Package 'factset.analyticsapi.engines'

October 13, 2022

Title 'FactSet' Engines API Client

Version 3.0.1

Description Allow clients to fetch 'analytics' through API for Portfolio
'Analytics'('PA'), Style Performance Risk('SPAR') and 'Vault' products of
'FactSet'. Visit
<https://github.com/factset/analyticsapi-engines-r-sdk/tree/master/Engines>
for more information on the usage of package. Visit
<https://developer.factset.com/> for more information on products.

URL https://github.com/factset/analyticsapi-engines-r-sdk

BugReports https://github.com/factset/analyticsapi-engines-r-sdk/issues

Depends R (>= 3.3)

Encoding UTF-8

License Apache License 2.0

LazyData true

Suggests testthat

Imports jsonlite, httr, R6, caTools, rlang

RoxygenNote 6.0.1.9000

NeedsCompilation no

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Repository CRAN

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R topics documented:

AccountDirectories   *AccountDirectories*

Description

AccountDirectories Class

Format

An `R6Class` generator object

Public fields

accounts list(character) [optional]

directories list(character) [optional]

Methods

Public methods:

- [AccountDirectories$new()](#)
- [AccountDirectories$toJSON()](#)
- [AccountDirectories$fromJSON()](#)
- [AccountDirectories$toJSONString()](#)
- [AccountDirectories$fromJSONString()](#)
- [AccountDirectories$clone()](#)

Method new():

Usage:

AccountDirectories$new(accounts = NULL, directories = NULL, ...)

Method toJSON():

Usage:

AccountDirectories$toJSON()

Method fromJSON():

Usage:

AccountDirectories$fromJSON(AccountDirectoriesJson)

Method toJSONString():

Usage:

AccountDirectories$toJSONString()

Method fromJSONString():

Usage:

AccountDirectories$fromJSONString(AccountDirectoriesJson)

Method clone(): The objects of this class are cloneable with this method.

Usage:

AccountDirectories$clone(deep = FALSE)

Arguments:

deep Whether to make a deep clone.

AccountsApi   *Accounts operations*

Description

factset.analyticsapi.engines.Accounts

Format

An R6Class generator object

Methods

GetAccounts *Get accounts and sub-directories in a directory* This endpoint looks up all ACCT and ACTM files and sub-directories in a given directory.

> @*param* path character

- @*returnType* [AccountDirectories](#)

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns a list of accounts and directories
- return type : AccountDirectories
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentication
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 400 | Invalid query parameter or value provided
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentication
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 404 | Path not found
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.

X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in some time
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

Public fields

apiClient Handles the client-server communication.

Methods

Public methods:

- [AccountsApi$new()](#)
- [AccountsApi$GetAccounts()](#)
- [AccountsApi$GetAccountsWithHttpInfo()](#)
- [AccountsApi$clone()](#)

Method new():

Usage:

AccountsApi$new(apiClient)

Method GetAccounts():

Usage:

AccountsApi$GetAccounts(path, ...)

Method GetAccountsWithHttpInfo():

Usage:

AccountsApi$GetAccountsWithHttpInfo(path, ...)

Method clone(): The objects of this class are cloneable with this method.

Usage:

AccountsApi$clone(deep = FALSE)

Arguments:

deep Whether to make a deep clone.

Examples

```
## Not run:
#################### GetAccounts ####################

library(factset.analyticsapi.engines)
var.path <- 'path_example' # character | The directory to get the accounts and sub-directories in

#Get accounts and sub-directories in a directory
api.instance <- AccountsApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
            api.instance$GetAccounts(var.path),
            ApiException = function(ex) ex
         )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}


## End(Not run)
```

ApiClient	*ApiClient*

Description

ApiClient Class

Format

An R6Class generator object

Details

ApiClient Class

Generic API client for OpenAPI client library builds. OpenAPI generic API client. This client handles the client- server communication, and is invariant across implementations. Specifics of the methods and models for each application are generated from the OpenAPI Generator templates.

NOTE: This class is auto generated by OpenAPI Generator (https://openapi-generator.tech). Ref: https://openapi-generator.tech Do not edit the class manually.

Public fields

basePath Base url

userAgent Default user agent

username Username for HTTP basic authentication

password Password for HTTP basic authentication

timeout Default timeout in seconds

Methods

Public methods:

- `ApiClient$new()`
- `ApiClient$CallApi()`
- `ApiClient$deserialize()`
- `ApiClient$deserializeObj()`
- `ApiClient$clone()`

Method new()**:**

Usage:

```
ApiClient$new(
  basePath = NULL,
  userAgent = NULL,
  defaultHeaders = NULL,
  username = NULL,
  password = NULL,
  apiKeys = NULL,
  accessToken = NULL,
  timeout = NULL
)
```

Method CallApi()**:**

Usage:

```
ApiClient$CallApi(url, method, queryParams, headerParams, body, ...)
```

Method deserialize()**:**

Usage:

```
ApiClient$deserialize(resp, returnType, pkgEnv)
```

Method `deserializeObj():`

Usage:

`ApiClient$deserializeObj(obj, returnType, pkgEnv)`

Method `clone():` The objects of this class are cloneable with this method.

Usage:

`ApiClient$clone(deep = FALSE)`

Arguments:

`deep` Whether to make a deep clone.

ApiException *ApiException*

Description

ApiException Class

Format

An `R6Class` generator object

Public fields

`status` Status of the ApiException

`reason` Reason of the ApiException

`body` Body of the http response

`headers` Headers of the http response

Methods

Public methods:

- [`ApiException$new()`](#)
- [`ApiException$toString()`](#)
- [`ApiException$clone()`](#)

Method `new():`

Usage:

`ApiException$new(status = NULL, reason = NULL, http_response = NULL)`

Method `toString():`

Usage:

`ApiException$toString()`

Method `clone():` The objects of this class are cloneable with this method.

Usage:

```
ApiException$clone(deep = FALSE)
```

Arguments:

deep Whether to make a deep clone.

ApiResponse   *ApiResponse*

Description

ApiResponse Class

Format

An `R6Class` generator object

Public fields

content The deserialized response body.

response The raw response from the endpoint.

Methods

Public methods:

- [ApiResponse$new()](#)
- [ApiResponse$clone()](#)

Method `new()`:

Usage:

```
ApiResponse$new(content, response)
```

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

```
ApiResponse$clone(deep = FALSE)
```

Arguments:

deep Whether to make a deep clone.

Calculation   *Calculation*

Description

Calculation Class

Format

An R6Class generator object

Public fields

pa named list(PACalculationParameters) [optional]

spar named list(SPARCalculationParameters) [optional]

vault named list(VaultCalculationParameters) [optional]

Methods

Public methods:

- Calculation$new()
- Calculation$toJSON()
- Calculation$fromJSON()
- Calculation$toJSONString()
- Calculation$fromJSONString()
- Calculation$clone()

Method new():

Usage:

Calculation$new(pa = NULL, spar = NULL, vault = NULL, ...)

Method toJSON():

Usage:

Calculation$toJSON()

Method fromJSON():

Usage:

Calculation$fromJSON(CalculationJson)

Method toJSONString():

Usage:

Calculation$toJSONString()

Method fromJSONString():

Usage:

```
Calculation$fromJSONString(CalculationJson)
```

Method clone(): The objects of this class are cloneable with this method.

Usage:

```
Calculation$clone(deep = FALSE)
```

Arguments:

deep Whether to make a deep clone.

CalculationsApi   *Calculations operations*

Description

factset.analyticsapi.engines.Calculations

Format

An R6Class generator object

Methods

CancelCalculationById *Cancel calculation by id* This is the endpoint to cancel a previously submitted calculation request. Instead of doing a GET on the getCalculationById URL, cancel the calculation by doing a DELETE. All individual calculation units within the calculation will be canceled if they have not already finished.

@*param* id character

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 204 | Expected response, request was cancelled successfully.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 400 | Invalid identifier provided.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 404 | There was no request for the identifier provided, or the request was already canceled for the provided identifier.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.

X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

GetCalculationStatusById *Get calculation status by id* This is the endpoint to check on the progress of a previous calculation request. Response body contains status information of the entire request and each individual calculation unit.

   @*param* id character

- @*returnType* CalculationStatus

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns status information of the entire calculation and each individual calculation unit.
- return type : CalculationStatus
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
Cache-Control	Standard HTTP header. Header will specify max-age in seconds. Polling can be adjusted base
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 400 | Invalid identifier provided.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
Cache-Control	Standard HTTP header. Header will specify max-age in seconds. Polling can be adjusted base
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
Cache-Control	Standard HTTP header. Header will specify max-age in seconds. Polling can be adjusted base
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
Cache-Control	Standard HTTP header. Header will specify max-age in seconds. Polling can be adjusted based
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 404 | Provided identifier was not a request, or the request was cancelled.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
Cache-Control	Standard HTTP header. Header will specify max-age in seconds. Polling can be adjusted based
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
Cache-Control	Standard HTTP header. Header will specify max-age in seconds. Polling can be adjusted based
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
Cache-Control	Standard HTTP header. Header will specify max-age in seconds. Polling can be adjusted based
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
Cache-Control	Standard HTTP header. Header will specify max-age in seconds. Polling can be adjusted based
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

GetCalculationStatusSummaries   *Get all calculation statuses*   This endpoints returns all active calculation requests.

@*returnType* named list(CalculationStatusSummary)

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | List of active calculation requests.
- return type : map(CalculationStatusSummary)
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.

X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticati
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticati
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticati
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

RunCalculation *Run calculation* This endpoint creates a new calculation and runs the set of calculation units specified in the POST body. This must be used first before get status or cancelling endpoints with a calculation id. A successful response will contain the URL to check the status of the calculation request. Remarks: * Maximum 25 points allowed per calculation and maximum 500 points allowed across all simultaneous calculations. (Refer API documentation for more information) * Any settings in POST body will act as a one-time override over the settings saved in the PA/SPAR/Vault template.

@*param* calculation Calculation

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 202 | Expected response, contains the URL in the Location header to check the status of the calculation.
- response headers :

X-FactSet-Api-Points-Limit	Maximum points limit across all batches.
X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authent
X-FactSet-Api-Points-Remaining	Number of points remaining till points limit reached.
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
Location	URL to check status of the request.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 400 | Invalid POST body.
- response headers :

X-FactSet-Api-Points-Limit	Maximum points limit across all batches.
X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authent
X-FactSet-Api-Points-Remaining	Number of points remaining till points limit reached.
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
Location	URL to check status of the request.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication.
- response headers :

X-FactSet-Api-Points-Limit	Maximum points limit across all batches.
X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authent
X-FactSet-Api-Points-Remaining	Number of points remaining till points limit reached.
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
Location	URL to check status of the request.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials.
- response headers :

X-FactSet-Api-Points-Limit	Maximum points limit across all batches.
X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authent
X-FactSet-Api-Points-Remaining	Number of points remaining till points limit reached.
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
Location	URL to check status of the request.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 415 | Missing/Invalid Content-Type header. Header needs to be set to application/json.
- response headers :

X-FactSet-Api-Points-Limit	Maximum points limit across all batches.
X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authent

X-FactSet-Api-Points-Remaining	Number of points remaining till points limit reached.
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
Location	URL to check status of the request.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 429 | Rate limit reached. Cancel older requests using Cancel Calculation endpoint or wait for older requests to finish / expire.
- response headers :

X-FactSet-Api-Points-Limit	Maximum points limit across all batches.
X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authent
X-FactSet-Api-Points-Remaining	Number of points remaining till points limit reached.
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
Location	URL to check status of the request.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting.
- response headers :

X-FactSet-Api-Points-Limit	Maximum points limit across all batches.
X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authent
X-FactSet-Api-Points-Remaining	Number of points remaining till points limit reached.
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
Location	URL to check status of the request.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.
- response headers :

X-FactSet-Api-Points-Limit	Maximum points limit across all batches.
X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authent
X-FactSet-Api-Points-Remaining	Number of points remaining till points limit reached.
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
Location	URL to check status of the request.
X-DataDirect-Request-Key	FactSet's request key header.

Public fields

apiClient Handles the client-server communication.

Methods

Public methods:

- [CalculationsApi$new()](#)
- [CalculationsApi$CancelCalculationById()](#)
- [CalculationsApi$CancelCalculationByIdWithHttpInfo()](#)
- [CalculationsApi$GetCalculationStatusById()](#)
- [CalculationsApi$GetCalculationStatusByIdWithHttpInfo()](#)
- [CalculationsApi$GetCalculationStatusSummaries()](#)
- [CalculationsApi$GetCalculationStatusSummariesWithHttpInfo()](#)
- [CalculationsApi$RunCalculation()](#)
- [CalculationsApi$RunCalculationWithHttpInfo()](#)
- [CalculationsApi$clone()](#)

Method new():

Usage:

CalculationsApi$new(apiClient)

Method CancelCalculationById():

Usage:

CalculationsApi$CancelCalculationById(id, ...)

Method CancelCalculationByIdWithHttpInfo():

Usage:

CalculationsApi$CancelCalculationByIdWithHttpInfo(id, ...)

Method GetCalculationStatusById():

Usage:

CalculationsApi$GetCalculationStatusById(id, ...)

Method GetCalculationStatusByIdWithHttpInfo():

Usage:

CalculationsApi$GetCalculationStatusByIdWithHttpInfo(id, ...)

Method GetCalculationStatusSummaries():

Usage:

CalculationsApi$GetCalculationStatusSummaries(...)

Method GetCalculationStatusSummariesWithHttpInfo():

Usage:

CalculationsApi$GetCalculationStatusSummariesWithHttpInfo(...)

Method RunCalculation():

Usage:

CalculationsApi$RunCalculation(calculation = NULL, ...)

Method RunCalculationWithHttpInfo():

Usage:

CalculationsApi$RunCalculationWithHttpInfo(calculation = NULL, ...)

Method clone(): The objects of this class are cloneable with this method.

Usage:

CalculationsApi$clone(deep = FALSE)

Arguments:

deep Whether to make a deep clone.

Examples

```
## Not run:
##################### CancelCalculationById ####################

library(factset.analyticsapi.engines)
var.id <- 'id_example' # character | From url, provided from the location
                       # header in the Run Multiple Calculations endpoint.

#Cancel calculation by id
api.instance <- CalculationsApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
            api.instance$CancelCalculationById(var.id),
            ApiException = function(ex) ex
        )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}


##################### GetCalculationStatusById ####################

library(factset.analyticsapi.engines)
```

```
var.id <- 'id_example' # character | From url, provided from the location
                       # header in the Run Multiple Calculations endpoint.

#Get calculation status by id
api.instance <- CalculationsApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
            api.instance$GetCalculationStatusById(var.id),
            ApiException = function(ex) ex
         )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}


#################### GetCalculationStatusSummaries ####################

library(factset.analyticsapi.engines)

#Get all calculation statuses
api.instance <- CalculationsApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
            api.instance$GetCalculationStatusSummaries(),
            ApiException = function(ex) ex
         )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
```

```
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}


################### RunCalculation ###################

library(factset.analyticsapi.engines)
var.calculation <- Calculation$new() # Calculation |

#Run calculation
api.instance <- CalculationsApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
           api.instance$RunCalculation(calculation=var.calculation),
           ApiException = function(ex) ex
        )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}



## End(Not run)
```

CalculationStatus *CalculationStatus*

Description

CalculationStatus Class

Format

An R6Class generator object

Public fields

status character [optional]

points integer [optional]

pa named list(CalculationUnitStatus) [optional]

spar named list(CalculationUnitStatus) [optional]

vault named list(CalculationUnitStatus) [optional]

Methods

Public methods:

- `CalculationStatus$new()`
- `CalculationStatus$toJSON()`
- `CalculationStatus$fromJSON()`
- `CalculationStatus$toJSONString()`
- `CalculationStatus$fromJSONString()`
- `CalculationStatus$clone()`

Method new():

Usage:

```
CalculationStatus$new(
  status = NULL,
  points = NULL,
  pa = NULL,
  spar = NULL,
  vault = NULL,
  ...
)
```

Method toJSON():

Usage:

```
CalculationStatus$toJSON()
```

Method fromJSON():

Usage:

```
CalculationStatus$fromJSON(CalculationStatusJson)
```

Method toJSONString():

Usage:

```
CalculationStatus$toJSONString()
```

Method fromJSONString():

Usage:

```
CalculationStatus$fromJSONString(CalculationStatusJson)
```

Method clone(): The objects of this class are cloneable with this method.

Usage:

```
CalculationStatus$clone(deep = FALSE)
```

Arguments:

deep Whether to make a deep clone.

```
CalculationStatusSummary
```
CalculationStatusSummary

Description

CalculationStatusSummary Class

Format

An `R6Class` generator object

Public fields

status character [optional]

points integer [optional]

requestTime character [optional]

lastPollTime character [optional]

Methods

Public methods:

- `CalculationStatusSummary$new()`
- `CalculationStatusSummary$toJSON()`
- `CalculationStatusSummary$fromJSON()`
- `CalculationStatusSummary$toJSONString()`
- `CalculationStatusSummary$fromJSONString()`
- `CalculationStatusSummary$clone()`

Method `new()`:

Usage:

```
CalculationStatusSummary$new(
  status = NULL,
  points = NULL,
  requestTime = NULL,
  lastPollTime = NULL,
  ...
)
```

Method `toJSON()`:

Usage:

`CalculationStatusSummary$toJSON()`

Method `fromJSON()`:

Usage:

`CalculationStatusSummary$fromJSON(CalculationStatusSummaryJson)`

Method `toJSONString()`:

Usage:

`CalculationStatusSummary$toJSONString()`

Method `fromJSONString()`:

Usage:

`CalculationStatusSummary$fromJSONString(CalculationStatusSummaryJson)`

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

`CalculationStatusSummary$clone(deep = FALSE)`

Arguments:

deep Whether to make a deep clone.

CalculationUnitStatus *CalculationUnitStatus*

Description

CalculationUnitStatus Class

Format

An `R6Class` generator object

Public fields

status character [optional]

points integer [optional]

error character [optional]

result character [optional]

Methods

Public methods:

- [`CalculationUnitStatus$new()`](#)
- [`CalculationUnitStatus$toJSON()`](#)
- [`CalculationUnitStatus$fromJSON()`](#)
- [`CalculationUnitStatus$toJSONString()`](#)
- [`CalculationUnitStatus$fromJSONString()`](#)
- [`CalculationUnitStatus$clone()`](#)

Method `new()`:

Usage:

```
CalculationUnitStatus$new(
  status = NULL,
  points = NULL,
  error = NULL,
  result = NULL,
  ...
)
```

Method `toJSON()`:

Usage:

```
CalculationUnitStatus$toJSON()
```

Method `fromJSON()`:

Usage:

```
CalculationUnitStatus$fromJSON(CalculationUnitStatusJson)
```

Method `toJSONString()`:

Usage:

```
CalculationUnitStatus$toJSONString()
```

Method `fromJSONString()`:

Usage:

```
CalculationUnitStatus$fromJSONString(CalculationUnitStatusJson)
```

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

```
CalculationUnitStatus$clone(deep = FALSE)
```

Arguments:

deep Whether to make a deep clone.

Column   *Column*

Description

Column Class

Format

An R6Class generator object

Public fields

defaultstatisticsids list(character) [optional]

name character [optional]

directory character [optional]

category character [optional]

Methods

Public methods:

- [Column$new()](#)
- [Column$toJSON()](#)
- [Column$fromJSON()](#)
- [Column$toJSONString()](#)
- [Column$fromJSONString()](#)
- [Column$clone()](#)

Method new():

Usage:

```
Column$new(
  defaultstatisticsids = NULL,
  name = NULL,
  directory = NULL,
  category = NULL,
  ...
)
```

Method toJSON():

Usage:

```
Column$toJSON()
```

Method fromJSON():

Usage:

```
Column$fromJSON(ColumnJson)
```

Method `toJSONString()`:

Usage:

```
Column$toJSONString()
```

Method `fromJSONString()`:

Usage:

```
Column$fromJSONString(ColumnJson)
```

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

```
Column$clone(deep = FALSE)
```

Arguments:

deep Whether to make a deep clone.

ColumnsApi *Columns operations*

Description

factset.analyticsapi.engines.Columns

Format

An R6Class generator object

Methods

GetPAColumnById *Get PA column settings* This endpoint returns the default settings of a PA column.

> @*param* id character

- @*returnType* [Column]

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns settings of a PA column.
- return type : Column
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentica
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
Age	Standard HTTP header. Header will specify the age of columns list cached response.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 400 | Invalid column Id.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 404 | Column not found.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

GetPAColumns *Get PA columns* This endpoint lists all the PA columns that can be applied to a calculation.

> @*param* name character
- @*param* category character
- @*param* directory character
- @*returnType* named list(ColumnSummary)

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns a list of PA columns
- return type : map(ColumnSummary)
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
Age	Standard HTTP header. Header will specify the age of columns list cached response.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.

X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentica
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentica
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentica
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentica
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentica
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

Public fields

apiClient Handles the client-server communication.

Methods

Public methods:

- [ColumnsApi$new()](#)
- [ColumnsApi$GetPAColumnById()](#)
- [ColumnsApi$GetPAColumnByIdWithHttpInfo()](#)
- [ColumnsApi$GetPAColumns()](#)
- [ColumnsApi$GetPAColumnsWithHttpInfo()](#)
- [ColumnsApi$clone()](#)

Method new()**:**

Usage:

ColumnsApi$new(apiClient)

Method GetPAColumnById()**:**

Usage:

ColumnsApi$GetPAColumnById(id, ...)

Method GetPAColumnByIdWithHttpInfo()**:**

Usage:

ColumnsApi$GetPAColumnByIdWithHttpInfo(id, ...)

Method GetPAColumns()**:**

Usage:

ColumnsApi$GetPAColumns(name = NULL, category = NULL, directory = NULL, ...)

Method GetPAColumnsWithHttpInfo()**:**

Usage:

```
ColumnsApi$GetPAColumnsWithHttpInfo(
  name = NULL,
  category = NULL,
  directory = NULL,
  ...
)
```

Method clone()**:** The objects of this class are cloneable with this method.

Usage:

ColumnsApi$clone(deep = FALSE)

Arguments:

deep Whether to make a deep clone.

Examples

```
## Not run:
#################### GetPAColumnById ####################

library(factset.analyticsapi.engines)
var.id <- 'id_example' # character | Unique identifier for a column

#Get PA column settings
api.instance <- ColumnsApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
             api.instance$GetPAColumnById(var.id),
             ApiException = function(ex) ex
         )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}


#################### GetPAColumns ####################

library(factset.analyticsapi.engines)
var.name <- 'name_example' # character |
var.category <- 'category_example' # character |
var.directory <- 'directory_example' # character |

#Get PA columns
api.instance <- ColumnsApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
             api.instance$GetPAColumns(name=var.name, category=var.category,
                                       directory=var.directory),
```

```
          ApiException = function(ex) ex
        )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}



## End(Not run)
```

ColumnStatistic   *ColumnStatistic*

Description

ColumnStatistic Class

Format

An R6Class generator object

Public fields

name character [optional]

Methods

Public methods:

- ColumnStatistic$new()
- ColumnStatistic$toJSON()
- ColumnStatistic$fromJSON()
- ColumnStatistic$toJSONString()
- ColumnStatistic$fromJSONString()
- ColumnStatistic$clone()

Method new():

Usage:

ColumnStatistic$new(name = NULL, ...)

Method toJSON():

Usage:

ColumnStatistic$toJSON()

Method fromJSON():

Usage:

ColumnStatistic$fromJSON(ColumnStatisticJson)

Method toJSONString():

Usage:

ColumnStatistic$toJSONString()

Method fromJSONString():

Usage:

ColumnStatistic$fromJSONString(ColumnStatisticJson)

Method clone(): The objects of this class are cloneable with this method.

Usage:

ColumnStatistic$clone(deep = FALSE)

Arguments:

deep Whether to make a deep clone.

ColumnStatisticsApi   *ColumnStatistics operations*

Description

factset.analyticsapi.engines.ColumnStatistics

Format

An R6Class generator object

Methods

GetPAColumnStatistics *Get PA column statistics* This endpoint lists all the column statistics that can be applied to a PA column.

@*returnType* named list(ColumnStatistic)

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns a list of PA column statistics
- return type : map(ColumnStatistic)
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentication
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.

X-DataDirect-Request-Key   FactSet's request key header.

Public fields

apiClient Handles the client-server communication.

Methods

Public methods:

- ColumnStatisticsApi$new()
- ColumnStatisticsApi$GetPAColumnStatistics()
- ColumnStatisticsApi$GetPAColumnStatisticsWithHttpInfo()
- ColumnStatisticsApi$clone()

Method new():

Usage:

ColumnStatisticsApi$new(apiClient)

Method GetPAColumnStatistics():

Usage:

ColumnStatisticsApi$GetPAColumnStatistics(...)

Method GetPAColumnStatisticsWithHttpInfo():

Usage:

ColumnStatisticsApi$GetPAColumnStatisticsWithHttpInfo(...)

Method clone(): The objects of this class are cloneable with this method.

Usage:

ColumnStatisticsApi$clone(deep = FALSE)

Arguments:

deep Whether to make a deep clone.

Examples

```
## Not run:
#################### GetPAColumnStatistics ####################

library(factset.analyticsapi.engines)

#Get PA column statistics
api.instance <- ColumnStatisticsApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';
```

```
result <- tryCatch(
          api.instance$GetPAColumnStatistics(),
          ApiException = function(ex) ex
       )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}



## End(Not run)
```

ColumnSummary   *ColumnSummary*

Description

ColumnSummary Class

Format

An R6Class generator object

Public fields

name character [optional]

directory character [optional]

category character [optional]

Methods

Public methods:

- ColumnSummary$new()
- ColumnSummary$toJSON()
- ColumnSummary$fromJSON()
- ColumnSummary$toJSONString()
- ColumnSummary$fromJSONString()
- ColumnSummary$clone()

Method `new()`:

Usage:

`ColumnSummary$new(name = NULL, directory = NULL, category = NULL, ...)`

Method `toJSON()`:

Usage:

`ColumnSummary$toJSON()`

Method `fromJSON()`:

Usage:

`ColumnSummary$fromJSON(ColumnSummaryJson)`

Method `toJSONString()`:

Usage:

`ColumnSummary$toJSONString()`

Method `fromJSONString()`:

Usage:

`ColumnSummary$fromJSONString(ColumnSummaryJson)`

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

`ColumnSummary$clone(deep = FALSE)`

Arguments:

deep Whether to make a deep clone.

ComponentAccount *ComponentAccount*

Description

ComponentAccount Class

Format

An `R6Class` generator object

Public fields

`id` character [optional]

`name` character [optional]

`holdingsmode` character [optional]

Methods

Public methods:

- `ComponentAccount$new()`
- `ComponentAccount$toJSON()`
- `ComponentAccount$fromJSON()`
- `ComponentAccount$toJSONString()`
- `ComponentAccount$fromJSONString()`
- `ComponentAccount$clone()`

Method `new()`:

Usage:

```
ComponentAccount$new(id = NULL, name = NULL, holdingsmode = NULL, ...)
```

Method `toJSON()`:

Usage:

```
ComponentAccount$toJSON()
```

Method `fromJSON()`:

Usage:

```
ComponentAccount$fromJSON(ComponentAccountJson)
```

Method `toJSONString()`:

Usage:

```
ComponentAccount$toJSONString()
```

Method `fromJSONString()`:

Usage:

```
ComponentAccount$fromJSONString(ComponentAccountJson)
```

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

```
ComponentAccount$clone(deep = FALSE)
```

Arguments:

deep Whether to make a deep clone.

ComponentBenchmark   *ComponentBenchmark*

Description

ComponentBenchmark Class

Format

An R6Class generator object

Public fields

id character [optional]

name character [optional]

holdingsmode character [optional]

Methods

Public methods:

- ComponentBenchmark$new()
- ComponentBenchmark$toJSON()
- ComponentBenchmark$fromJSON()
- ComponentBenchmark$toJSONString()
- ComponentBenchmark$fromJSONString()
- ComponentBenchmark$clone()

Method new():

Usage:

ComponentBenchmark$new(id = NULL, name = NULL, holdingsmode = NULL, ...)

Method toJSON():

Usage:

ComponentBenchmark$toJSON()

Method fromJSON():

Usage:

ComponentBenchmark$fromJSON(ComponentBenchmarkJson)

Method toJSONString():

Usage:

ComponentBenchmark$toJSONString()

Method fromJSONString():

Usage:

`ComponentBenchmark$fromJSONString(ComponentBenchmarkJson)`

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

`ComponentBenchmark$clone(deep = FALSE)`

Arguments:

deep Whether to make a deep clone.

ComponentsApi   *Components operations*

Description

factset.analyticsapi.engines.Components

Format

An `R6Class` generator object

Methods

GetPAComponentById *Get PA component by id* This endpoint returns the default settings of a PA component.

@*param* id character

- @*returnType* [PAComponent](#)

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns the default settings of a PA component.
- return type : PAComponent
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 400 | Invalid PA component id.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.

| X-RateLimit-Limit | Number of allowed requests for the time window. |
| X-DataDirect-Request-Key | FactSet's request key header. |

- status code : 401 | Missing or invalid authentication.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentica
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentica
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 404 | Component not found.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentica
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentica
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

GetPAComponents *Get PA components* This endpoint returns the list of PA components in a given PA document.

@*param* document character

- @*returnType* named list(ComponentSummary)

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns a list of PA components.
- return type : map(ComponentSummary)
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 400 | Invalid query parameter provided or Invalid PA document name.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.

X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 404 | Document not found.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.

- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

GetSPARComponents *Get SPAR components* This endpoint returns the list of SPAR components in a given SPAR document.

> @*param* document character

- @*returnType* named list(ComponentSummary)

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns a list of SPAR components.
- return type : map(ComponentSummary)
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 400 | Invalid query parameter provided or Invalid SPAR document name.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials

- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 404 | SPAR Document not found.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

GetVaultComponentById *Get Vault component by id* This endpoint returns the default settings of a Vault component.

> @*param* id character

- @*returnType* VaultComponent

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns the default settings of a Vault component.
- return type : VaultComponent
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentica
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 400 | Invalid Vault component id.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentica
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentica
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentica
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 404 | Vault Component not found.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

GetVaultComponents *Get Vault components* This endpoint returns the list of Vault components in a given Vault document.

@*param* document character

- @*returnType* named list(ComponentSummary)

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns a list of Vault components.

- return type : map(ComponentSummary)
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentic...
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 400 | Invalid query parameter provided or invalid Vault document name.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentic...
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentic...
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentic...
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 404 | Vault Document not found.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentic...
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticati
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticati
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticati
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

Public fields

apiClient Handles the client-server communication.

Methods

Public methods:

- ComponentsApi$new()
- ComponentsApi$GetPAComponentById()
- ComponentsApi$GetPAComponentByIdWithHttpInfo()
- ComponentsApi$GetPAComponents()
- ComponentsApi$GetPAComponentsWithHttpInfo()
- ComponentsApi$GetSPARComponents()
- ComponentsApi$GetSPARComponentsWithHttpInfo()

- [ComponentsApi$GetVaultComponentById()](#)
- [ComponentsApi$GetVaultComponentByIdWithHttpInfo()](#)
- [ComponentsApi$GetVaultComponents()](#)
- [ComponentsApi$GetVaultComponentsWithHttpInfo()](#)
- [ComponentsApi$clone()](#)

Method new()**:**

Usage:

ComponentsApi$new(apiClient)

Method GetPAComponentById()**:**

Usage:

ComponentsApi$GetPAComponentById(id, ...)

Method GetPAComponentByIdWithHttpInfo()**:**

Usage:

ComponentsApi$GetPAComponentByIdWithHttpInfo(id, ...)

Method GetPAComponents()**:**

Usage:

ComponentsApi$GetPAComponents(document, ...)

Method GetPAComponentsWithHttpInfo()**:**

Usage:

ComponentsApi$GetPAComponentsWithHttpInfo(document, ...)

Method GetSPARComponents()**:**

Usage:

ComponentsApi$GetSPARComponents(document, ...)

Method GetSPARComponentsWithHttpInfo()**:**

Usage:

ComponentsApi$GetSPARComponentsWithHttpInfo(document, ...)

Method GetVaultComponentById()**:**

Usage:

ComponentsApi$GetVaultComponentById(id, ...)

Method GetVaultComponentByIdWithHttpInfo()**:**

Usage:

ComponentsApi$GetVaultComponentByIdWithHttpInfo(id, ...)

Method GetVaultComponents()**:**

Usage:

ComponentsApi$GetVaultComponents(document, ...)

Method `GetVaultComponentsWithHttpInfo()`:

Usage:

`ComponentsApi$GetVaultComponentsWithHttpInfo(document, ...)`

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

`ComponentsApi$clone(deep = FALSE)`

Arguments:

deep Whether to make a deep clone.

Examples

```
## Not run:
#################### GetPAComponentById ####################

library(factset.analyticsapi.engines)
var.id <- 'id_example' # character | Unique identifier for a PA component

#Get PA component by id
api.instance <- ComponentsApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
           api.instance$GetPAComponentById(var.id),
           ApiException = function(ex) ex
        )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}


#################### GetPAComponents ####################

library(factset.analyticsapi.engines)
var.document <- 'document_example' # character | Document Name

#Get PA components
api.instance <- ComponentsApi$new()
```

```
#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
             api.instance$GetPAComponents(var.document),
             ApiException = function(ex) ex
         )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}


#################### GetSPARComponents ####################

library(factset.analyticsapi.engines)
var.document <- 'document_example' # character | Document Name

#Get SPAR components
api.instance <- ComponentsApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
             api.instance$GetSPARComponents(var.document),
             ApiException = function(ex) ex
         )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}
```

```
################### GetVaultComponentById ####################

library(factset.analyticsapi.engines)
var.id <- 'id_example' # character | Unique identifier for a vault component

#Get Vault component by id
api.instance <- ComponentsApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
            api.instance$GetVaultComponentById(var.id),
            ApiException = function(ex) ex
         )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}


################### GetVaultComponents ####################

library(factset.analyticsapi.engines)
var.document <- 'document_example' # character | Document Name

#Get Vault components
api.instance <- ComponentsApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
            api.instance$GetVaultComponents(var.document),
            ApiException = function(ex) ex
         )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
```

```
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}



## End(Not run)
```

ComponentSummary   *ComponentSummary*

Description

ComponentSummary Class

Format

An `R6Class` generator object

Public fields

name character [optional]

category character [optional]

Methods

Public methods:

- ComponentSummary$new()
- ComponentSummary$toJSON()
- ComponentSummary$fromJSON()
- ComponentSummary$toJSONString()
- ComponentSummary$fromJSONString()
- ComponentSummary$clone()

Method new():

Usage:

```
ComponentSummary$new(name = NULL, category = NULL, ...)
```

Method toJSON():

Usage:

```
ComponentSummary$toJSON()
```

Method `fromJSON():`

Usage:

```
ComponentSummary$fromJSON(ComponentSummaryJson)
```

Method `toJSONString():`

Usage:

```
ComponentSummary$toJSONString()
```

Method `fromJSONString():`

Usage:

```
ComponentSummary$fromJSONString(ComponentSummaryJson)
```

Method `clone():` The objects of this class are cloneable with this method.

Usage:

```
ComponentSummary$clone(deep = FALSE)
```

Arguments:

deep Whether to make a deep clone.

ConfigurationAccount   *ConfigurationAccount*

Description

ConfigurationAccount Class

Format

An `R6Class` generator object

Public fields

benchmarkCode character [optional]

benchmarkName character [optional]

maxEndDate character [optional]

minStartDate character [optional]

lockingDate character [optional]

name character [optional]

Methods

Public methods:

- ConfigurationAccount$new()
- ConfigurationAccount$toJSON()
- ConfigurationAccount$fromJSON()
- ConfigurationAccount$toJSONString()
- ConfigurationAccount$fromJSONString()
- ConfigurationAccount$clone()

Method new():

Usage:

```
ConfigurationAccount$new(
  benchmarkCode = NULL,
  benchmarkName = NULL,
  maxEndDate = NULL,
  minStartDate = NULL,
  lockingDate = NULL,
  name = NULL,
  ...
)
```

Method toJSON():

Usage:

```
ConfigurationAccount$toJSON()
```

Method fromJSON():

Usage:

```
ConfigurationAccount$fromJSON(ConfigurationAccountJson)
```

Method toJSONString():

Usage:

```
ConfigurationAccount$toJSONString()
```

Method fromJSONString():

Usage:

```
ConfigurationAccount$fromJSONString(ConfigurationAccountJson)
```

Method clone(): The objects of this class are cloneable with this method.

Usage:

```
ConfigurationAccount$clone(deep = FALSE)
```

Arguments:

deep Whether to make a deep clone.

ConfigurationsApi   *Configurations operations*

Description

factset.analyticsapi.engines.Configurations

Format

An R6Class generator object

Methods

GetVaultConfigurationById   *Get Vault configuration by id* This endpoint returns details for a Vault configuration as well as a list of accounts it is used in.

> @*param* id character

- @*returnType* [VaultConfiguration]

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns details for a Vault configuration.
- return type : VaultConfiguration
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 400 | Invalid vault configuration code.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.

| X-RateLimit-Limit | Number of allowed requests for the time window. |
| X-DataDirect-Request-Key | FactSet's request key header. |

- status code : 403 | User is forbidden with current credentials
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 404 | Vault configuration id not found.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

GetVaultConfigurations   *Get Vault configurations*   This endpoint returns all the Vault configurations saved in the provided account.

> @*param*   account character

- @*returnType*   named list(VaultConfigurationSummary)

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns a dictionary of Vault configurations.
- return type : map(VaultConfigurationSummary)
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 400 | Invalid account.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.

X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 404 | Account not found.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

Public fields

apiClient Handles the client-server communication.

Methods

Public methods:

- ConfigurationsApi$new()
- ConfigurationsApi$GetVaultConfigurationById()
- ConfigurationsApi$GetVaultConfigurationByIdWithHttpInfo()
- ConfigurationsApi$GetVaultConfigurations()
- ConfigurationsApi$GetVaultConfigurationsWithHttpInfo()
- ConfigurationsApi$clone()

Method new():

Usage:

ConfigurationsApi$new(apiClient)

Method GetVaultConfigurationById():

Usage:

ConfigurationsApi$GetVaultConfigurationById(id, ...)

Method GetVaultConfigurationByIdWithHttpInfo():

Usage:

ConfigurationsApi$GetVaultConfigurationByIdWithHttpInfo(id, ...)

Method GetVaultConfigurations():

Usage:

ConfigurationsApi$GetVaultConfigurations(account, ...)

Method GetVaultConfigurationsWithHttpInfo():

Usage:

ConfigurationsApi$GetVaultConfigurationsWithHttpInfo(account, ...)

Method clone(): The objects of this class are cloneable with this method.

Usage:

ConfigurationsApi$clone(deep = FALSE)

Arguments:

deep Whether to make a deep clone.

Examples

```
## Not run:
#################### GetVaultConfigurationById ####################

library(factset.analyticsapi.engines)
var.id <- 'id_example' # character | Vault configuration id to get the details of

#Get Vault configuration by id
api.instance <- ConfigurationsApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
             api.instance$GetVaultConfigurationById(var.id),
             ApiException = function(ex) ex
          )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}


#################### GetVaultConfigurations ####################

library(factset.analyticsapi.engines)
var.account <- 'account_example' # character | Required account query parameter to
                                 # filter configurations for a specific account

#Get Vault configurations
api.instance <- ConfigurationsApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
             api.instance$GetVaultConfigurations(var.account),
             ApiException = function(ex) ex
          )
```

```
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}
```

```
## End(Not run)
```

CurrenciesApi   *Currencies operations*

Description

factset.analyticsapi.engines.Currencies

Format

An R6Class generator object

Methods

GetPACurrencies   *Get PA currencies*   This endpoint lists all the PA currencies that can be applied to a calculation.

> @*returnType* named list(Currency)

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns a list of PA currencies.
- return type : map(Currency)
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

Public fields

    `apiClient` Handles the client-server communication.

Methods

  Public methods:

- `CurrenciesApi$new()`
- `CurrenciesApi$GetPACurrencies()`
- `CurrenciesApi$GetPACurrenciesWithHttpInfo()`
- `CurrenciesApi$clone()`

  Method `new()`**:**

    Usage:

    `CurrenciesApi$new(apiClient)`

  Method `GetPACurrencies()`**:**

    Usage:

    `CurrenciesApi$GetPACurrencies(...)`

  Method `GetPACurrenciesWithHttpInfo()`**:**

    Usage:

    `CurrenciesApi$GetPACurrenciesWithHttpInfo(...)`

  Method `clone()`**:** The objects of this class are cloneable with this method.

    Usage:

    `CurrenciesApi$clone(deep = FALSE)`

    Arguments:

    `deep` Whether to make a deep clone.

Examples

```
## Not run:
##################### GetPACurrencies #####################

library(factset.analyticsapi.engines)

#Get PA currencies
api.instance <- CurrenciesApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
            api.instance$GetPACurrencies(),
```

```
        ApiException = function(ex) ex
      )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}



## End(Not run)
```

Currency *Currency*

Description

Currency Class

Format

An `R6Class` generator object

Public fields

name character [optional]

Methods

Public methods:

- [Currency$new()](#)
- [Currency$toJSON()](#)
- [Currency$fromJSON()](#)
- [Currency$toJSONString()](#)
- [Currency$fromJSONString()](#)
- [Currency$clone()](#)

Method new():

Usage:

```
Currency$new(name = NULL, ...)
```

Method toJSON():

Usage:

```
Currency$toJSON()
```

Method `fromJSON()`:

Usage:

```
Currency$fromJSON(CurrencyJson)
```

Method `toJSONString()`:

Usage:

```
Currency$toJSONString()
```

Method `fromJSONString()`:

Usage:

```
Currency$fromJSONString(CurrencyJson)
```

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

```
Currency$clone(deep = FALSE)
```

Arguments:

deep Whether to make a deep clone.

DateParametersSummary   *DateParametersSummary*

Description

DateParametersSummary Class

Format

An `R6Class` generator object

Public fields

startdate character [optional]

enddate character [optional]

Methods

Public methods:

- DateParametersSummary$new()
- DateParametersSummary$toJSON()
- DateParametersSummary$fromJSON()
- DateParametersSummary$toJSONString()
- DateParametersSummary$fromJSONString()
- DateParametersSummary$clone()

Method new():

Usage:

DateParametersSummary$new(startdate = NULL, enddate = NULL, ...)

Method toJSON():

Usage:

DateParametersSummary$toJSON()

Method fromJSON():

Usage:

DateParametersSummary$fromJSON(DateParametersSummaryJson)

Method toJSONString():

Usage:

DateParametersSummary$toJSONString()

Method fromJSONString():

Usage:

DateParametersSummary$fromJSONString(DateParametersSummaryJson)

Method clone(): The objects of this class are cloneable with this method.

Usage:

DateParametersSummary$clone(deep = FALSE)

Arguments:

deep Whether to make a deep clone.

DatesApi   *Dates operations*

Description

factset.analyticsapi.engines.Dates

Format

An R6Class generator object

Methods

ConvertPADatesToAbsoluteFormat   *Convert PA dates to absolute format*   This endpoint converts the given start and end dates to yyyymmdd format for a PA calculation.

> @*param* enddate character

- @*param* componentid character
- @*param* account character
- @*param* startdate character
- @*returnType* [DateParametersSummary](#)

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns the converted dates in yyyymmdd format.
- return type : DateParametersSummary
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 400 | Invalid query parameter or value is provided.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 404 | Document or account not found.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

ConvertVaultDatesToAbsoluteFormat *Convert Vault dates to absolute format* This endpoint converts the given start and end dates to yyyymmdd format for a Vault calculation.

> @*param* enddate character
- @*param* componentid character
- @*param* account character
- @*param* startdate character
- @*returnType* DateParametersSummary

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns the converted dates in yyyymmdd format.
- return type : DateParametersSummary
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 400 | Invalid query parameter or value is provided.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.

X-DataDirect-Request-Key   FactSet's request key header.

- status code : 403 | User is forbidden with current credentials
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 404 | vault Document or account not found.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.

X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentication
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

Public fields

apiClient Handles the client-server communication.

Methods

Public methods:

- `DatesApi$new()`
- `DatesApi$ConvertPADatesToAbsoluteFormat()`
- `DatesApi$ConvertPADatesToAbsoluteFormatWithHttpInfo()`
- `DatesApi$ConvertVaultDatesToAbsoluteFormat()`
- `DatesApi$ConvertVaultDatesToAbsoluteFormatWithHttpInfo()`
- `DatesApi$clone()`

Method `new()`:

Usage:

```
DatesApi$new(apiClient)
```

Method `ConvertPADatesToAbsoluteFormat()`:

Usage:

```
DatesApi$ConvertPADatesToAbsoluteFormat(
  enddate,
  componentid,
  account,
  startdate = NULL,
  ...
)
```

Method `ConvertPADatesToAbsoluteFormatWithHttpInfo()`:

Usage:

```
DatesApi$ConvertPADatesToAbsoluteFormatWithHttpInfo(
  enddate,
  componentid,
  account,
  startdate = NULL,
  ...
)
```

Method `ConvertVaultDatesToAbsoluteFormat()`:

Usage:

```
    DatesApi$ConvertVaultDatesToAbsoluteFormat(
      enddate,
      componentid,
      account,
      startdate = NULL,
      ...
    )
```

Method `ConvertVaultDatesToAbsoluteFormatWithHttpInfo()`:

Usage:

```
DatesApi$ConvertVaultDatesToAbsoluteFormatWithHttpInfo(
  enddate,
  componentid,
  account,
  startdate = NULL,
  ...
)
```

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

```
DatesApi$clone(deep = FALSE)
```

Arguments:

deep Whether to make a deep clone.

Examples

```
## Not run:
##################  ConvertPADatesToAbsoluteFormat  ###################

library(factset.analyticsapi.engines)
var.enddate <- 'enddate_example' # character | End Date
var.componentid <- 'componentid_example' # character | Component Id
var.account <- 'account_example' # character | Account
var.startdate <- 'startdate_example' # character | Start Date

#Convert PA dates to absolute format
api.instance <- DatesApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
           api.instance$ConvertPADatesToAbsoluteFormat(var.enddate, var.componentid,
                                             var.account, startdate=var.startdate),
           ApiException = function(ex) ex
        )
# In case of error, print the error object
```

```
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}


################### ConvertVaultDatesToAbsoluteFormat ###################

library(factset.analyticsapi.engines)
var.enddate <- 'enddate_example' # character | End Date
var.componentid <- 'componentid_example' # character | Vault Component Id
var.account <- 'account_example' # character | Account
var.startdate <- 'startdate_example' # character | Start Date

#Convert Vault dates to absolute format
api.instance <- DatesApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
            api.instance$ConvertVaultDatesToAbsoluteFormat(var.enddate, var.componentid,
                                                var.account, startdate=var.startdate),
            ApiException = function(ex) ex
         )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}



## End(Not run)
```

DocumentDirectories   *DocumentDirectories*

Description

DocumentDirectories Class

Format

An `R6Class` generator object

Public fields

documents list(character) [optional]

directories list(character) [optional]

Methods

Public methods:

- [DocumentDirectories$new()](#)
- [DocumentDirectories$toJSON()](#)
- [DocumentDirectories$fromJSON()](#)
- [DocumentDirectories$toJSONString()](#)
- [DocumentDirectories$fromJSONString()](#)
- [DocumentDirectories$clone()](#)

Method new():

Usage:

```
DocumentDirectories$new(documents = NULL, directories = NULL, ...)
```

Method toJSON():

Usage:

```
DocumentDirectories$toJSON()
```

Method fromJSON():

Usage:

```
DocumentDirectories$fromJSON(DocumentDirectoriesJson)
```

Method toJSONString():

Usage:

```
DocumentDirectories$toJSONString()
```

Method fromJSONString():

Usage:

```
DocumentDirectories$fromJSONString(DocumentDirectoriesJson)
```

Method clone(): The objects of this class are cloneable with this method.

Usage:

```
DocumentDirectories$clone(deep = FALSE)
```

Arguments:

deep Whether to make a deep clone.

DocumentsApi	*Documents operations*

Description

factset.analyticsapi.engines.Documents

Format

An R6Class generator object

Methods

GetPA3Documents *Get PA3 documents and sub-directories in a directory* This endpoint looks up all PA3 documents and sub-directories in a given directory.

> @*param* path character

- @*returnType* [DocumentDirectories](#)

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns a list of PA3 documents and directories
- return type : DocumentDirectories
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentica
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 400 | Invalid query parameter or value provided
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentica
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentica
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.

X-RateLimit-Limit   Number of allowed requests for the time window.
X-DataDirect-Request-Key   FactSet's request key header.

- status code : 403 | User is forbidden with current credentials
- response headers :

X-RateLimit-Remaining   Number of requests left for the time window.
X-FactSet-Api-Request-Key   Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset   Number of seconds remaining till rate limit resets.
X-RateLimit-Limit   Number of allowed requests for the time window.
X-DataDirect-Request-Key   FactSet's request key header.

- status code : 404 | Path not found
- response headers :

X-RateLimit-Remaining   Number of requests left for the time window.
X-FactSet-Api-Request-Key   Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset   Number of seconds remaining till rate limit resets.
X-RateLimit-Limit   Number of allowed requests for the time window.
X-DataDirect-Request-Key   FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json
- response headers :

X-RateLimit-Remaining   Number of requests left for the time window.
X-FactSet-Api-Request-Key   Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset   Number of seconds remaining till rate limit resets.
X-RateLimit-Limit   Number of allowed requests for the time window.
X-DataDirect-Request-Key   FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting
- response headers :

X-RateLimit-Remaining   Number of requests left for the time window.
X-FactSet-Api-Request-Key   Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset   Number of seconds remaining till rate limit resets.
X-RateLimit-Limit   Number of allowed requests for the time window.
X-DataDirect-Request-Key   FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in some time
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

GetSPAR3Documents *Gets SPAR3 documents and sub-directories in a directory* This endpoint looks up all SPAR3 documents and sub-directories in a given directory.

> @*param* path character

- @*returnType* DocumentDirectories

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns a list of SPAR3 documents and directories
- return type : DocumentDirectories
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 400 | Invalid query parameter or value provided
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.

X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticati
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 404 | Path not found
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticati
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticati
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticati
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in some time
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticati
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

GetVaultDocuments *Get Vault documents and sub-directories in a directory* This endpoint

looks up all Vault documents and sub-directories in a given directory.

>   @*param* path character

- @*returnType* DocumentDirectories

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns a list of Vault documents and directories
- return type : DocumentDirectories
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentication
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 400 | Invalid query parameter or value provided
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentication
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentication
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentication
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 404 | Path not found

- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentication
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentication
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentication
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in some time
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentication
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

Public fields

apiClient Handles the client-server communication.

Methods

Public methods:

- DocumentsApi$new()

- `DocumentsApi$GetPA3Documents()`
- `DocumentsApi$GetPA3DocumentsWithHttpInfo()`
- `DocumentsApi$GetSPAR3Documents()`
- `DocumentsApi$GetSPAR3DocumentsWithHttpInfo()`
- `DocumentsApi$GetVaultDocuments()`
- `DocumentsApi$GetVaultDocumentsWithHttpInfo()`
- `DocumentsApi$clone()`

Method `new()`:

Usage:

`DocumentsApi$new(apiClient)`

Method `GetPA3Documents()`:

Usage:

`DocumentsApi$GetPA3Documents(path, ...)`

Method `GetPA3DocumentsWithHttpInfo()`:

Usage:

`DocumentsApi$GetPA3DocumentsWithHttpInfo(path, ...)`

Method `GetSPAR3Documents()`:

Usage:

`DocumentsApi$GetSPAR3Documents(path, ...)`

Method `GetSPAR3DocumentsWithHttpInfo()`:

Usage:

`DocumentsApi$GetSPAR3DocumentsWithHttpInfo(path, ...)`

Method `GetVaultDocuments()`:

Usage:

`DocumentsApi$GetVaultDocuments(path, ...)`

Method `GetVaultDocumentsWithHttpInfo()`:

Usage:

`DocumentsApi$GetVaultDocumentsWithHttpInfo(path, ...)`

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

`DocumentsApi$clone(deep = FALSE)`

Arguments:

deep   Whether to make a deep clone.

Examples

```
## Not run:
##################  GetPA3Documents  ####################

library(factset.analyticsapi.engines)
var.path <- 'path_example' # character | The directory to get the documents and sub-directories in

#Get PA3 documents and sub-directories in a directory
api.instance <- DocumentsApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
             api.instance$GetPA3Documents(var.path),
             ApiException = function(ex) ex
          )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}


##################  GetSPAR3Documents  ####################

library(factset.analyticsapi.engines)
var.path <- 'path_example' # character | The directory to get the documents in

#Gets SPAR3 documents and sub-directories in a directory
api.instance <- DocumentsApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
             api.instance$GetSPAR3Documents(var.path),
             ApiException = function(ex) ex
          )
# In case of error, print the error object
```

```r
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}


#################### GetVaultDocuments ####################

library(factset.analyticsapi.engines)
var.path <- 'path_example' # character | The directory to get the documents in

#Get Vault documents and sub-directories in a directory
api.instance <- DocumentsApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
            api.instance$GetVaultDocuments(var.path),
            ApiException = function(ex) ex
        )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}



## End(Not run)
```

FrequenciesApi   *Frequencies operations*

Description

factset.analyticsapi.engines.Frequencies

Format

An `R6Class` generator object

Methods

GetPAFrequencies *Get PA frequencies* This endpoint lists all the frequencies that can be applied to a PA calculation.

@*returnType* named list(Frequency)

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns a list of PA frequencies.
- return type : map(Frequency)
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.

| X-RateLimit-Limit | Number of allowed requests for the time window. |
| X-DataDirect-Request-Key | FactSet's request key header. |

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

GetSPARFrequencies *Get SPAR frequencies* This endpoint lists all the frequencies that can be applied to a SPAR calculation.

> @*returnType* named list(Frequency)

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns a list of SPAR frequencies.
- return type : map(Frequency)
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.

X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

GetVaultFrequencies *Get Vault frequencies* This endpoint lists all the frequencies that can be applied to a Vault calculation.

@*returnType* named list(Frequency)

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns a list of Vault frequencies.
- return type : map(Frequency)
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentic

X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

Public fields

apiClient Handles the client-server communication.

Methods

Public methods:

- FrequenciesApi$new()
- FrequenciesApi$GetPAFrequencies()
- FrequenciesApi$GetPAFrequenciesWithHttpInfo()
- FrequenciesApi$GetSPARFrequencies()
- FrequenciesApi$GetSPARFrequenciesWithHttpInfo()
- FrequenciesApi$GetVaultFrequencies()
- FrequenciesApi$GetVaultFrequenciesWithHttpInfo()
- FrequenciesApi$clone()

Method new():

Usage:

FrequenciesApi$new(apiClient)

Method GetPAFrequencies():

Usage:

FrequenciesApi$GetPAFrequencies(...)

Method GetPAFrequenciesWithHttpInfo():

Usage:

FrequenciesApi$GetPAFrequenciesWithHttpInfo(...)

Method GetSPARFrequencies():

Usage:

FrequenciesApi$GetSPARFrequencies(...)

Method `GetSPARFrequenciesWithHttpInfo()`:

Usage:

`FrequenciesApi$GetSPARFrequenciesWithHttpInfo(...)`

Method `GetVaultFrequencies()`:

Usage:

`FrequenciesApi$GetVaultFrequencies(...)`

Method `GetVaultFrequenciesWithHttpInfo()`:

Usage:

`FrequenciesApi$GetVaultFrequenciesWithHttpInfo(...)`

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

`FrequenciesApi$clone(deep = FALSE)`

Arguments:

deep Whether to make a deep clone.

Examples

```
## Not run:
#################### GetPAFrequencies ####################

library(factset.analyticsapi.engines)

#Get PA frequencies
api.instance <- FrequenciesApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
            api.instance$GetPAFrequencies(),
            ApiException = function(ex) ex
          )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}
```

```
################### GetSPARFrequencies ###################

library(factset.analyticsapi.engines)

#Get SPAR frequencies
api.instance <- FrequenciesApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
             api.instance$GetSPARFrequencies(),
             ApiException = function(ex) ex
          )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}


################### GetVaultFrequencies ###################

library(factset.analyticsapi.engines)

#Get Vault frequencies
api.instance <- FrequenciesApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
             api.instance$GetVaultFrequencies(),
             ApiException = function(ex) ex
          )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
```

```
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}
```

```
## End(Not run)
```

Frequency   *Frequency*

Description

Frequency Class

Format

An `R6Class` generator object

Public fields

name character [optional]

Methods

Public methods:

- `Frequency$new()`
- `Frequency$toJSON()`
- `Frequency$fromJSON()`
- `Frequency$toJSONString()`
- `Frequency$fromJSONString()`
- `Frequency$clone()`

Method new():

Usage:

`Frequency$new(name = NULL, ...)`

Method toJSON():

Usage:

`Frequency$toJSON()`

Method fromJSON():

Usage:

```
Frequency$fromJSON(FrequencyJson)
```

Method `toJSONString()`:

Usage:

```
Frequency$toJSONString()
```

Method `fromJSONString()`:

Usage:

```
Frequency$fromJSONString(FrequencyJson)
```

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

```
Frequency$clone(deep = FALSE)
```

Arguments:

deep Whether to make a deep clone.

Group   *Group*

Description

Group Class

Format

An `R6Class` generator object

Public fields

name character [optional]

directory character [optional]

category character [optional]

Methods

Public methods:

- [Group$new()](#)
- [Group$toJSON()](#)
- [Group$fromJSON()](#)
- [Group$toJSONString()](#)
- [Group$fromJSONString()](#)
- [Group$clone()](#)

Method `new()`:

Usage:

`Group$new(name = NULL, directory = NULL, category = NULL, ...)`

Method `toJSON():`

Usage:

`Group$toJSON()`

Method `fromJSON():`

Usage:

`Group$fromJSON(GroupJson)`

Method `toJSONString():`

Usage:

`Group$toJSONString()`

Method `fromJSONString():`

Usage:

`Group$fromJSONString(GroupJson)`

Method `clone():` The objects of this class are cloneable with this method.

Usage:

`Group$clone(deep = FALSE)`

Arguments:

`deep` Whether to make a deep clone.

GroupsApi   *Groups operations*

Description

factset.analyticsapi.engines.Groups

Format

An `R6Class` generator object

Methods

GetPAGroups *Get PA groups* This endpoint lists all the PA groups that can be applied to a PA calculation.

@*returnType* named list(Group)

- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response, returns a list of PA groups
- return type : map(Group)
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticati
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
Age	Standard HTTP header. Header will specify the age of groupings list cached response.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticati
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticati
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header. Header needs to be set to application/json.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticati
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticati
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.
- response headers :

X-RateLimit-Remaining	Number of requests left for the time window.
X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authentic
X-RateLimit-Reset	Number of seconds remaining till rate limit resets.
X-RateLimit-Limit	Number of allowed requests for the time window.
X-DataDirect-Request-Key	FactSet's request key header.

Public fields

apiClient Handles the client-server communication.

Methods

Public methods:

- [GroupsApi$new()](#)
- [GroupsApi$GetPAGroups()](#)
- [GroupsApi$GetPAGroupsWithHttpInfo()](#)
- [GroupsApi$clone()](#)

Method new():

Usage:

GroupsApi$new(apiClient)

Method GetPAGroups():

Usage:

GroupsApi$GetPAGroups(...)

Method GetPAGroupsWithHttpInfo():

Usage:

GroupsApi$GetPAGroupsWithHttpInfo(...)

Method clone(): The objects of this class are cloneable with this method.

Usage:

GroupsApi$clone(deep = FALSE)

Arguments:

deep Whether to make a deep clone.

Examples

```
## Not run:
##################  GetPAGroups  ##################

library(factset.analyticsapi.engines)
```

```
#Get PA groups
api.instance <- GroupsApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
           api.instance$GetPAGroups(),
           ApiException = function(ex) ex
         )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}



## End(Not run)
```

PACalculationColumn *PACalculationColumn*

Description

PACalculationColumn Class

Format

An R6Class generator object

Public fields

id character [optional]

statistics list(character) [optional]

Methods

Public methods:

- PACalculationColumn$new()

- [PACalculationColumn$toJSON()](#)
- [PACalculationColumn$fromJSON()](#)
- [PACalculationColumn$toJSONString()](#)
- [PACalculationColumn$fromJSONString()](#)
- [PACalculationColumn$clone()](#)

Method `new()`:

Usage:

`PACalculationColumn$new(id = NULL, statistics = NULL, ...)`

Method `toJSON()`:

Usage:

`PACalculationColumn$toJSON()`

Method `fromJSON()`:

Usage:

`PACalculationColumn$fromJSON(PACalculationColumnJson)`

Method `toJSONString()`:

Usage:

`PACalculationColumn$toJSONString()`

Method `fromJSONString()`:

Usage:

`PACalculationColumn$fromJSONString(PACalculationColumnJson)`

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

`PACalculationColumn$clone(deep = FALSE)`

Arguments:

deep Whether to make a deep clone.

PACalculationGroup   *PACalculationGroup*

Description

PACalculationGroup Class

Format

An `R6Class` generator object

Public fields

id character [optional]

Methods

Public methods:

- PACalculationGroup$new()
- PACalculationGroup$toJSON()
- PACalculationGroup$fromJSON()
- PACalculationGroup$toJSONString()
- PACalculationGroup$fromJSONString()
- PACalculationGroup$clone()

Method new()**:**

Usage:

PACalculationGroup$new(id = NULL, ...)

Method toJSON()**:**

Usage:

PACalculationGroup$toJSON()

Method fromJSON()**:**

Usage:

PACalculationGroup$fromJSON(PACalculationGroupJson)

Method toJSONString()**:**

Usage:

PACalculationGroup$toJSONString()

Method fromJSONString()**:**

Usage:

PACalculationGroup$fromJSONString(PACalculationGroupJson)

Method clone()**:** The objects of this class are cloneable with this method.

Usage:

PACalculationGroup$clone(deep = FALSE)

Arguments:

deep Whether to make a deep clone.

PACalculationParameters

PACalculationParameters

Description

PACalculationParameters Class

Format

An R6Class generator object

Public fields

componentid character

accounts list(PAIdentifier) [optional]

benchmarks list(PAIdentifier) [optional]

dates PADateParameters [optional]

groups list(PACalculationGroup) [optional]

currencyisocode character [optional]

columns list(PACalculationColumn) [optional]

Methods

Public methods:

- PACalculationParameters$new()
- PACalculationParameters$toJSON()
- PACalculationParameters$fromJSON()
- PACalculationParameters$toJSONString()
- PACalculationParameters$fromJSONString()
- PACalculationParameters$clone()

Method new():

Usage:

```
PACalculationParameters$new(
  componentid,
  accounts = NULL,
  benchmarks = NULL,
  dates = NULL,
  groups = NULL,
  currencyisocode = NULL,
  columns = NULL,
  ...
)
```

Method `toJSON()`:

Usage:

`PACalculationParameters$toJSON()`

Method `fromJSON()`:

Usage:

`PACalculationParameters$fromJSON(PACalculationParametersJson)`

Method `toJSONString()`:

Usage:

`PACalculationParameters$toJSONString()`

Method `fromJSONString()`:

Usage:

`PACalculationParameters$fromJSONString(PACalculationParametersJson)`

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

`PACalculationParameters$clone(deep = FALSE)`

Arguments:

deep Whether to make a deep clone.

PAComponent   *PAComponent*

Description

PAComponent Class

Format

An `R6Class` generator object

Public fields

id character [optional]

accounts list(PAIdentifier) [optional]

benchmarks list(PAIdentifier) [optional]

currencyisocode character [optional]

dates PADateParameters [optional]

snapshot character [optional]

name character [optional]

category character [optional]

Methods

Public methods:

- PAComponent$new()
- PAComponent$toJSON()
- PAComponent$fromJSON()
- PAComponent$toJSONString()
- PAComponent$fromJSONString()
- PAComponent$clone()

Method new()**:**

Usage:

```
PAComponent$new(
  id = NULL,
  accounts = NULL,
  benchmarks = NULL,
  currencyisocode = NULL,
  dates = NULL,
  snapshot = NULL,
  name = NULL,
  category = NULL,
  ...
)
```

Method toJSON()**:**

Usage:

```
PAComponent$toJSON()
```

Method fromJSON()**:**

Usage:

```
PAComponent$fromJSON(PAComponentJson)
```

Method toJSONString()**:**

Usage:

```
PAComponent$toJSONString()
```

Method fromJSONString()**:**

Usage:

```
PAComponent$fromJSONString(PAComponentJson)
```

Method clone()**:** The objects of this class are cloneable with this method.

Usage:

```
PAComponent$clone(deep = FALSE)
```

Arguments:

deep Whether to make a deep clone.

PADateParameters *PADateParameters*

Description

PADateParameters Class

Format

An `R6Class` generator object

Public fields

startdate character [optional]

enddate character

frequency character

Methods

Public methods:

- [PADateParameters$new()](#)
- [PADateParameters$toJSON()](#)
- [PADateParameters$fromJSON()](#)
- [PADateParameters$toJSONString()](#)
- [PADateParameters$fromJSONString()](#)
- [PADateParameters$clone()](#)

Method new():

Usage:

PADateParameters$new(enddate, frequency, startdate = NULL, ...)

Method toJSON():

Usage:

PADateParameters$toJSON()

Method fromJSON():

Usage:

PADateParameters$fromJSON(PADateParametersJson)

Method toJSONString():

Usage:

PADateParameters$toJSONString()

Method fromJSONString():

Usage:

```
PADateParameters$fromJSONString(PADateParametersJson)
```

Method clone(): The objects of this class are cloneable with this method.

Usage:

```
PADateParameters$clone(deep = FALSE)
```

Arguments:

deep Whether to make a deep clone.

PAIdentifier   *PAIdentifier*

Description

PAIdentifier Class

Format

An R6Class generator object

Public fields

id character

holdingsmode character [optional]

Methods

Public methods:

- PAIdentifier$new()
- PAIdentifier$toJSON()
- PAIdentifier$fromJSON()
- PAIdentifier$toJSONString()
- PAIdentifier$fromJSONString()
- PAIdentifier$clone()

Method new():

Usage:

```
PAIdentifier$new(id, holdingsmode = NULL, ...)
```

Method toJSON():

Usage:

```
PAIdentifier$toJSON()
```

Method fromJSON():

Usage:

```
PAIdentifier$fromJSON(PAIdentifierJson)
```

Method `toJSONString()`:

Usage:

```
PAIdentifier$toJSONString()
```

Method `fromJSONString()`:

Usage:

```
PAIdentifier$fromJSONString(PAIdentifierJson)
```

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

```
PAIdentifier$clone(deep = FALSE)
```

Arguments:

deep Whether to make a deep clone.

SPARCalculationParameters

SPARCalculationParameters

Description

SPARCalculationParameters Class

Format

An `R6Class` generator object

Public fields

componentid character

accounts list([SPARIdentifier](#)) [optional]

benchmark [SPARIdentifier](#) [optional]

dates [SPARDateParameters](#) [optional]

Methods

Public methods:

- [`SPARCalculationParameters$new()`](#)
- [`SPARCalculationParameters$toJSON()`](#)
- [`SPARCalculationParameters$fromJSON()`](#)
- [`SPARCalculationParameters$toJSONString()`](#)
- [`SPARCalculationParameters$fromJSONString()`](#)

- [SPARCalculationParameters$clone()](#)

Method new():

Usage:

```
SPARCalculationParameters$new(
  componentid,
  accounts = NULL,
  benchmark = NULL,
  dates = NULL,
  ...
)
```

Method toJSON():

Usage:

```
SPARCalculationParameters$toJSON()
```

Method fromJSON():

Usage:

```
SPARCalculationParameters$fromJSON(SPARCalculationParametersJson)
```

Method toJSONString():

Usage:

```
SPARCalculationParameters$toJSONString()
```

Method fromJSONString():

Usage:

```
SPARCalculationParameters$fromJSONString(SPARCalculationParametersJson)
```

Method clone(): The objects of this class are cloneable with this method.

Usage:

```
SPARCalculationParameters$clone(deep = FALSE)
```

Arguments:

deep Whether to make a deep clone.

SPARDateParameters *SPARDateParameters*

Description

SPARDateParameters Class

Format

An R6Class generator object

Public fields

startdate character

enddate character

frequency character

Methods

Public methods:

- SPARDateParameters$new()
- SPARDateParameters$toJSON()
- SPARDateParameters$fromJSON()
- SPARDateParameters$toJSONString()
- SPARDateParameters$fromJSONString()
- SPARDateParameters$clone()

Method new()**:**

Usage:

SPARDateParameters$new(startdate, enddate, frequency, ...)

Method toJSON()**:**

Usage:

SPARDateParameters$toJSON()

Method fromJSON()**:**

Usage:

SPARDateParameters$fromJSON(SPARDateParametersJson)

Method toJSONString()**:**

Usage:

SPARDateParameters$toJSONString()

Method fromJSONString()**:**

Usage:

SPARDateParameters$fromJSONString(SPARDateParametersJson)

Method clone()**:** The objects of this class are cloneable with this method.

Usage:

SPARDateParameters$clone(deep = FALSE)

Arguments:

deep Whether to make a deep clone.

SPARIdentifier	*SPARIdentifier*

Description

SPARIdentifier Class

Format

An R6Class generator object

Public fields

id character

returntype character [optional]

prefix character [optional]

Methods

Public methods:

- SPARIdentifier$new()
- SPARIdentifier$toJSON()
- SPARIdentifier$fromJSON()
- SPARIdentifier$toJSONString()
- SPARIdentifier$fromJSONString()
- SPARIdentifier$clone()

Method new():

Usage:

SPARIdentifier$new(id, returntype = NULL, prefix = NULL, ...)

Method toJSON():

Usage:

SPARIdentifier$toJSON()

Method fromJSON():

Usage:

SPARIdentifier$fromJSON(SPARIdentifierJson)

Method toJSONString():

Usage:

SPARIdentifier$toJSONString()

Method fromJSONString():

Usage:

SPARIdentifier$fromJSONString(SPARIdentifierJson)

Method clone(): The objects of this class are cloneable with this method.

Usage:

SPARIdentifier$clone(deep = FALSE)

Arguments:

deep Whether to make a deep clone.

UtilityApi   *Utility operations*

Description

factset.analyticsapi.engines

Format

An R6Class generator object

Methods

GetByUrl *Url of the GET endpoint* This function can be used to fetch data from any Get endpoint.

@*param* url character

- @*returnType* raw
- On encountering errors, an error of subclass ApiException will be thrown.
- status code : 200 | Expected response once the request is successful. Response body will contain the data.
- return type : raw
- response headers :

X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 400 | Invalid identifier provided.
- response headers :

X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 401 | Missing or invalid authentication.
- response headers :

X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 403 | User is forbidden with current credentials
- response headers :

X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 406 | Unsupported Accept header.
- response headers :

X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 500 | Server error. Log the X-DataDirect-Request-Key header to assist in troubleshooting.
- response headers :

X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-DataDirect-Request-Key	FactSet's request key header.

- status code : 503 | Request timed out. Retry the request in sometime.
- response headers :

X-FactSet-Api-Request-Key	Key to uniquely identify an Analytics API request. Only available after successful authenticatio
X-DataDirect-Request-Key	FactSet's request key header.

Public fields

apiClient Handles the client-server communication.

Methods

Public methods:

- UtilityApi$new()
- UtilityApi$GetByUrl()
- UtilityApi$GetByUrlWithHttpInfo()
- UtilityApi$clone()

Method new():

Usage:

```
    UtilityApi$new(apiClient)
```

Method `GetByUrl()`:

Usage:
```
UtilityApi$GetByUrl(url, ...)
```

Method `GetByUrlWithHttpInfo()`:

Usage:
```
UtilityApi$GetByUrlWithHttpInfo(url, ...)
```

Method `clone()`: The objects of this class are cloneable with this method.

Usage:
```
UtilityApi$clone(deep = FALSE)
```

Arguments:

deep Whether to make a deep clone.

Examples

```
## Not run:
#################### GetByUrl ####################

library(factset.analyticsapi.engines)
var.url <- url # character | Url of the GET endpoint

# Get by url
api.instance <- UtilityApi$new()

#Configure HTTP basic authorization: Basic
# provide your username in the user-serial format
api.instance$apiClient$username <- '<user-serial>';
# provide your api key generated using the developer portal
api.instance$apiClient$password <- '<api_key>';

result <- tryCatch(
            api.instance$GetByUrl(url = var.url),
            ApiException = function(ex) ex
        )
# In case of error, print the error object
if(!is.null(result$ApiException)) {
  cat(result$ApiException$toString())
} else {
# deserialized response object
response.object <- result$content
# response headers
response.headers <- result$response$headers
# response status code
response.status.code <- result$response$status_code
}


## End(Not run)
```

VaultCalculationParameters

VaultCalculationParameters

Description

VaultCalculationParameters Class

Format

An R6Class generator object

Public fields

componentid character

account [VaultIdentifier](#)

dates [VaultDateParameters](#) [optional]

configid character

Methods

Public methods:

- [`VaultCalculationParameters$new()`](#)
- [`VaultCalculationParameters$toJSON()`](#)
- [`VaultCalculationParameters$fromJSON()`](#)
- [`VaultCalculationParameters$toJSONString()`](#)
- [`VaultCalculationParameters$fromJSONString()`](#)
- [`VaultCalculationParameters$clone()`](#)

Method `new()`:

Usage:
```
VaultCalculationParameters$new(
  componentid,
  account,
  configid,
  dates = NULL,
  ...
)
```

Method `toJSON()`:

Usage:
```
VaultCalculationParameters$toJSON()
```

Method `fromJSON()`:

Usage:

```
VaultCalculationParameters$fromJSON(VaultCalculationParametersJson)
```

Method `toJSONString()`:

Usage:

```
VaultCalculationParameters$toJSONString()
```

Method `fromJSONString()`:

Usage:

```
VaultCalculationParameters$fromJSONString(VaultCalculationParametersJson)
```

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

```
VaultCalculationParameters$clone(deep = FALSE)
```

Arguments:

deep Whether to make a deep clone.

VaultComponent   *VaultComponent*

Description

VaultComponent Class

Format

An `R6Class` generator object

Public fields

id character [optional]

account [VaultIdentifier](#) [optional]

benchmark [VaultIdentifier](#) [optional]

currencyisocode character [optional]

dates [VaultDateParameters](#) [optional]

snapshot character [optional]

name character [optional]

category character [optional]

Methods

Public methods:

- [VaultComponent$new()](#)
- [VaultComponent$toJSON()](#)
- [VaultComponent$fromJSON()](#)
- [VaultComponent$toJSONString()](#)
- [VaultComponent$fromJSONString()](#)
- [VaultComponent$clone()](#)

Method new():

Usage:

```
VaultComponent$new(
  id = NULL,
  account = NULL,
  benchmark = NULL,
  currencyisocode = NULL,
  dates = NULL,
  snapshot = NULL,
  name = NULL,
  category = NULL,
  ...
)
```

Method toJSON():

Usage:

```
VaultComponent$toJSON()
```

Method fromJSON():

Usage:

```
VaultComponent$fromJSON(VaultComponentJson)
```

Method toJSONString():

Usage:

```
VaultComponent$toJSONString()
```

Method fromJSONString():

Usage:

```
VaultComponent$fromJSONString(VaultComponentJson)
```

Method clone(): The objects of this class are cloneable with this method.

Usage:

```
VaultComponent$clone(deep = FALSE)
```

Arguments:

deep Whether to make a deep clone.

VaultConfiguration   *VaultConfiguration*

Description

VaultConfiguration Class

Format

An R6Class generator object

Public fields

name character [optional]

accounts named list([ConfigurationAccount](#)) [optional]

Methods

Public methods:

- [VaultConfiguration$new()](#)
- [VaultConfiguration$toJSON()](#)
- [VaultConfiguration$fromJSON()](#)
- [VaultConfiguration$toJSONString()](#)
- [VaultConfiguration$fromJSONString()](#)
- [VaultConfiguration$clone()](#)

Method new():

Usage:

VaultConfiguration$new(name = NULL, accounts = NULL, ...)

Method toJSON():

Usage:

VaultConfiguration$toJSON()

Method fromJSON():

Usage:

VaultConfiguration$fromJSON(VaultConfigurationJson)

Method toJSONString():

Usage:

VaultConfiguration$toJSONString()

Method fromJSONString():

Usage:

```
VaultConfiguration$fromJSONString(VaultConfigurationJson)
```

Method clone(): The objects of this class are cloneable with this method.

Usage:

```
VaultConfiguration$clone(deep = FALSE)
```

Arguments:

deep Whether to make a deep clone.

```
VaultConfigurationSummary
```
                              VaultConfigurationSummary

Description

VaultConfigurationSummary Class

Format

An R6Class generator object

Public fields

name character [optional]

Methods

Public methods:

- VaultConfigurationSummary$new()
- VaultConfigurationSummary$toJSON()
- VaultConfigurationSummary$fromJSON()
- VaultConfigurationSummary$toJSONString()
- VaultConfigurationSummary$fromJSONString()
- VaultConfigurationSummary$clone()

Method new():

Usage:

```
VaultConfigurationSummary$new(name = NULL, ...)
```

Method toJSON():

Usage:

```
VaultConfigurationSummary$toJSON()
```

Method fromJSON():

Usage:

```
VaultConfigurationSummary$fromJSON(VaultConfigurationSummaryJson)
```

Method `toJSONString()`:

Usage:

`VaultConfigurationSummary$toJSONString()`

Method `fromJSONString()`:

Usage:

`VaultConfigurationSummary$fromJSONString(VaultConfigurationSummaryJson)`

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

`VaultConfigurationSummary$clone(deep = FALSE)`

Arguments:

deep Whether to make a deep clone.

VaultDateParameters   *VaultDateParameters*

Description

VaultDateParameters Class

Format

An `R6Class` generator object

Public fields

`startdate` character [optional]

`enddate` character

`frequency` character

Methods

Public methods:

- [`VaultDateParameters$new()`]
- [`VaultDateParameters$toJSON()`]
- [`VaultDateParameters$fromJSON()`]
- [`VaultDateParameters$toJSONString()`]
- [`VaultDateParameters$fromJSONString()`]
- [`VaultDateParameters$clone()`]

Method `new()`:

Usage:

`VaultDateParameters$new(enddate, frequency, startdate = NULL, ...)`

Method `toJSON()`:

Usage:

`VaultDateParameters$toJSON()`

Method `fromJSON()`:

Usage:

`VaultDateParameters$fromJSON(VaultDateParametersJson)`

Method `toJSONString()`:

Usage:

`VaultDateParameters$toJSONString()`

Method `fromJSONString()`:

Usage:

`VaultDateParameters$fromJSONString(VaultDateParametersJson)`

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

`VaultDateParameters$clone(deep = FALSE)`

Arguments:

deep Whether to make a deep clone.

VaultIdentifier   *VaultIdentifier*

Description

VaultIdentifier Class

Format

An `R6Class` generator object

Public fields

id character

Methods

Public methods:

- `VaultIdentifier$new()`
- `VaultIdentifier$toJSON()`
- `VaultIdentifier$fromJSON()`
- `VaultIdentifier$toJSONString()`
- `VaultIdentifier$fromJSONString()`
- `VaultIdentifier$clone()`

Method `new()`:

Usage:

`VaultIdentifier$new(id, ...)`

Method `toJSON()`:

Usage:

`VaultIdentifier$toJSON()`

Method `fromJSON()`:

Usage:

`VaultIdentifier$fromJSON(VaultIdentifierJson)`

Method `toJSONString()`:

Usage:

`VaultIdentifier$toJSONString()`

Method `fromJSONString()`:

Usage:

`VaultIdentifier$fromJSONString(VaultIdentifierJson)`

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

`VaultIdentifier$clone(deep = FALSE)`

Arguments:

deep Whether to make a deep clone.

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