_within_the_last_filter_group` (*term, value*)
 Returns a *FilterGroup* that is useful for finding results where the key term is an *EventTimestamp*.
_term and the value is one of the *EventTimestamp* attributes as *value*.

Parameters **value** (*str*) – *EventTimestamp* attribute.

Returns *FilterGroup*

2.2.19 Trusted Activities

class `py42.clients.trustedactivities.TrustedActivityType`

Bases: `py42.choices.Choices`

Constants available for setting the type of a trusted activity.

- DOMAIN
- SLACK

class `py42.clients.trustedactivities.TrustedActivitiesClient` (*trusted_activities_service*)

Bases: `object`

A client to expose the trusted activities/data preferences API

[Rest documentation](#)

create (*type, value, description=None*)

Gets all trusted activities with the given type. *Rest documentation* <<https://developer.code42.com/api>>

Parameters

- **type** (*str*) – Type of the trusted activity. Defaults to None. Constants available at `py42.constants.TrustedActivityType`.
- **value** (*str*) – The URL of the domain or name of the Slack workspace.
- **description** (*str, optional*) – Description of the trusted activity.

Returns `py42.response.Py42Response`

delete (*id*)

Deletes a trusted activity by given resource number. *Rest documentation* <<https://developer.code42.com/api>>

Parameters **id** (*int*) – Resource number of the trusted activity or domain.

Returns `py42.response.Py42Response`

get (*id*)
Retrieve trusted activity details by given resource number. *Rest documentation* <<https://developer.code42.com/api>>

Parameters **id** (*int*) – Resource number of the trusted activity or domain.

Returns *py42.response.Py42Response*

get_all (*type=None, page_size=None*)
Gets all trusted activities. *Rest documentation* <<https://developer.code42.com/api>>

Parameters

- **type** (*str, optional*) – Type of the trusted activity. Defaults to None. Constants available at *py42.constants.TrustedActivityType*.
- **page_size** (*int, optional*) – Number of results to return per page. Defaults to 100.

Returns An object that iterates over *py42.response.Py42Response* objects that each contain a page of cases.

Return type generator

update (*id, value=None, description=None*)
Updates trusted activity details by given resource number. *Rest documentation* <<https://developer.code42.com/api>>

Parameters

- **id** (*int*) – Resource number of the trusted activity.
- **value** (*str, optional*) – The URL of the domain or name of the Slack workspace.
- **description** (*str, optional*) – Description of the trusted activity.

Returns *py42.response.Py42Response*

2.2.20 Users

class `py42.services.users.UserService` (*connection*)
Bases: `py42.services.BaseService`

A service for interacting with Code42 user APIs. Use the `UserService` to create and retrieve users. You can also use it to block and deactivate users.

add_role (*user_id, role_name*)
Adds a role to a user.

Parameters

- **user_id** (*int*) – An ID for a user.
- **role_name** (*str*) – The name of the role to assign to the user.

Returns *py42.response.Py42Response*

block (*user_id*)
Blocks the user with the given ID. A blocked user is not allowed to log in or restore files. Backups will continue if the user is still active.

Parameters **user_id** (*int*) – An ID for a user.

Returns *py42.response.Py42Response*

change_org_assignment (*user_id, org_id*)

Assigns a user to a different organization.

Parameters

- **user_id** (*int*) – An ID for a user.
- **org_id** (*int*) – An ID for the organization to move the user to.

Returns *py42.response.Py42Response*

create_user (*org_uid, username, email, password=None, first_name=None, last_name=None, notes=None*)

Creates a new user. WARNING: If the provided username already exists for a user, it will be updated in the database instead.

Parameters

- **org_uid** (*str*) – The org UID for the organization the new user belongs to.
- **username** (*str*) – The username for the new user.
- **email** (*str*) – The email for the new user.
- **password** (*str, optional*) – The password for the new user. Defaults to None.
- **first_name** (*str, optional*) – The first name for the new user. Defaults to None.
- **last_name** (*str, optional*) – The last name for the new user. Defaults to None.
- **notes** (*str, optional*) – Descriptive information about the user. Defaults to None.

Returns *py42.response.Py42Response*

deactivate (*user_id, block_user=None*)

Deactivates the user with the given user ID. Backups discontinue for a deactivated user, and their archives go to cold storage.

Parameters

- **user_id** (*int*) – An ID for a user.
- **block_user** (*bool, optional*) – Blocks the user upon deactivation. Defaults to None.

Returns *py42.response.Py42Response*

get_all (*active=None, email=None, org_uid=None, role_id=None, q=None, **kwargs*)

Gets all users.

Parameters

- **active** (*bool, optional*) – True gets active users only, and false gets deactivated users only. Defaults to None.
- **email** (*str, optional*) – Limits users to only those with this email. Defaults to None.
- **org_uid** (*str, optional*) – Limits users to only those in the organization with this org UID. Defaults to None.
- **role_id** (*int, optional*) – Limits users to only those with a given role ID. Defaults to None.
- **q** (*str, optional*) – A generic query filter that searches across name, username, and email. Defaults to None.

Returns An object that iterates over `py42.response.Py42Response` objects that each contain a page of users.

Return type generator

get_available_roles ()

Report the list of roles that are available for the authenticated user to assign to other users.

Returns `py42.response.Py42Response`

get_by_id (*user_id*, ***kwargs*)

Gets the user with the given ID. [Rest Documentation](#)

Parameters **user_id** (*int*) – An ID for a user.

Returns A response containing the user.

Return type `py42.response.Py42Response`

get_by_uid (*user_uid*, ***kwargs*)

Gets the user with the given UID.

Parameters **user_uid** (*str*) – A UID for a user.

Returns A response containing the user.

Return type `py42.response.Py42Response`

get_by_username (*username*, ***kwargs*)

Gets the user with the given username.

Parameters **username** (*str or unicode*) – A username for a user.

Returns A response containing the user.

Return type `py42.response.Py42Response`

get_current (***kwargs*)

Gets the currently signed in user.

Returns A response containing the user.

Return type `py42.response.Py42Response`

get_page (*page_num*, *active=None*, *email=None*, *org_uid=None*, *role_id=None*, *page_size=None*, *q=None*, ***kwargs*)

Gets an individual page of users.

Parameters

- **page_num** (*int*) – The page number to request.
- **active** (*bool, optional*) – True gets active users only, and false gets deactivated users only. Defaults to None.
- **email** (*str, optional*) – Limits users to only those with this email. Defaults to None.
- **org_uid** (*str, optional*) – Limits users to only those in the organization with this org UID. Defaults to None.
- **role_id** (*int, optional*) – Limits users to only those with a given role ID. Defaults to None.
- **page_size** (*int, optional*) – The number of items on the page. Defaults to `py42.settings.items_per_page`.

- **q** (*str*, *optional*) – A generic query filter that searches across name, username, and email. Defaults to None.

Returns *py42.response.Py42Response*

get_roles (*user_id*)

Return the list of roles that are currently assigned to the given user.

Parameters **user_id** (*int*) – An ID for a user.

Returns *py42.response.Py42Response*

get_scim_data_by_uid (*user_uid*)

Returns SCIM data such as division, department, and title for a given user.

Parameters **user_uid** (*str*) – A Code42 user uid.

Returns *py42.response.Py42Response*

reactivate (*user_id*, *unlock_user=None*)

Reactivates the user with the given ID.

Parameters

- **user_id** (*int*) – An ID for a user.
- **unlock_user** (*bool*, *optional*) – Whether or not to unblock the user. Defaults to None.

Returns *py42.response.Py42Response*

remove_role (*user_id*, *role_name*)

Removes a role from a user.

Parameters

- **user_id** (*int*) – An ID for a user.
- **role_name** (*str*) – The name of the role to unassign from the user.

Returns *py42.response.Py42Response*

unblock (*user_id*)

Removes a block, if one exists, on the user with the given user ID. Unblocked users are allowed to log in and restore.

Parameters **user_id** (*int*) – An ID for a user.

Returns *py42.response.Py42Response*

update_user (*user_uid*, *username=None*, *email=None*, *password=None*, *first_name=None*, *last_name=None*, *notes=None*, *archive_size_quota_bytes=None*)

Updates an existing user.

Parameters

- **user_uid** (*str or int*) – A Code42 user UID.
- **username** (*str*, *optional*) – The username to which the user's username will be changed. Defaults to None.
- **email** (*str*, *optional*) – The email to which the user's email will be changed. Defaults to None.
- **password** (*str*, *optional*) – The password to which the user's password will be changed. Defaults to None.

- **first_name** (*str, optional*) – The first name to which the user’s first name will be changed. Defaults to None.
- **last_name** (*str, optional*) – The last name to which the user’s last name will be changed. Defaults to None.
- **notes** (*str, optional*) – Descriptive information about the user. Defaults to None.
- **archive_size_quota_bytes** (*int, optional*) – The quota in bytes that limits the user’s archive size. Defaults to None.

Returns `py42.response.Py42Response`

class `py42.usercontext.UserContext` (*administration_client*)

Bases: object

An object representing the currently logged in user.

get_current_tenant_id ()

Gets the currently signed in user’s tenant ID.

2.2.21 Util

`py42.util.convert_datetime_to_timestamp_str` (*date*)

Converts the given datetime to a formatted date str. The format matches strftime directives `%Y-%m-%dT%H:%M:%S.%f`.

Parameters **date** (*datetime*) – The datetime object to convert.

Returns A str representing the given date. Example output looks like ‘2020-03-25T15:29:04.465Z’.

Return type (str)

`py42.util.convert_timestamp_to_str` (*timestamp*)

Converts the given POSIX timestamp to a date str. The format matches strftime directives `%Y-%m-%dT%H:%M:%S.%f`.

Parameters **timestamp** (*float or int*) – A POSIX timestamp.

Returns A str representing the given timestamp. Example output looks like ‘2020-03-25T15:29:04.465Z’.

Return type (str)

`py42.util.format_json` (*json_string*)

Converts a minified JSON str to a prettified JSON str.

Parameters **json_string** (*str*) – A str representing minified JSON.

Returns A str representing prettified JSON.

Return type (str)

`py42.util.get_attribute_values_from_class` (*cls*)

Returns attribute values for the given class.

Parameters **cls** (*class*) – The class to obtain attributes from.

Returns A list containing the attribute values of the given class.

Return type (list)

`py42.util.print_response` (*response, label=None*)

Prints a `py42.response.Py42Response` as prettified JSON. If unable to load, it prints the given response.

Parameters

- **response** (*py42.response.Py42Response*) – The response to print.
- **label** (*str, optional*) – A label at the beginning of the printed text. Defaults to None.

`py42.sdk.from_jwt_provider` (*host_address, jwt_provider*)

Creates a *SDKClient* object for accessing the Code42 REST APIs using a custom auth mechanism. User can use any authentication mechanism like that returns a JSON Web token on authentication which would then be used for all subsequent requests.

Parameters

- **host_address** (*str*) – The domain name of the Code42 instance being authenticated to, e.g. console.us.code42.com
- **jwt_provider** (*function*) – A function that accepts no parameters and on execution returns a JSON web token string.

Returns *py42.sdk.SDKClient*

`py42.sdk.from_local_account` (*host_address, username, password, totp=None*)

Creates a *SDKClient* object for accessing the Code42 REST APIs using the supplied credentials. This method supports only accounts created within the Code42 console or using the APIs (including py42). Username/passwords that are based on Active Directory, Okta, or other Identity providers cannot be used with this method.

Parameters

- **host_address** (*str*) – The domain name of the Code42 instance being authenticated to, e.g. console.us.code42.com
- **username** (*str*) – The username of the authenticating account.
- **password** (*str*) – The password of the authenticating account.
- **totp** (*callable or str, optional*) – The time-based one-time password of the authenticating account. Include only if the account uses Code42's two-factor authentication. Defaults to None.

Returns *py42.sdk.SDKClient*

class `py42.sdk.SDKClient` (*main_connection, auth*)

Bases: object

alerts

A collection of methods related to retrieving and updating alerts rules.

Returns *py42.clients.alertrules.AlertRulesClient*

archive

A collection of methods for accessing Code42 storage archives. Useful for doing web-restores or finding a file on an archive.

Returns *py42.clients.archive.ArchiveClient*

auditlogs

A collection of methods for retrieving audit logs.

Returns *py42.clients.auditlogs.AuditLogsClient*

cases

A collection of methods and properties for managing cases and file events associated with the case.

Returns `py42.clients.cases.CaseClient`

detectionlists

A collection of properties each containing methods for managing specific detection lists, such as departing employees.

Returns `py42.clients.detectionlists.DetectionListsClient`

devices

A collection of methods for retrieving or updating data about devices in the Code42 environment.

Returns `py42.services.devices.DeviceService`

classmethod from_jwt_provider (*host_address*, *jwt_provider*)

Creates a *SDKClient* object for accessing the Code42 REST APIs using a custom auth mechanism. User can use any authentication mechanism like that returns a JSON Web token on authentication which would then be used for all subsequent requests.

Parameters

- **host_address** (*str*) – The domain name of the Code42 instance being authenticated to, e.g. `console.us.code42.com`
- **jwt_provider** (*function*) – A function that accepts no parameters and on execution returns a
- **web token string.** (*JSON*) –

Returns `py42.sdk.SDKClient`

classmethod from_local_account (*host_address*, *username*, *password*, *totp=None*)

Creates a *SDKClient* object for accessing the Code42 REST APIs using the supplied credentials. This method supports only accounts created within the Code42 console or using the APIs (including py42). Username/passwords that are based on Active Directory, Okta, or other Identity providers should use the *from_jwt_provider* method.

Parameters

- **host_address** (*str*) – The domain name of the Code42 instance being authenticated to, e.g. `console.us.code42.com`
- **username** (*str*) – The username of the authenticating account.
- **password** (*str*) – The password of the authenticating account.
- **totp** (*callable or str, optional*) – The time-based one-time password of the authenticating account. Include only if the account uses Code42's two-factor authentication. Defaults to None.

Returns `py42.sdk.SDKClient`

legalhold

A collection of methods for retrieving and updating legal-hold matters, policies, and custodians.

Returns `py42.services.legalhold.LegalHoldService`

loginconfig

A collection of methods related to getting information about the login configuration of user accounts.

Returns `py42.clients.loginconfig.LoginConfigurationClient`.

orgs

A collection of methods for retrieving or updating data about organizations in the Code42 environment.

Returns `py42.services.orgs.OrgService`

securitydata

- **File events**
 - Security plan information

Returns `py42.clients.securitydata.SecurityDataClient`

Type A collection of methods and properties for getting security data such as

serveradmin

A collection of methods for getting server information for on-premise environments and tenant information for cloud environments.

Returns `py42.services.administration.AdministrationService`

trustedactivities

A collection of methods and properties for managing trusted domains.

Returns `py42.clients.trustedactivities.TrustedActivitiesClient`

usercontext

A collection of methods related to getting information about the currently logged in user, such as the tenant ID.

Returns `py42.usercontext.UserContext`

users

A collection of methods for retrieving or updating data about users in the Code42 environment.

Returns `py42.services.users.UserService`

p

`py42.exceptions`, 52
`py42.sdk`, 123
`py42.sdk.queries.alerts.filters.alert_filter`,
22
`py42.sdk.queries.query_filter`, 113
`py42.util`, 122

A

Actor (class in `py42.sdk.queries.alerts.filters.alert_filter`), 22
 Actor (class in `py42.sdk.queries.fileevents.filters.cloud_filter`), 78
 add() (`py42.services.casesfileevents.CasesFileEventsService` method), 42
 add() (`py42.services.detectionlists.departing_employee.DepartingEmployeeService` method), 46
 add() (`py42.services.detectionlists.high_risk_employee.HighRiskEmployeeService` method), 48
 add_destination() (`py42.clients.settings.device_settings.BackupSet` method), 38
 add_role() (`py42.services.users.UserService` method), 118
 add_to_matter() (`py42.services.legalhold.LegalHoldService` method), 102
 add_user() (`py42.clients.alertrules.AlertRulesClient` method), 31
 add_user_cloud_alias() (`py42.clients.detectionlists.DetectionListsClient` method), 44
 add_user_risk_tags() (`py42.clients.detectionlists.DetectionListsClient` method), 44
 AlertQuery (class in `py42.sdk.queries.alerts.alert_query`), 31
 AlertQueryFilterStringField (class in `py42.sdk.queries.alerts.filters.alert_filter`), 23
 AlertQueryFilterTimestampField (class in `py42.sdk.queries.alerts.filters.alert_filter`), 24
 AlertRulesClient (class in `py42.clients.alertrules`), 31
 alerts (`py42.sdk.SDKClient` attribute), 123
 AlertsClient (class in `py42.clients.alerts`), 20
 AlertState (class in `py42.sdk.queries.alerts.filters.alert_filter`), 24
 archive (`py42.sdk.SDKClient` attribute), 123
 archive_hold_days (`py42.clients.settings.org_settings.OrgSettings` attribute), 109
 ArchiveClient (class in `py42.clients.archive`), 34
 auditlogs (`py42.sdk.SDKClient` attribute), 123
 AuditLogsClient (class in `py42.clients.auditlogs`), 37
 available_destinations (`py42.clients.settings.device_settings.DeviceSettingsDefaults` attribute), 111

B

backup_alert_recipient_emails (`py42.clients.settings.org_settings.OrgSettings` attribute), 109
 backup_critical_email_days (`py42.clients.settings.org_settings.OrgSettings` attribute), 109
 backup_sets (`py42.clients.settings.device_settings.DeviceSettings` attribute), 52
 backup_status_email_enabled (`py42.clients.settings.device_settings.DeviceSettingsDefaults` attribute), 111
 backup_status_email_frequency_days (`py42.clients.settings.device_settings.DeviceSettingsDefaults` attribute), 111
 backup_warning_email_days (`py42.clients.settings.org_settings.OrgSettings` attribute), 109
 BackupSet (class in `py42.clients.settings.device_settings`), 38
 block() (`py42.services.devices.DeviceService` method), 49
 block() (`py42.services.orgs.OrgService` method), 106
 block() (`py42.services.users.UserService` method), 118

C

case_name (`py42.exceptions.Py42CaseNameExistsError`)

create_not_in_filter_group() (in module *py42.sdk.queries.query_filter*), 116
 create_on_or_after_filter_group() (in module *py42.sdk.queries.query_filter*), 116
 create_on_or_before_filter_group() (in module *py42.sdk.queries.query_filter*), 116
 create_org() (*py42.services.orgs.OrgService* method), 107
 create_policy() (*py42.services.legalhold.LegalHoldService* method), 103
 create_query_filter() (in module *py42.sdk.queries.query_filter*), 116
 create_user() (*py42.clients.detectionlists.DetectionListsClient* method), 44
 create_user() (*py42.services.users.UserService* method), 119
 create_within_the_last_filter_group() (in module *py42.sdk.queries.query_filter*), 117
 critical_alert_days (*py42.clients.settings.device_settings.DeviceSettingsDefaults* attribute), 111
 critical_email_enabled (*py42.clients.settings.device_settings.DeviceSettingsDefaults* attribute), 111
D
 DateObserved (class in *py42.sdk.queries.alerts.filters.alert_filter*), 25
 deactivate() (*py42.services.devices.DeviceService* method), 49
 deactivate() (*py42.services.orgs.OrgService* method), 107
 deactivate() (*py42.services.users.UserService* method), 119
 deactivate_matter() (*py42.services.legalhold.LegalHoldService* method), 103
 deauthorize() (*py42.services.devices.DeviceService* method), 49
 delete() (*py42.clients.trustedactivities.TrustedActivitiesClient* method), 117
 delete() (*py42.services.casesfileevents.CasesFileEventsService* method), 42
 DepartingEmployeeFilters (class in *py42.constants*), 43
 DepartingEmployeeFilters (class in *py42.services.detectionlists.departing_employee*), 45
 DepartingEmployeeService (class in *py42.services.detectionlists.departing_employee*), 46
 Description (class in *py42.sdk.queries.alerts.filters.alert_filter*), 26
 destinations (*py42.clients.settings.device_settings.BackupSet* attribute), 39
 detectionlists (*py42.sdk.SDKClient* attribute), 124
 DetectionListsClient (class in *py42.clients.detectionlists*), 44
 device_guid (*py42.exceptions.Py42ArchiveFileNotFoundError* attribute), 53
 device_guid (*py42.exceptions.Py42DeviceNotConnectedError* attribute), 54
 device_id (*py42.clients.settings.device_settings.DeviceSettings* attribute), 52
 DeviceClient (*py42.sdk.SDKClient* attribute), 124
 DeviceService (class in *py42.services.devices*), 49
 DeviceSettings (class in *py42.clients.settings.device_settings*), 52
 DeviceSettingsDefaults (class in *py42.clients.settings.device_settings*), 110
 DeviceSignedInUserName (class in *py42.sdk.queries.fileevents.filters.device_filter*), 77
 DeviceUsername (class in *py42.sdk.queries.fileevents.filters.device_filter*), 74
 DirectoryID (class in *py42.sdk.queries.fileevents.filters.cloud_filter*), 79
E
 email (*py42.exceptions.Py42InvalidEmailError* attribute), 56
 EmailFrom (class in *py42.sdk.queries.fileevents.filters.email_filter*), 94
 EmailPolicyName (class in *py42.sdk.queries.fileevents.filters.email_filter*), 92
 EmailRecipients (class in *py42.sdk.queries.fileevents.filters.email_filter*), 93
 EmailSender (class in *py42.sdk.queries.fileevents.filters.email_filter*), 93
 EmailSubject (class in *py42.sdk.queries.fileevents.filters.email_filter*), 92
 encoding (*py42.response.Py42Response* attribute), 111
 endpoint_monitoring_background_priority_enabled (*py42.clients.settings.org_settings.OrgSettings* attribute), 109
 endpoint_monitoring_browser_and_applications_enabled (*py42.clients.settings.org_settings.OrgSettings* attribute), 109

endpoint_monitoring_cloud_sync_enabled (py42.clients.settings.org_settings.OrgSettings attribute), 109 *class method*), 79
 eq () (py42.sdk.queries.fileevents.filters.cloud_filter.SharedWith class method), 80
 endpoint_monitoring_custom_applications_max (py42.clients.settings.org_settings.OrgSettings attribute), 109 *class method*), 81
 eq () (py42.sdk.queries.fileevents.filters.cloud_filter.SharingTypeAdded class method), 81
 endpoint_monitoring_custom_applications_win (py42.clients.settings.org_settings.OrgSettings attribute), 109 *class method*), 77
 eq () (py42.sdk.queries.fileevents.filters.device_filter.DeviceSignedInUser class method), 77
 endpoint_monitoring_enabled (py42.clients.settings.org_settings.OrgSettings attribute), 109 *class method*), 75
 eq () (py42.sdk.queries.fileevents.filters.device_filter.DeviceUsername class method), 74
 eq () (py42.sdk.queries.fileevents.filters.device_filter.OSTHostname class method), 75
 endpoint_monitoring_file_exfiltration_detection_enabled (py42.clients.settings.org_settings.OrgSettings attribute), 109 *class method*), 76
 eq () (py42.sdk.queries.fileevents.filters.device_filter.PrivateIPAddress class method), 76
 eq () (py42.sdk.queries.fileevents.filters.device_filter.PublicIPAddress class method), 77
 endpoint_monitoring_file_metadata_collection (py42.clients.settings.org_settings.OrgSettings attribute), 109 *class method*), 94
 eq () (py42.sdk.queries.fileevents.filters.email_filter.EmailFrom class method), 94
 endpoint_monitoring_file_metadata_collection_excludes (py42.clients.settings.org_settings.OrgSettings attribute), 109 *class method*), 92
 eq () (py42.sdk.queries.fileevents.filters.email_filter.EmailPolicyName class method), 92
 endpoint_monitoring_file_metadata_ingestion_enabled (py42.clients.settings.org_settings.OrgSettings attribute), 109 *class method*), 93
 eq () (py42.sdk.queries.fileevents.filters.email_filter.EmailRecipients class method), 93
 eq () (py42.sdk.queries.fileevents.filters.email_filter.EmailSender class method), 93
 eq () (py42.sdk.queries.fileevents.filters.email_filter.EmailSubject class method), 93
 endpoint_monitoring_file_metadata_scan_enabled (py42.clients.settings.org_settings.OrgSettings attribute), 110 *class method*), 92
 eq () (py42.sdk.queries.fileevents.filters.event_filter.EventType class method), 66
 endpoint_monitoring_printer_detection_enabled (py42.clients.settings.org_settings.OrgSettings attribute), 110 *class method*), 68
 eq () (py42.sdk.queries.fileevents.filters.event_filter.Source class method), 68
 endpoint_monitoring_removable_media_enabled (py42.clients.settings.org_settings.OrgSettings attribute), 110 *class method*), 82
 eq () (py42.sdk.queries.fileevents.filters.exposure_filter.ExposureType class method), 82
 eq () (py42.sdk.queries.alerts.filters.alert_filter.Actor class method), 22
 eq () (py42.sdk.queries.fileevents.filters.exposure_filter.ProcessName class method), 83
 eq () (py42.sdk.queries.alerts.filters.alert_filter.AlertQueryFilterStringField class method), 23
 eq () (py42.sdk.queries.fileevents.filters.exposure_filter.ProcessOwner class method), 83
 eq () (py42.sdk.queries.alerts.filters.alert_filter.AlertState class method), 25
 eq () (py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMediaM class method), 85
 eq () (py42.sdk.queries.alerts.filters.alert_filter.Description class method), 26
 eq () (py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMediaN class method), 84
 eq () (py42.sdk.queries.alerts.filters.alert_filter.RuleId class method), 27
 eq () (py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMediaP class method), 87
 eq () (py42.sdk.queries.alerts.filters.alert_filter.RuleName class method), 27
 eq () (py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMediaSe class method), 88
 eq () (py42.sdk.queries.alerts.filters.alert_filter.RuleSource class method), 28
 eq () (py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMediaVe class method), 85
 eq () (py42.sdk.queries.alerts.filters.alert_filter.RuleType class method), 29
 eq () (py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMediaVo class method), 86
 eq () (py42.sdk.queries.alerts.filters.alert_filter.Severity class method), 30
 eq () (py42.sdk.queries.fileevents.filters.exposure_filter.SyncDestination class method), 89
 eq () (py42.sdk.queries.fileevents.filters.exposure_filter.SyncDestinationUs class method), 89
 eq () (py42.sdk.queries.fileevents.filters.cloud_filter.Actor class method), 78
 eq () (py42.sdk.queries.fileevents.filters.exposure_filter.TabURL class method), 90
 eq () (py42.sdk.queries.fileevents.filters.cloud_filter.DirectoryID class method), 78
 eq () (py42.sdk.queries.fileevents.filters.exposure_filter.WindowTitle class method), 90

class method), 91
 eq () (py42.sdk.queries.fileevents.filters.file_filter.FileCategory exists () (py42.sdk.queries.fileevents.filters.device_filter.PublicIPAddress exists () (py42.sdk.queries.fileevents.filters.device_filter.PublicIPAddress class method), 70
 class method), 77
 eq () (py42.sdk.queries.fileevents.filters.file_filter.FileName exists () (py42.sdk.queries.fileevents.filters.event_filter.EventType class method), 70
 class method), 66
 eq () (py42.sdk.queries.fileevents.filters.file_filter.FileOwner exists () (py42.sdk.queries.fileevents.filters.event_filter.Source class method), 71
 class method), 68
 eq () (py42.sdk.queries.fileevents.filters.file_filter.FilePath exists () (py42.sdk.queries.fileevents.filters.exposure_filter.ExposureType class method), 72
 class method), 82
 eq () (py42.sdk.queries.fileevents.filters.file_filter.MD5 exists () (py42.sdk.queries.fileevents.filters.exposure_filter.ProcessName class method), 73
 class method), 83
 eq () (py42.sdk.queries.fileevents.filters.file_filter.SHA256 exists () (py42.sdk.queries.fileevents.filters.exposure_filter.ProcessOwner class method), 74
 class method), 83
 eq () (py42.sdk.queries.fileevents.filters.print_filter.Printer exists () (py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMedia class method), 95
 class method), 86
 eq () (py42.sdk.queries.fileevents.filters.print_filter.PrintJobName exists () (py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMedia class method), 96
 class method), 84
 eq () (py42.sdk.queries.fileevents.filters.risk_filter.RiskIndicator exists () (py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMedia class method), 100
 class method), 87
 eq () (py42.sdk.queries.fileevents.filters.risk_filter.RiskScore exists () (py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMedia class method), 101
 class method), 88
 eq () (py42.sdk.queries.fileevents.filters.risk_filter.RiskSeverity exists () (py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMedia class method), 101
 class method), 85
 eq () (py42.sdk.queries.query_filter.QueryFilterStringField exists () (py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMedia class method), 114
 class method), 86
 EventTimestamp (class in exists () (py42.sdk.queries.fileevents.filters.exposure_filter.SyncDestination class method), 64
 py42.sdk.queries.fileevents.filters.event_filter), exists () (py42.sdk.queries.fileevents.filters.exposure_filter.SyncDestination class method), 90
 EventType (class in exists () (py42.sdk.queries.fileevents.filters.exposure_filter.TabURL class method), 65
 py42.sdk.queries.fileevents.filters.event_filter), exists () (py42.sdk.queries.fileevents.filters.exposure_filter.WindowTitle class method), 90
 excluded_files (py42.clients.settings.device_settings.BackupSet attribute), 39 exists () (py42.sdk.queries.fileevents.filters.exposure_filter.WindowTitle class method), 91
 execute () (py42.services.savedsearch.SavedSearchService exists () (py42.sdk.queries.fileevents.filters.file_filter.FileCategory class method), 62
 method), 70
 exfiltration (py42.clients.alertrules.AlertRulesClient exists () (py42.sdk.queries.fileevents.filters.file_filter.FileName class method), 32
 attribute), 71
 ExfiltrationService (class in exists () (py42.sdk.queries.fileevents.filters.file_filter.FileOwner class method), 33
 py42.services.alertrules), 71
 exists () (py42.sdk.queries.fileevents.filters.cloud_filter.Action exists () (py42.sdk.queries.fileevents.filters.file_filter.FilePath class method), 78
 class method), 72
 exists () (py42.sdk.queries.fileevents.filters.cloud_filter.DirectoryID exists () (py42.sdk.queries.fileevents.filters.file_filter.MD5 class method), 79
 class method), 73
 exists () (py42.sdk.queries.fileevents.filters.cloud_filter.SharedWith exists () (py42.sdk.queries.fileevents.filters.file_filter.SHA256 class method), 80
 class method), 74
 exists () (py42.sdk.queries.fileevents.filters.cloud_filter.SharingType exists () (py42.sdk.queries.fileevents.filters.print_filter.Printer class method), 81
 class method), 95
 exists () (py42.sdk.queries.fileevents.filters.device_filter.DeviceSignedIPV3 exists () (py42.sdk.queries.fileevents.filters.print_filter.PrintJobName class method), 77
 class method), 96
 exists () (py42.sdk.queries.fileevents.filters.device_filter.DeviceUser exists () (py42.sdk.queries.fileevents.filters.risk_filter.RiskIndicator class method), 75
 class method), 100
 exists () (py42.sdk.queries.fileevents.filters.device_filter.OSHostname exists () (py42.sdk.queries.fileevents.filters.risk_filter.RiskSeverity class method), 75
 class method), 101
 exists () (py42.sdk.queries.fileevents.filters.device_filter.PublicIPAddress exists () (py42.clients.cases.CasesClient class method), 75
 class method), 101
 exists () (py42.sdk.queries.fileevents.filters.device_filter.PrivateIPAddress exists () (py42.clients.cases.CasesClient class method), 75
 class method), 101

method), 40

ExposureType (class in *py42.sdk.queries.fileevents.filters.exposure_filter*), 81

external_reference (*py42.clients.settings.device_settings.DeviceSettings* attribute), 52

external_reference (*py42.clients.settings.org_settings.OrgSettings* attribute), 110

F

file_events (*py42.clients.cases.CasesClient* attribute), 40

file_path (*py42.exceptions.Py42ArchiveFileNotFoundError* attribute), 53

FileCategory (class in *py42.sdk.queries.fileevents.filters.file_filter*), 69

FileEventQuery (class in *py42.sdk.queries.fileevents.file_event_query*), 62

FileName (class in *py42.sdk.queries.fileevents.filters.file_filter*), 70

filename_exclusions (*py42.clients.settings.device_settings.BackupSet* attribute), 39

FileOwner (class in *py42.sdk.queries.fileevents.filters.file_filter*), 71

FilePath (class in *py42.sdk.queries.fileevents.filters.file_filter*), 72

FileSize (class in *py42.sdk.queries.fileevents.filters.file_filter*), 73

filetypemismatch (*py42.clients.alertrules.AlertRulesClient* attribute), 32

FileTypeMismatchService (class in *py42.services.alertrules*), 33

filter_clause (*py42.sdk.queries.query_filter.FilterGroup* attribute), 113

filter_list (*py42.sdk.queries.query_filter.FilterGroup* attribute), 113

FilterGroup (class in *py42.sdk.queries.query_filter*), 113

format_json () (in module *py42.util*), 122

from_dict () (*py42.sdk.queries.query_filter.FilterGroup* class method), 113

from_dict () (*py42.sdk.queries.query_filter.QueryFilter* class method), 113

from_jwt_provider () (in module *py42.sdk*), 123

from_jwt_provider () (*py42.sdk.SDKClient* class method), 124

from_local_account () (in module *py42.sdk*), 123

from_local_account () (*py42.sdk.SDKClient* class method), 124

G

get () (*py42.clients.cases.CasesClient* method), 40

get () (*py42.clients.trustedactivities.TrustedActivitiesClient* method), 117

get () (*py42.services.alertrules.CloudShareService* method), 33

get () (*py42.services.alertrules.ExfiltrationService* method), 33

get () (*py42.services.alertrules.FileTypeMismatchService* method), 33

get () (*py42.services.casesfileevents.CasesFileEventsService* method), 42

get () (*py42.services.detectionlists.departing_employee.DepartingEmployee* method), 46

get () (*py42.services.detectionlists.high_risk_employee.HighRiskEmployee* method), 48

get () (*py42.services.savedsearch.SavedSearchService* method), 62

get_agent_full_disk_access_state () (*py42.services.devices.DeviceService* method), 49

get_agent_full_disk_access_states () (*py42.services.orgs.OrgService* method), 107

get_agent_state () (*py42.services.devices.DeviceService* method), 49

get_agent_state () (*py42.services.orgs.OrgService* method), 107

get_aggregate_data () (*py42.clients.alerts.AlertsClient* method), 20

get_all () (*py42.clients.alertrules.AlertRulesClient* method), 32

get_all () (*py42.clients.auditlogs.AuditLogsClient* method), 37

get_all () (*py42.clients.cases.CasesClient* method), 40

get_all () (*py42.clients.trustedactivities.TrustedActivitiesClient* method), 118

get_all () (*py42.services.casesfileevents.CasesFileEventsService* method), 42

get_all () (*py42.services.detectionlists.departing_employee.DepartingEmployee* method), 46

get_all () (*py42.services.detectionlists.high_risk_employee.HighRiskEmployee* method), 48

get_all () (*py42.services.devices.DeviceService* method), 49

get_all () (*py42.services.orgs.OrgService* method), 107

get_all () (*py42.services.users.UserService* method), 119

get_all_alert_details () (*py42.clients.alerts.AlertsClient* method), 20

get_all_by_device_guid() (py42.clients.archive.ArchiveClient method), 34
 get_all_by_name() (py42.clients.alertrules.AlertRulesClient method), 32
 get_all_device_restore_history() (py42.clients.archive.ArchiveClient method), 34
 get_all_events() (py42.services.legalhold.LegalHoldService method), 103
 get_all_matter_custodians() (py42.services.legalhold.LegalHoldService method), 103
 get_all_matters() (py42.services.legalhold.LegalHoldService method), 104
 get_all_org_cold_storage_archives() (py42.clients.archive.ArchiveClient method), 34
 get_all_org_restore_history() (py42.clients.archive.ArchiveClient method), 34
 get_all_user_restore_history() (py42.clients.archive.ArchiveClient method), 35
 get_attribute_values_from_class() (in module py42.util), 122
 get_available_roles() (py42.services.users.UserService method), 120
 get_backup_sets() (py42.clients.archive.ArchiveClient method), 35
 get_by_archive_guid() (py42.clients.archive.ArchiveClient method), 35
 get_by_guid() (py42.services.devices.DeviceService method), 50
 get_by_id() (py42.services.devices.DeviceService method), 50
 get_by_id() (py42.services.orgs.OrgService method), 107
 get_by_id() (py42.services.savedsearch.SavedSearchService method), 62
 get_by_id() (py42.services.users.UserService method), 120
 get_by_observer_id() (py42.clients.alertrules.AlertRulesClient method), 32
 get_by_uid() (py42.services.orgs.OrgService method), 107
 get_by_uid() (py42.services.users.UserService method), 120
 get_by_username() (py42.services.users.UserService method), 120
 get_current() (py42.services.orgs.OrgService method), 108
 get_current() (py42.services.users.UserService method), 120
 get_current_tenant_id() (py42.usercontext.UserContext method), 122
 get_custodians_page() (py42.services.legalhold.LegalHoldService method), 104
 get_details() (py42.clients.alerts.AlertsClient method), 20
 get_events_page() (py42.services.legalhold.LegalHoldService method), 105
 get_matter_by_uid() (py42.services.legalhold.LegalHoldService method), 105
 get_matters_page() (py42.services.legalhold.LegalHoldService method), 105
 get_page() (py42.clients.alertrules.AlertRulesClient method), 32
 get_page() (py42.clients.auditlogs.AuditLogsClient method), 38
 get_page() (py42.clients.cases.CasesClient method), 41
 get_page() (py42.services.detectionlists.departing_employee.DepartingEmployee method), 46
 get_page() (py42.services.detectionlists.high_risk_employee.HighRiskEmployee method), 48
 get_page() (py42.services.devices.DeviceService method), 51
 get_page() (py42.services.orgs.OrgService method), 108
 get_page() (py42.services.users.UserService method), 120
 get_policy_by_uid() (py42.services.legalhold.LegalHoldService method), 106
 get_policy_list() (py42.services.legalhold.LegalHoldService method), 106
 get_query() (py42.services.savedsearch.SavedSearchService method), 63
 get_roles() (py42.services.users.UserService method), 121
 get_scim_data_by_uid() (py42.services.users.UserService method), 121
 get_settings() (py42.services.devices.DeviceService method), 50

method), 51

get_settings() (py42.services.orgs.OrgService method), 108

get_user() (py42.clients.detectionlists.DetectionListsClient method), 44

get_user_by_id() (py42.clients.detectionlists.DetectionListsClient method), 44

greater_than() (py42.sdk.queries.fileevents.filters.file_filter.FileSite class method), 73

greater_than() (py42.sdk.queries.fileevents.filters.risk_filter.RiskScore class method), 102

guid (py42.clients.settings.device_settings.DeviceSettings attribute), 52

H

headers (py42.response.Py42Response attribute), 111

HighRiskEmployeeFilters (class in py42.constants), 44

HighRiskEmployeeFilters (class in py42.services.detectionlists.high_risk_employee), 47

HighRiskEmployeeService (class in py42.services.detectionlists.high_risk_employee), 47

I

in_range() (py42.sdk.queries.alerts.filters.alert_filter.AlertQueryFilter class method), 24

in_range() (py42.sdk.queries.alerts.filters.alert_filter.DateObserved class method), 25

in_range() (py42.sdk.queries.fileevents.filters.event_filter.EventTimestamp class method), 65

in_range() (py42.sdk.queries.fileevents.filters.event_filter.InsertionTimestamp class method), 67

in_range() (py42.sdk.queries.query_filter.QueryFilterTimestampField class method), 114

included_files (py42.clients.settings.device_settings.BackupSet attribute), 39

InsertionTimestamp (class in py42.sdk.queries.fileevents.filters.event_filter), 67

is_false() (py42.sdk.queries.fileevents.filters.activity_filter.RemoteActivity class method), 95

is_false() (py42.sdk.queries.fileevents.filters.activity_filter.TrustedActivity class method), 95

is_false() (py42.sdk.queries.fileevents.filters.cloud_filter.Shared class method), 79

is_false() (py42.sdk.queries.fileevents.filters.event_filter.MimeTypeMismatch class method), 69

is_false() (py42.sdk.queries.fileevents.filters.event_filter.OutsideActivity class method), 69

is_false() (py42.sdk.queries.query_filter.QueryFilterBooleanField class method), 113

is_in() (py42.sdk.queries.alerts.filters.alert_filter.Actor class method), 22

is_in() (py42.sdk.queries.alerts.filters.alert_filter.AlertQueryFilterString class method), 23

is_in() (py42.sdk.queries.alerts.filters.alert_filter.AlertState class method), 25

is_in() (py42.sdk.queries.alerts.filters.alert_filter.Description class method), 26

is_in() (py42.sdk.queries.alerts.filters.alert_filter.RuleId class method), 27

is_in() (py42.sdk.queries.alerts.filters.alert_filter.RuleName class method), 28

is_in() (py42.sdk.queries.alerts.filters.alert_filter.RuleSource class method), 29

is_in() (py42.sdk.queries.alerts.filters.alert_filter.RuleType class method), 29

is_in() (py42.sdk.queries.alerts.filters.alert_filter.Severity class method), 30

is_in() (py42.sdk.queries.fileevents.filters.cloud_filter.Actor class method), 78

is_in() (py42.sdk.queries.fileevents.filters.cloud_filter.DirectoryID class method), 79

is_in() (py42.sdk.queries.fileevents.filters.cloud_filter.SharedWith class method), 80

is_in() (py42.sdk.queries.fileevents.filters.cloud_filter.SharingTypeAdded class method), 81

is_in() (py42.sdk.queries.fileevents.filters.device_filter.DeviceSignedInUser class method), 77

is_in() (py42.sdk.queries.fileevents.filters.device_filter.DeviceUsername class method), 75

is_in() (py42.sdk.queries.fileevents.filters.device_filter.OSHostname class method), 75

is_in() (py42.sdk.queries.fileevents.filters.device_filter.PrivateIPAddress class method), 76

is_in() (py42.sdk.queries.fileevents.filters.device_filter.PublicIPAddress class method), 77

is_in() (py42.sdk.queries.fileevents.filters.email_filter.EmailFrom class method), 94

is_in() (py42.sdk.queries.fileevents.filters.email_filter.EmailPolicyName class method), 92

is_in() (py42.sdk.queries.fileevents.filters.email_filter.EmailRecipients class method), 93

is_in() (py42.sdk.queries.fileevents.filters.email_filter.EmailSender class method), 93

is_in() (py42.sdk.queries.fileevents.filters.email_filter.EmailSubject class method), 92

is_in() (py42.sdk.queries.fileevents.filters.event_filter.EventType class method), 66

is_in() (py42.sdk.queries.fileevents.filters.event_filter.Source class method), 68

is_in() (py42.sdk.queries.fileevents.filters.exposure_filter.ExposureType class method), 82

is_in() (py42.sdk.queries.fileevents.filters.exposure_filter.ProcessName class method), 83

is_in() (py42.sdk.queries.fileevents.filters.exposure_filter.ProcessOwner (py42.sdk.queries.fileevents.filters.event_filter.OutsideActiveH
 class method), 83 class method), 69
 is_in() (py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMediaName (py42.sdk.queries.query_filter.QueryFilterBooleanField
 class method), 86 class method), 114
 is_in() (py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMediaName (py42.response.Py42Response
 class method), 84 method), 111
 is_in() (py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMediaPartitionID
 class method), 87
 is_in() (py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMediaSerialNumber
 class method), 88 (py42.clients.settings.device_settings.DeviceSettings
 is_in() (py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMediaVendor
 class method), 85
 is_in() (py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMediaVolumeName
 class method), 86 legal_hold_matter_uid
 is_in() (py42.sdk.queries.fileevents.filters.exposure_filter.SyncDestination (py42.exceptions.Py42LegalHoldAlreadyActiveError
 class method), 89 attribute), 57
 is_in() (py42.sdk.queries.fileevents.filters.exposure_filter.SyncDestinationUsername
 class method), 90 legal_hold_matter_uid
 is_in() (py42.sdk.queries.fileevents.filters.exposure_filter.TabURL (py42.exceptions.Py42LegalHoldAlreadyDeactivatedError
 class method), 90 attribute), 58
 is_in() (py42.sdk.queries.fileevents.filters.exposure_filter.WindowTitle legalhold (py42.sdk.SDKClient attribute), 124
 class method), 91 in
 is_in() (py42.sdk.queries.fileevents.filters.file_filter.FileCategory py42.services.legalhold), 102
 class method), 70 less_than() (py42.sdk.queries.fileevents.filters.file_filter.FileSize
 is_in() (py42.sdk.queries.fileevents.filters.file_filter.FileName less_than() (py42.sdk.queries.fileevents.filters.risk_filter.RiskScore
 class method), 71 class method), 102
 is_in() (py42.sdk.queries.fileevents.filters.file_filter.FileOwner list_name (py42.exceptions.Py42UserNotOnListError
 class method), 71 attribute), 61
 is_in() (py42.sdk.queries.fileevents.filters.file_filter.FilePath lock_destination()
 class method), 72 (py42.clients.settings.device_settings.BackupSet
 is_in() (py42.sdk.queries.fileevents.filters.file_filter.MD5 method), 39
 class method), 73 locked (py42.clients.settings.device_settings.BackupSet
 is_in() (py42.sdk.queries.fileevents.filters.file_filter.SHA256 attribute), 39
 class method), 74 loginconfig (py42.sdk.SDKClient attribute), 124
 is_in() (py42.sdk.queries.fileevents.filters.print_filter.Printer
 class method), 95
 is_in() (py42.sdk.queries.fileevents.filters.print_filter.PrintJobName maximum_user_subscriptions
 class method), 96 (py42.clients.settings.org_settings.OrgSettings
 is_in() (py42.sdk.queries.fileevents.filters.risk_filter.RiskIndicator attribute), 110
 class method), 100 MD5 (class in py42.sdk.queries.fileevents.filters.file_filter),
 is_in() (py42.sdk.queries.fileevents.filters.risk_filter.RiskScore 73
 class method), 102
 is_in() (py42.sdk.queries.fileevents.filters.risk_filter.RiskSeverity MimeTypeMismatch (class in
 class method), 101 py42.sdk.queries.fileevents.filters.event_filter),
 is_in() (py42.sdk.queries.query_filter.QueryFilterStringField 69
 class method), 114
 is_true() (py42.sdk.queries.fileevents.filters.activity_filter.RemoteActivity name (py42.clients.settings.device_settings.DeviceSettings
 class method), 95 attribute), 52
 is_true() (py42.sdk.queries.fileevents.filters.activity_filter.TrustedActivity not_contains() (py42.sdk.queries.alerts.filters.alert_filter.Actor
 class method), 95 class method), 22
 is_true() (py42.sdk.queries.fileevents.filters.cloud_filter.Shared not_contains() (py42.sdk.queries.alerts.filters.alert_filter.AlertQueryF
 class method), 80 class method), 23
 is_true() (py42.sdk.queries.fileevents.filters.event_filter.MimeTypeMismatch not_contains() (py42.sdk.queries.alerts.filters.alert_filter.Description
 class method), 69 class method), 26

`not_contains()` (`py42.sdk.queries.alerts.filters.alert_filter.RuleName` class method), 28
`not_contains()` (`py42.sdk.queries.fileevents.filters.exposure_filter.ProcessName` class method), 83
`not_eq()` (`py42.sdk.queries.alerts.filters.alert_filter.Actor` class method), 23
`not_eq()` (`py42.sdk.queries.fileevents.filters.exposure_filter.ProcessOwner` class method), 84
`not_eq()` (`py42.sdk.queries.alerts.filters.alert_filter.AlertQueryFilterStringField` class method), 23
`not_eq()` (`py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMedia` class method), 86
`not_eq()` (`py42.sdk.queries.alerts.filters.alert_filter.AlertState` class method), 25
`not_eq()` (`py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMedia` class method), 84
`not_eq()` (`py42.sdk.queries.alerts.filters.alert_filter.Description` class method), 26
`not_eq()` (`py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMedia` class method), 87
`not_eq()` (`py42.sdk.queries.alerts.filters.alert_filter.RuleId` class method), 27
`not_eq()` (`py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMedia` class method), 88
`not_eq()` (`py42.sdk.queries.alerts.filters.alert_filter.RuleName` class method), 28
`not_eq()` (`py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMedia` class method), 85
`not_eq()` (`py42.sdk.queries.alerts.filters.alert_filter.RuleSource` class method), 29
`not_eq()` (`py42.sdk.queries.fileevents.filters.exposure_filter.RemovableMedia` class method), 87
`not_eq()` (`py42.sdk.queries.alerts.filters.alert_filter.RuleType` class method), 29
`not_eq()` (`py42.sdk.queries.fileevents.filters.exposure_filter.SyncDestination` class method), 89
`not_eq()` (`py42.sdk.queries.alerts.filters.alert_filter.Severity` class method), 30
`not_eq()` (`py42.sdk.queries.fileevents.filters.exposure_filter.SyncDestination` class method), 90
`not_eq()` (`py42.sdk.queries.fileevents.filters.cloud_filter.Actor` class method), 78
`not_eq()` (`py42.sdk.queries.fileevents.filters.exposure_filter.TabURL` class method), 90
`not_eq()` (`py42.sdk.queries.fileevents.filters.cloud_filter.DirectoryID` class method), 79
`not_eq()` (`py42.sdk.queries.fileevents.filters.exposure_filter.WindowTitle` class method), 91
`not_eq()` (`py42.sdk.queries.fileevents.filters.cloud_filter.SharedWith` class method), 80
`not_eq()` (`py42.sdk.queries.fileevents.filters.file_filter.FileCategory` class method), 70
`not_eq()` (`py42.sdk.queries.fileevents.filters.cloud_filter.SharingType` class method), 81
`not_eq()` (`py42.sdk.queries.fileevents.filters.file_filter.FileName` class method), 71
`not_eq()` (`py42.sdk.queries.fileevents.filters.device_filter.DeviceSignedByUSBName` class method), 78
`not_eq()` (`py42.sdk.queries.fileevents.filters.file_filter.FileOwner` class method), 72
`not_eq()` (`py42.sdk.queries.fileevents.filters.device_filter.DeviceDisplayName` class method), 75
`not_eq()` (`py42.sdk.queries.fileevents.filters.file_filter.FilePath` class method), 72
`not_eq()` (`py42.sdk.queries.fileevents.filters.device_filter.OSHostname` class method), 75
`not_eq()` (`py42.sdk.queries.fileevents.filters.file_filter.MD5` class method), 73
`not_eq()` (`py42.sdk.queries.fileevents.filters.device_filter.PrivateIP` class method), 76
`not_eq()` (`py42.sdk.queries.fileevents.filters.file_filter.SHA256` class method), 74
`not_eq()` (`py42.sdk.queries.fileevents.filters.device_filter.PublicIP` class method), 77
`not_eq()` (`py42.sdk.queries.fileevents.filters.print_filter.Printer` class method), 96
`not_eq()` (`py42.sdk.queries.fileevents.filters.email_filter.EmailFrom` class method), 94
`not_eq()` (`py42.sdk.queries.fileevents.filters.print_filter.PrintJobName` class method), 96
`not_eq()` (`py42.sdk.queries.fileevents.filters.email_filter.EmailPolicyName` class method), 92
`not_eq()` (`py42.sdk.queries.fileevents.filters.risk_filter.RiskIndicator` class method), 100
`not_eq()` (`py42.sdk.queries.fileevents.filters.email_filter.EmailRecipient` class method), 93
`not_eq()` (`py42.sdk.queries.fileevents.filters.risk_filter.RiskScore` class method), 102
`not_eq()` (`py42.sdk.queries.fileevents.filters.email_filter.EmailSender` class method), 94
`not_eq()` (`py42.sdk.queries.fileevents.filters.risk_filter.RiskSeverity` class method), 101
`not_eq()` (`py42.sdk.queries.fileevents.filters.email_filter.EmailSubject` class method), 92
`not_eq()` (`py42.sdk.queries.query_filter.QueryFilterStringField` class method), 114
`not_eq()` (`py42.sdk.queries.fileevents.filters.event_filter.EventType` class method), 66
`not_exists()` (`py42.sdk.queries.fileevents.filters.cloud_filter.Actor` class method), 78
`not_exists()` (`py42.sdk.queries.fileevents.filters.cloud_filter.DirectoryID` class method), 79
`not_exists()` (`py42.sdk.queries.fileevents.filters.cloud_filter.SharedWith` class method), 80
`not_exists()` (`py42.sdk.queries.fileevents.filters.exposure_filter.ExposureType` class method), 82

not_exists() (py42.sdk.queries.fileevents.filters.cloud_filter.SharingTypeAdd class method), 81

not_exists() (py42.sdk.queries.fileevents.filters.cloud_filter.SharingType class method), 96

not_exists() (py42.sdk.queries.fileevents.filters.device_filter.DeviceSignedIn class method), 78

not_exists() (py42.sdk.queries.fileevents.filters.device_filter.DeviceSignedIn class method), 96

not_exists() (py42.sdk.queries.fileevents.filters.device_filter.DeviceUser class method), 75

not_exists() (py42.sdk.queries.fileevents.filters.device_filter.DeviceUser class method), 100

not_exists() (py42.sdk.queries.fileevents.filters.device_filter.OSSHostname class method), 76

not_exists() (py42.sdk.queries.fileevents.filters.device_filter.OSSHostname class method), 101

not_exists() (py42.sdk.queries.fileevents.filters.device_filter.PrivateIP class method), 76

not_exists() (py42.sdk.queries.alerts.filters.alert_filter.Actor class method), 23

not_exists() (py42.sdk.queries.fileevents.filters.device_filter.PublicIP class method), 77

not_exists() (py42.sdk.queries.alerts.filters.alert_filter.AlertQueryFilterString class method), 24

not_exists() (py42.sdk.queries.fileevents.filters.event_filter.EventTypes class method), 66

not_exists() (py42.sdk.queries.alerts.filters.alert_filter.AlertState class method), 25

not_exists() (py42.sdk.queries.fileevents.filters.event_filter.Source class method), 68

not_exists() (py42.sdk.queries.alerts.filters.alert_filter.Description class method), 27

not_exists() (py42.sdk.queries.fileevents.filters.exposure_filter.ExposureType class method), 82

not_exists() (py42.sdk.queries.alerts.filters.alert_filter.RuleId class method), 27

not_exists() (py42.sdk.queries.fileevents.filters.exposure_filter.ExposureType class method), 83

not_exists() (py42.sdk.queries.alerts.filters.alert_filter.RuleName class method), 28

not_exists() (py42.sdk.queries.fileevents.filters.exposure_filter.ExposureType class method), 84

not_exists() (py42.sdk.queries.alerts.filters.alert_filter.RuleSource class method), 29

not_exists() (py42.sdk.queries.fileevents.filters.exposure_filter.ExposureType class method), 86

not_exists() (py42.sdk.queries.alerts.filters.alert_filter.RuleType class method), 30

not_exists() (py42.sdk.queries.fileevents.filters.exposure_filter.ExposureType class method), 84

not_exists() (py42.sdk.queries.alerts.filters.alert_filter.Severity class method), 30

not_exists() (py42.sdk.queries.fileevents.filters.exposure_filter.ExposureType class method), 87

not_exists() (py42.sdk.queries.alerts.filters.alert_filter.Severity class method), 79

not_exists() (py42.sdk.queries.fileevents.filters.exposure_filter.ExposureType class method), 88

not_exists() (py42.sdk.queries.alerts.filters.alert_filter.Severity class method), 79

not_exists() (py42.sdk.queries.fileevents.filters.exposure_filter.ExposureType class method), 85

not_exists() (py42.sdk.queries.fileevents.filters.cloud_filter.SharedWith class method), 80

not_exists() (py42.sdk.queries.fileevents.filters.exposure_filter.ExposureType class method), 87

not_exists() (py42.sdk.queries.fileevents.filters.cloud_filter.SharingTypeAdd class method), 81

not_exists() (py42.sdk.queries.fileevents.filters.exposure_filter.ExposureType class method), 89

not_exists() (py42.sdk.queries.fileevents.filters.device_filter.DeviceSignedIn class method), 78

not_exists() (py42.sdk.queries.fileevents.filters.exposure_filter.ExposureType class method), 90

not_exists() (py42.sdk.queries.fileevents.filters.device_filter.DeviceUser class method), 75

not_exists() (py42.sdk.queries.fileevents.filters.exposure_filter.ExposureType class method), 91

not_exists() (py42.sdk.queries.fileevents.filters.device_filter.OSSHostname class method), 76

not_exists() (py42.sdk.queries.fileevents.filters.exposure_filter.ExposureType class method), 91

not_exists() (py42.sdk.queries.fileevents.filters.device_filter.PrivateIP class method), 76

not_exists() (py42.sdk.queries.fileevents.filters.file_filter.FileCategory class method), 70

not_exists() (py42.sdk.queries.fileevents.filters.device_filter.PublicIP class method), 77

not_exists() (py42.sdk.queries.fileevents.filters.file_filter.FileName class method), 71

not_exists() (py42.sdk.queries.fileevents.filters.email_filter.EmailFrom class method), 94

not_exists() (py42.sdk.queries.fileevents.filters.file_filter.FileOwner class method), 72

not_exists() (py42.sdk.queries.fileevents.filters.email_filter.EmailPolicyName class method), 92

not_exists() (py42.sdk.queries.fileevents.filters.file_filter.FilePath class method), 72

not_exists() (py42.sdk.queries.fileevents.filters.email_filter.EmailRecipients class method), 93

not_exists() (py42.sdk.queries.fileevents.filters.file_filter.MD5 class method), 73

not_exists() (py42.sdk.queries.fileevents.filters.email_filter.EmailSender class method), 94

not_exists() (py42.sdk.queries.fileevents.filters.file_filter.SHA256 class method), 74

not_exists() (py42.sdk.queries.fileevents.filters.email_filter.EmailSubject class method), 93

75
 OutsideActiveHours (class in *py42.sdk.queries.fileevents.filters.event_filter*), 69

P

packets (*py42.clients.settings.org_settings.OrgSettings* attribute), 110

page_token (*py42.exceptions.Py42InvalidPageTokenError* attribute), 56

print_response() (in module *py42.util*), 122

Printer (class in *py42.sdk.queries.fileevents.filters.print_filter*), 95

PrintJobName (class in *py42.sdk.queries.fileevents.filters.print_filter*), 96

PrivateIPAddress (class in *py42.sdk.queries.fileevents.filters.device_filter*), 76

ProcessName (class in *py42.sdk.queries.fileevents.filters.exposure_filter*), 82

ProcessOwner (class in *py42.sdk.queries.fileevents.filters.exposure_filter*), 83

PublicIPAddress (class in *py42.sdk.queries.fileevents.filters.device_filter*), 76

py42.exceptions (module), 52

py42.sdk (module), 123

py42.sdk.queries.alerts.filters.alert_filter (module), 22

py42.sdk.queries.query_filter (module), 113

py42.util (module), 122

Py42ActiveLegalHoldError, 52

Py42ArchiveFileNotFoundError, 53

Py42BadRequestError, 53

Py42BadRestoreRequestError, 53

Py42CaseAlreadyHasEventError, 53

Py42CaseNameExistsError, 53

Py42ChecksumNotFoundError, 54

Py42CloudAliasLimitExceededError, 54

Py42ConflictError, 54

Py42DescriptionLimitExceededError, 54

Py42DeviceNotConnectedError, 54

Py42Error, 55

Py42FeatureUnavailableError, 55

Py42ForbiddenError, 55

Py42HTTPError, 55

Py42InternalServerError, 55

Py42InvalidArchiveEncryptionKey, 55

Py42InvalidArchivePassword, 56

Py42InvalidCaseUserError, 56

Py42InvalidEmailError, 56

Py42InvalidPageTokenError, 56

Py42InvalidPasswordError, 56

Py42InvalidRuleError, 57

Py42InvalidRuleOperationError, 57

Py42InvalidUsernameError, 57

Py42LegalHoldAlreadyActiveError, 57

Py42LegalHoldAlreadyDeactivatedError, 57

Py42LegalHoldCriteriaMissingError, 58

Py42LegalHoldNotFoundOrPermissionDeniedError, 58

Py42MFARequiredError, 58

Py42NotFoundError, 58

Py42OrgNotFoundError, 58

Py42Response (class in *py42.response*), 111

Py42ResponseError, 59

Py42SessionInitializationError, 59

Py42StorageSessionInitializationError, 59

Py42TooManyRequestsError, 59

Py42TrustedActivityConflictError, 59

Py42TrustedActivityIdNotFound, 60

Py42TrustedActivityInvalidChangeError, 60

Py42TrustedActivityInvalidCharacterError, 60

Py42UnableToCreateProfileError, 60

Py42UnauthorizedError, 60

Py42UpdateClosedCaseError, 61

Py42UserAlreadyAddedError, 61

Py42UserAlreadyExistsError, 61

Py42UsernameMustBeEmailError, 61

Py42UserNotOnListError, 61

Q

QueryFilter (class in *py42.sdk.queries.query_filter*), 113

QueryFilterBooleanField (class in *py42.sdk.queries.query_filter*), 113

QueryFilterStringField (class in *py42.sdk.queries.query_filter*), 114

QueryFilterTimestampField (class in *py42.sdk.queries.query_filter*), 114

quota_settings_inherited (*py42.clients.settings.org_settings.OrgSettings* attribute), 110

R

raise_py42_error() (in module *py42.exceptions*), 62

raw_text (*py42.response.Py42Response* attribute), 111

reactivate() (*py42.services.devices.DeviceService method*), 51
 reactivate() (*py42.services.orgs.OrgService method*), 108
 reactivate() (*py42.services.users.UserService method*), 121
 reactivate_matter() (*py42.services.legalhold.LegalHoldService method*), 106
 refresh_user_scim_attributes() (*py42.clients.detectionlists.DetectionListsClient method*), 45
 registration_key (*py42.clients.settings.org_settings.OrgSettings attribute*), 110
 RemoteActivity (*class in py42.sdk.queries.fileevents.filters.activity_filter*), 95
 RemovableMediaMediaName (*class in py42.sdk.queries.fileevents.filters.exposure_filter*), 85
 RemovableMediaName (*class in py42.sdk.queries.fileevents.filters.exposure_filter*), 84
 RemovableMediaPartitionID (*class in py42.sdk.queries.fileevents.filters.exposure_filter*), 87
 RemovableMediaSerialNumber (*class in py42.sdk.queries.fileevents.filters.exposure_filter*), 88
 RemovableMediaVendor (*class in py42.sdk.queries.fileevents.filters.exposure_filter*), 85
 RemovableMediaVolumeName (*class in py42.sdk.queries.fileevents.filters.exposure_filter*), 86
 remove() (*py42.services.detectionlists.departing_employee.DepartingEmployeeService method*), 47
 remove() (*py42.services.detectionlists.high_risk_employee.HighRiskEmployeeService method*), 48
 remove_all_users() (*py42.clients.alertrules.AlertRulesClient method*), 33
 remove_destination() (*py42.clients.settings.device_settings.BackupSet method*), 39
 remove_from_matter() (*py42.services.legalhold.LegalHoldService method*), 106
 remove_role() (*py42.services.users.UserService method*), 121
 remove_user() (*py42.clients.alertrules.AlertRulesClient method*), 33
 remove_user_cloud_alias() (*py42.clients.detectionlists.DetectionListsClient method*), 45
 remove_user_risk_tags() (*py42.clients.detectionlists.DetectionListsClient method*), 45
 reopen() (*py42.clients.alerts.AlertsClient method*), 20
 reporting_settings_inherited (*py42.clients.settings.org_settings.OrgSettings attribute*), 110
 resolve() (*py42.clients.alerts.AlertsClient method*), 21
 resource (*py42.exceptions.Py42ActiveLegalHoldError attribute*), 52
 resource_id (*py42.exceptions.Py42ActiveLegalHoldError attribute*), 52
 resource_id (*py42.exceptions.Py42TrustedActivityIdNotFound attribute*), 60
 response (*py42.exceptions.Py42ActiveLegalHoldError attribute*), 52
 response (*py42.exceptions.Py42ArchiveFileNotFound attribute*), 53
 response (*py42.exceptions.Py42BadRequestError attribute*), 53
 response (*py42.exceptions.Py42BadRestoreRequestError attribute*), 53
 response (*py42.exceptions.Py42CaseAlreadyHasEventError attribute*), 53
 response (*py42.exceptions.Py42CaseNameExistsError attribute*), 53
 response (*py42.exceptions.Py42ChecksumNotFound attribute*), 54
 response (*py42.exceptions.Py42CloudAliasLimitExceeded attribute*), 54
 response (*py42.exceptions.Py42ConflictError attribute*), 54
 response (*py42.exceptions.Py42DescriptionLimitExceeded attribute*), 55
 response (*py42.exceptions.Py42DeviceNotConnected attribute*), 55
 response (*py42.exceptions.Py42FeatureUnavailable attribute*), 55
 response (*py42.exceptions.Py42Forbidden attribute*), 55
 response (*py42.exceptions.Py42HTTPError attribute*), 55
 response (*py42.exceptions.Py42InternalServerError attribute*), 55
 response (*py42.exceptions.Py42InvalidArchiveEncryptionKey attribute*), 55
 response (*py42.exceptions.Py42InvalidArchivePassword attribute*), 56
 response (*py42.exceptions.Py42InvalidCaseUser attribute*), 56
 response (*py42.exceptions.Py42InvalidEmail attribute*), 56

response (<i>py42.exceptions.Py42InvalidPageTokenError</i> attribute), 56	97	
response (<i>py42.exceptions.Py42InvalidPasswordError</i> attribute), 56		RiskIndicator.CloudDataExposures (class in <i>py42.sdk.queries.fileevents.filters.risk_filter</i>), 98
response (<i>py42.exceptions.Py42InvalidRuleError</i> attribute), 57		RiskIndicator.CloudStorageUploads (class in <i>py42.sdk.queries.fileevents.filters.risk_filter</i>), 99
response (<i>py42.exceptions.Py42InvalidRuleOperationError</i> attribute), 57		RiskIndicator.CodeRepositoryUploads (class in <i>py42.sdk.queries.fileevents.filters.risk_filter</i>), 99
response (<i>py42.exceptions.Py42InvalidUsernameError</i> attribute), 57		RiskIndicator.EmailServiceUploads (class in <i>py42.sdk.queries.fileevents.filters.risk_filter</i>), 99
response (<i>py42.exceptions.Py42LegalHoldAlreadyActiveError</i> attribute), 57		RiskIndicator.ExternalDevices (class in <i>py42.sdk.queries.fileevents.filters.risk_filter</i>), 99
response (<i>py42.exceptions.Py42LegalHoldAlreadyDeactivatedError</i> attribute), 58		RiskIndicator.FileCategories (class in <i>py42.sdk.queries.fileevents.filters.risk_filter</i>), 99
response (<i>py42.exceptions.Py42LegalHoldCriteriaMissingError</i> attribute), 58		RiskIndicator.MessagingServiceUploads (class in <i>py42.sdk.queries.fileevents.filters.risk_filter</i>), 99
response (<i>py42.exceptions.Py42LegalHoldNotFoundOrPermissionDeniedError</i> attribute), 58		RiskIndicator.Other (class in <i>py42.sdk.queries.fileevents.filters.risk_filter</i>), 99
response (<i>py42.exceptions.Py42MFARequiredError</i> attribute), 58		RiskIndicator.SocialMediaUploads (class in <i>py42.sdk.queries.fileevents.filters.risk_filter</i>), 99
response (<i>py42.exceptions.Py42NotFoundError</i> attribute), 58		RiskIndicator.UserBehavior (class in <i>py42.sdk.queries.fileevents.filters.risk_filter</i>), 100
response (<i>py42.exceptions.Py42OrgNotFoundError</i> attribute), 59		RiskScore (class in <i>py42.sdk.queries.fileevents.filters.risk_filter</i>), 101
response (<i>py42.exceptions.Py42ResponseError</i> attribute), 59		RiskSeverity (class in <i>py42.sdk.queries.fileevents.filters.risk_filter</i>), 100
response (<i>py42.exceptions.Py42StorageSessionInitializationError</i> attribute), 59		RiskTags (class in <i>py42.clients.detectionlists</i>), 47
response (<i>py42.exceptions.Py42TooManyRequestsError</i> attribute), 59		RiskTags (class in <i>py42.constants</i>), 43
response (<i>py42.exceptions.Py42TrustedActivityConflictError</i> attribute), 59		rule_id (<i>py42.exceptions.Py42InvalidRuleError</i> attribute), 57
response (<i>py42.exceptions.Py42TrustedActivityIdNotFound</i> attribute), 60		rule_id (<i>py42.exceptions.Py42InvalidRuleOperationError</i> attribute), 57
response (<i>py42.exceptions.Py42TrustedActivityInvalidChangeError</i> attribute), 60		RuleId (class in <i>py42.sdk.queries.alerts.filters.alert_filter</i>), 27
response (<i>py42.exceptions.Py42TrustedActivityInvalidCharacterError</i> attribute), 60		RuleName (class in <i>py42.sdk.queries.alerts.filters.alert_filter</i>), 27
response (<i>py42.exceptions.Py42UnableToCreateProfileError</i> attribute), 60		rules (<i>py42.clients.alerts.AlertsClient</i> attribute), 21
response (<i>py42.exceptions.Py42UnauthorizedError</i> attribute), 60		RuleSource (class in <i>py42.sdk.queries.alerts.filters.alert_filter</i>), 28
response (<i>py42.exceptions.Py42UpdateClosedCaseError</i> attribute), 61		RuleType (class in <i>py42.sdk.queries.alerts.filters.alert_filter</i>), 29
response (<i>py42.exceptions.Py42UserAlreadyAddedError</i> attribute), 61		
response (<i>py42.exceptions.Py42UserAlreadyExistsError</i> attribute), 61		
response (<i>py42.exceptions.Py42UsernameMustBeEmailError</i> attribute), 61		
response (<i>py42.exceptions.Py42UserNotOnListError</i> attribute), 61		
RiskIndicator (class in <i>py42.sdk.queries.fileevents.filters.risk_filter</i>),		

S

savedsearches (py42.clients.securitydata.SecurityDataClient attribute), 112
 SavedSearchService (class in py42.services.savedsearch), 62
 SDKClient (class in py42.sdk), 123
 search() (py42.clients.alerts.AlertsClient method), 21
 search_all_file_events() (py42.clients.securitydata.SecurityDataClient method), 112
 search_all_pages() (py42.clients.alerts.AlertsClient method), 21
 search_file_events() (py42.clients.securitydata.SecurityDataClient method), 112
 search_file_events() (py42.services.savedsearch.SavedSearchService method), 63
 securitydata (py42.sdk.SDKClient attribute), 125
 SecurityDataClient (class in py42.clients.securitydata), 112
 serveradmin (py42.sdk.SDKClient attribute), 125
 set_alerts_enabled() (py42.services.detectionlists.departing_employee.DepartingEmployeeService method), 47
 set_alerts_enabled() (py42.services.detectionlists.high_risk_employee.HighRiskEmployeeService method), 49
 Severity (class in py42.sdk.queries.alerts.filters.alert_filter), 30
 SHA256 (class in py42.sdk.queries.fileevents.filters.file_filter), 74
 Shared (class in py42.sdk.queries.fileevents.filters.cloud_filter), 79
 SharedWith (class in py42.sdk.queries.fileevents.filters.cloud_filter), 80
 SharingTypeAdded (class in py42.sdk.queries.fileevents.filters.cloud_filter), 80
 SortDirection (class in py42.constants), 43
 Source (class in py42.sdk.queries.fileevents.filters.event_filter), 68
 source (py42.exceptions.Py42InvalidRuleOperationError attribute), 57
 status_code (py42.response.Py42Response attribute), 111
 stream_file_by_md5() (py42.clients.securitydata.SecurityDataClient method), 112
 stream_file_by_sha256() (py42.clients.securitydata.SecurityDataClient method), 112
 stream_from_backup() (py42.clients.archive.ArchiveClient method), 35
 stream_to_device() (py42.clients.archive.ArchiveClient method), 36
 SyncDestination (class in py42.sdk.queries.fileevents.filters.exposure_filter), 88
 SyncDestinationUsername (class in py42.sdk.queries.fileevents.filters.exposure_filter), 89

T

TabURL (class in py42.sdk.queries.fileevents.filters.exposure_filter), 90
 term (py42.sdk.queries.query_filter.QueryFilter attribute), 113
 text (py42.response.Py42Response attribute), 111
 trustedactivities (py42.sdk.SDKClient attribute), 125
 TrustedActivitiesClient (class in py42.clients.trustedactivities), 117
 TrustedActivity (class in py42.sdk.queries.fileevents.filters.activity_filter), 95
 TrustedActivityType (class in py42.clients.trustedactivities), 117
 TrustedActivityType (class in py42.constants), 43

U

id (py42.exceptions.Py42LegalHoldNotFoundOrPermissionDeniedError attribute), 58
 lock() (py42.services.devices.DeviceService method), 51
 unblock() (py42.services.orgs.OrgService method), 108
 unblock() (py42.services.users.UserService method), 121
 unlock_destination() (py42.clients.settings.device_settings.BackupSet method), 39
 update() (py42.clients.cases.CasesClient method), 42
 update() (py42.clients.trustedactivities.TrustedActivitiesClient method), 118
 update_cold_storage_purge_date() (py42.clients.archive.ArchiveClient method), 37
 update_departure_date() (py42.services.detectionlists.departing_employee.DepartingEmployeeService method), 47
 update_note() (py42.clients.alerts.AlertsClient method), 21

update_settings() (py42.services.devices.DeviceService method), 51
 update_settings() (py42.services.orgs.OrgService method), 108
 update_state() (py42.clients.alerts.AlertsClient method), 22
 update_user() (py42.services.users.UserService method), 121
 update_user_notes() (py42.clients.detectionlists.DetectionListsClient method), 45
 url (py42.response.Py42Response attribute), 111
 user (py42.exceptions.Py42InvalidCaseUserError attribute), 56
 user_backup_quota (py42.clients.settings.org_settings.OrgSettings attribute), 110
 user_id (py42.clients.settings.device_settings.DeviceSettings attribute), 52
 user_id (py42.exceptions.Py42UserAlreadyAddedError attribute), 61
 user_id (py42.exceptions.Py42UserNotOnListError attribute), 61
 UserContext (class in py42.usercontext), 122
 usercontext (py42.sdk.SDKClient attribute), 125
 username (py42.exceptions.Py42UnableToCreateProfileError attribute), 60
 users (py42.sdk.SDKClient attribute), 125
 UserService (class in py42.services.users), 118
V
 value (py42.exceptions.Py42TrustedActivityConflictError attribute), 60
 value (py42.sdk.queries.query_filter.QueryFilter attribute), 113
 version (py42.clients.settings.device_settings.DeviceSettings attribute), 52
W
 warning_alert_days (py42.clients.settings.device_settings.DeviceSettingsDefaults attribute), 111
 warning_email_enabled (py42.clients.settings.device_settings.DeviceSettingsDefaults attribute), 111
 web_restore_admin_limit (py42.clients.settings.org_settings.OrgSettings attribute), 110
 web_restore_enabled (py42.clients.settings.org_settings.OrgSettings attribute), 110
 web_restore_user_limit (py42.clients.settings.org_settings.OrgSettings attribute), 110
 WindowTitle (class in py42.sdk.queries.fileevents.filters.exposure_filter), 91
 with_traceback() (py42.exceptions.Py42ActiveLegalHoldError method), 53
 with_traceback() (py42.exceptions.Py42ArchiveFileNotFoundError method), 53
 with_traceback() (py42.exceptions.Py42BadRequestError method), 53
 with_traceback() (py42.exceptions.Py42BadRestoreRequestError method), 53
 with_traceback() (py42.exceptions.Py42CaseAlreadyHasEventError method), 53
 with_traceback() (py42.exceptions.Py42CaseNameExistsError method), 54
 with_traceback() (py42.exceptions.Py42ChecksumNotFoundError method), 54
 with_traceback() (py42.exceptions.Py42CloudAliasLimitExceededError method), 54
 with_traceback() (py42.exceptions.Py42ConflictError method), 54
 with_traceback() (py42.exceptions.Py42DescriptionLimitExceededError method), 54
 with_traceback() (py42.exceptions.Py42DeviceNotConnectedError method), 55
 with_traceback() (py42.exceptions.Py42Error method), 55
 with_traceback() (py42.exceptions.Py42FeatureUnavailableError method), 55
 with_traceback() (py42.exceptions.Py42ForbiddenError method), 55
 with_traceback() (py42.exceptions.Py42HTTPError method), 55
 with_traceback() (py42.exceptions.Py42InternalServerError method), 55
 with_traceback() (py42.exceptions.Py42InvalidArchiveEncryptionKeyError method), 56
 with_traceback() (py42.exceptions.Py42InvalidArchivePasswordError method), 56
 with_traceback() (py42.exceptions.Py42InvalidCaseUserError method), 56
 with_traceback() (py42.exceptions.Py42InvalidEmailError method), 56
 with_traceback() (py42.exceptions.Py42InvalidPageTokenError method), 56
 with_traceback() (py42.exceptions.Py42InvalidPasswordError method), 57
 with_traceback() (py42.exceptions.Py42InvalidRuleError method), 57
 with_traceback() (py42.exceptions.Py42InvalidRuleOperationError method), 57
 with_traceback() (py42.exceptions.Py42InvalidUsernameError method), 57

`with_traceback()` (*py42.exceptions.Py42LegalHoldAlreadyActiveError*
method), 57

`with_traceback()` (*py42.exceptions.Py42LegalHoldAlreadyDeactivatedError*
method), 58

`with_traceback()` (*py42.exceptions.Py42LegalHoldCriteriaMissingError*
method), 58

`with_traceback()` (*py42.exceptions.Py42LegalHoldNotFoundOrPermissionDeniedError*
method), 58

`with_traceback()` (*py42.exceptions.Py42MFARequiredError*
method), 58

`with_traceback()` (*py42.exceptions.Py42NotFoundError*
method), 58

`with_traceback()` (*py42.exceptions.Py42OrgNotFoundError*
method), 59

`with_traceback()` (*py42.exceptions.Py42ResponseError*
method), 59

`with_traceback()` (*py42.exceptions.Py42SessionInitializationError*
method), 59

`with_traceback()` (*py42.exceptions.Py42StorageSessionInitializationError*
method), 59

`with_traceback()` (*py42.exceptions.Py42TooManyRequestsError*
method), 59

`with_traceback()` (*py42.exceptions.Py42TrustedActivityConflictError*
method), 60

`with_traceback()` (*py42.exceptions.Py42TrustedActivityIdNotFound*
method), 60

`with_traceback()` (*py42.exceptions.Py42TrustedActivityInvalidChangeError*
method), 60

`with_traceback()` (*py42.exceptions.Py42TrustedActivityInvalidCharacterError*
method), 60

`with_traceback()` (*py42.exceptions.Py42UnableToCreateProfileError*
method), 60

`with_traceback()` (*py42.exceptions.Py42UnauthorizedError*
method), 61

`with_traceback()` (*py42.exceptions.Py42UpdateClosedCaseError*
method), 61

`with_traceback()` (*py42.exceptions.Py42UserAlreadyAddedError*
method), 61

`with_traceback()` (*py42.exceptions.Py42UserAlreadyExistsError*
method), 61

`with_traceback()` (*py42.exceptions.Py42UsernameMustBeEmailError*
method), 62

`with_traceback()` (*py42.exceptions.Py42UserNotOnListError*
method), 61

`within_the_last()`
(*py42.sdk.queries.fileevents.filters.event_filter.EventTimestamp*
class method), 65

`within_the_last()`
(*py42.sdk.queries.fileevents.filters.event_filter.InsertionTimestamp*
class method), 67