

Compute API (BETA)

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Based on REST principles, the TrendMiner Compute API endpoints provide access to timeseries indexing functionality, timeseries analytics and timeseries index and plot optimized data.

Chapter 1. Authentication

All requests to the web API require authentication. This is achieved by sending a valid Bearer access token in the request headers. Request tokens are obtained using OAuth2.0.

Requests to the API can be done authenticated as your client or authenticated as a specific user. In both cases, you will first need to create a client and request a token.

When performing actions authenticated as a client, they will belong to **service-account-CLIENTID**.

Make sure you are calling our services over HTTPS when retrieving an access token.

1.1. Creating a new client

A new client can be created in ConfigHub: Security → Clients → Add client

1.2. Retrieving an access token

To retrieve a token to authenticate as your client, you will need:

- Your client ID
- Your client secret (can be obtained in ConfigHub)

A token is requested from the token endpoint of the authentication service:

Request

```
curl --request POST \  
  --url 'https://YOUR_DOMAIN/auth/realms/trendminer/protocol/openid-connect/token' \  
  --header 'content-type: application/x-www-form-urlencoded' \  
  --data grant_type=client_credentials \  
  --data client_id=YOUR_CLIENT_ID \  
  --data client_secret=YOUR_CLIENT_SECRET
```

Upon valid authentication, the response will contain an access token.

Response

```
200 OK  
{  
  "access_token": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXZW50aWwia2lkIiA6ICJwcXZ1UXB...", ①  
  "expires_in": 300,  
  "refresh_expires_in": 0,  
  "token_type": "Bearer",  
  "not-before-policy": 1571391000,  
  "scope": "email profile"  
}
```

- ① The access token is to be used in every request towards our services (see example below). A new token needs to be fetched when the token expires after 5 minutes.

1.3. Doing a request with an access token

Example request with access token

```
curl --request GET \  
  --url 'https://YOUR_DOMAIN/compute/[any api]' \  
  --header 'Authorization: Bearer ACCESS_TOKEN'
```

Chapter 2. Resources

2.1. Calculations

2.1.1. Calculate the value of a tag on specific time ranges

POST /newCalculation

Parameters

Type	Name	Description	Schema
Body <i>required</i>	CalculationRequest		CalculationRequest

Responses

HTTP Code	Description	Schema
200	Ok	List[CalculationResult]
400	Invalid request	
404	Tag not found	
422	Unprocessable entity (e.g. index not found)	

Produces

- application/json

2.1.2. Compare layers by a given algorithm

POST /newComparison

Parameters

Type	Name	Description	Schema
Body <i>required</i>	ComparisonRequest		ComparisonRequest

Responses

HTTP Code	Description	Schema
200	Ok	List[ComparisonResult]
400	Invalid request	
404	Tag not found	
422	Unprocessable Entity (e.g. index does not exist)	

Produces

- application/json

2.2. Charting

2.2.1. Check existence chart export

HEAD /charting/export/{id}/download

Parameters

Type	Name	Description	Schema
Path required	id		UUID

Responses

HTTP Code	Description	Schema
204	No Content	
401	Unauthorized	
404	Chart export not found	

2.2.2. Check if request exceeds maximum number of points

POST /charting/export/check-maximum-number-of-points

Parameters

Type	Name	Description	Schema
Body required	ChartExportRequest		ChartExportRequest

Responses

HTTP Code	Description	Schema
200	Ok	CheckMaximumNumberOfPointsResult
400	Invalid request	
422	Unprocessable Entity (e.g. index does not exist)	

Produces

- /

2.2.3. Download chart export

GET /charting/export/{id}/download

Parameters

Type	Name	Description	Schema
Path <i>required</i>	id		UUID

Responses

HTTP Code	Description	Schema
204	No Content	
401	Unauthorized	
404	Chart export not found	
410	Chart export no longer exists	

2.2.4. Export focus chart data

POST /charting/export

Parameters

Type	Name	Description	Schema
Body <i>required</i>	ChartExportRequest		ChartExportRequest

Responses

HTTP Code	Description	Schema
202	Accepted	
400	Invalid request	
422	Unprocessable Entity (e.g. index does not exist)	

2.2.5. Generate plot data to display on the context chart

POST /newContextChart

Parameters

Type	Name	Description	Schema
Body <i>required</i>	ChartRequest		ChartRequest

Responses

HTTP Code	Description	Schema
200	Ok	List[ContextChartResult]
400	Invalid request	
404	Tag not found	

Produces

- application/json

2.2.6. Generate plot data to display on the focus chart

POST /newFocusChart

Parameters

Type	Name	Description	Schema
Body <i>required</i>	ChartRequest		ChartRequest

Responses

HTTP Code	Description	Schema
200	Ok	List[ChartResult]
400	Invalid request	

Produces

- application/json

2.2.7. Generate histograms for the requested tags

POST /newHistogram

Parameters

Type	Name	Description	Schema
Body <i>required</i>	HistogramRequest		HistogramRequest

Responses

HTTP Code	Description	Schema
200	Ok	List[HistogramResultDTO]

400	Invalid request	
422	Unprocessable Entity (e.g. index does not exist)	

Produces

- application/json

2.2.8. Generate scatter plots for the each pair of requested tags

POST /scatterChart

Parameters

Type	Name	Description	Schema
Body <i>required</i>	ScatterChartRequest		ScatterChartRequest

Responses

HTTP Code	Description	Schema
200	Ok	List[ScatterChartResult]
400	Invalid request	
404	Tag not found	
422	Unprocessable Entity (e.g. index does not exist)	

Produces

- application/json

2.2.9. Export focus chart data

POST /charting/legacy-export

Parameters

Type	Name	Description	Schema
Body <i>required</i>	LegacyChartExportRequest		LegacyChartExportRequest

Responses

HTTP Code	Description	Schema
200	Ok	
400	Invalid request	

422	Unprocessable Entity (e.g. index does not exist)	
-----	--	--

2.3. Data

2.3.1. Get index data

GET /data/index

Parameters

Type	Name	Description	Schema
Query <i>required</i>	timeSeriesId		
Query <i>required</i>	interpolationType		
Query <i>required</i>	startDate		
Query <i>required</i>	endDate		
Query <i>required</i>	numberOfIntervals		

Responses

HTTP Code	Description	Schema
200	OK	List[WrappedDataPoints]

Produces

- application/stream+json

2.3.2. Get last value

GET /data/last-value

Parameters

Type	Name	Description	Schema
Query <i>required</i>	timeSeriesId		

Query <i>required</i>	interpolationType		
---------------------------------	--------------------------	--	--

Responses

HTTP Code	Description	Schema
200	OK	LastValueModel
422	Unprocessable entity (e.g. index not found)	LastValueModel
201	No Content	LastValueModel

Produces

- application/json

2.3.3. Get interpolated data

POST /interpolatedData

Parameters

Type	Name	Description	Schema
Body <i>required</i>	InterpolatedDataRequestAdapter		InterpolatedDataRequestAdapter

Responses

HTTP Code	Description	Schema
200	Ok	InterpolatedDataResult
400	Invalid request	
422	Unprocessable Entity (e.g. index does not exist)	MissingIndexDataBody

Produces

- application/json

2.3.4. Get paged interpolated data for some tag

POST /interpolatedData/paged

Parameters

Type	Name	Description	Schema
Body <i>required</i>	PagedInterpolatedDataRequest		PagedInterpolatedDataRequest

Responses

HTTP Code	Description	Schema
200	Ok	InterpolatedDataPage
400	Invalid request	
422	Unprocessable Entity (e.g. index does not exist)	MissingIndexDataBody

Produces

- application/json

2.4. IndexFiles

2.4.1. Create the index files for a tag

POST /index-files

Parameters

Type	Name	Description	Schema
Body <i>required</i>	CreateIndexFileRequest		CreateIndexFileRequest

Responses

HTTP Code	Description	Schema
200	Index files already exists	
201	Index files created	
400	Invalid request	

2.4.2. Delete the index files for a tag

DELETE /index-files

Parameters

Type	Name	Description	Schema
Body <i>required</i>	DeleteIndexFileRequest		DeleteIndexFileRequest

Responses

HTTP Code	Description	Schema
200	Index files deleted	

2.4.3. Repairs the index files of the requested tag

POST /index-files/repair

Parameters

Type	Name	Description	Schema
Body <i>required</i>	RepairIndexFileRequest		RepairIndexFileRequest

Responses

HTTP Code	Description	Schema
200	Ok	IndexingHeaderDetails
400	Invalid request	

Produces

- application/json

2.4.4. Stores the points of a certain timeSeries into the correct file

POST /index-files/points

Parameters

Type	Name	Description	Schema
Body <i>required</i>	Task		Task

Responses

HTTP Code	Description	Schema
200	Ok	IndexingDetailsResult
400	Invalid request	

Produces

- application/json

2.5. Indexing

2.5.1. Check if index needs repairing

POST /index/check

Parameters

Type	Name	Description	Schema
------	------	-------------	--------

Responses

HTTP Code	Description	Schema
200	Ok. Index check started	

2.5.2. Delete index data by time series id

DELETE /index/{id}

Parameters

Type	Name	Description	Schema
Path required	id		String

Responses

HTTP Code	Description	Schema
200	Ok	

2.5.3. Get paged overview of indexing processes

GET /index

Parameters

Type	Name	Description	Schema
Query required	query	Query to filter results (RSQL syntax)	
Query optional	page	Zero-based page index (0..N)	
Query optional	size	The size of the page to be returned	
Query optional	sort	Sorting criteria in the format: property,(asc	desc). Default sort order is ascending. Multiple sort criteria are supported.

Responses

HTTP Code	Description	Schema
200	Ok	PagedModelIndexingDetail DTO

Produces

- application/json
- application/hal+json

2.5.4. Get index details by time series id

GET /index/{id}

Parameters

Type	Name	Description	Schema
Path required	id		String

Responses

HTTP Code	Description	Schema
200	Ok	IndexingDetailDTO
404	Index data for time series not found	

Produces

- application/json

2.5.5. Get last indexed point for a given time series

GET /index/{id}/last-indexed-point

Parameters

Type	Name	Description	Schema
Path required	id		UUID

Responses

HTTP Code	Description	Schema
200	Ok	PointDTO
404	Time series or index data not found	

Produces

- /

2.5.6. Check if repair is running

GET /index/repair/status

Parameters

Type	Name	Description	Schema
------	------	-------------	--------

Responses

HTTP Code	Description	Schema
200	Ok	RepairIndexStatus

Produces

- /

2.5.7. Get repair index overview

GET /index/repair/progress

Parameters

Type	Name	Description	Schema
------	------	-------------	--------

Responses

HTTP Code	Description	Schema
200	Ok	RepairProgress

Produces

- /

2.5.8. Index a specific tag by time series id

POST /index/{id}

Parameters

Type	Name	Description	Schema
Path required	id		String

Responses

HTTP Code	Description	Schema
200	Ok. Indexing started	
424	Index operation is not possible due to failed service dependencies	

2.5.9. Refresh index data by time series id

POST /index/{id}/refresh

Parameters

Type	Name	Description	Schema
Path required	id		String

Responses

HTTP Code	Description	Schema
200	Ok. Refresh index started	
424	Index operation is not possible due to failed service dependencies	

2.5.10. Repair index

POST /index/repair

Parameters

Type	Name	Description	Schema
------	------	-------------	--------

Responses

HTTP Code	Description	Schema
200	Ok. Index repair started	

2.6. IndexingByName

2.6.1. Delete index data by tag name

DELETE /indexing/byName

Parameters

Type	Name	Description	Schema
------	------	-------------	--------

Query <i>required</i>	tagName		
---------------------------------	----------------	--	--

Responses

HTTP Code	Description	Schema
200	Ok. Index deleted	String
404	Tag not found	

Produces

- /

2.6.2. Get indexed periods

GET /indexing/byName/periods

Parameters

Type	Name	Description	Schema
Query <i>required</i>	tagNames		[String]

Responses

HTTP Code	Description	Schema
200	Ok	List[IndexingPeriodDTO]
404	If a tag cannot be found or the user is not authorised	
424	The DataSource service is not reachable	

Produces

- /

2.6.3. Get indexing status by tag name

POST /indexing/byName/newStatus/

Parameters

Type	Name	Description	Schema
Body <i>required</i>	IndexingStatusRequest		<i>IndexingStatusRequest</i>

Responses

HTTP Code	Description	Schema
200	Ok. Indexing percentage	IndexingPercentage
404	Tag not found	
424	DataSource not reachable	

Produces

- application/json

2.6.4. Get indexing status by tag name

POST /indexing/byName/status/

Parameters

Type	Name	Description	Schema
Body <i>required</i>	LegacyIndexingStatusRequest		LegacyIndexingStatusRequest

Responses

HTTP Code	Description	Schema
200	Ok. Indexing status in legacy format	LegacyIndexingStatusResponse
404	Tag not found	
424	Datasource not reachable	

Produces

- application/json

2.6.5. Get search period

GET /indexing/byName/search-period

Parameters

Type	Name	Description	Schema
Query <i>required</i>	tagNames		[String]
Query <i>required</i>	interpolationTypes		[String]

Responses

HTTP Code	Description	Schema
200	Ok	SearchPeriod
400	tag and interpolation types do not align	
404	If a tag cannot be found or the user is not authorised	
424	The DataSource service is not reachable	

Produces

- /

2.6.6. Get simplified indexing status by tag name

GET /indexing/byName

Parameters

Type	Name	Description	Schema
Query <i>required</i>	tagName		

Responses

HTTP Code	Description	Schema
200	Ok	SimplifiedIndexingStatus
404	Tag not found	

Produces

- application/json

2.6.7. Trigger indexing by tag name

POST /indexing/byName

Parameters

Type	Name	Description	Schema
Query <i>required</i>	tagName		

Responses

HTTP Code	Description	Schema
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200	Ok. Indexing started	
404	Tag not found	

2.7. PublicDownloadGenerator

2.7.1. Generate

POST /download/generate

Parameters

Type	Name	Description	Schema
Body <i>required</i>	LinkModel	The model containing the requested link	LinkModel

Responses

HTTP Code	Description	Schema
200	Ok	DataModel

Produces

- application/json

2.8. Searches

2.8.1. Download search request export

GET /search-requests/{searchRequestId}/export/{exportId}/download

Parameters

Type	Name	Description	Schema
Path required	searchRequestId		UUID
Path required	exportId		UUID

Responses

HTTP Code	Description	Schema
200	OK	
401	Unauthorized	
404	Search request export not found	
410	Search request export no longer exists	

2.8.2. Export results of search request

POST /search-requests/{searchRequestId}/export

Parameters

Type	Name	Description	Schema
Path <i>required</i>	searchRequestId		UUID
Body <i>required</i>	SearchRequestExportRequestModel		SearchRequestExportRequestModel

Responses

HTTP Code	Description	Schema
202	Accepted	
400	Invalid request	

2.8.3. Export search results

POST /searches/results/export

Parameters

Type	Name	Description	Schema
Body <i>required</i>	SearchExportRequestModel		SearchExportRequestModel

Responses

HTTP Code	Description	Schema
200	Ok	
400	Invalid request	

2.8.4. Get all search results including refined results

GET /search-requests/{searchRequestId}/results/all

Parameters

Type	Name	Description	Schema
Path <i>required</i>	searchRequestId	The id of the search request	UUID
Query <i>optional</i>	page	Zero-based page index (0..N)	

Query <i>optional</i>	size	The size of the page to be returned	
Query <i>optional</i>	sort	Sorting criteria in the format: property,(asc	desc). Default sort order is ascending. Multiple sort criteria are supported.

Responses

HTTP Code	Description	Schema
200	Ok	PagedModelSearchResultDTO

Produces

- application/json
- application/hal+json

2.8.5. Get search request binning/sorting options

GET /search-requests/{searchRequestId}/binningOptions

Parameters

Type	Name	Description	Schema
Path required	searchRequestId		UUID
Query <i>optional</i>	clientTimeZone		

Responses

HTTP Code	Description	Schema
200	Ok	BinningAndSortingOptionsDTO
400	Invalid request	
404	Search request does not exist	

Produces

- application/json

2.8.6. Get bins for a search request

GET /search-requests/{searchRequestId}/bins

Parameters

Type	Name	Description	Schema
Path required	searchRequestId	The id of the search request	UUID
Query required	binBy	The type of bins to retrieve for the search. Supported binning types: DATE DURATION	
Query optional	lowerBound	The lower bound for the bin type for which to generate bins	
Query optional	upperBound	The upper bound for the bin type for which to generate bins	
Query optional	sort	Sorting criteria in the format: binType(,asc	desc). Default sort ordering depends on the bin type binType needs to be equivalent to the defined binBy parameter
	Query optional	clientTimeZone	

Responses

HTTP Code	Description	Schema
200	Ok	BinsDTO

Produces

- application/json
- application/hal+json

2.8.7. Get search request

GET /search-requests/{searchRequestId}

Parameters

Type	Name	Description	Schema
------	------	-------------	--------

Path required	searchRequestId		UUID
Query	clientTimeZone		
<i>optional</i>			

Responses

HTTP Code	Description	Schema
200	Ok	SearchRequestDTO
400	Invalid request	
404	Search request not found	

Produces

- application/json

2.8.8. Get search results

GET /search-requests/{searchRequestId}/results

Parameters

Type	Name	Description	Schema
Path required	searchRequestId	The id of the search request	UUID
Query	binBy	The type of bins to retrieve for the search. Supported binning types: DATE DURATION	
<i>required</i>			
Query	lowerBound	The lower bound for the bin type for which to generate bins	
<i>optional</i>			
Query	upperBound	The upper bound for the bin type for which to generate bins	
<i>optional</i>			
Query	clientTimeZone		
<i>optional</i>			
Query	page	Zero-based page index (0..N)	
<i>optional</i>			
Query	size	The size of the page to be returned	
<i>optional</i>			

Query <i>optional</i>	sort	Sorting criteria in the format: property,(asc desc). Default sort order is ascending. Multiple sort criteria are supported.
---------------------------------	-------------	---

Responses

HTTP Code	Description	Schema
200	Ok	PagedModelSearchResultDTO

Produces

- application/json
- application/hal+json

2.8.9. Highlight search request

POST /search-requests/{searchRequestId}/highlights

Parameters

Type	Name	Description	Schema
Path required	searchRequestId		UUID
Body required	SearchRequestHighlightRequest		SearchRequestHighlightRequest

Responses

HTTP Code	Description	Schema
202	Accepted	List[SearchRequestHighlight]
400	Invalid request	

Produces

- /

2.8.10. Refinement search request

POST /search-requests/{searchRequestId}/refinementOptions

Parameters

Type	Name	Description	Schema
------	------	-------------	--------

Path required	searchRequestId		UUID
Body <i>optional</i>	SearchRequestRefinementRequest		SearchRequestRefinementRequest

Responses

HTTP Code	Description	Schema
200	Ok	EnrichedRefinementOptions
400	Invalid request	
404	Search request not found	

Produces

- /

2.8.11. Retrieve refinements for a search request

GET /search-requests/{searchRequestId}/refinements

Parameters

Type	Name	Description	Schema
Path required	searchRequestId		UUID

Responses

HTTP Code	Description	Schema
200	Ok	List[Refinement]
404	Search request not found	

Produces

- /

2.8.12. Perform an area search search

POST /areasearch/newSearch

Parameters

Type	Name	Description	Schema
Body <i>required</i>	AreaSearchRequest		AreaSearchRequest

Responses

HTTP Code	Description	Schema
200	Ok	List[DeprecatedSearchResult]
400	Invalid request	
404	Tag not found	
422	Unprocessable Entity (e.g. index does not exist)	

Produces

- application/json

2.8.13. Perform a context item search

POST /contextitemsearch/search

Parameters

Type	Name	Description	Schema
Body <i>required</i>	ContextItemSearchRequest		ContextItemSearchRequest

Responses

HTTP Code	Description	Schema
200	Ok	List[DeprecatedSearchResult]
400	Invalid request	

Produces

- application/json

2.8.14. Detect fingerprint deviations (with early warning support)

POST /fingerprintsearch/earlywarning

Parameters

Type	Name	Description	Schema
Body <i>required</i>	FingerprintEarlyWarningRequest		FingerprintEarlyWarningRequest

Responses

HTTP Code	Description	Schema
200	Ok	EarlyWarningResult
400	Invalid request	
404	Tag not found	
422	Unprocessable Entity (e.g. index does not exist)	

Produces

- application/json

2.8.15. Perform a fingerprint search

POST /fingerprintsearch/newSearch

Parameters

Type	Name	Description	Schema
Body <i>required</i>	FingerprintSearchRequest		FingerprintSearchRequest

Responses

HTTP Code	Description	Schema
200	Ok	List[SimilaritySearchResult]
400	Invalid request	
404	Tag not found	
422	Unprocessable Entity (e.g. index does not exist)	

Produces

- application/json

2.8.16. Perform a similarity search

POST /similaritysearch/newSearch

Parameters

Type	Name	Description	Schema
Body <i>required</i>	SimilaritySearchRequest		SimilaritySearchRequest

Responses

HTTP Code	Description	Schema
200	Ok	List[SimilaritySearchResult]
400	Invalid request	
404	Tag not found	
422	Unprocessable Entity (e.g. index does not exist)	

Produces

- application/json

2.8.17. Perform a step search

POST /stepsearch/newSearch

Parameters

Type	Name	Description	Schema
Body <i>required</i>	StepSearchRequest		StepSearchRequest

Responses

HTTP Code	Description	Schema
200	Ok	List[DeprecatedSearchResult]
400	Invalid request	
404	Tag not found	
422	Unprocessable Entity (e.g. index does not exist)	

Produces

- application/json

2.8.18. Perform a value-based search

POST /valuebasedsearch/newSearch

Parameters

Type	Name	Description	Schema
Body <i>required</i>	ValueBasedSearchRequest		ValueBasedSearchRequest

Responses

HTTP Code	Description	Schema
200	Ok	List[DeprecatedSearchResult]
400	Invalid request	
404	Tag not found	
422	Unprocessable Entity (e.g. index does not exist)	

Produces

- application/json

2.8.19. Search on index data

POST /search

Parameters

Type	Name	Description	Schema
Body <i>required</i>	SearchRequest		SearchRequest

Responses

HTTP Code	Description	Schema
200	Ok	List[SearchResult]
400	Invalid request	
404	Tag not found	
422	Unprocessable entity (e.g. index not found)	

Produces

- application/json

2.8.20. Search on index data

POST /search-requests

Parameters

Type	Name	Description	Schema
Query <i>optional</i>	clientTimeZone		

Body <i>required</i>	SearchRequest		SearchRequest
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Responses

HTTP Code	Description	Schema
200	Ok	SearchRequestDTO
400	Invalid request	
422	Unprocessable entity (e.g. index not found)	

Produces

- application/json

2.8.21. Check existence search request export

HEAD /search-requests/{searchRequestId}/export/{exportId}/download

Parameters

Type	Name	Description	Schema
Path required	searchRequestId		UUID
Path required	exportId		UUID

Responses

HTTP Code	Description	Schema
204	No Content	
401	Unauthorized	
404	Search request export not found	

2.8.22. Update and trigger calculations

POST /search-requests/{searchRequestId}/calculations

Parameters

Type	Name	Description	Schema
Path required	searchRequestId		UUID
Query <i>optional</i>	clientTimeZone		
Body <i>required</i>	CalculationDefinition		CalculationDefinition

Responses

HTTP Code	Description	Schema
200	Ok	SearchRequestDTO
400	Invalid request	
404	Search request does not exist	
409	Search request is already in progress	
412	Search request detected an error	

Produces

- application/json

2.8.23. Update refinements request

PUT /search-requests/{searchRequestId}/refinements

Parameters

Type	Name	Description	Schema
Path required	searchRequestId		UUID
Body required	SearchRequestRefinementRequest		SearchRequestRefinementRequest

Responses

HTTP Code	Description	Schema
200	Ok	List[Refinement]
400	Invalid request	
404	Search request not found	

Produces

- /

Chapter 3. Models

3.1. *AbstractSearchWarningDto*

Field Name	Required	Type	Description	Format
details		Map of [object]		
message		String		
errorCode		String		

3.2. *AreaSearchDefinition*

Field Name	Required	Type	Description	Format
type		String		<i>Enum:</i> SIMILARITY_SEARCH, VALUE_BASED_SEARCH, AREA_SEARCH, STEP_SEARCH, CONTEXT_ITEM_SEARCH,
calculations		List of CalculationDefinition		
queries		List of AreaSearchQuery		
parameters		AreaSearchParameters		

3.3. *AreaSearchDefinitionAllOf*

Field Name	Required	Type	Description	Format
queries		List of AreaSearchQuery		
parameters		AreaSearchParameters		

3.4. *AreaSearchDetails*

Field Name	Required	Type	Description	Format
name		String		
description		String		
type		String		
searchPeriod		SearchPeriod		
minimumIntervalLength		Long		int64
isInExtent		Boolean		
xTag		AxisTag		
yTag		AxisTag		

3.5. *AreaSearchDetailsAllOf*

Field Name	Required	Type	Description	Format
minimumIntervalLength		Long		int64
isInExtent		Boolean		
xTag		AxisTag		
yTag		AxisTag		

3.6. *AreaSearchParameters*

Field Name	Required	Type	Description	Format
minimumDuration		Long		int64
searchType		String		<i>Enum:</i> INSIDE_ AREA, OUTSIDE_ AREA,
searchArea		List of <i>PointCoordinate</i>		

3.7. *AreaSearchQuery*

Field Name	Required	Type	Description	Format
xAxis		TimeSeriesDescriptor		
yAxis		TimeSeriesDescriptor		

3.8. *AreaSearchRequest*

Field Name	Required	Type	Description	Format
contextTimeRange		TimePeriod		
filters		List of FilterTimePeriod		
query		DeprecatedAreaSearchQuery		
params		DeprecatedAreaSearchParameters		

3.9. *AxisTag*

Field Name	Required	Type	Description	Format
name		String		

3.10. *BinDTO*

Field Name	Required	Type	Description	Format
id		String		
upperBound		String		
lowerBound		String		
type		String		
size		Integer		int32
links		List of Link		

3.11. *BinningAndSortingOptionsDTO*

Field Name	Required	Type	Description	Format
options		List of BinningOptionDTO		

Field Name	Required	Type	Description	Format
calculations		List of BinningOptionDTO		
default		SortingOptionDTO		

3.12. *BinningOptionDTO*

Field Name	Required	Type	Description	Format
option		String		
links		List of Link		
sortKey		String		

3.13. *BinsDTO*

Field Name	Required	Type	Description	Format
bins		List of BinDTO		
size		Integer		int32
links		List of Link		

3.14. *CalculationDefinition*

Field Name	Required	Type	Description	Format
name		String		
type		String		Enum: MIN, MAX, MEAN, RANGE, START, END, DELTA, INTEGRAL, STDEV,
unit		String		
reference		TimeSeriesDescriptor		

3.15. *CalculationParameters*

Field Name	Required	Type	Description	Format
calculationType		String		Enum: MIN, MAX, MEAN, RANGE, START, END, DELTA, INTEGRAL, STDEV,

3.16. *CalculationQuery*

Field Name	Required	Type	Description	Format
tag		TagDescriptorDTO		
timePeriods		List of CalculationTimePeriod		

3.17. *CalculationRequest*

Field Name	Required	Type	Description	Format
queries		CalculationQuery		
parameters		CalculationParameters		

3.18. *CalculationResult*

Field Name	Required	Type	Description	Format
startDate		Date		date-time
endDate		Date		date-time
value		Float		float
key		String		

3.19. *CalculationTimePeriod*

Field Name	Required	Type	Description	Format
startDate		Date		date-time
endDate		Date		date-time
key		String		

3.20. *CalculationToExport*

Field Name	Required	Type	Description	Format
name		String		
tagName		String		
unit		String		
operator		String		

3.21. *ChartExportRequest*

Field Name	Required	Type	Description	Format
layers		List of <i>Layer</i>		
filterTimePeriods		List of <i>TimePeriod</i>		
chartDataResolutionInSeconds		Integer		int32
clientTimeZoneId		String		
excludeFilteredTimePeriods		Boolean		
viewName		String		
downloadName		String		
fileType		String		Enum: XLSX,
exportType		String		Enum: FOCUS_C HART, SEARCH _RESULT ,
downloadLink		String		

3.22. *ChartRequest*

Field Name	Required	Type	Description	Format
timePeriod		TimePeriod		
queries		List of TagDescriptorDTO		
parameters		ChartRequestParameters		

3.23. *ChartRequestParameters*

Field Name	Required	Type	Description	Format
numberOfIntervals		Integer		int32

3.24. *ChartResult*

Field Name	Required	Type	Description	Format
tag		TagDescriptorDTO		
values		List of PointDTO		
error		String		

Field Name	Required	Type	Description	Format
errorCode		String		Enum: OUT_OF_ORDER, ONLY_RAW_VALUES_SUPPORTED, TIMEOUT, REMOTE_SERVICE, SERVICE_UNAVAILABLE, UNEXPECTED, VALIDATION_FAILED, PARSE_FAILED, NOT_ALLOWED, NOT_FOUND, TOO_MANY_REQUESTS, FAILED_DEPENDENCY, PLOT_PERIOD_TOO_LARGE, MISSING_INDEX_DATA,

3.25. *CheckMaximumNumberOfPointsResult*

Field Name	Required	Type	Description	Format
requestExceedsMaximumNumberOfPoints		Boolean		

Field Name	Required	Type	Description	Format
maximumNumberOfPoints		Long		int64

3.26. *ComparisonLayerResult*

Field Name	Required	Type	Description	Format
startDate		Date		date-time
endDate		Date		date-time
key		String		
value		Float		float
differenceToBase		Float		float

3.27. *ComparisonRequest*

Field Name	Required	Type	Description	Format
query		ComparisonRequestQuery		
params		ComparisonRequestParams		
filters		List of FilterTimePeriod		

3.28. *ComparisonRequestParams*

Field Name	Required	Type	Description	Format
comparisonType		String		Enum: MIN, MAX, MEAN, RANGE, START, END, DELTA, INTEGRAL, STDEV, CORRELATION, EVOLUTION, STATISTICAL_SIMILARITY,

3.29. ComparisonRequestQuery

Field Name	Required	Type	Description	Format
tag		List of TagDescriptorDTO		
referenceLayer		CalculationTimePeriod		
compareLayers		List of CalculationTimePeriod		

3.30. ComparisonResult

Field Name	Required	Type	Description	Format
tag		TagDescriptorDTO		
referenceLayerResult		CalculationResult		
compareLayerResults		List of ComparisonLayerResult		

3.31. ContextChartResult

Field Name	Required	Type	Description	Format
tag		TagDescriptorDTO		
values		List of PointDTO		
isFullyIndexed		Boolean		

3.32. ContextItemSearchDefinition

Field Name	Required	Type	Description	Format
type		String		Enum: SIMILARITY_SEARCH, VALUE_BASED_SEARCH, AREA_SEARCH, STEP_SEARCH, CONTEXT_ITEM_SEARCH,
calculations		List of CalculationDefinition		
queries		List of [map]		

3.33. ContextItemSearchDetails

Field Name	Required	Type	Description	Format
name		String		
description		String		
type		String		
searchPeriod		SearchPeriod		
queries		List of [map]		

3.34. ContextItemSearchDetailsAllOf

Field Name	Required	Type	Description	Format
queries		List of [map]		

3.35. *ContextItemSearchRequest*

Field Name	Required	Type	Description	Format
contextTimeRange		TimePeriod		
filters		List of FilterTimePeriod		
queries		List of [map]		

3.36. *CreateIndexFileRequest*

Field Name	Required	Type	Description	Format
name		String		
startDate		Date		date-time

3.37. *CrossAssetValueBasedSearchDetails*

Field Name	Required	Type	Description	Format
name		String		
description		String		
type		String		
searchPeriod		SearchPeriod		
contextTimeRange		TimePeriod		
filters		List of FilterTimePeriod		
queries		List of CrossAssetValueBasedSearchQuery		
params		CrossAssetValueBasedSearchParameters		
requestId		UUID		uuid

3.38. *CrossAssetValueBasedSearchDetailsAllOf*

Field Name	Required	Type	Description	Format
contextTimeRange		TimePeriod		
filters		List of FilterTimePeriod		
queries		List of CrossAssetValueBasedSearchQuery		
params		CrossAssetValueBasedSearchParameters		
requestId		UUID		uuid

3.39. *CrossAssetValueBasedSearchParameters*

Field Name	Required	Type	Description	Format
assets		List of DataReference		
minimumIntervalLength		Long		int64
operator		String		

3.40. *CrossAssetValueBasedSearchQuery*

Field Name	Required	Type	Description	Format
attributeTemplateId		String		
operator		String		
values		List of float		float

3.41. *DataModel*

Field Name	Required	Type	Description	Format
data		String	the signed link data	

3.42. *DataPoint*

Field Name	Required	Type	Description	Format
ts		Date		date-time
value		Float		float

3.43. *DataReference*

Field Name	Required	Type	Description	Format
id		String		
name		String		
type		String		Enum: ASSET, ATTRIBUTE, TAG,

3.44. *DataReferenceDescriptor*

Field Name	Required	Type	Description	Format
id		String		
name		String		
type		String		Enum: ASSET, ATTRIBUTE, TAG,
shift		Long		int64
interpolationType		String		

3.45. *DeleteIndexFileRequest*

Field Name	Required	Type	Description	Format
name		String		

3.46. *DeprecatedAreaPoint*

Field Name	Required	Type	Description	Format
x		Float		float

Field Name	Required	Type	Description	Format
y		Float		float

3.47. *DeprecatedAreaSearchParameters*

Field Name	Required	Type	Description	Format
searchArea		List of DeprecatedAreaPoint		
searchType		String		Enum: INSIDE_AREA, OUTSIDE_AREA,
minimumIntervalLength		Long		int64

3.48. *DeprecatedAreaSearchQuery*

Field Name	Required	Type	Description	Format
xAxisTag		TagDescriptorDTO		
yAxisTag		TagDescriptorDTO		

3.49. *DeprecatedSearchResult*

Field Name	Required	Type	Description	Format
startDate		Date		date-time
endDate		Date		date-time
openEnded		Boolean		

3.50. *DeprecatedSimilaritySearchParameters*

Field Name	Required	Type	Description	Format
focusTimePeriod		TimePeriod		
detectionThreshold		Float		float

Field Name	Required	Type	Description	Format
limitResults		Integer		int32

3.51. *DeprecatedSimilaritySearchQuery*

Field Name	Required	Type	Description	Format
patternTag		TagDescriptorDTO		
searchInTag		TagDescriptorDTO		
searchType		String		<i>Enum:</i> ABSOLUTE_VALUES, FINGERPRINT, SIGNAL_SHAPE,
range		SimilaritySearchRange		
weights		List of <i>DeprecatedSimilaritySearchWeight</i>		

3.52. *DeprecatedSimilaritySearchWeight*

Field Name	Required	Type	Description	Format
weight		Float		float
start		Date		date-time
end		Date		date-time

3.53. *DeprecatedStepSearchQuery*

Field Name	Required	Type	Description	Format
tagDescriptor		TagDescriptorDTO		
from		StepSearchCondition		
to		StepSearchCondition		

3.54. *DeprecatedValueBasedSearchParameters*

Field Name	Required	Type	Description	Format
minIntervalInSeconds		Long		int64
searchOperator		String		Enum: AND, OR,

3.55. *DeprecatedValueBasedSearchQuery*

Field Name	Required	Type	Description	Format
tagDescriptor		TagDescriptorDTO		
conditionOperator		String		Enum: LESS_THAN, LESS_THAN_OR_EQUAL, EQUAL, NOT_EQUAL, GREATER_THAN, GREATER_THAN_OR_EQUAL, GREATER_THAN_CONSTANT, INSET,
values		List of [float]		float

3.56. *EarlyWarningResult*

Field Name	Required	Type	Description	Format
partial		Boolean		
mismatch		Boolean		
score		Float		float

3.57. *EnrichedRefinementOptions*

Field Name	Required	Type	Description	Format
refinedNumberOfResults		Long		int64
options		List of RefinementOption		

3.58. *ErrorResponse*

Field Name	Required	Type	Description	Format
timestamp		Date		date-time

Field Name	Required	Type	Description	Format
errorCode		String		Enum: OUT_OF_ORDER, ONLY_RAW_VALUES_SUPPORTED, TIMEOUT, REMOTE_SERVICE, SERVICE_UNAVAILABLE, UNEXPECTED, VALIDATION_FAILED, PARSE_FAILED, INVALID_DUPLICATE_POINT, NOT_ALLOWED, NOT_FOUND, TOO_MANY_REQUESTS, PLOT_PERIOD_TOO_LARGE, MISSING_INDEX_DATA,
message		String		
details		Map of string		

Field Name	Required	Type	Description	Format
HttpStatus		String		Enum: 100 CONTINUE, 101 SWITCHING_PROTOCOLS, 102 PROCESSING, 103 EARLY_HINTS, 103 CHECKPOINT, 200 OK, 201 CREATED, 202 ACCEPTED, 203 NON_AUTHORITATIVE_INFORMATION, 204 NO_CONTENT, 205 RESET_CONTENT, 206 PARTIAL_CONTENT, 207 MULTI_STATUS, 208 ALREADY_REPORTED, 226 IM_USED, 300 MULTIPLE_CHOICES, 301 MOVED_PERMANENTLY, 302
52				

Field Name	Required	Type	Description	Format
statusCode		Integer		int32

3.59. *ExportSimilaritySearchQuery*

Field Name	Required	Type	Description	Format
name		String		
shift		Long		int64
searchIn		SimilaritySearchQuerySearchIn		
searchType		String		
weights		List of SimilaritySearchWeight		

3.60. *ExportValueBasedSearchQuery*

Field Name	Required	Type	Description	Format
operator		String		
shift		Long		int64
tagName		String		
value		List of [string]		

3.61. *FilterTimePeriod*

Field Name	Required	Type	Description	Format
startDate		Date		date-time
endDate		Date		date-time
type		String		Enum: EXCLUDE, INCLUDE,

3.62. *FingerprintEarlyWarningRequest*

Field Name	Required	Type	Description	Format
contextTimePeriod		TimePeriod		
params		FingerprintSearchParameters		
queries		List of FingerprintSearchQuery		

3.63. *FingerprintSearchParameters*

Field Name	Required	Type	Description	Format
detectionThreshold		Float		float
duration		Long		int64

3.64. *FingerprintSearchQuery*

Field Name	Required	Type	Description	Format
tag		TagDescriptorDTO		
hulls		List of HullValue		

3.65. *FingerprintSearchRequest*

Field Name	Required	Type	Description	Format
contextTimePeriod		TimePeriod		
filters		List of FilterTimePeriod		
params		FingerprintSearchParameters		
queries		List of FingerprintSearchQuery		

3.66. *FocusChartTag*

Field Name	Required	Type	Description	Format
tagName		String		
shift		Integer		int32
interpolationType		String		

3.67. *HistogramBucketDTO*

Field Name	Required	Type	Description	Format
min		Float		float
max		Float		float
totalNumberOfResults		Long		int64
refinedNumberOfResults		Long		int64

3.68. *HistogramQueryDTO*

Field Name	Required	Type	Description	Format
tag		TagDescriptorDTO		
scale		Scale		

3.69. *HistogramRequest*

Field Name	Required	Type	Description	Format
timePeriod		TimePeriod		
queries		List of HistogramQueryDTO		
filters		List of FilterTimePeriod		

3.70. *HistogramResultDTO*

Field Name	Required	Type	Description	Format
query		HistogramQueryDTO		

Field Name	Required	Type	Description	Format
values		List of HistogramValue		

3.71. *HistogramValue*

Field Name	Required	Type	Description	Format
frequency		Integer		int32
value		Float		float

3.72. *HullValue*

Field Name	Required	Type	Description	Format
minValue	X	Float		float
maxValue	X	Float		float
offset	X	Long		int64

3.73. *IndexingDetailDTO*

Field Name	Required	Type	Description	Format
id		String		
name		String		
status		String		
startDate		Date		date-time
endDate		Date		date-time
lastUpdatedDate		Date		date-time
indexingProgress		Float		float
links		List of Link		

3.74. *IndexingDetailsResult*

Field Name	Required	Type	Description	Format
indexStartTs		Date		date-time

Field Name	Required	Type	Description	Format
indexEndTs		Date		date-time
firstPointTs		Date		date-time
lastPointTs		Date		date-time

3.75. *IndexingHeaderDetails*

Field Name	Required	Type	Description	Format
indexStartTs		Date		date-time
indexEndTs		Date		date-time

3.76. *IndexingPercentage*

Field Name	Required	Type	Description	Format
percentage		Float		float

3.77. *IndexingPeriodDTO*

Field Name	Required	Type	Description	Format
tagName		String		
startDate		Date		date-time
endDate		Date		date-time
indexed		Boolean		

3.78. *IndexingStatusQuery*

Field Name	Required	Type	Description	Format
tag		TagDescriptorDTO		

3.79. *IndexingStatusRequest*

Field Name	Required	Type	Description	Format
query		IndexingStatusQuery		

3.80. *InterpolatedDataPage*

Field Name	Required	Type	Description	Format
tag		TagDescriptorDTO		
values		List of PointDTO		
nextStartDate		Date		date-time

3.81. *InterpolatedDataRequestAdapter*

Field Name	Required	Type	Description	Format
tag		TagDescriptorDTO		
timePeriod		TimePeriod		
step		Integer		int32

3.82. *InterpolatedDataResult*

Field Name	Required	Type	Description	Format
tag		TagDescriptorDTO		
values		List of PointDTO		

3.83. *LastValueModel*

Field Name	Required	Type	Description	Format
value		Float		float
ts		Date		date-time
upToDate		Boolean		

3.84. Layer

Field Name	Required	Type	Description	Format
name		String		
dataReferences		List of DataReferenceDescriptor		
timePeriod		TimePeriod		

3.85. LegacyChartExportRequest

Field Name	Required	Type	Description	Format
tags		List of array		
timePeriods		List of TimePeriod		
filterPeriods		List of TimePeriod		
multipleOfIndexBlockSize		Integer		int32
clientTimeZoneId		String		
viewName		String		

3.86. LegacyIndexingStatusRequest

Field Name	Required	Type	Description	Format
name		String		
shift		Long		int64
interpolationType		String		

3.87. LegacyIndexingStatusResponse

Field Name	Required	Type	Description	Format
allowSearch		Boolean		
indexed		Boolean		
percentage		Float		float

3.88. Link

Field Name	Required	Type	Description	Format
rel		String		
href		String		
hreflang		String		
media		String		
title		String		
type		String		
deprecation		String		
profile		String		
name		String		

3.89. *LinkModel*

Field Name	Required	Type	Description	Format
link	X	String	The requested link.	
validity		Long	Validity of the requested token, in seconds.	int64

3.90. *MissingIndexDataBody*

Field Name	Required	Type	Description	Format
message		String		
path		String		
timestamp		String		
status		Integer		int32
errorCode		String		
error		String		

3.91. *PageMetadata*

Field Name	Required	Type	Description	Format
size		Long		int64
totalElements		Long		int64
totalPages		Long		int64
number		Long		int64

3.92. *PagedInterpolatedDataRequest*

Field Name	Required	Type	Description	Format
tag		TagDescriptorDTO		
timePeriod		TimePeriod		
step		Integer		int32

3.93. *PagedModelIndexingDetailDTO*

Field Name	Required	Type	Description	Format
links		List of Link		
content		List of IndexingDetailDTO		
page		PageMetadata		

3.94. *PagedModelSearchResultDTO*

Field Name	Required	Type	Description	Format
links		List of Link		
content		List of SearchResultDTO		
page		PageMetadata		

3.95. *PointCoordinate*

Field Name	Required	Type	Description	Format
x		Float		float
y		Float		float

3.96. *PointDTO*

Field Name	Required	Type	Description	Format
ts		Date		date-time
value		Float		float

3.97. Refinement

Field Name	Required	Type	Description	Format
option		String		
min		Float		float
max		Float		float

3.98. RefinementOption

Field Name	Required	Type	Description	Format
start		String		
min		Float		float
max		Float		float
histogramBuckets		List of HistogramBucketDTO		
excludedValues		Boolean		
option		String		

3.99. RepairIndexFileRequest

Field Name	Required	Type	Description	Format
name		String		

3.100. RepairIndexStatus

Field Name	Required	Type	Description	Format
running		Boolean		

3.101. RepairProgress

Field Name	Required	Type	Description	Format
totalNumberOfTags		Integer		int32
totalCheckedTags		Integer		int32
totalCorruptTags		Integer		int32

Field Name	Required	Type	Description	Format
corruptedTags		Map of [DateTime]		date-time
failedTags		Map of [string]		

3.102. Scale

Field Name	Required	Type	Description	Format
min		Float		float
max		Float		float

3.103. ScatterChartPoint

Field Name	Required	Type	Description	Format
x		Float		float
y		Float		float
ts		Date		date-time

3.104. ScatterChartRequest

Field Name	Required	Type	Description	Format
timePeriod		TimePeriod		
queries		List of TagDescriptorDTO		
params		Integer		int32
filters		List of FilterTimePeriod		

3.105. ScatterChartResult

Field Name	Required	Type	Description	Format
tagX		TagDescriptorDTO		
tagY		TagDescriptorDTO		
values		List of ScatterChartPoint		

3.106. *SearchDefinition*

Field Name	Required	Type	Description	Format
type		String		Enum: SIMILARITY_SEARCH, VALUE_BASED_SEARCH, AREA_SEARCH, STEP_SEARCH, CONTEXT_ITEM_SEARCH,
calculations		List of CalculationDefinition		

3.107. *SearchDetails*

Field Name	Required	Type	Description	Format
name		String		
description		String		
type		String		
searchPeriod		SearchPeriod		

3.108. *SearchDetailsModel*

Field Name	Required	Type	Description	Format
name		String		
description		String		

3.109. *SearchExportRequestModel*

Field Name	Required	Type	Description	Format
searchDetails		oneOf<AreaSearchDetails,ContextItemSearchDetails,CrossAssetValueBasedSearchDetails,SimilaritySearchDetails,StepSearchDetails,ValueBasedSearchDetails>		
results		List of SearchResultToExportModel		
calculation		CalculationToExport		
clientTimeZoneId		String		

3.110. SearchPeriod

Field Name	Required	Type	Description	Format
startDate		Date		date-time
endDate		Date		date-time

3.111. SearchRequest

Field Name	Required	Type	Description	Format
contextTimePeriod		TimePeriod		
exclusionPeriods		List of FilterTimePeriod		
definition	X	oneOf<AreaSearchDefinition,ContextItemSearchDefinition,SimilaritySearchDefinition,StepSearchDefinition,ValueBasedSearchDefinition>		

3.112. *SearchRequestDTO*

Field Name	Required	Type	Description	Format
id		UUID		uuid
createdAt		Date		date-time
status		String		Enum: IN_PROGRESS, DONE, ERROR,
completedAt		Date		date-time
errorCode		String		
warnings		List of AbstractSearchWarningDto		
refined		Boolean		
links		List of Link		

3.113. *SearchRequestExportRequestModel*

Field Name	Required	Type	Description	Format
searchDetails		SearchDetailsModel		
clientTimeZone		String		
resultType		String		Enum: SEARCH_RESULT, BIN,
results		List of [string]		
sort		Sort		

3.114. *SearchRequestHighlight*

Field Name	Required	Type	Description	Format
start		Date		date-time
end		Date		date-time

3.115. *SearchRequestHighlightRequest*

Field Name	Required	Type	Description	Format
contextTimePeriod		TimePeriod		
maximumDistinguishablePeriods		Integer		int32

3.116. *SearchRequestRefinementRequest*

Field Name	Required	Type	Description	Format
refinements		List of Refinement		

3.117. *SearchResult*

Field Name	Required	Type	Description	Format
id		UUID		uuid
start		Date		date-time
end		Date		date-time
calculations		Map of [object]		
properties		Map of [object]		
duration		Long		int64

3.118. *SearchResultDTO*

Field Name	Required	Type	Description	Format
id		UUID		uuid
type		String		
start		Date		date-time
end		Date		date-time
duration		Integer		int32
calculations		Map of [object]		
properties		Map of [object]		

Field Name	Required	Type	Description	Format
links		List of Link		

3.119. *SearchResultToExportModel*

Field Name	Required	Type	Description	Format
start		Date		date-time
end		Date		date-time
dataReference		String		
calc		String		
score		Float		float

3.120. *SimilaritySearchDefinition*

Field Name	Required	Type	Description	Format
type		String		<i>Enum:</i> SIMILARITY_SEARCH, VALUE_BASED_SEARCH, AREA_SEARCH, STEP_SEARCH, CONTEXT_ITEM_SEARCH,
calculations		List of CalculationDefinition		
queries		List of SimilaritySearchQuery		
parameters		SimilaritySearchParameters		

3.121. *SimilaritySearchDefinitionAllOf*

Field Name	Required	Type	Description	Format
queries		List of SimilaritySearchQuery		
parameters		SimilaritySearchParameters		

3.122. *SimilaritySearchDetails*

Field Name	Required	Type	Description	Format
name		String		
description		String		
type		String		
searchPeriod		SearchPeriod		
originalStartDate		Date		date-time
originalEndDate		Date		date-time
cutOffPercentage		Float		float
tags		List of ExportSimilaritySearchQuery		

3.123. *SimilaritySearchDetailsAllOf*

Field Name	Required	Type	Description	Format
originalStartDate		Date		date-time
originalEndDate		Date		date-time
cutOffPercentage		Float		float
tags		List of ExportSimilaritySearchQuery		

3.124. *SimilaritySearchParameters*

Field Name	Required	Type	Description	Format
focusTimePeriod		TimePeriod		
detectionThreshold		Float		float

3.125. *SimilaritySearchQuery*

Field Name	Required	Type	Description	Format
source		TimeSeriesDescriptor		
target		TimeSeriesDescriptor		
searchType		String		<i>Enum:</i> ABSOLUTE_VALUES, FINGERPRINT, SIGNAL_SHAPE,
range		SimilaritySearchQueryRange		
weights		List of SimilaritySearchQueryWeight		

3.126. *SimilaritySearchQueryRange*

Field Name	Required	Type	Description	Format
min		Float		float
max		Float		float

3.127. *SimilaritySearchQuerySearchIn*

Field Name	Required	Type	Description	Format
tagName		String		

3.128. *SimilaritySearchQueryWeight*

Field Name	Required	Type	Description	Format
weight		Float		float
start		Date		date-time
end		Date		date-time

3.129. *SimilaritySearchRange*

Field Name	Required	Type	Description	Format
min		Float		float
max		Float		float

3.130. *SimilaritySearchRequest*

Field Name	Required	Type	Description	Format
contextTimePeriod		TimePeriod		
filters		List of FilterTimePeriod		
queries		List of DeprecatedSimilaritySearchQuery		
params		DeprecatedSimilaritySearchParameters		

3.131. *SimilaritySearchResult*

Field Name	Required	Type	Description	Format
startDate		Date		date-time
endDate		Date		date-time
openEnded		Boolean		
score		Float		float

3.132. *SimilaritySearchWeight*

Field Name	Required	Type	Description	Format
weight		Integer		int32
startDate		Date		date-time
endDate		Date		date-time

3.133. *SimplifiedIndexingStatus*

Field Name	Required	Type	Description	Format
indexed		Boolean		

3.134. *Sort*

Field Name	Required	Type	Description	Format
sortKey		String		
direction		String		

3.135. *SortingOptionDTO*

Field Name	Required	Type	Description	Format
binningOption		BinningOptionDTO		
sort		String		

3.136. *StepSearchCondition*

Field Name	Required	Type	Description	Format
state		Float		float
duration		Integer		int32

3.137. *StepSearchDefinition*

Field Name	Required	Type	Description	Format
type		String		<i>Enum:</i> SIMILARITY_SEARCH, VALUE_BASED_SEARCH, AREA_SEARCH, STEP_SEARCH, CONTEXT_ITEM_SEARCH,
calculations		List of CalculationDefinition		
queries		List of StepSearchQuery		

3.138. StepSearchDefinitionAllOf

Field Name	Required	Type	Description	Format
queries		List of StepSearchQuery		

3.139. StepSearchDetails

Field Name	Required	Type	Description	Format
name		String		
description		String		
type		String		
searchPeriod		SearchPeriod		
tagName		String		
stateFrom		StepSearchStateModel		
stateTo		StepSearchStateModel		
durationFrom		Integer		int32
durationTo		Integer		int32

Field Name	Required	Type	Description	Format
shift		Long		int64

3.140. StepSearchDetailsAllOf

Field Name	Required	Type	Description	Format
tagName		String		
stateFrom		StepSearchStateModel		
stateTo		StepSearchStateModel		
durationFrom		Integer		int32
durationTo		Integer		int32
shift		Long		int64

3.141. StepSearchQuery

Field Name	Required	Type	Description	Format
reference		TimeSeriesDescriptor		
from		StepSearchQueryCondition		
to		StepSearchQueryCondition		

3.142. StepSearchQueryCondition

Field Name	Required	Type	Description	Format
state		Integer		int32
duration		Long		int64

3.143. StepSearchRequest

Field Name	Required	Type	Description	Format
contextTimeRange		TimePeriod		
filters		List of FilterTimePeriod		

Field Name	Required	Type	Description	Format
query		DeprecatedStepSearchQuery		

3.144. StepSearchStateModel

Field Name	Required	Type	Description	Format
name		String		

3.145. TagDescriptorDTO

Field Name	Required	Type	Description	Format
id		String		
shift		Long		int64
interpolationType		String		

3.146. Task

Field Name	Required	Type	Description	Format
name		String		
indexDirection		String		Enum: BACKWARD, FORWARD,
taskStart		Date		date-time
taskEnd		Date		date-time
points		List of TaskPoint		

3.147. TaskPoint

Field Name	Required	Type	Description	Format
ts		Long		int64
value		Float		float

3.148. *TimePeriod*

Field Name	Required	Type	Description	Format
startDate		Date		date-time
endDate		Date		date-time

3.149. *TimeSeriesDescriptor*

Field Name	Required	Type	Description	Format
id		String		
name		String		
interpolationType		String		Enum: LINEAR, STEPPED,
shift		Long		int64

3.150. *ValueBasedSearchDefinition*

Field Name	Required	Type	Description	Format
type		String		Enum: SIMILARITY_SEARCH, VALUE_BASED_SEARCH, AREA_SEARCH, STEP_SEARCH, CONTEXT_ITEM_SEARCH,
calculations		List of CalculationDefinition		
queries		List of ValueBasedSearchQuery		

Field Name	Required	Type	Description	Format
parameters		ValueBasedSearchParameters		

3.151. ValueBasedSearchDefinitionAllOf

Field Name	Required	Type	Description	Format
queries		List of ValueBasedSearchQuery		
parameters		ValueBasedSearchParameters		

3.152. ValueBasedSearchDetails

Field Name	Required	Type	Description	Format
name		String		
description		String		
type		String		
searchPeriod		SearchPeriod		
minimumIntervalLength		String		
operator		String		
queries		List of ExportValueBasedSearchQuery		

3.153. ValueBasedSearchDetailsAllOf

Field Name	Required	Type	Description	Format
minimumIntervalLength		String		
operator		String		
queries		List of ExportValueBasedSearchQuery		

3.154. *ValueBasedSearchParameters*

Field Name	Required	Type	Description	Format
minimumDuration		Long		int64
operator		String		Enum: AND, OR,

3.155. *ValueBasedSearchQuery*

Field Name	Required	Type	Description	Format
values		List of [float]		float
reference		TimeSeriesDescriptor		
condition		String		

3.156. *ValueBasedSearchRequest*

Field Name	Required	Type	Description	Format
contextTimeRange		TimePeriod		
filters		List of FilterTimePeriod		
queries		List of DeprecatedValueBasedSearchQuery		
params		DeprecatedValueBasedSearchParameters		

3.157. *WrappedDataPoints*

Field Name	Required	Type	Description	Format
points		List of DataPoint		
error		ErrorResponse		

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