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Namespace Uralstech.UCloud

Classes

[ProtobufObject](#)

An object containing fields of an arbitrary type.

Class ProtobufObject

Namespace: [Uralstech.UCloud](#)

An object containing fields of an arbitrary type.

```
public class ProtobufObject
```

Inheritance

[object](#)  ← ProtobufObject

Fields

Data

The actual details of the [ProtobufObject](#) object.

```
public Dictionary<string, JToken> Data
```

Field Value

[Dictionary](#)  <[string](#) , JToken>

Type

Contains a URI identifying the type.

```
public string Type
```

Field Value

[string](#) 

Namespace Uralstech.UCloud.Operations

Classes

[Operation](#)

This resource represents a long-running operation that is the result of a network API call.

[OperationCancelRequest](#)

Starts asynchronous cancellation on a long-running operation. The server makes a best effort to cancel the operation, but success is not guaranteed.

[OperationDeleteRequest](#)

Deletes a long-running operation. This method indicates that the client is no longer interested in the operation result. It does not cancel the operation.

[OperationFilterConditionOperand](#)

An operand of a filtering condition. Only provide one field in each instance.

[OperationFilterConditions](#)

Conditions to filter operations by.

[OperationGetRequest](#)

Gets the latest state of a long-running operation. Clients can use this method to poll the operation result at intervals as recommended by the API service.

[OperationStatus](#)

The [OperationStatus](#) type defines a logical error model that is suitable for different programming environments, including REST APIs and RPC APIs. It is used by gRPC.

[OperationsListRequest](#)

Requests metadata for an operation. Return type is [OperationsListResponse](#) or [OperationsListResponse<TOperation>](#).

[OperationsListResponse](#)

The response for an [OperationsListRequest](#) call.

[OperationsManager](#)

The class for accessing the google.longrunning API!

Interfaces

[IOperationsDeleteRequest](#)

All google.longrunning API DELETE requests must inherit from this interface.

[IOperationsGetRequest](#)

All google.longrunning API GET requests must inherit from this interface.

[IOperationsPostRequest](#)

All google.longrunning API POST requests which don't have a request and response body must inherit from this interface.

[IOperationsRequest](#)

All google.longrunning API requests must inherit from this interface.

Enums

[FilteringField](#)

The field to compare with a given value to filter the operations.

[OperationFilterOperator](#)

The operators to compare filtering conditions.

[OperationRunningStatus](#)

The running status of an operation to filter by.

Enum FilteringField

Namespace: [Uralstech.UCloud.Operations](#)

The field to compare with a given value to filter the operations.

```
public enum FilteringField
```

Fields

None = 0

Default value.

```
[EnumMember(Value = "serviceName")] ServiceName = 1
```

Filter by the service which an operation belongs to.

```
[EnumMember(Value = "startTime")] StartTime = 2
```

Filter by the operation's start time.

```
[EnumMember(Value = "status")] Status = 3
```

Filter by the operation's status.

Interface IOperationsDeleteRequest

Namespace: [Uralstech.UCloud.Operations](#)

All google.longrunning API DELETE requests must inherit from this interface.

```
public interface IOperationsDeleteRequest : IOperationsRequest
```

Inherited Members

[IOperationsRequest.BaseServiceUri](#) , [IOperationsRequest.GetEndpointUri\(\)](#)

Interface IOperationsGetRequest

Namespace: [Uralstech.UCloud.Operations](#)

All google.longrunning API GET requests must inherit from this interface.

```
public interface IOperationsGetRequest : IOperationsRequest
```

Inherited Members

[IOperationsRequest.BaseServiceUri](#) , [IOperationsRequest.GetEndpointUri\(\)](#)

Interface IOperationsPostRequest

Namespace: [Uralstech.UCloud.Operations](#)

All google.longrunning API POST requests which don't have a request and response body must inherit from this interface.

```
public interface IOperationsPostRequest : IOperationsRequest
```

Inherited Members

[IOperationsRequest.BaseServiceUri](#) , [IOperationsRequest.GetEndpointUri\(\)](#)

Interface IOperationsRequest

Namespace: [Uralstech.UCloud.Operations](#)

All google.longrunning API requests must inherit from this interface.

```
public interface IOperationsRequest
```

Properties

BaseServiceUri

The base endpoint URI for the request.

```
string BaseServiceUri { get; set; }
```

Property Value

[string](#) 

Remarks

This may be a specific service endpoint which contains the operations.

Methods

GetEndpointUri()

Gets the URI to the API endpoint.

```
string GetEndpointUri()
```

Returns

[string](#) 

The URI.

Class Operation

Namespace: [Uralstech.UCloud.Operations](#)

This resource represents a long-running operation that is the result of a network API call.

```
public class Operation : Operation<ProtobufObject, ProtobufObject>
```

Inheritance

[object](#)  ← [Operation](#) <[ProtobufObject](#), [ProtobufObject](#)> ← Operation

Inherited Members

[Operation<ProtobufObject, ProtobufObject>.Name](#) ,

[Operation<ProtobufObject, ProtobufObject>.Metadata](#) ,

[Operation<ProtobufObject, ProtobufObject>.Done](#) , [Operation<ProtobufObject, ProtobufObject>.Error](#) ,

[Operation<ProtobufObject, ProtobufObject>.Response](#)


Class OperationCancelRequest

Namespace: [Uralstech.UCloud.Operations](#)

Starts asynchronous cancellation on a long-running operation. The server makes a best effort to cancel the operation, but success is not guaranteed.

```
public class OperationCancelRequest : IOperationsPostRequest, IOperationsRequest
```

Inheritance

[object](#)  ← OperationCancelRequest

Implements

[IOperationsPostRequest](#), [IOperationsRequest](#)

Remarks

Clients can use [OperationGetRequest](#) or other methods to check whether the cancellation succeeded or whether the operation completed despite cancellation.

On successful cancellation, the operation is not deleted; instead, it becomes an operation with an [Error](#) value with a google.rpc.Status.code of 1, corresponding to Code.CANCELLED.

Constructors

OperationCancelRequest(string)

Creates a new [OperationCancelRequest](#).

```
public OperationCancelRequest(string operationName)
```

Parameters

operationName [string](#) 

The resource name of the operation to cancel.

Fields

OperationName

The resource name of the operation to cancel.

```
public string OperationName
```

Field Value

[string](#) 

Properties

BaseServiceUri

The base endpoint URI for the request.

```
public string BaseServiceUri { get; set; }
```

Property Value

[string](#) 

Remarks

This may be a specific service endpoint which contains the operations.

Methods

GetEndpointUri()

Gets the URI to the API endpoint.

```
public string GetEndpointUri()
```

Returns

[string](#) 

The URI.


Class OperationDeleteRequest

Namespace: [Uralstech.UCloud.Operations](#)

Deletes a long-running operation. This method indicates that the client is no longer interested in the operation result. It does not cancel the operation.

```
public class OperationDeleteRequest : IOperationsDeleteRequest, IOperationsRequest
```

Inheritance

[object](#)  ← OperationDeleteRequest

Implements

[IOperationsDeleteRequest](#), [IOperationsRequest](#)

Constructors

OperationDeleteRequest(string)

Creates a new [OperationDeleteRequest](#).

```
public OperationDeleteRequest(string operationName)
```

Parameters

operationName [string](#) 

The resource name of the operation to delete.

Fields

OperationName

The resource name of the operation to delete.

```
public string OperationName
```


Field Value

[string](#)

Properties

BaseServiceUri

The base endpoint URI for the request.

```
public string BaseServiceUri { get; set; }
```

Property Value

[string](#)

Remarks

This may be a specific service endpoint which contains the operations.

Methods

GetEndpointUri()

Gets the URI to the API endpoint.

```
public string GetEndpointUri()
```

Returns

[string](#)

The URI.

Class OperationFilterConditionOperand

Namespace: [Uralstech.UCloud.Operations](#)

An operand of a filtering condition. Only provide one field in each instance.

```
public class OperationFilterConditionOperand
```

Inheritance

[object](#)  ← OperationFilterConditionOperand

Fields

Field

The field the condition applies to.

```
public FilteringField Field
```

Field Value

[FilteringField](#)

Remarks

The [ServiceName](#) restriction must be at the top-level and can only be combined with other restrictions via the [And](#) logical operator.

ServiceName

The service to filter an operation by.

```
public string ServiceName
```

Field Value

[string](#) 

StartTime

The starting time to filter an operation by.

```
public DateTime? StartTime
```

Field Value

[DateTime](#)?

Status

The running status to filter an operation by.

```
public OperationRunningStatus Status
```

Field Value

[OperationRunningStatus](#)

Methods

ToString()

Returns a string that represents the current object.

```
public override string ToString()
```

Returns

[string](#)

A string that represents the current object.

Class OperationFilterConditions

Namespace: [Uralstech.UCloud.Operations](#)

Conditions to filter operations by.


```
public class OperationFilterConditions
```

Inheritance

[object](#)  ← OperationFilterConditions

Fields

IsEndOfParentheticalCondition


Is this object also the end of a parenthetical condition? If [true](#) , then a) symbol is added to the end of this conditino.

```
public bool IsEndOfParentheticalCondition
```

Field Value

[bool](#) 

IsStartOfParentheticalCondition

Is this object also the start of a parenthetical condition? If [true](#) , then a (symbol is added to the start of this conditino.

```
public bool IsStartOfParentheticalCondition
```

Field Value

[bool](#) 

OperandA

The Left-Hand-Side operand.

```
public OperationFilterConditionOperand OperandA
```

Field Value

[OperationFilterConditionOperand](#)

OperandB

The Right-Hand-Side operand.

```
public OperationFilterConditions OperandB
```

Field Value

[OperationFilterConditions](#)

Operator

The operator.

```
public OperationFilterOperator Operator
```

Field Value

[OperationFilterOperator](#)

Methods

ToString()

Returns a string that represents the current object.

```
public override string ToString()
```

Returns

[string](#) 

A string that represents the current object.

Enum OperationFilterOperator

Namespace: [Uralstech.UCloud.Operations](#)

The operators to compare filtering conditions.

```
public enum OperationFilterOperator
```

Fields

```
[EnumMember(Value = " AND ")] And = 7
```

And. Joins two conditions together.

```
[EnumMember(Value = "=")] EqualTo = 1
```

Equal to.

```
[EnumMember(Value = ">")] GreaterThan = 3
```

Greater than.

```
[EnumMember(Value = ">=")] GreaterThanOrEqualTo = 5
```

Greater than or equal to.

```
[EnumMember(Value = "<")] LessThan = 4
```

Less than.

```
[EnumMember(Value = "<=")] LessThanOrEqualTo = 6
```

Less than or equal to.

```
None = 0
```

Default value.

```
[EnumMember(Value = "!=")] NotEqualTo = 2
```

Not equal to.

```
[EnumMember(Value = " OR ")] Or = 8
```

Or. Joins two conditions together.


Class OperationGetRequest

Namespace: [Uralstech.UCloud.Operations](#)

Gets the latest state of a long-running operation. Clients can use this method to poll the operation result at intervals as recommended by the API service.

```
public class OperationGetRequest : IOperationsGetRequest, IOperationsRequest
```

Inheritance

[object](#)  ← OperationGetRequest

Implements

[IOperationsGetRequest](#), [IOperationsRequest](#)

Remarks

Return type is [Operation](#) or [Operation<TMetadata, TResponse>](#).

Constructors

OperationGetRequest(string)

Creates a new [OperationGetRequest](#).

```
public OperationGetRequest(string operationName)
```

Parameters

operationName [string](#) 

The resource name of the operation to get.

Fields

OperationName

The resource name of the operation to get.

```
public string OperationName
```

Field Value

[string](#) 

Properties

BaseServiceUri

The base endpoint URI for the request.

```
public string BaseServiceUri { get; set; }
```

Property Value

[string](#) 

Remarks

This may be a specific service endpoint which contains the operations.

Methods

GetEndpointUri()

Gets the URI to the API endpoint.

```
public string GetEndpointUri()
```

Returns

[string](#) 

The URI.

Enum OperationRunningStatus

Namespace: [Uralstech.UCloud.Operations](#)

The running status of an operation to filter by.

```
public enum OperationRunningStatus
```

Fields

```
[EnumMember(Value = "failed")] Failed = 3
```

Filter by operations which failed.

```
[EnumMember(Value = "done")] Finished = 1
```

Filter by operations which are finished.

```
None = 0
```

Default value.

```
[EnumMember(Value = "in_progress")] Ongoing = 2
```

Filter by operations which are ongoing.

Class `OperationStatus`

Namespace: [Uralstech.UCloud.Operations](#)

The [OperationStatus](#) type defines a logical error model that is suitable for different programming environments, including REST APIs and RPC APIs. It is used by gRPC.

```
public class OperationStatus
```

Inheritance

[object](#)  ← `OperationStatus`

Remarks

Each [OperationStatus](#) message contains three pieces of data: error code, error message, and error details.

Fields

Code

The status code, which should be an enum value of `google.rpc.Code`.

```
public int Code
```

Field Value

[int](#) 

Details

A list of messages that carry the error details. There is a common set of message types for APIs to use.

```
public ProtobufObject[] Details
```

Field Value

[ProtobufObject\[\]](#)

Message

A developer-facing error message, which should be in English.

```
public string Message
```

Field Value

[string](#) 

Remarks

Any user-facing error message should be localized and sent in the `google.rpc.Status.details` field, or localized by the client.

Class OperationsListRequest

Namespace: [Uralstech.UCloud.Operations](#)

Requests metadata for an operation. Return type is [OperationsListResponse](#) or [OperationsListResponse<TOperation>](#).

```
public class OperationsListRequest : IOperationsGetRequest, IOperationsRequest
```

Inheritance

[object](#)  ← OperationsListRequest

Implements

[IOperationsGetRequest](#), [IOperationsRequest](#)

Constructors

OperationsListRequest(OperationFilterConditions)

Creates a new [OperationsListRequest](#).

```
public OperationsListRequest(OperationFilterConditions filters)
```

Parameters

filters [OperationFilterConditions](#)

The conditions for filtering the operations to list.

Fields

Filters

The conditions for filtering the operations to list.

```
public OperationFilterConditions Filters
```

Field Value

[OperationFilterConditions](#)

MaxResponseOperations

The maximum number of [Operation](#)s to return (per page).

```
public int MaxResponseOperations
```

Field Value

[int](#)

Remarks

This method returns at most 100 operations per page.

PageToken

A page token from a previous [OperationsListRequest](#) call.

```
public string PageToken
```

Field Value

[string](#)

Properties

BaseServiceUri

The base endpoint URI for the request.

```
public string BaseServiceUri { get; set; }
```

Property Value

[string](#) 

Remarks

This may be a specific service endpoint which contains the operations.

Methods

GetEndpointUri()

Gets the URI to the API endpoint.

```
public string GetEndpointUri()
```

Returns

[string](#) 

The URI.

Class OperationsListResponse

Namespace: [Uralstech.UCloud.Operations](#)

The response for an [OperationsListRequest](#) call.

```
public class OperationsListResponse : OperationsListResponse<Operation>
```

Inheritance

[object](#)  ← [OperationsListResponse](#) <[Operation](#)> ← OperationsListResponse

Inherited Members

[OperationsListResponse<Operation>.Operations](#) , [OperationsListResponse<Operation>.NextPageToken](#)


Class OperationsManager

Namespace: [Uralstech.UCloud.Operations](#)

The class for accessing the google.longrunning API!

```
public class OperationsManager : Singleton<OperationsManager>
```

Inheritance

[object](#)  ← OperationsManager

Methods

Request(string, IOperationsDeleteRequest)

Computes a DELETE request on the google.longrunning API.

```
public Task Request(string accessToken, IOperationsDeleteRequest request)
```

Parameters

accessToken [string](#) 

The OAuth Access Token to use for authentication.

request [IOperationsDeleteRequest](#)

The request object.

Returns

[Task](#) 

Exceptions

[OperationOAuthException](#)

Thrown if the request could not be authenticated.

[OperationRequestException](#)

Thrown if the API request fails.

[OperationResponseParsingException](#)

Thrown if the response could not be parsed.

Request(string, IOperationsPostRequest)

Computes an empty POST request on the google.longrunning API.

```
public Task Request(string accessToken, IOperationsPostRequest request)
```

Parameters

accessToken [string](#) 

The OAuth Access Token to use for authentication.

request [IOperationsPostRequest](#)

The request object.

Returns

[Task](#) 

Exceptions

[OperationOAuthException](#)

Thrown if the request could not be authenticated.

[OperationRequestException](#)

Thrown if the API request fails.

[OperationResponseParsingException](#)

Thrown if the response could not be parsed.

Request<TResponse>(string, IOperationsGetRequest)

Computes a GET request on the google.longrunning API.

```
public Task<TResponse> Request<TResponse>(string accessToken, IOperationsGetRequest request)
```

Parameters

accessToken [string](#)

The OAuth Access Token to use for authentication.

request [IOperationsGetRequest](#)

The request object.

Returns

[Task](#) <TResponse>

The computed response.

Type Parameters

TResponse

The response type. For example, a request of type [OperationsListRequest](#) corresponds to a response type of [OperationsListResponse](#) or [OperationsListResponse<TOperation>](#).

Exceptions

[OperationOAuthException](#)

Thrown if the request could not be authenticated.

[OperationRequestException](#)

Thrown if the API request fails.

[OperationResponseParsingException](#)

Thrown if the response could not be parsed.

Namespace Uralstech.UCloud.Operations. Exceptions

Classes

[OperationOAuthException](#)

Thrown when an exception related to OAuth authentication is raised.

[OperationRequestException](#)

Thrown if a google.longrunning API request fails.

[OperationResponseParsingException](#)

Thrown if the response of a google.longrunning API request could not be parsed.

Class OperationOAuthException

Namespace: [Uralstech.UCloud.Operations.Exceptions](#)

Thrown when an exception related to OAuth authentication is raised.

```
public class OperationOAuthException : Exception
```

Inheritance

[object](#)  ← [Exception](#)  ← OperationOAuthException

Fields

Reason

The reason for the exception.

```
public string Reason
```

Field Value

[string](#) 

RequestEndpoint

The endpoint of the request.

```
public Uri RequestEndpoint
```

Field Value

[Uri](#) 

Class OperationRequestException

Namespace: [Uralstech.UCloud.Operations.Exceptions](#)

Thrown if a google.longrunning API request fails.

```
public class OperationRequestException : Exception
```

Inheritance

[object](#)  ← [Exception](#)  ← OperationRequestException

Fields

RequestEndpoint

The endpoint of the failed request.

```
public Uri RequestEndpoint
```

Field Value

[Uri](#) 

RequestError

The name of the request's error.

```
public string RequestError
```

Field Value

[string](#) 

RequestErrorCode

The response code returned by the request.

```
public long RequestErrorCode
```

Field Value

[long](#)

RequestErrorMessage

The request's error message.

```
public string RequestErrorMessage
```

Field Value

[string](#)



Class OperationResponseParsingException

Namespace: [Uralstech.UCloud.Operations.Exceptions](#)

Thrown if the response of a google.longrunning API request could not be parsed.

```
public class OperationResponseParsingException : Exception
```

Inheritance

[object](#)  ← [Exception](#)  ← OperationResponseParsingException

Fields

DownloadedText

The content downloaded from the request.

```
public string DownloadedText
```

Field Value

[string](#) 

RequestEndpoint

The endpoint of the request.

```
public Uri RequestEndpoint
```

Field Value

[Uri](#) 

Namespace Uralstech.UCloud.Operations.

Generic

Classes

[Operation<TMetadata, TResponse>](#)

This resource represents a long-running operation that is the result of a network API call.

[OperationsListResponse<TOperation>](#)

The generic response for an [OperationsListRequest](#) call.

Class Operation<TMetadata, TResponse>

Namespace: [Uralstech.UCloud.Operations.Generic](#)

This resource represents a long-running operation that is the result of a network API call.

```
public class Operation<TMetadata, TResponse>
```

Type Parameters

TMetadata

The type of the operation's metadata.

TResponse

The type of the operation's response.

Inheritance

[object](#)  ← Operation<TMetadata, TResponse>

Derived

[Operation](#)

Fields

Done

If the value is false, it means the operation is still in progress. If true, the operation is completed, and either [Error](#) or [Response](#) is available.

```
public bool Done
```

Field Value

[bool](#) 

Error

The error result of the operation in case of failure or cancellation.

```
public OperationStatus Error
```

Field Value

[OperationStatus](#)

Metadata

Service-specific metadata associated with the operation. It typically contains progress information and common metadata such as create time.

```
public TMetadata Metadata
```

Field Value

TMetadata

Remarks

Service-specific metadata associated with the operation. It typically contains progress information and common metadata such as create time.

Name

The server-assigned name, which is only unique within the same service that originally returns it.

```
public string Name
```

Field Value

[string](#) 

Remarks

If you use the default HTTP mapping, the name should be a resource name ending with `operations/{unique_id}`.

Response

The normal response of the operation in case of success. If the original method returns no data on success, such as `Delete`, the response is `google.protobuf.Empty`.

```
public TResponse Response
```

Field Value

TResponse

Remarks

If the original method is standard `Get/Create/Update`, the response should be the resource. For other methods, the response should have the type `XxxResponse`, where `Xxx` is the original method name. For example, if the original method name is `TakeSnapshot()`, the inferred response type is `TakeSnapshotResponse`.

Class OperationsListResponse<TOperation>

Namespace: [Uralstech.UCloud.Operations.Generic](#)

The generic response for an [OperationsListRequest](#) call.


```
public class OperationsListResponse<TOperation>
```

Type Parameters

TOperation

The type of the operation object.

Inheritance

[object](#)  ← OperationsListResponse<TOperation>

Derived

[OperationsListResponse](#)

Fields

NextPageToken

A token that can be sent as a [PageToken](#) into a subsequent [OperationsListRequest](#) call.

```
public string NextPageToken
```

Field Value

[string](#) 

Operations

A list of operations that matches the specified filter in the request.

```
public TOperation[] Operations
```

Field Value

TOperation[]