

# Table of Contents

Uralstech.UCloud .....	2
ProtobufObject .....	3
Uralstech.UCloud.Operations .....	4
FilteringField .....	6
IOperationsDeleteRequest .....	7
IOperationsGetRequest .....	8
IOperationsPostRequest .....	9
IOperationsRequest .....	10
Operation .....	12
OperationCancelRequest .....	13
OperationDeleteRequest .....	16
OperationFilterConditionOperand .....	18
OperationFilterConditions .....	20
OperationFilterOperator .....	23
OperationGetRequest .....	25
OperationRunningStatus .....	27
OperationStatus .....	28
OperationsListRequest .....	30
OperationsListResponse .....	33
OperationsManager .....	34
Uralstech.UCloud.Operations.Exceptions .....	37
OperationOAuthException .....	38
OperationRequestException .....	39
OperationResponseParsingException .....	41
Uralstech.UCloud.Operations.Generic .....	42
Operation<TMetadata, TResponse> .....	43
OperationsListResponse<TOperation> .....	46

# 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()

Creates a new [OperationsListRequest](#).

```
public OperationsListRequest()
```

### 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 [Operations](#) 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[]