

Namespace JohnsonControls.Metasys.Basic Services

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Provides Activity Item

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Provides ActivityAlarm Item

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Provides ActivityAudit Item

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Filters to get audits

[AuditServiceProvider](#)

Provide audit item for the endpoints of the Metasys Audit API.

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DTO for the AuditSignature model.

[BasicFilter](#)

Basic filter for a general API request.

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Base abstract class to be extended on specific provider implementation.

[BatchRequest](#)

Body class for a Metasys server batch request.

[BatchRequestParam](#)

Body class to pass list of parameters for Metasys server batch request.

[Command](#)

Command is a class that holds information about a Metasys object command.

[CommandCollectionExtension](#)

A helper to work with Command collections.

[CredManException](#)

An exception that is thrown when something went wrong while reading a target from Credential Manger.

[EnumerationServiceProvider](#)

Provide enumeration item for the endpoints of the Metasys Enumerations API.

[EquipmentServiceProvider](#)

Provide equipment item for the endpoints of the Metasys Equipments API.

[LegacyData](#)

LegacyData is a structure that holds information about Legacy Information.

[LegacyInfo](#)

Legacy information for the audit.

[LogFactory](#)

Factory to provide log4net.ILog LogFactoryInstance.

[LogInitializer](#)

Responsible for the Log initialization.

[ManageException](#)

Manage Http exceptions.

[Measurement](#)

A measurement expressed in terms of value and unit.

[MetasysAnnotation](#)

Base class for a Metasys Annotation.

[MetasysAttribute](#)

DTO for the attribute of an Object.

[MetasysClient](#)

An HTTP client for consuming the most commonly used endpoints of the Metasys API.

[MetasysCommandException](#)

An exception that is thrown when a MetasysObject could not be created from a Http response.

[MetasysException](#)

A general exception that is thrown when any type of Metasys Exception occurs.

[MetasysGuidException](#)

An exception that is thrown when a Guid could not be created from a Http response.

[MetasysHttpException](#)

An exception that is thrown when a Flurl.Http exception occurs.

[MetasysHttpNotFoundException](#)

An exception that is thrown when a resource is not found

[MetasysHttpParsingException](#)

An exception that is thrown when a Flurl.Http.FlurlHttpParseException exception occurs.

[MetasysHttpTimeoutException](#)

An exception that is thrown when a Flurl.Http.FlurlHttpTimeoutException exception occurs.

[MetasysObject](#)

MetasysObject is a structure that holds information about a Metasys object.

[MetasysObjectCollectionExtension](#)

A helper to work with Metasys Objects collections.

[MetasysObjectException](#)

An exception that is thrown when a MetasysObject could not be created from a Http response.

[MetasysObjectTypeException](#)

An exception that is thrown when a MetasysObjectType could not be created from a Http response.

[MetasysPoint](#)

Point is a structure that holds information about an object attribute mapped to a point.

[MetasysPointCollectionExtension](#)

A helper to work with MetasysPoint collections.

[MetasysPropertyException](#)

An exception that is thrown when a Variant could not be created from a Http response.

[MetasysTokenException](#)

An exception that is thrown when an AccessToken could not be created from a Http response.

[MetasysUnsupportedApiVersion](#)

An exception that is thrown when the given API version is invalid or not supported

[NetworkDevice](#)

NetworkDevice is a structure that hold information about a Metasys Network Device

[NetworkDeviceServiceProvider](#)

Provide network device item for the endpoints of the Metasys Network Devices API.

[ObjectRequest](#)

Request related to an object

[PagedResult<T>](#)

Generic Paged Result Object containing Items along with paging information.

[Result](#)

This holds the inofrmation returned as result of a call

[Sample](#)

DTO for Sample

[SpaceServiceProvider](#)

Provide space item for the endpoints of the Metasys Spaces API.

[StreamEventArgs](#)

Defines Stream event arguments.

[StreamMessage](#)

Provides Stream message data

[StreamServiceProvider](#)

Provide methods for the endpoints of the Metasys Stream API v4.

[Subscription](#)

Provides Subscription Item

[TimeFilter](#)

Temporal filter for a timeline based request.

[TreeObject](#)

Generic class for handling JSON objects with a hierarchical pattern. Children is null when the object has no children.

[TrendServiceProvider](#)

Provider Class for Trend Service

[TriggerValue](#)

A Trigger Object (specifically for Alarms).

[TriggerValue.Schema](#)

[TriggerValue.SchemaUnits](#)

[UntrustedCertClientFactory](#)

Provide Untrusted Certificate Client Factory.

[Variant](#)

Variant is a structure that holds information about an attribute/property value from a single Metasys object.

[VariantMultiple](#)

A structure for grouping Variant values with the same id.

[VariantMultipleCollectionExtension](#)

A helper to work with VariantMultiple collections.

Structs

[Command.EnumerationItem](#)

The value and translated title of an enumeration item.

[Command.Item](#)

A value that can be changed by a command.

[MetasysEnumValue](#)

MetasysEnumValue is a structure that hold information about a Metasys Enumeration values

[MetasysEnumeration](#)

MetasysEnumeration is a structure that hold information about a Metasys Enumeration definition

[MetasysObjectType](#)

MetasysObjectType is a structure that hold information about a Metasys

[Objectld](#)

A Metasys Object Identifier

Interfaces

[IActivityService](#)

Defines method to provide activity infos for endpoints of the Metasys Activity API.

[IAlarmsService](#)

Defines method to provide alarm infos for endpoints of the Metasys Alarm API.

[IAuditService](#)

Defines method to provide audit infos for endpoints of the Metasys Audit API.

[IBasicService](#)

Base Interface for implementing a new service for Metasys Client.

[IEnumerationService](#)

Defines method to provide enumeration infos for endpoints of the Metasys Enumerations API.

[IEquipmentService](#)

Defines method to provide equipment infos for endpoints of the Metasys Equipments API.

[IMetasysClient](#)

An HTTP client for consuming the most commonly used endpoints of the Metasys API.

[INetworkDeviceService](#)

Defines method to provide network device infos for endpoints of the Metasys Network Devices API.

[ISpaceService](#)

Defines method to provide space infos for endpoints of the Metasys Spaces API.

[IStreamService](#)

Defines methods to provide Streams infos for endpoints of the Metasys Stream API.

[ITrendService](#)

Enums

[ActionTypeEnum](#)

Enumeration of possible Action Type for an Audit.

[ActivityManagementStatusEnum](#)

Enumeration of possible values for editing an Alarm.

[ApiVersion](#)

The supported Metasys server Api versions.

[AttributeEnumSet](#)

Enumeration of possible Attributes (typically for Trended Samples).

[ClassLevelsEnum](#)

Enumeration of possible Class Levels for an Audit.

[MetasysObjectTypeEnum](#)

Collection of Metasys Object Types.

[NetworkDeviceTypeEnum](#)

Enumeration of possible Network Device Type.

[OriginApplicationsEnum](#)

Enumeration of possible OriginApplications for an Audit.

[SpaceSortEnum](#)

Enumeration of possible sort types for a Space.

[SpaceTypeEnum](#)

Enumeration of possible types for a Space.

Class AccessToken

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

The session access token and expiration in UTC time along with related host information.

```
public class AccessToken
```

Inheritance

[object](#) ← AccessToken

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#)

Constructors

AccessToken(string, string, string, DateTime)

Initialize an AccessToken Object with all required information.

```
public AccessToken(string issuer, string issuedTo, string token, DateTime expires)
```

Parameters

issuer [string](#)

issuedTo [string](#)

token [string](#)

expires [DateTime](#)

Properties

Expires

Expiration date in UTC time.

```
public DateTime Expires { get; }
```

Property Value

[DateTime](#)

IssuedTo

The Metasys Username that requested the Access Token.

```
public string IssuedTo { get; }
```

Property Value

[string](#)

Issuer

The Metasys Authorization provider hostname that issued the Access Token.

```
public string Issuer { get; }
```

Property Value

[string](#)

Token

The session access token for bearer authentication.

```
public string Token { get; }
```

Property Value

[string](#)

String in the format "Bearer ..."

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

[obj](#) [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

ToString()

Return a pretty JSON string of the current object.

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

Returns

string ↗

Enum ActionTypeEnum

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Enumeration of possible Action Type for an Audit.

```
[Flags]  
public enum ActionTypeEnum
```

Fields

Command = 2

Action: Command

Create = 4

Action: Create

Delete = 8

Action: Delete

Error = 16

Action: Error

Subsystem = 32

Action: Subsystem

Write = 1

Action: Write

Remarks

The actual values sent to the server are specified in the description.

Class Activity

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Provides Activity Item

```
public class Activity
```

Inheritance

[object](#) ← Activity

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#)

Remarks

This is available since Metasys API v5.

Properties

ActivityManagementStatus

Activity Management Status

```
[JsonProperty(Required = Required.Always)]  
public string ActivityManagementStatus { get; set; }
```

Property Value

[string](#)

Alarm

Alarm object (in case the activityType = alarm)

```
public ActivityAlarm Alarm { get; set; }
```

Property Value

[ActivityAlarm](#)

Audit

Audit object (in case the activityType = audit)

```
public ActivityAudit Audit { get; set; }
```

Property Value

[ActivityAudit](#)

CreationTime

Activity creation time

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

Property Value

[string](#)

DiscardedTime

Discarded Time

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

Property Value

[string](#)

Equipment

Equipment

```
public string[] Equipment { get; set; }
```

Property Value

[string](#)[]

Id

Activity Unique Identifier (GUID)

```
[JsonProperty(Required = Required.Always)]  
public Guid Id { get; set; }
```

Property Value

[Guid](#)

ItemReference

Item fully qualified reference

```
[JsonProperty(Required = Required.Always)]  
public string ItemReference { get; set; }
```

Property Value

[string](#)[]

ObjectId

Object Unique Identifier (GUID)

```
public Guid ObjectId { get; set; }
```

Property Value

[Guid](#)

ObjectName

Object Name

```
[JsonProperty(Required = Required.Always)]  
public string ObjectName { get; set; }
```

Property Value

[string](#)

Spaces

Spaces

```
public string[] Spaces { get; set; }
```

Property Value

[string](#)[]

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

obj [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

ToString()

Return a pretty JSON string of the current object.

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

Returns

[string](#)

Class ActivityAlarm

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Provides ActivityAlarm Item

```
public class ActivityAlarm
```

Inheritance

[object](#) ← ActivityAlarm

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#)

Remarks

This is available since Metasys API v5.

Properties

AnnotationCount

Alarm Annotation Count

```
public int AnnotationCount { get; set; }
```

Property Value

[int](#)

AnnotationsUrl

Link to annotations

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

Property Value

[string](#) ↗

Category

Fully qualified enumeration for Alarm Category.

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

Property Value

[string](#) ↗

Description

Alarm description

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

Property Value

[string](#) ↗

IsAckRequired

Is acknowledge required for alarm

```
public bool IsAckRequired { get; set; }
```

Property Value

[bool](#) ↗

Message

Alarm message

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

Property Value

[string](#) ↗

Priority

Alarm priority

```
public int Priority { get; set; }
```

Property Value

[int](#) ↗

Self

URI that points back to this resource

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

Property Value

[string](#) ↗

TriggerValue

Alarm trigger value details

```
public TriggerValue TriggerValue { get; set; }
```

Property Value

[TriggerValue](#)

Type

Fully qualified enumeration for Alarm Type.

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

Property Value

[string](#)

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

obj [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

ToString()

Return a pretty JSON string of the current object.

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

Returns

[string](#)

Class ActivityAudit

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Provides ActivityAudit Item

```
public class ActivityAudit
```

Inheritance

[object](#) ← ActivityAudit

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#)

Remarks

This is available since Metasys API v5.

Properties

ActionType

Fully qualified enumeration for Action Type.

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

Property Value

[string](#)

AnnotationCount

Audit Annotation Count

```
public int AnnotationCount { get; set; }
```

Property Value

[int](#) ↗

AnnotationsUrl

Link to annotations.

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

Property Value

[string](#) ↗

ClassLevel

Fully qualified enumeration for Class Level.

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

Property Value

[string](#) ↗

Description

Fully qualified enumeration for Audit Description.

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

Property Value

[string](#) ↗

ErrorString

The error that may have occurred during an audit.

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

Property Value

[string](#)

OriginApplication

Fully qualified enumeration for Origin Application.

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

Property Value

[string](#)

Parameters

Parameters for the Audit.

```
public dynamic Parameters { get; set; }
```

Property Value

dynamic

PostData

Data value after the Audit.

```
public dynamic PostData { get; set; }
```

Property Value

dynamic

PreData

Data value prior to the Audit.

```
public dynamic PreData { get; set; }
```

Property Value

dynamic

Signature

The user who created this audit.

```
public dynamic Signature { get; set; }
```

Property Value

dynamic

Status

Fully qualified enumeration for Status.

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

Property Value

[string](#)

User

The userName of the user that initiated the audit.

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

Property Value

[string](#)

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

[obj](#) [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

ToString()

Return a pretty JSON string of the current object.

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

Returns

[string](#) ↗

Class ActivityFilter

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Filters to get activity items.

```
public class ActivityFilter
```

Inheritance

[object](#) ← ActivityFilter

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Properties

ActionType

The action type property indicates the user or system action performed.

```
public string[] ActionType { get; set; }
```

Property Value

[string](#)[]

Remarks

Possible values from 'auditActionTypeEnumSet' Metasys enum set. Example:
'auditActionTypeEnumSet.writeAuditActionType'.

ActivityType

Limit the activities returned to a specific type.

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

Property Value

[string](#)

Remarks

Possible values: 'alarm', 'audit'.

Category

The authorization category of the requested activities.

```
public string[] Category { get; set; }
```

Property Value

[string](#)[]

Remarks

Possible values from 'objectCategoryEnumSet' Metasys enum set. Example: 'objectCategoryEnumSet.hvacCategory'.

ClassLevel

The class level of an audit indicates the class or family the audit belongs to.

```
public string[] ClassLevel { get; set; }
```

Property Value

[string](#)[]

Remarks

Possible values from 'auditClassesEnumSet' Metasys enum set. Example: 'auditClassesEnumSet.userActionAuditClass'.

EndTime

Latest end time.

```
public DateTime? EndTime { get; set; }
```

Property Value

[DateTime](#)?

Equipment

Filter by list of equipment identifiers.

```
public string[] Equipment { get; set; }
```

Property Value

[string](#)[]

IncludeAcknowledged

Determines whether acknowledged alarms will be included in the results. Default: (missing).

```
public bool? IncludeAcknowledged { get; set; }
```

Property Value

[bool](#)?

IncludeAcknowledgementNotRequired

Determines whether activities which can not be acknowledged are included in the results. Default: true.

```
public bool? IncludeAcknowledgementNotRequired { get; set; }
```

Property Value

[bool](#)?

Remarks

This property can to be used only in case ActivityType = 'alarm'.

IncludeAcknowledgementRequired

Determines whether activities which can be acknowledged are included in the results. Default: true.

```
public bool? IncludeAcknowledgementRequired { get; set; }
```

Property Value

[bool](#)?

Remarks

This property can to be used only in case ActivityType = 'alarm'.

IncludeDiscarded

The flag to include discarded activity.

```
public bool? IncludeDiscarded { get; set; }
```

Property Value

[bool](#)?

Object

Filter by list of object identifiers.

```
public string[] Object { get; set; }
```

Property Value

[string](#)[]

OriginApplication

The origin application property indicates which application in Metasys generated the audit message.

```
public string[] OriginApplication { get; set; }
```

Property Value

[string](#)[]

Remarks

Possible values from 'auditOriginAppEnumSet' Metasys enum set. Example:
'auditOriginAppEnumSet.deviceManagerAuditOriginApp'.

PriorityRange

The inclusive priority range, from 0 to 255, of the alarm.

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

Property Value

[string](#)

Sort

The criteria to use when sorting results.

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

Property Value

[string](#) ↗

Remarks

Possible values: 'creationTime', '-creationTime', 'priority', '-priority'. Default: 'creationTime'

Space

Filter by list of space identifiers.

```
public string[] Space { get; set; }
```

Property Value

[string](#) ↗ []

StartTime

Earliest start time.

```
public DateTime? StartTime { get; set; }
```

Property Value

[DateTime](#) ↗ ?

Type

Limits the alarms returned to specified types.

```
public string[] Type { get; set; }
```

Property Value

[string](#)[]

Remarks

Possible values from 'alarmValueEnumSet' Metasys enum set. Example: 'alarmValueEnumSet.avHighLimit'.

User

The user property indicates which user initiated the action being audited.

```
public string[] User { get; set; }
```

Property Value

[string](#)[]

Remarks

Example of values: 'metasysuser'.

Enum ActivityManagementStatusEnum

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Enumeration of possible values for editing an Alarm.

```
public enum ActivityManagementStatusEnum
```

Fields

acknowledged = 0

Acknowledged Alarm

discarded = 1

Discared Alarm

Class Alarm

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Provides alarm Item

```
public class Alarm
```

Inheritance

[object](#) ← Alarm

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#)

Properties

ActivityManagementStatus

Activity Management Status

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

Property Value

[string](#)

Remarks

This is available since Metasys API v4.

AnnotationsUrl

Link to annotations

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

PropertyValue

[string](#) ↗

Category

Fully qualified enumeration for Alarm Category.

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

PropertyValue

[string](#) ↗

Remarks

This is available since Metasys API v3.

CategoryUrl

Alarm Category route

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

PropertyValue

[string](#) ↗

Remarks

This is available only with Metasys API v2 and v1.

CreationTime

Alarm creation time

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

Property Value

[string](#) ↗

Description

Alarm description

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

Property Value

[string](#) ↗

Remarks

This is available since Metasys API v4.

DiscardedTime

Discarded Time

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

Property Value

[string](#) ↗

Remarks

This is available since Metasys API v4.

Id

Alarm Unique Identifier (GUID)

```
[JsonProperty(Required = Required.Always)]
```

```
public Guid Id { get; set; }
```

Property Value

[Guid](#)

IsAckRequired

Is acknowledge required for alarm

```
public bool IsAckRequired { get; set; }
```

Property Value

[bool](#)

IsAcknowledged

Is alarm already acknowledged

```
public bool IsAcknowledged { get; set; }
```

Property Value

[bool](#)

Remarks

This is not anymore available since Metasys API v4.

IsDiscarded

Is alarm already discarded

```
public bool IsDiscarded { get; set; }
```

Property Value

[bool](#) ↗

Remarks

This is not anymore available since Metasys API v4.

ItemReference

Item fully qualified reference

```
[JsonProperty(Required = Required.Always)]
public string ItemReference { get; set; }
```

Property Value

[string](#) ↗

Message

Alarm message

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

Property Value

[string](#) ↗

Name

Item name

```
[JsonProperty(Required = Required.Always)]
public string Name { get; set; }
```

Property Value

[string](#)

ObjectUrl

Link to Point

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

Property Value

[string](#)

Priority

Alarm priority

```
public int Priority { get; set; }
```

Property Value

[int](#)

Self

URI that points back to this resource

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

Property Value

[string](#)

TriggerValue

Alarm trigger value details

```
public TriggerValue TriggerValue { get; set; }
```

Property Value

[TriggerValue](#)

Type

Fully qualified enumeration for Alarm Type.

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

Property Value

[string](#)

Remarks

This is available since Metasys API v3.

TypeUrl

Alarm type route

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

Property Value

[string](#)

Remarks

This is available only with Metasys API v2 and v1.

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

obj [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

ToString()

Return a pretty JSON string of the current object.

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

Returns

[string](#)

Class AlarmAnnotation

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Annotaion for an alarm.

```
public class AlarmAnnotation : MetasysAnnotation
```

Inheritance

[object](#) ← [MetasysAnnotation](#) ← AlarmAnnotation

Inherited Members

[MetasysAnnotation.Text](#) , [MetasysAnnotation.User](#) , [MetasysAnnotation.CreationTime](#) ,
[MetasysAnnotation.Action](#) , [object.Equals\(object, object\)](#) , [object.GetType\(\)](#) ,
[object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Properties

AlarmUrl

URL of the audit related to the annotation.

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

Property Value

[string](#)

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

obj [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

ToString()

Return a pretty JSON string of the current object.

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

Returns

[string](#)

Class AlarmFilter

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Filters to get alarms when using API v2 or v3.

```
public class AlarmFilter : TimeFilter
```

Inheritance

[object](#) ↳ [BasicFilter](#) ↳ [TimeFilter](#) ↳ [AlarmFilter](#)

Inherited Members

[TimeFilter.StartTime](#) , [TimeFilter.EndTime](#) , [BasicFilter.Page](#) , [BasicFilter.PageSize](#) , [BasicFilter.Sort](#) ,
[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Properties

Attribute

The attribute of the requested alarms. This is considered when using API v2 and v3

```
public int? Attribute { get; set; }
```

Property Value

[int](#)?

Category

The system category of the requested alarms.

```
public int? Category { get; set; }
```

Property Value

[int](#)?

ExcludeAcknowledged

The flag to exclude acknowledged alarms. Default: false. This is considered when using API v2 and v3

```
public bool? ExcludeAcknowledged { get; set; }
```

Property Value

[bool](#)?

ExcludeDiscarded

The flag to exclude discarded alarms. Default: false. This is considered when using API v2 and v3

```
public bool? ExcludeDiscarded { get; set; }
```

Property Value

[bool](#)?

ExcludePending

The flag to exclude pending alarms. Default: false. This is considered when using API v2 and v3

```
public bool? ExcludePending { get; set; }
```

Property Value

[bool](#)?

PriorityRange

The inclusive priority range, from 0 to 255, of the alarm.

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

Property Value

[string](#) ↗

Type

The type of the requested alarms.

```
public int? Type { get; set; }
```

Property Value

[int](#) ↗?

Class AlarmFilterV4Plus

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Filters to get activity items from API v4 on.

```
public class AlarmFilterV4Plus : TimeFilter
```

Inheritance

[object](#) ↳ [BasicFilter](#) ↳ [TimeFilter](#) ↳ [AlarmFilterV4Plus](#)

Inherited Members

[TimeFilter.StartTime](#) , [TimeFilter.EndTime](#) , [BasicFilter.Page](#) , [BasicFilter.PageSize](#) , [BasicFilter.Sort](#) ,
[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Properties

Category

The authorization category of the requested alarms.

```
public string[] Category { get; set; }
```

Property Value

[string](#) []

Remarks

Possible values from 'objectCategoryEnumSet' Metasys enum set. Example:
'objectCategoryEnumSet.hvacCategory'.

Equipment

Filter by list of equipment identifiers.

```
public string[] Equipment { get; set; }
```

Property Value

[string](#)[]

IncludeAcknowledged

Determines whether acknowledged alarms will be included in the results. Default: (missing).

```
public bool? IncludeAcknowledged { get; set; }
```

Property Value

[bool](#)?

IncludeAcknowledgementNotRequired

Determines whether activities which can not be acknowledged are included in the results. Default: true.

```
public bool? IncludeAcknowledgementNotRequired { get; set; }
```

Property Value

[bool](#)?

IncludeAcknowledgementRequired

Determines whether activities which can be acknowledged are included in the results. Default: true.

```
public bool? IncludeAcknowledgementRequired { get; set; }
```

Property Value

[bool](#)?

IncludeDiscarded

The flag to include discarded alarms. Default: (missing).

```
public bool? IncludeDiscarded { get; set; }
```

Property Value

[bool](#)?

Object

Filter by list of object identifiers.

```
public string[] Object { get; set; }
```

Property Value

[string](#)[]

PriorityRange

The inclusive priority range, from 0 to 255, of the alarm.

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

Property Value

[string](#)

Space

Filter by list of space identifiers.

```
public string[] Space { get; set; }
```

Property Value

[string](#)[]

Type

Limits the alarms returned to specified types.

```
public string[] Type { get; set; }
```

Property Value

[string](#)[]

Remarks

Possible values from 'alarmValueEnumSet' Metasys enum set. Example:
'alarmValueEnumSet.avHighLimit'.

Class AlarmServiceProvider

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Provide alarm item for the endpoints of the Metasys Alarm API.

```
public sealed class AlarmServiceProvider : BasicServiceProvider,  
IAlertsService, IBasicService
```

Inheritance

[object](#) ← [ObjectUtil](#) ← [BasicServiceProvider](#) ← [AlarmServiceProvider](#)

Implements

[IAlertsService](#), [IBasicService](#)

Inherited Members

[BasicServiceProvider.Version](#), [BasicServiceProvider.MinVersionSupported](#),
[BasicServiceProvider.MaxVersionSupported](#), [BasicServiceProvider.Culture](#),
[BasicServiceProvider.LogClientErrors](#), [BasicServiceProvider.GetResourceTypesAsync\(string, string\)](#),
[BasicServiceProvider.GetObjectTypeEnumeration\(string\)](#),
[BasicServiceProvider.Localize\(string, CultureInfo\)](#), [BasicServiceProvider.ToDictionary\(object\)](#),
[ObjectUtil.GetJTokenValue\(JToken, string\)](#), [ObjectUtil.GetJTokenDate\(JToken, string\)](#),
[object.Equals\(object\)](#), [object.Equals\(object, object\)](#), [object.GetHashCode\(\)](#),
[object.GetType\(\)](#), [object.ReferenceEquals\(object, object\)](#), [object.ToString\(\)](#)

Constructors

AlarmServiceProvider(IFlurlClient, ApiVersion, bool)

Initializes a new instance of [AlarmServiceProvider](#) with supplied data.

```
public AlarmServiceProvider(IFlurlClient client, ApiVersion version, bool  
logClientErrors = true)
```

Parameters

client IFlurlClient

The FlurlClient to get response from URL.

[version](#) [ApiVersion](#)

The server's Api version.

[logClientErrors](#) [bool](#)

Set this flag to false to disable logging of client errors.

Methods

Acknowledge(Guid, string)

Set an Alarm as 'acknowledged'

```
public void Acknowledge(Guid alarmId, string annotationText = null)
```

Parameters

[alarmId](#) [Guid](#)

The identifier of the alarm.

[annotationText](#) [string](#)

Annotation Text (optional).

AcknowledgeAsync(Guid, string)

Set an Alarm as 'acknowledged'

```
public Task AcknowledgeAsync(Guid alarmId, string annotationText = null)
```

Parameters

[alarmId](#) [Guid](#)

The identifier of the alarm.

`annotationText` [string](#)

Annotation Text (optional).

Returns

[Task](#)

Discard(Guid, string)

Set an Alarm as 'discarded'

```
public void Discard(Guid alarmId, string annotationText = null)
```

Parameters

`alarmId` [Guid](#)

The identifier of the alarm.

`annotationText` [string](#)

Annotation Text (optional).

DiscardAsync(Guid, string)

Set an Alarm as 'discarded'

```
public Task DiscardAsync(Guid alarmId, string annotationText = null)
```

Parameters

`alarmId` [Guid](#)

The identifier of the alarm.

`annotationText` [string](#)

Annotation Text (optional).

Returns

[Task](#)

FindById(Guid)

Retrieves the specified alarm.

```
public Alarm FindById(Guid alarmId)
```

Parameters

alarmId [Guid](#)

The identifier of the alarm.

Returns

[Alarm](#)

The specified alarm details.

FindByIdAsync(Guid)

Retrieves the specified alarm.

```
public Task<Alarm> FindByIdAsync(Guid alarmId)
```

Parameters

alarmId [Guid](#)

The identifier of the alarm.

Returns

[Task](#)<[Alarm](#)>

The specified alarm details.

Get(AlarmFilter)

Retrieves a collection of alarms using API v2 or v3.

```
public PagedResult<Alarm> Get(AlarmFilter alarmFilter)
```

Parameters

`alarmFilter` [AlarmFilter](#)

The alarm model to filter alarms.

Returns

[PagedResult<Alarm>](#)

The list of alarms with details.

Get(AlarmFilterV4Plus)

Retrieves a collection of alarms from API v4 on.

```
public PagedResult<Alarm> Get(AlarmFilterV4Plus alarmFilter)
```

Parameters

`alarmFilter` [AlarmFilterV4Plus](#)

The alarm model to filter alarms.

Returns

[PagedResult<Alarm>](#)

The list of alarms with details.

GetAnnotations(Guid)

Retrieve a collection of Alarm Annotations.

```
public IEnumerable<AlarmAnnotation> GetAnnotations(Guid alarmId)
```

Parameters

alarmId [Guid](#)

Returns

[IEnumerable](#)<AlarmAnnotation>

GetAnnotationsAsync(Guid)

Retrieve a collection of Alarm Annotations.

```
public Task<IEnumerable<AlarmAnnotation>> GetAnnotationsAsync(Guid alarmId)
```

Parameters

alarmId [Guid](#)

Returns

[Task](#)<[IEnumerable](#)<AlarmAnnotation>>

GetAsync(AlarmFilter)

Retrieves a collection of alarms using API v2 or v3.

```
public Task<PagedResult<Alarm>> GetAsync(AlarmFilter alarmFilter)
```

Parameters

alarmFilter [AlarmFilter](#)

The alarm model to filter alarms.

Returns

[Task](#)<[PagedResult](#)<[Alarm](#)>>

The list of alarms with details.

GetAsync(AlarmFilterV4Plus)

Retrieves a collection of alarms from API v4 on.

```
public Task<PagedResult<Alarm>> GetAsync(AlarmFilterV4Plus alarmFilter)
```

Parameters

alarmFilter [AlarmFilterV4Plus](#)

The alarm model to filter alarms.

Returns

[Task](#)<[PagedResult](#)<[Alarm](#)>>

The list of alarms with details.

GetForNetworkDevice(ObjectId, AlarmFilter)

Retrieves a collection of alarms for the specified object.

```
public PagedResult<Alarm> GetForNetworkDevice(ObjectId networkDeviceId,  
AlarmFilter alarmFilter)
```

Parameters

networkDeviceId [ObjectId](#)

The identifier of the network device.

alarmFilter [AlarmFilter](#)

The filter to be applied to alarms list.

Returns

[PagedResult<Alarm>](#)

The list of alarms with details.

GetForNetworkDeviceAsync(ObjectId, AlarmFilter)

Retrieves a collection of alarms for the specified object.

```
public Task<PagedResult<Alarm>> GetForNetworkDeviceAsync(ObjectId networkDeviceId,  
AlarmFilter alarmFilter)
```

Parameters

[networkDeviceId ObjectId](#)

The identifier of the network device.

[alarmFilter AlarmFilter](#)

The filter to be applied to alarms list.

Returns

[Task<PagedResult<Alarm>>](#)

The list of alarms with details.

GetForObject(ObjectId, AlarmFilter)

Retrieves a collection of alarms for the specified object.

```
public PagedResult<Alarm> GetForObject(ObjectId objectId, AlarmFilter alarmFilter)
```

Parameters

[objectId ObjectId](#)

The identifier of the object.

[alarmFilter AlarmFilter](#)

The filter to be applied to alarms list.

Returns

[PagedResult<Alarm>](#)

The list of alarms with details.

GetForObjectAsync(ObjectId, AlarmFilter)

Retrieves a collection of alarms for the specified object.

```
public Task<PagedResult<Alarm>> GetForObjectAsync(ObjectId objectId,  
AlarmFilter alarmFilter)
```

Parameters

objectId [ObjectId](#)

The identifier of the object.

alarmFilter [AlarmFilter](#)

The filter to be applied to alarms list.

Returns

[Task<PagedResult<Alarm>>](#)

The list of alarms with details.

Enum ApiVersion

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

The supported Metasys server Api versions.

```
public enum ApiVersion
```

Fields

v2 = 0

Metasys 10.1

v3 = 1

Metasys 11.0

v4 = 2

Metasys 12.0

v5 = 3

Metasys 13.0

Remarks

Metasys 10.0 is not supported by this software development kit. To utilize this sdk please upgrade your Metasys server to the latest release.

Enum AttributeEnumSet

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Enumeration of possible Attributes (typically for Trended Samples).

```
public enum AttributeEnumSet
```

Fields

ackRequired = 1

Ack Required

ackedTransitions = 0

Acked Transitions

alarmState = 1006

Alarm State

alarmValue = 6

Alarm Value

bacnetDeadband = 25

BACnet Deadband

bacnetExposed = 3807

BACnet Exposed

bacnetObjectType = 79

Object Type

connectedStatus = 1243

Connected Status

connectedToInternalApplication = 6081

Connected to Internal Application

cosCount = 15

COS Count

covIncrement = 22

COV Increment

cpuUsage = 2583

CPU Usage

currentCommandPriority = 431

Current Command Priority

defaultValue = 3113

Default Value

direction = 746

Direction

displayPrecision = 661

Display Precision

dobjectCategory = 908

Authorization Category

elapsedActiveTime = 33

Elapsed Active Time

enabled = 673

Enabled

estimatedFlashAvailable = 2395

Estimated Flash Available

eventDetectionEnable = 353

Event Detection Enable

eventState = 36

Event State

executionPriority = 2197

Execution Priority

failsoft = 2567

Failsoft

failsoftCurrentlyActive = 6088

Failsoft Currently Active

highLimit = 45

High Limit

intrinsicAlarmDisabled = 4305

Intrinsic Alarming Disabled

lastIdleSample = 30082

Last Idle Sample

lowLimit = 59

Low Limit

maxPresValue = 65

Max Value

memoryUsage = 2581

Memory Usage

minOffTime = 66

Min Off Time

minOnTime = 67

Min On Time

minPresValue = 69

Min Value

notificationClass = 17

Notification Class

notifyType = 72

Notify Type

numberOfStates = 74

Number Of States

outOfService = 81

Out Of Service

presentValue = 85

Present Value

presentValueWritable = 6080

Present Value Writable

priorityForWritingToConnected = 6093

Priority For Writing to Connected Object

prioritySupported = 6083

Priority Supported

referencedReliability = 6085

Referenced Reliability

referencedValue = 6084

Referenced Value

referencedValueCosCount = 6086

Referenced Value COS Count

reliability = 103

Reliability

relinquishDefault = 104

Relinquish Default

stateText = 110

State Text

status = 512

Status

timeDelay = 113

Time Delay

units = 117

Units

useCovMinSendTime = 3930

Use COV Min Send Time

Class Audit

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Provides audit Item

```
public class Audit
```

Inheritance

[object](#) ← Audit

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#)

Properties

ActionType

Fully qualified enumeration for Action Type.

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

Property Value

[string](#)

Remarks

This is available since Metasys API v3.

ActionTypeUrl

The action performed that initiated the audit. <https://{{hostname}}/api/v2/enumSets/577/members> for possible values.

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

Property Value

[string](#)

Remarks

This is available only on Metasys API v2 and v1.

AnnotationsUrl

Link to annotations.

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

Property Value

[string](#)

CreationTime

The dateTime representing the creation time when this audit message was created.

```
[JsonProperty(Required = Required.Always)]  
public string CreationTime { get; set; }
```

Property Value

[string](#)

Description

To get description value for v4

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

Property Value

[string](#)

Discarded

Indicates if the audit has been discarded.

```
public bool Discarded { get; set; }
```

Property Value

[bool](#)

ErrorString

The error that may have occurred during an audit.

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

Property Value

[string](#)

Id

The identifier of the audit(GUID).

```
[JsonProperty(Required = Required.Always)]  
public Guid Id { get; set; }
```

Property Value

[Guid](#)

Legacy

Metasys specific data.

```
public dynamic Legacy { get; set; }
```

Property Value

dynamic

ObjectUrl

A link to the object on which the activity was generated.

```
[JsonProperty(Required = Required.Default)]  
public string ObjectUrl { get; set; }
```

Property Value

[string](#)

Parameters

Parameters for the Audit.

```
public dynamic Parameters { get; set; }
```

Property Value

dynamic

PostData

Data value after the Audit.

```
public dynamic PostData { get; set; }
```

Property Value

dynamic

PreData

Data value prior to the Audit.

```
public dynamic PreData { get; set; }
```

Property Value

dynamic

Self

URI that points back to this resource

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

Property Value

[string](#)

Signature

The user who created this audit.

```
public dynamic Signature { get; set; }
```

Property Value

dynamic

Status

Fully qualified enumeration for Status.

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

Property Value

[string](#)

Remarks

This is available since Metasys API v3.

StatusUrl

Enumeration representing status. <https://{{hostname}}/api/v2/enumSets/516/members> for possible values

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

Property Value

[string](#)

User

The userName of the user that initiated the audit.

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

Property Value

[string](#)

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

obj [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

ToString()

Return a pretty JSON string of the current object.

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

Returns

[string](#)

Class AuditAnnotation

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Annotation for an audit.

```
public class AuditAnnotation : MetasysAnnotation
```

Inheritance

[object](#) ← [MetasysAnnotation](#) ← AuditAnnotation

Inherited Members

[MetasysAnnotation.Text](#) , [MetasysAnnotation.User](#) , [MetasysAnnotation.CreationTime](#) ,
[MetasysAnnotation.Action](#) , [object.Equals\(object, object\)](#) , [object.GetType\(\)](#) ,
[object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Properties

AuditUrl

URL of the audit related to the annotation.

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

Property Value

[string](#)

Signature

Signature of the annotation.

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

Property Value

[string](#)

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

obj [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

ToString()

Return a pretty JSON string of the current object.

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

Returns

[string](#)

Class AuditData

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

AuditData is a structure that holds information about Audit Information.

```
public class AuditData
```

Inheritance

[object](#) ← AuditData

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Properties

Precision

Route to the endpoint for the current precision enumset.

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

Property Value

[string](#)

Remarks

This is available since Metasys API v3.

Type

Audit type route

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

Property Value

[string](#) ↗

Remarks

This is available since Metasys API v3.

Unit

Route to the endpoint for the current unit enumset.

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

Property Value

[string](#) ↗

Remarks

This is available since Metasys API v3.

Value

Value

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

Property Value

[string](#) ↗

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

obj [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

Class AuditFilter

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Filters to get audits

```
public class AuditFilter : TimeFilter
```

Inheritance

[object](#) ← [BasicFilter](#) ← [TimeFilter](#) ← AuditFilter

Inherited Members

[TimeFilter.StartTime](#), [TimeFilter.EndTime](#), [BasicFilter.Page](#), [BasicFilter.PageSize](#), [BasicFilter.Sort](#),
[object.Equals\(object\)](#), [object.Equals\(object, object\)](#), [object.GetHashCode\(\)](#),
[object.GetType\(\)](#), [object.MemberwiseClone\(\)](#), [object.ReferenceEquals\(object, object\)](#),
[object.ToString\(\)](#)

Properties

ActionTypes

Filter by comma-separated list of the action types. See /enumSets/578/members for possible values.
Example: 1,2.

```
public ActionTypeEnum ActionTypes { get; set; }
```

Property Value

[ActionTypeEnum](#)

ClassLevels

Added to call into API v4.

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

Property Value

[string](#) ↗

ClassesLevels

Filter by comma-separated list of class levels. See /enumSets/578/members for possible values.

Example: 1,2.

```
public ClassLevelsEnum ClassesLevels { get; set; }
```

Property Value

[ClassLevelsEnum](#)

ExcludeDiscarded

Determines whether discarded audits will be excluded from results. Default is false (discarded audits will not be excluded).

```
public bool? ExcludeDiscarded { get; set; }
```

Property Value

[bool](#) ↗?

OriginApplications

Filter by comma-separated list of origin applications. See /enumSets/578/members for possible values. Example: 1,2.

```
public OriginApplicationsEnum OriginApplications { get; set; }
```

Property Value

[OriginApplicationsEnum](#)

Class AuditServiceProvider

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Provide audit item for the endpoints of the Metasys Audit API.

```
public sealed class AuditServiceProvider : BasicServiceProvider,  
IAuditService, IBasicService
```

Inheritance

[object](#) ← [ObjectUtil](#) ← [BasicServiceProvider](#) ← [AuditServiceProvider](#)

Implements

[IAuditService](#), [IBasicService](#)

Inherited Members

[BasicServiceProvider.Version](#), [BasicServiceProvider.MinVersionSupported](#),
[BasicServiceProvider.MaxVersionSupported](#), [BasicServiceProvider.Culture](#),
[BasicServiceProvider.LogClientErrors](#), [BasicServiceProvider.GetResourceTypesAsync\(string, string\)](#),
[BasicServiceProvider.GetObjectTypeEnumeration\(string\)](#),
[BasicServiceProvider.Localize\(string, CultureInfo\)](#), [BasicServiceProvider.ToDictionary\(object\)](#),
[ObjectUtil.GetJTokenValue\(JToken, string\)](#), [ObjectUtil.GetJTokenDate\(JToken, string\)](#),
[object.Equals\(object\)](#), [object.Equals\(object, object\)](#), [object.GetHashCode\(\)](#),
[object.GetType\(\)](#), [object.ReferenceEquals\(object, object\)](#), [object.ToString\(\)](#)

Constructors

AuditServiceProvider(IFlurlClient, ApiVersion, bool)

Initializes a new instance of [AuditServiceProvider](#) with supplied data.

```
public AuditServiceProvider(IFlurlClient client, ApiVersion version, bool  
logClientErrors = true)
```

Parameters

client IFlurlClient

The FlurlClient to get response from URL.

[version](#) [ApiVersion](#)

The server's Api version.

[logClientErrors](#) [bool](#)

Set this flag to false to disable logging of client errors.

Methods

AddAnnotation(Guid, string)

Add an Annotation to the specified Audit.

```
public void AddAnnotation(Guid id, string text)
```

Parameters

[id](#) [Guid](#)

The identifier of the Audit.

[text](#) [string](#)

The text of the Annotation.

Exceptions

[MetasyUnsupportedApiVersion](#)

AddAnnotationAsync(Guid, string)

Add an Annotation to the specified Audit.

```
public Task AddAnnotationAsync(Guid id, string text)
```

Parameters

[id](#) [Guid](#)

The identifier of the Audit.

[text](#) [string](#)

The text of the Annotation.

Returns

[Task](#)

Exceptions

[MetasysUnsupportedApiVersion](#)

AddAnnotationMultiple(IEnumerable<BatchRequestParam>)

Add many Annotations given a list of requests containing the Id of the Audits and the text of the Annotations.

```
public IEnumerable<Result> AddAnnotationMultiple(IEnumerable<BatchRequestParam> requests)
```

Parameters

[requests](#) [IEnumerable](#)<[BatchRequestParam](#)>

List of BatchRequestParam to specify the id of the audits and the text of the annotations to add.

Returns

[IEnumerable](#)<[Result](#)>

A list of BatchRequestParam with all the specified attributes.

AddAnnotationMultipleAsync(IEnumerable<BatchRequestParam>)

Add many Annotations given a list of requests containing the Id of the Audits and the text of the Annotations.

```
public Task<IEnumerable<Result>>
AddAnnotationMultipleAsync(IEnumerable<BatchRequestParam> requests)
```

Parameters

requests [IEnumerable<BatchRequestParam>](#)

List of BatchRequestParam to specify the id of the audits and the text of the annotations to add.

Returns

[Task<IEnumerable<Result>>](#)

A list of BatchRequestParam with all the specified attributes.

Discard(Guid, string)

Discard an Audit.

```
public void Discard(Guid id, string annotationText)
```

Parameters

id [Guid](#)

The identifier of the Audit.

annotationText [string](#)

Text of the annotation to report the reason of the discard.

Exceptions

[MetasysUnsupportedApiVersion](#)

DiscardAsync(Guid, string)

Discard an Audit.

```
public Task DiscardAsync(Guid id, string annotationText)
```

Parameters

[id Guid](#)

The identifier of the Audit.

[annotationText string](#)

Text of the annotation to report the reason of the discard.

Returns

[Task](#)

Exceptions

[MetasysUnsupportedApiVersion](#)

DiscardMultiple(IEnumerable<BatchRequestParam>)

Discard many Audit given a list of requests containing the Id of the Audits and the text for the Annotations.

```
public IEnumerable<Result> DiscardMultiple(IEnumerable<BatchRequestParam> requests)
```

Parameters

[requests IEnumerable<BatchRequestParam>](#)

List of BatchRequestParam to specify the id of the audits and the text of the annotations to discard.

Returns

[IEnumerable<Result>](#)

A list of BatchRequestParam with all the specified attributes.

DiscardMultipleAsync(IEnumerable<BatchRequestParam>)

Discard many Audit given a list of requests containing the Id of the Audits and the text for the Annotations.

```
public Task<IEnumerable<Result>> DiscardMultipleAsync(IEnumerable<BatchRequestParam> requests)
```

Parameters

requests [IEnumerable<BatchRequestParam>](#)

List of BatchRequestParam to specify the id of the audits and the text of the annotations to discard.

Returns

[Task<IEnumerable<Result>>](#)

A list of BatchRequestParam with all the specified attributes.

FindById(Guid)

Retrieves the specified audit.

```
public Audit FindById(Guid auditId)
```

Parameters

auditId [Guid](#)

The identifier of the audit.

Returns

[Audit](#)

The specified audit details.

FindByIdAsync(Guid)

Retrieves the specified audit.

```
public Task<Audit> FindByIdAsync(Guid auditId)
```

Parameters

auditId [Guid](#)

The identifier of the audit.

Returns

[Task](#)<[Audit](#)>

The specified audit details.

Get(AuditFilter)

Retrieves a collection of audits.

```
public PagedResult<Audit> Get(AuditFilter auditFilter)
```

Parameters

auditFilter [AuditFilter](#)

The audit model to filter audits.

Returns

[PagedResult](#)<[Audit](#)>

The list of audits with details.

GetAnnotations(Guid)

Retrieve a collection of Audit Annotations.

```
public IEnumerable<AuditAnnotation> GetAnnotations(Guid auditId)
```

Parameters

auditId [Guid](#)

Returns

[IEnumerable](#)<[AuditAnnotation](#)>

GetAnnotationsAsync(Guid)

Retrieve a collection of Audit Annotations.

```
public Task<IEnumerable<AuditAnnotation>> GetAnnotationsAsync(Guid auditId)
```

Parameters

auditId [Guid](#)

Returns

[Task](#)<[IEnumerable](#)<[AuditAnnotation](#)>>

GetAsync(AuditFilter)

Retrieves a collection of audits.

```
public Task<PagedResult<Audit>> GetAsync(AuditFilter auditFilter)
```

Parameters

auditFilter [AuditFilter](#)

The audit model to filter audits.

Returns

[Task](#)<[PagedResult](#)<[Audit](#)>>

The list of audits with details.

GetForObject(ObjectId, AuditFilter)

Retrieves a collection of audits for the specified object.

```
public PagedResult<Audit> GetForObject(ObjectId objectId, AuditFilter auditFilter)
```

Parameters

[objectId](#) [ObjectId](#)

The identifier of the object.

[auditFilter](#) [AuditFilter](#)

The filter to be applied to audit list.

Returns

[PagedResult](#)<[Audit](#)>

The list of audit with details.

GetForObjectAsync(ObjectId, AuditFilter)

Retrieves a collection of audits for the specified object.

```
public Task<PagedResult<Audit>> GetForObjectAsync(ObjectId objectId,  
AuditFilter auditFilter)
```

Parameters

[objectId](#) [ObjectId](#)

The identifier of the object.

[auditFilter](#) [AuditFilter](#)

The filter to be applied to audit list.

Returns

[Task](#) ↗<[PagedResult](#)<[Audit](#)>>

The list of audit with details.

Class AuditSignature

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

DTO for the AuditSignature model.

```
public class AuditSignature
```

Inheritance

[object](#) ← AuditSignature

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Properties

FullName

Full name of the user who executed the action.

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

Property Value

[string](#)

Reason

The reason written by the user.

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

Property Value

string ↗

Class BasicFilter

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Basic filter for a general API request.

```
public class BasicFilter
```

Inheritance

[object](#) ← BasicFilter

Derived

[TimeFilter](#)

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Properties

Page

The page number of items to return Default: 1.

```
public int? Page { get; set; }
```

Property Value

[int](#)?

PageSize

The maximum number of items to return in the response. Valid range is 1-10,000. Default: 1000

```
public int? PageSize { get; set; }
```

Property Value

[int](#)?

Sort

The criteria to use when sorting results Accepted Values: itemReference, priority, creationTime

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

Property Value

[string](#)

Class BasicServiceProvider

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Base abstract class to be extended on specific provider implementation.

```
public abstract class BasicServiceProvider : ObjectUtil
```

Inheritance

[object](#) ↗ ← [ObjectUtil](#) ← BasicServiceProvider

Derived

[AlarmServiceProvider](#), [AuditServiceProvider](#), [EnumerationServiceProvider](#), [EquipmentServiceProvider](#),
[MetasysClient](#), [NetworkDeviceServiceProvider](#), [SpaceServiceProvider](#), [StreamServiceProvider](#),
[TrendServiceProvider](#)

Inherited Members

[ObjectUtil.GetJTokenValue\(JToken, string\)](#) , [ObjectUtil.GetJTokenDate\(JToken, string\)](#) ,
[object.Equals\(object\)](#) ↗ , [object.Equals\(object, object\)](#) ↗ , [object.GetHashCode\(\)](#) ↗ ,
[object.GetType\(\)](#) ↗ , [object.MemberwiseClone\(\)](#) ↗ , [object.ReferenceEquals\(object, object\)](#) ↗ ,
[object.ToString\(\)](#) ↗

Constructors

BasicServiceProvider(IFlurlClient, ApiVersion, bool)

Constructor for dedicated services with Flurl client initialization already performed.

```
public BasicServiceProvider(IFlurlClient client, ApiVersion version, bool logErrors  
= true)
```

Parameters

client IFlurlClient

The Flurl client.

version [ApiVersion](#)

The server's Api version.

logErrors bool ↗

Set this flag to false to disable logging of client errors.

BasicServiceProvider(bool)

Empty constructor.

```
public BasicServiceProvider(bool logErrors = true)
```

Parameters

logErrors bool ↗

Set this flag to false to disable logging of client errors.

Remarks

Assume Client is initialized by extended class.

Fields

Client

The http client.

```
protected IFlurlClient Client
```

Field Value

IFlurlClient

Log

The log initiliazer.

```
protected LogInitializer Log
```

Field Value

[LogInitializer](#)

Properties

Culture

The current Culture Used for localization.

```
public CultureInfo Culture { get; set; }
```

Property Value

[CultureInfo](#)

LogClientErrors

Set this flag to false to disable logging of client errors.

```
public bool LogClientErrors { get; set; }
```

Property Value

[bool](#)

MaxVersionSupported

Max API version supported by this SDK.

```
public ApiVersion MaxVersionSupported { get; }
```

Property Value

[ApiVersion](#)

MinVersionSupported

Min API version supported by this SDK.

```
public ApiVersion MinVersionSupported { get; }
```

Property Value

[ApiVersion](#)

Version

```
public ApiVersion Version { get; set; }
```

Property Value

[ApiVersion](#)

Methods

CheckVersion(ApiVersion)

Check if the selected API version is supported by the SDK

```
protected void CheckVersion(ApiVersion version)
```

Parameters

version [ApiVersion](#)

GetAllAvailablePagesAsync(string, Dictionary<string, string>, params string[])

Gets all items for the given resource asynchronously by requesting each available page.

```
protected Task<List<JToken>> GetAllAvailablePagesAsync(string resource,  
Dictionary<string, string> parameters = null, params string[] pathSegments)
```

Parameters

resource [string](#)

The main resource to read.

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

Query string parameters in Key Value format.

pathSegments [string](#)[]

Path segments to be used in combination with the main resource.

Returns

[Task](#)<[List](#)<JToken>>

Exceptions

[MetasysHttpParsingException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpException](#)

[MetasysHttpNotFoundException](#)

GetBatchRequestAsync(string, IEnumerable<ObjectId>, IEnumerable<string>, params string[])

Perform multiple requests (GET) to the Server with a single HTTP call asynchronously.

```
protected Task<JToken> GetBatchRequestAsync(string endpoint, IEnumerable<ObjectId>  
ids, IEnumerable<string> resources, params string[] paths)
```

Parameters

endpoint [string](#)

ids [IEnumerable](#)<[ObjectId](#)>

resources [IEnumerable](#)<[string](#)>

paths [string](#)[]

Returns

[Task](#)<JToken>

GetEnumValues(string)

protected [IEnumerable](#)<[MetasysEnumValue](#)> **GetEnumValues**([string](#) enumerationKey)

Parameters

enumerationKey [string](#)

Returns

[IEnumerable](#)<[MetasysEnumValue](#)>

GetEnumValuesAsync(string)

protected [Task](#)<[IEnumerable](#)<[MetasysEnumValue](#)>> **GetEnumValuesAsync**([string](#) enumerationKey)

Parameters

enumerationKey [string](#)

Returns

[Task](#)<[IEnumerable](#)<[MetasysEnumValue](#)>>

GetObjectChildrenAsync(object, Dictionary<string, string>, int)

Gets all child objects given a parent id asynchronously by requesting each available page. Level indicates how deep to retrieve objects.

```
protected Task<List<TreeObject>> GetObjectChildrenAsync(object id,  
Dictionary<string, string> parameters = null, int levels = 1)
```

Parameters

id [object](#)

The id of the object.

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

Query string parameters in Key/Value format.

levels [int](#)

The number of levels to retrieve children.

Returns

[Task](#)<[List](#)<[TreeObject](#)>>

Remarks

A level of 1 only retrieves immediate children of the parent object.

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetObjectTypeEnumetation(string)

```
public string GetObjectTypeEnumeration(string resource)
```

Parameters

resource [string](#)

Returns

[string](#)

GetPagedResultsAsync<T>(string, Dictionary<string, string>, params object[])

Get typed items for the given resource asynchronously.

```
protected Task<PagedResult<T>> GetPagedResultsAsync<T>(string resource,  
Dictionary<string, string> parameters, params object[] pathSegments)
```

Parameters

resource [string](#)

The main resource to read.

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

Query string parameters in Key/Value format.

pathSegments [object](#)[]

Path segments to be used in combination with the main resource.

Returns

[Task](#)<[PagedResult](#)<T>>

Type Parameters

T

Remarks

Optionally accepts query string parameters and additional path segments.

GetRequestAsync(string, Dictionary<string, string>, params object[])

Generic request for the given resource asynchronously.

```
protected Task<JToken> GetRequestAsync(string resource, Dictionary<string, string> parameters = null, params object[] pathSegments)
```

Parameters

resource [string](#)

The main resource to read.

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

Query string parameters in Key/Value format.

pathSegments [object\[\]](#)

Path segments to be used in combination with the main resource.

Returns

[Task<JToken>](#)

Exceptions

[MetasysHttpParsingException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpException](#)

[MetasysHttpNotFoundException](#)

GetResourceTypesAsync(string, string)

Gets all resource types asynchronously.

```
public Task<IEnumerable<MetasysObjectType>> GetResourceTypesAsync(string resource,
```

```
    string pathSegment)
```

Parameters

resource [string](#)

pathSegment [string](#)

Returns

[Task](#)<[IEnumerable](#)<[MetasysObjectType](#)>>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetType(JToken)

Gets the type from a token retrieved from a typeUrl

```
protected MetasysObjectType GetType(JToken typeToken)
```

Parameters

typeToken [JToken](#)

Returns

[MetasysObjectType](#)

Exceptions

[MetasysHttpException](#)

[MetasysObjectTypeException](#)

GetType(int, string, string)

Gets the type from the values of the parameters

```
protected MetasysObjectType GetType(int id, string description, string key)
```

Parameters

`id int`

`description string`

`key string`

Returns

[MetasysObjectType](#)

Exceptions

[MetasysHttpException](#)

[MetasysObjectTypeException](#)

GetWithFullUrl(string)

Gets a resource given the full url asynchronously.

```
protected Task<JToken> GetWithFullUrl(string url)
```

Parameters

`url string`

Returns

[Task](#)<JToken>

Exceptions

[MetasysHttpException](#)

Localize(string, CultureInfo)

```
public string Localize(string resource, CultureInfo cultureInfo = null)
```

Parameters

resource [string](#)

cultureInfo [CultureInfo](#)

Returns

[string](#)

ParseObjectIdentifier(JToken)

Parses a JToken containing a string and returns the value as an [ObjectId](#).

```
protected ObjectId ParseObjectIdentifier(JToken token)
```

Parameters

token JToken

Returns

[ObjectId](#)

The [ObjectId](#) contained in the token.

Exceptions

[Metasy GuidException](#)

PatchBatchRequestAsync(string, IEnumerable<BatchRequestParam>)

Perform multiple requests (PATCH) to the Server with a single HTTP call asynchronously.

```
protected Task<JToken> PatchBatchRequestAsync(string endpoint,  
IEnumerable<BatchRequestParam> requests)
```

Parameters

endpoint [string](#)

requests [IEnumerable](#)<[BatchRequestParam](#)>

Returns

[Task](#)<JToken>

PostBatchRequestAsync(string, IEnumerable<BatchRequestParam>, params string[])

Perform multiple requests (POST) to the Server with a single HTTP call asynchronously.

```
protected Task<JToken> PostBatchRequestAsync(string endpoint,  
IEnumerable<BatchRequestParam> requests, params string[] paths)
```

Parameters

endpoint [string](#)

requests [IEnumerable](#)<[BatchRequestParam](#)>

paths [string](#)[]

Returns

[Task](#)<JToken>

PutBatchRequestAsync(string, IEnumerable<BatchRequestParam>, params string[])

Perform multiple requests (PUT or PATCH) to the Server with a single HTTP call asynchronously.

```
protected Task<JToken> PutBatchRequestAsync(string endpoint,  
IEnumerable<BatchRequestParam> requests, params string[] paths)
```

Parameters

endpoint [string](#)

requests [IEnumerable](#)<[BatchRequestParam](#)>

paths [string](#)[]

Returns

[Task](#)<JToken>

ThrowHttpException(FlurlHttpException)

Throws a Metasys Exception from a Flurl.Http exception.

```
protected void ThrowHttpException(FlurlHttpException e)
```

Parameters

e [FlurlHttpException](#)

Exceptions

[MetasysHttpParsingException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpException](#)

[MetasysHttpNotFoundException](#)

ToDictionary(object)

Convert a generic object to a dictionary

```
public static Dictionary<string, string> ToDictionary(object obj)
```

Parameters

obj [object](#)

Returns

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

ToMetasysObject(JToken, ApiVersion, MetasysObjectTypeEnum?)

Return Metasys Object representation from a generic JSON object.

```
protected MetasysObject ToMetasysObject(JToken item, ApiVersion version,
MetasysObjectTypeEnum? objectType = null)
```

Parameters

item JToken

version [ApiVersion](#)

objectType [MetasysObjectTypeEnum](#)?

Returns

[MetasysObject](#)

ToMetasysObject(IEnumerable<TreeObject>, ApiVersion, MetasysObjectTypeEnum?)

Return Metasys Object representation from a generic JSON object tree.

```
protected List<MetasysObject> ToMetasysObject(IEnumerable<TreeObject> objects,
ApiVersion version, MetasysObjectTypeEnum? objectType = null)
```

Parameters

objects [IEnumerable](#)<[TreeObject](#)>

version [ApiVersion](#)

objectType [MetasysObjectTypeEnum](#)?

Returns

[List](#)<[MetasysObject](#)>

ToMetasysObject(List<JToken>, ApiVersion, MetasysObjectTypeEnum?)

Return Metasys Object representation from a generic JSON object List.

```
protected List<MetasysObject> ToMetasysObject(List<JToken> items, ApiVersion version, MetasysObjectTypeEnum? type = null)
```

Parameters

items [List](#)<[JToken](#)>

version [ApiVersion](#)

type [MetasysObjectTypeEnum](#)?

Returns

[List](#)<[MetasysObject](#)>

ToNetworkDevice(JToken, ApiVersion)

Return Network Device representation from a generic JSON object.

```
protected NetworkDevice ToNetworkDevice(JToken item, ApiVersion version)
```

Parameters

`item` `JToken`

`version` [ApiVersion](#)

Returns

[NetworkDevice](#)

ToNetworkDevice(List<JToken>, ApiVersion)

Return Network Device representation from a generic JSON object List.

```
protected List<NetworkDevice> ToNetworkDevice(List<JToken> items,  
    ApiVersion version)
```

Parameters

`items` [List](#)<JToken>

`version` [ApiVersion](#)

Returns

[List](#)<NetworkDevice>

Class BatchRequest

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Body class for a Metasys server batch request.

```
public class BatchRequest
```

Inheritance

[object](#) ← BatchRequest

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Properties

Method

Specify the type of the call, e.g. GET, POST etc...

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

Property Value

[string](#)

Requests

List of requests.

```
public List<ObjectRequest> Requests { get; set; }
```

Property Value

[List](#) ↗<ObjectRequest>

Class BatchRequestParam

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Body class to pass list of parameters for Metasys server batch request.

```
public class BatchRequestParam
```

Inheritance

[object](#) ← BatchRequestParam

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Properties

ActivityManagementStatus

Activity Management Status. The possible values are: 'discarded' (for Alarms and Audits), 'acknowledged' (for Audits)

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

Property Value

[string](#)

ActivityType

Activity Type. The possible values are: 'alarm', 'audit'

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

Property Value

[string](#) ↗

ObjectId

Id to identify the object

```
public ObjectId ObjectId { get; set; }
```

Property Value

[ObjectId](#)

Resource

String that could represent a text resource as, for instance, a text annotation

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

Property Value

[string](#) ↗

Enum ClassLevelsEnum

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Enumeration of possible Class Levels for an Audit.

```
[Flags]  
public enum ClassLevelsEnum
```

Fields

Application = 4

Application type.

CriticalSystemEvent = 2

Critical system event.

Diagnostic = 16

Diagnostic

NonCriticalSystemEvent = 8

Non_critical system event.

UserAction = 1

User action on Audit.

Remarks

The actual values sent to the server are specified in the description.

Class Command

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Command is a class that holds information about a Metasys object command.

```
public class Command
```

Inheritance

[object](#) ← Command

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#)

Constructors

Command()

Class constructor

```
public Command()
```

Properties

CommandId

The command id used to send command requests.

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

Property Value

[string](#)

Items

The list of values that can be modified by the command.

```
public IEnumerable<Command.Item> Items { get; }
```

Property Value

[IEnumerable](#)<[Command.Item](#)>

A list of items or null if the command does not accept any parameter values.

Title

The translated title of the command.

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

Property Value

[string](#)

The translated title of the command or the default en-US version.

TitleEnumerationKey

The title enumeration key of the command.

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

Property Value

[string](#)

An enumeration key from the commandIdEnumSet or the default en-US title if not found .

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

obj [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

ToString()

Return a pretty JSON string of the current object.

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

Returns

[string](#)

Struct Command.EnumerationItem

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

The value and translated title of an enumeration item.

```
public struct Command.EnumerationItem
```

Inherited Members

[ValueType.ToString\(\)](#) , [object.Equals\(object, object\)](#) , [object.GetType\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#)

Fields

Title

The translated string of the enumeration value.

```
public string Title
```

Field Value

[string](#)

Translated title or default en-US value if not found.

Properties

TitleEnumerationKey

The title enumeration key used when sending the command request.

```
public readonly string TitleEnumerationKey { get; }
```

Property Value

[string](#)

An enumeration key.

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

[obj](#) [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

Struct Command.Item

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

A value that can be changed by a command.

```
public struct Command.Item
```

Inherited Members

[ValueType.ToString\(\)](#) , [object.Equals\(object, object\)](#) , [object.GetType\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#)

Fields

EnumerationValues

The possible enumeration values the Item can be.

```
public IEnumerable<Command.EnumerationItem> EnumerationValues
```

Field Value

[IEnumerable](#)<[Command.EnumerationItem](#)>

A list of EnumerationItems or null if not an enumeration.

Maximum

The maximum value the number can be if a number.

```
public double? Maximum
```

Field Value

[double](#)?

The maximum value of the number or 1 if not a number.

Minimum

The minimum value the number can be if a number.

```
public double? Minimum
```

Field Value

[double](#)?

The minimum value of the number or 1 if not a number.

Title

The title of the value to change when sending the command request.

```
public string Title
```

Field Value

[string](#)

The title or "oneOf" if the Item is an enumeration.

Type

The type of the Item.

```
public string Type
```

Field Value

[string](#)

Possible values include "number", "enum".

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

obj [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

Class CommandCollectionExtension

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

A helper to work with Command collections.

```
public static class CommandCollectionExtension
```

Inheritance

[object](#) ← CommandCollectionExtension

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Methods

FindById(IEnumerable<Command>, string)

Returns the Command in the collection with the given ID.

```
public static Command FindById(this IEnumerable<Command> source, string id)
```

Parameters

source [IEnumerable](#)<Command>

id [string](#)

The Id of the Command.

Returns

[Command](#)

Class CredManException

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

An exception that is thrown when something went wrong while reading a target from Credential Manager.

```
[Serializable]
public class CredManException : Exception, ISerializable
```

Inheritance

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

Implements

[ISerializable](#)

Inherited Members

[Exception.GetBaseException\(\)](#) , [Exception.GetObjectData\(SerializationInfo, StreamingContext\)](#) ,
[Exception.GetType\(\)](#) , [Exception.ToString\(\)](#) , [Exception.Data](#) , [Exception.HelpLink](#) ,
[Exception.HResult](#) , [Exception.InnerException](#) , [Exception.Message](#) , [Exception.Source](#) ,
[Exception.StackTrace](#) , [Exception.TargetSite](#) , [Exception.SerializeObjectState](#) ,
[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Constructors

CredManException(string)

Initializes a new instance of the CredentialManagerException with a predefined message given the target.

```
public CredManException(string target)
```

Parameters

target [string](#)

Class EnumerationServiceProvider

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Provide enumeration item for the endpoints of the Metasys Enumerations API.

```
public sealed class EnumerationServiceProvider : BasicServiceProvider,  
IEnumerationService, IBasicService
```

Inheritance

[object](#) ← [ObjectUtil](#) ← [BasicServiceProvider](#) ← EnumerationServiceProvider

Implements

[IEnumerationService](#), [IBasicService](#)

Inherited Members

[BasicServiceProvider.Version](#) , [BasicServiceProvider.MinVersionSupported](#) ,
[BasicServiceProvider.MaxVersionSupported](#) , [BasicServiceProvider.Culture](#) ,
[BasicServiceProvider.LogClientErrors](#) , [BasicServiceProvider.GetResourceTypesAsync\(string, string\)](#) ,
[BasicServiceProvider.GetObjectTypeEnumeration\(string\)](#) ,
[BasicServiceProvider.Localize\(string, CultureInfo\)](#) , [BasicServiceProvider.ToDictionary\(object\)](#) ,
[ObjectUtil.GetJTokenValue\(JToken, string\)](#) , [ObjectUtil.GetJTokenDate\(JToken, string\)](#) ,
[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Constructors

EnumerationServiceProvider(IFlurlClient, ApiVersion, bool)

Initializes a new instance of [NetworkDeviceServiceProvider](#) with supplied data.

```
public EnumerationServiceProvider(IFlurlClient client, ApiVersion version, bool  
logClientErrors = true)
```

Parameters

client IFlurlClient

The FlurlClient to get response from URL.

[version](#) [ApiVersion](#)

The server's Api version.

[logClientErrors](#) [bool](#)

Set this flag to false to disable logging of client errors.

Methods

Create(string, IEnumerable<string>)

Create a new custom enumeration.

```
public void Create(string name, IEnumerable<string> values)
```

Parameters

[name](#) [string](#)

The name of the new custom enumeration.

[values](#) [IEnumerable](#)<[string](#)>

The list of values (string) included in the new custom enumeration.

CreateAsync(string, IEnumerable<string>)

Create a new custom enumeration.

```
public Task CreateAsync(string name, IEnumerable<string> values)
```

Parameters

[name](#) [string](#)

The name of the new custom enumeration.

values [IEnumerable<string>](#)

The list of values (string) included in the new custom enumeration.

Returns

[Task](#)

Delete(string)

Delete an enumeration. Only custom enumerations may be deleted.

```
public void Delete(string id)
```

Parameters

id [string](#)

The identifier of the enumeration.

DeleteAsync(string)

Delete an enumeration. Only custom enumerations may be deleted.

```
public Task DeleteAsync(string id)
```

Parameters

id [string](#)

The identifier of the enumeration.

Returns

[Task](#)

Edit(string, string, IEnumerable<string>)

Edit and existing custom enumeration.

```
public void Edit(string id, string name, IEnumerable<string> values)
```

Parameters

id [string](#)

The identifier of the existing custom enumeration.

name [string](#)

The new name of the custom enumeration.

values [IEnumerable<string>](#)

The list of new values (string) for the existing custom enumeration.

EditAsync(string, string, IEnumerable<string>)

Edit and existing custom enumeration.

```
public Task EditAsync(string id, string name, IEnumerable<string> values)
```

Parameters

id [string](#)

The identifier of the existing custom enumeration.

name [string](#)

The new name of the custom enumeration.

values [IEnumerable<string>](#)

The list of new values (string) for the existing custom enumeration.

Returns

[Task](#)

Get()

Get all the Enumerations

```
public IEnumerable<MetasysEnumeration> Get()
```

Returns

[IEnumerable](#)<[MetasysEnumeration](#)>

GetAsync()

Get all the Enumerations

```
public Task<IEnumerable<MetasysEnumeration>> GetAsync()
```

Returns

[Task](#)<[IEnumerable](#)<[MetasysEnumeration](#)>>

GetValues(string)

Get an enumeration values

```
public IEnumerable<MetasysEnumValue> GetValues(string id)
```

Parameters

id [string](#)

The identifier of the enumeration.

Returns

[IEnumerable](#)<[MetasysEnumValue](#)>

GetValuesAsync(string)

Get an enumeration values

```
public Task<IEnumerable<MetasysEnumValue>> GetValuesAsync(string id)
```

Parameters

id [string](#)

The identifier of the enumeration.

Returns

[Task](#)<IEnumerable<MetasysEnumValue>>

Replace(string, string, IEnumerable<string>)

Replace and existing custom enumeration.

```
public void Replace(string id, string name, IEnumerable<string> values)
```

Parameters

id [string](#)

The identifier of the existing custom enumeration.

name [string](#)

The new name of the custom enumeration.

values [IEnumerable](#)<[string](#)>

The list of new values (string) for the existing custom enumeration.

ReplaceAsync(string, string, IEnumerable<string>)

Replace and existing custom enumeration.

```
public Task ReplaceAsync(string id, string name, IEnumerable<string> values)
```

Parameters

id [string](#)

The identifier of the existing custom enumeration.

name [string](#)

The new name of the custom enumeration.

values [IEnumerable<string>](#)

The list of new values (string) for the existing custom enumeration.

Returns

[Task](#)

Class EquipmentServiceProvider

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Provide equipment item for the endpoints of the Metasys Equipments API.

```
public sealed class EquipmentServiceProvider : BasicServiceProvider,  
IEquipmentService, IBasicService
```

Inheritance

[object](#) ← [ObjectUtil](#) ← [BasicServiceProvider](#) ← EquipmentServiceProvider

Implements

[IEquipmentService](#), [IBasicService](#)

Inherited Members

[BasicServiceProvider.Version](#) , [BasicServiceProvider.MinVersionSupported](#) ,
[BasicServiceProvider.MaxVersionSupported](#) , [BasicServiceProvider.Culture](#) ,
[BasicServiceProvider.LogClientErrors](#) , [BasicServiceProvider.GetResourceTypesAsync\(string, string\)](#) ,
[BasicServiceProvider.GetObjectTypeEnumeration\(string\)](#) ,
[BasicServiceProvider.Localize\(string, CultureInfo\)](#) , [BasicServiceProvider.ToDictionary\(object\)](#) ,
[ObjectUtil.GetJTokenValue\(JToken, string\)](#) , [ObjectUtil.GetJTokenDate\(JToken, string\)](#) ,
[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Constructors

EquipmentServiceProvider(IFlurlClient, ApiVersion, bool)

Initializes a new instance of [NetworkDeviceServiceProvider](#) with supplied data.

```
public EquipmentServiceProvider(IFlurlClient client, ApiVersion version, bool  
logClientErrors = true)
```

Parameters

client IFlurlClient

The FlurlClient to get response from URL.

[version](#) [ApiVersion](#)

The server's Api version.

[logClientErrors](#) [bool](#)

Set this flag to false to disable logging of client errors.

Methods

FindById(ObjectId)

Retrieves the specified equipment instance.

```
public MetasysObject FindById(ObjectId equipmentId)
```

Parameters

[equipmentId](#) [ObjectId](#)

Returns

[MetasysObject](#)

FindByIdAsync(ObjectId)

Retrieves the specified equipment instance.

```
public Task<MetasysObject> FindByIdAsync(ObjectId equipmentId)
```

Parameters

[equipmentId](#) [ObjectId](#)

Returns

[Task](#)<[MetasysObject](#)>

Get(int?, int?)

Retrieves a collection of equipment instances.

```
public IEnumerable<MetasysObject> Get(int? page = null, int? pageSize = null)
```

Parameters

page [int?](#)

Specifies the number of the page to be retrieved (optional).

pageSize [int?](#)

Specifies the number of items per page. Default is 1000. (optional).

Returns

[IEnumerable](#)<[MetasysObject](#)>

Remarks

If the param 'page' is specified then it will return only the items associated to the specified page number. Otherwise all the items will be returned.

GetAsync(int?, int?)

Retrieves a collection of equipment instances.

```
public Task<IEnumerable<MetasysObject>> GetAsync(int? page = null, int? pageSize = null)
```

Parameters

page [int?](#)

Specifies the number of the page to be retrieved (optional).

pageSize [int?](#)

Specifies the number of items per page. Default is 1000. (optional).

Returns

[Task](#)<IEnumerable<[MetasysObject](#)>>

Remarks

If the param 'page' is specified then it will return only the items associated to the specified page number. Otherwise all the items will be returned.

GetHostedByNetworkDevice(ObjectId)

Retrieves the collection of equipment instances that are hosted by the specified network device or its children.

```
public IEnumerable<MetasysObject> GetHostedByNetworkDevice(ObjectId networkDeviceId)
```

Parameters

networkDeviceId [ObjectId](#)

Returns

[IEnumerable](#)<[MetasysObject](#)>

GetHostedByNetworkDeviceAsync(ObjectId)

Retrieves the collection of equipment that serve the specified space.

```
public Task<IEnumerable<MetasysObject>> GetHostedByNetworkDeviceAsync(ObjectId networkDeviceId)
```

Parameters

networkDeviceId [ObjectId](#)

Returns

GetPoints(ObjectId, bool)

Retrieves the collection of points that are defined by the specified equipment instance.

```
public IEnumerable<MetasysPoint> GetPoints(ObjectId equipmentId, bool  
readAttributeValue = true)
```

Parameters

equipmentId [ObjectId](#)

The id of the equipment.

readAttributeValue [bool](#)

Set to false if you would not read Points Attribute Value.

Returns

[IEnumerable](#)<MetasysPoint>

Remarks

Reading the Attribute Value attribute could take time depending on the number of points.

GetPointsAsync(ObjectId, bool)

Retrieves the collection of points that are defined by the specified equipment instance.

```
public Task<IEnumerable<MetasysPoint>> GetPointsAsync(ObjectId equipmentId, bool  
readAttributeValue = true)
```

Parameters

equipmentId [ObjectId](#)

The id of the equipment.

`readAttributeValue bool`

Set to false if you would not read Points Attribute Value.

Returns

`Task<IEnumerable<MetasysPoint>>`

Remarks

Reading the Attribute Value attribute could take time depending on the number of points.

GetServedByEquipment(ObjectId)

Retrieves the equipment served by the specified equipment instance.

```
public IEnumerable<MetasysObject> GetServedByEquipment(ObjectId equipmentId)
```

Parameters

`equipmentId ObjectId`

Returns

`IEnumerable<MetasysObject>`

GetServedByEquipmentAsync(ObjectId)

Retrieves the equipment served by the specified equipment instance.

```
public Task<IEnumerable<MetasysObject>> GetServedByEquipmentAsync(ObjectId equipmentId)
```

Parameters

`equipmentId ObjectId`

Returns

[Task](#)<IEnumerable<MetasysObject>>

GetServingASpace(ObjectId)

Retrieves the collection of equipment that serve the specified space.

```
public IEnumerable<MetasysObject> GetServingASpace(ObjectId spaceId)
```

Parameters

spaceId [ObjectId](#)

Returns

[IEnumerable](#)<MetasysObject>

GetServingASpaceAsync(ObjectId)

Retrieves the collection of equipment that serve the specified space.

```
public Task<IEnumerable<MetasysObject>> GetServingASpaceAsync(ObjectId spaceId)
```

Parameters

spaceId [ObjectId](#)

Returns

[Task](#)<IEnumerable<MetasysObject>>

GetServingAnEquipment(ObjectId)

Retrieves the collection of equipment that serve the specified equipment instance.

```
public IEnumerable<MetasysObject> GetServingAnEquipment(ObjectId equipmentId)
```

Parameters

equipmentId [ObjectId](#)

Returns

[IEnumerable](#)<[MetasysObject](#)>

GetServingAnEquipmentAsync(ObjectId)

Retrieves the collection of equipment that serve the specified equipment instance.

```
public Task<IEnumerable<MetasysObject>> GetServingAnEquipmentAsync(ObjectId  
equipmentId)
```

Parameters

equipmentId [ObjectId](#)

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

Interface IActivityService

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Defines method to provide activity infos for endpoints of the Metasys Activity API.

```
public interface IActivityService : IBasicService
```

Inherited Members

[IBasicService.Version](#) , [IBasicService.Culture](#) , [IBasicService.GetObjectTypeEnumeration\(string\)](#) ,
[IBasicService.Localize\(string, CultureInfo\)](#)

Methods

ActionMultiple(IEnumerable<BatchRequestParam>)

Perform batch actions as discard/acknowledge an alarm/audit given a list of requests containing the info necessary to perform the actions.

```
IEnumerable<Result> ActionMultiple(IEnumerable<BatchRequestParam> requests)
```

Parameters

requests [IEnumerable](#)<[BatchRequestParam](#)>

List of BatchRequestParam to specify the info necessary to perform the actions.

Returns

[IEnumerable](#)<[Result](#)>

A list of BatchRequestParam with all the specified attributes.

ActionMultipleAsync(IEnumerable<BatchRequestParam>)

Perform batch actions as discard/acknowledge an alarm/audit given a list of requests containing the info necessary to perform the actions.

```
Task<IEnumerable<Result>> ActionMultipleAsync(IEnumerable<BatchRequestParam> requests)
```

Parameters

`requests` [IEnumerable<BatchRequestParam>](#)

List of BatchRequestParam to specify the info necessary to perform the actions.

Returns

[Task<IEnumerable<Result>>](#)

A list of BatchRequestParam with all the specified attributes.

Get(ActivityFilter)

Retrieves a collection of activity items.

```
PagedResult<Activity> Get(ActivityFilter activityFilter)
```

Parameters

`activityFilter` [ActivityFilter](#)

The activity model to filter activity items.

Returns

[PagedResult<Activity>](#)

The list of activity items.

GetAsync(ActivityFilter)

Retrieves a collection of activity items.

```
Task<PagedResult<Activity>> GetAsync(ActivityFilter activityFilter)
```

Parameters

activityFilter [ActivityFilter](#)

The activity model to filter activity items.

Returns

[Task](#)<[PagedResult](#)<[Activity](#)>>

The list of activity items.

Interface IAlarmsService

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Defines method to provide alarm infos for endpoints of the Metasys Alarm API.

```
public interface IAlarmsService : IBasicService
```

Inherited Members

[IBasicService.Version](#) , [IBasicService.Culture](#) , [IBasicService.GetObjectTypeEnumeration\(string\)](#) ,
[IBasicService.Localize\(string, CultureInfo\)](#)

Methods

Acknowledge(Guid, string)

Set an Alarm as 'acknowledged'

```
void Acknowledge(Guid alarmId, string annotationText = null)
```

Parameters

alarmId [Guid](#)

The identifier of the alarm.

annotationText [string](#)

Annotation Text (optional).

AcknowledgeAsync(Guid, string)

Set an Alarm as 'acknowledged'

```
Task AcknowledgeAsync(Guid alarmId, string annotationText = null)
```

Parameters

`alarmId` [Guid](#)

The identifier of the alarm.

`annotationText` [string](#)

Annotation Text (optional).

Returns

[Task](#)

Discard(Guid, string)

Set an Alarm as 'discarded'

```
void Discard(Guid alarmId, string annotationText = null)
```

Parameters

`alarmId` [Guid](#)

The identifier of the alarm.

`annotationText` [string](#)

Annotation Text (optional).

DiscardAsync(Guid, string)

Set an Alarm as 'discarded'

```
Task DiscardAsync(Guid alarmId, string annotationText = null)
```

Parameters

`alarmId` [Guid](#)

The identifier of the alarm.

annotationText [string](#)

Annotation Text (optional).

Returns

[Task](#)

FindById(Guid)

Retrieves the specified alarm.

Alarm **FindById**(Guid alarmId)

Parameters

alarmId [Guid](#)

The identifier of the alarm.

Returns

[Alarm](#)

The specified alarm details.

FindByIdAsync(Guid)

Retrieves the specified alarm.

Task<Alarm> **FindByIdAsync**(Guid alarmId)

Parameters

alarmId [Guid](#)

The identifier of the alarm.

Returns

[Task](#) <Alarm>

The specified alarm details.

Get(AlarmFilter)

Retrieves a collection of alarms using API v2 or v3.

PagedResult<Alarm> **Get**(AlarmFilter alarmFilter)

Parameters

alarmFilter [AlarmFilter](#)

The alarm model to filter alarms.

Returns

[PagedResult](#)<Alarm>

The list of alarms with details.

Get(AlarmFilterV4Plus)

Retrieves a collection of alarms from API v4 on.

PagedResult<Alarm> **Get**(AlarmFilterV4Plus alarmFilter)

Parameters

alarmFilter [AlarmFilterV4Plus](#)

The alarm model to filter alarms.

Returns

[PagedResult](#)<Alarm>

The list of alarms with details.

GetAnnotations(Guid)

Retrieve a collection of Alarm Annotations.

```
IEnumerable<AlarmAnnotation> GetAnnotations(Guid alarmId)
```

Parameters

alarmId [Guid](#)

Returns

[IEnumerable](#)<AlarmAnnotation>

GetAnnotationsAsync(Guid)

Retrieve a collection of Alarm Annotations.

```
Task<IEnumerable<AlarmAnnotation>> GetAnnotationsAsync(Guid alarmId)
```

Parameters

alarmId [Guid](#)

Returns

[Task](#)<[IEnumerable](#)<AlarmAnnotation>>

GetAsync(AlarmFilter)

Retrieves a collection of alarms using API v2 or v3.

```
Task<PagedResult<Alarm>> GetAsync(AlarmFilter alarmFilter)
```

Parameters

`alarmFilter` [AlarmFilter](#)

The alarm model to filter alarms.

Returns

[Task](#) <[PagedResult](#)<[Alarm](#)>>

The list of alarms with details.

GetAsync(AlarmFilterV4Plus)

Retrieves a collection of alarms from API v4 on.

```
Task<PagedResult<Alarm>> GetAsync(AlarmFilterV4Plus alarmFilter)
```

Parameters

`alarmFilter` [AlarmFilterV4Plus](#)

The alarm model to filter alarms.

Returns

[Task](#) <[PagedResult](#)<[Alarm](#)>>

The list of alarms with details.

GetForNetworkDevice(ObjectId, AlarmFilter)

Retrieves a collection of alarms for the specified object.

```
PagedResult<Alarm> GetForNetworkDevice(ObjectId networkDeviceId,  
AlarmFilter alarmFilter)
```

Parameters

networkDeviceId [ObjectId](#)

The identifier of the network device.

alarmFilter [AlarmFilter](#)

The filter to be applied to alarms list.

Returns

[PagedResult<Alarm>](#)

The list of alarms with details.

GetForNetworkDeviceAsync(ObjectId, AlarmFilter)

Retrieves a collection of alarms for the specified object.

```
Task<PagedResult<Alarm>> GetForNetworkDeviceAsync(ObjectId networkDeviceId,  
AlarmFilter alarmFilter)
```

Parameters

networkDeviceId [ObjectId](#)

The identifier of the network device.

alarmFilter [AlarmFilter](#)

The filter to be applied to alarms list.

Returns

[Task<PagedResult<Alarm>>](#)

The list of alarms with details.

GetForObject(ObjectId, AlarmFilter)

Retrieves a collection of alarms for the specified object.

```
PagedResult<Alarm> GetForObject(ObjectId objectId, AlarmFilter alarmFilter)
```

Parameters

objectId [ObjectId](#)

The identifier of the object.

alarmFilter [AlarmFilter](#)

The filter to be applied to alarms list.

Returns

[PagedResult<Alarm>](#)

The list of alarms with details.

GetForObjectAsync(ObjectId, AlarmFilter)

Retrieves a collection of alarms for the specified object.

```
Task<PagedResult<Alarm>> GetForObjectAsync(ObjectId objectId,  
AlarmFilter alarmFilter)
```

Parameters

objectId [ObjectId](#)

The identifier of the object.

alarmFilter [AlarmFilter](#)

The filter to be applied to alarms list.

Returns

[Task<PagedResult<Alarm>>](#)

The list of alarms with details.

Interface IAuditService

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Defines method to provide audit infos for endpoints of the Metasys Audit API.

```
public interface IAuditService : IBasicService
```

Inherited Members

[IBasicService.Version](#) , [IBasicService.Culture](#) , [IBasicService.GetObjectTypeEnumeration\(string\)](#) ,
[IBasicService.Localize\(string, CultureInfo\)](#)

Methods

AddAnnotation(Guid, string)

Add an Annotation to the specified Audit.

```
void AddAnnotation(Guid id, string text)
```

Parameters

id [Guid](#)

The identifier of the Audit.

text [string](#)

The text of the Annotation.

Exceptions

[MetasysUnsupportedApiVersion](#)

AddAnnotationAsync(Guid, string)

Add an Annotation to the specified Audit.

Task `AddAnnotationAsync(Guid id, string text)`

Parameters

`id` [Guid](#)

The identifier of the Audit.

`text` [string](#)

The text of the Annotation.

Returns

[Task](#)

Exceptions

[MetasysUnsupportedApiVersion](#)

AddAnnotationMultiple(IEnumerable<BatchRequestParam>)

Add many Annotations given a list of requests containing the Id of the Audits and the text of the Annotations.

`IEnumerable<Result> AddAnnotationMultiple(IEnumerable<BatchRequestParam> requests)`

Parameters

`requests` [IEnumerable](#)<[BatchRequestParam](#)>

List of BatchRequestParam to specify the id of the audits and the text of the annotations to add.

Returns

[IEnumerable](#)<[Result](#)>

A list of BatchRequestParam with all the specified attributes.

AddAnnotationMultipleAsync(IEnumerable<BatchRequestParam>)

Add many Annotations given a list of requests containing the Id of the Audits and the text of the Annotations.

```
Task<IEnumerable<Result>> AddAnnotationMultipleAsync( IEnumerable<BatchRequestParam> requests)
```

Parameters

requests [IEnumerable<BatchRequestParam>](#)

List of BatchRequestParam to specify the id of the audits and the text of the annotations to add.

Returns

[Task<IEnumerable<Result>>](#)

A list of BatchRequestParam with all the specified attributes.

Discard(Guid, string)

Discard an Audit.

```
void Discard(Guid id, string annotationText)
```

Parameters

id [Guid](#)

The identifier of the Audit.

annotationText [string](#)

Text of the annotation to report the reason of the discard.

Exceptions

[MetasysUnsupportedApiVersion](#)

DiscardAsync(Guid, string)

Discard an Audit.

Task **DiscardAsync**(Guid id, string annotationText)

Parameters

id [Guid](#)

The identifier of the Audit.

annotationText [string](#)

Text of the annotation to report the reason of the discard.

Returns

[Task](#)

Exceptions

[MetasysUnsupportedApiVersion](#)

DiscardMultiple(IEnumerable<BatchRequestParam>)

Discard many Audit given a list of requests containing the Id of the Audits and the text for the Annotations.

IEnumerable<Result> **DiscardMultiple**(IEnumerable<BatchRequestParam> requests)

Parameters

requests [IEnumerable](#)<[BatchRequestParam](#)>

List of BatchRequestParam to specify the id of the audits and the text of the annotations to discard.

Returns

[IEnumerable](#)<[Result](#)>

A list of BatchRequestParam with all the specified attributes.

DiscardMultipleAsync(IEnumerable<BatchRequestParam>)

Discard many Audit given a list of requests containing the Id of the Audits and the text for the Annotations.

```
Task<IEnumerable<Result>> DiscardMultipleAsync(IEnumerable<BatchRequestParam>  
requests)
```

Parameters

requests [IEnumerable<BatchRequestParam>](#)

List of BatchRequestParam to specify the id of the audits and the text of the annotations to discard.

Returns

[Task<IEnumerable<Result>>](#)

A list of BatchRequestParam with all the specified attributes.

FindById(Guid)

Retrieves the specified audit.

```
Audit FindById(Guid auditId)
```

Parameters

auditId [Guid](#)

The identifier of the audit.

Returns

[Audit](#)

The specified audit details.

FindByIdAsync(Guid)

Retrieves the specified audit.

```
Task<Audit> FindByIdAsync(Guid auditId)
```

Parameters

auditId [Guid](#)

The identifier of the audit.

Returns

[Task](#)<Audit>

The specified audit details.

Get(AuditFilter)

Retrieves a collection of audits.

```
PagedResult<Audit> Get(AuditFilter auditFilter)
```

Parameters

auditFilter [AuditFilter](#)

The audit model to filter audits.

Returns

[PagedResult](#)<Audit>

The list of audits with details.

GetAnnotations(Guid)

Retrieve a collection of Audit Annotations.

```
IEnumerable<AuditAnnotation> GetAnnotations(Guid auditId)
```

Parameters

auditId [Guid](#)

Returns

[IEnumerable](#)<[AuditAnnotation](#)>

GetAnnotationsAsync(Guid)

Retrieve a collection of Audit Annotations.

```
Task<IEnumerable<AuditAnnotation>> GetAnnotationsAsync(Guid auditId)
```

Parameters

auditId [Guid](#)

Returns

[Task](#)<[IEnumerable](#)<[AuditAnnotation](#)>>

GetAsync(AuditFilter)

Retrieves a collection of audits.

```
Task<PagedResult<Audit>> GetAsync(AuditFilter auditFilter)
```

Parameters

auditFilter [AuditFilter](#)

The audit model to filter audits.

Returns

[Task](#)<[PagedResult](#)<[Audit](#)>>

The list of audits with details.

GetForObject(ObjectId, AuditFilter)

Retrieves a collection of audits for the specified object.

```
PagedResult<Audit> GetForObject(ObjectId objectId, AuditFilter auditFilter)
```

Parameters

objectId [ObjectId](#)

The identifier of the object.

auditFilter [AuditFilter](#)

The filter to be applied to audit list.

Returns

[PagedResult](#)<[Audit](#)>

The list of audit with details.

GetForObjectAsync(ObjectId, AuditFilter)

Retrieves a collection of audits for the specified object.

```
Task<PagedResult<Audit>> GetForObjectAsync(ObjectId objectId,  
AuditFilter auditFilter)
```

Parameters

objectId [ObjectId](#)

The identifier of the object.

auditFilter [AuditFilter](#)

The filter to be applied to audit list.

Returns

[Task](#) ↗<[PagedResult](#)<[Audit](#)>>

The list of audit with details.

Interface IBasicService

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Base Interface for implementing a new service for Metasys Client.

```
public interface IBasicService
```

Properties

Culture

Value of the CultureInfo used to get the localization.

```
CultureInfo Culture { get; set; }
```

Property Value

[CultureInfo](#)

Version

The Metasys server's Api version.

```
ApiVersion Version { get; set; }
```

Property Value

[ApiVersion](#)

Methods

GetObjectTypeEnummeration(string)

Attempts to get the enumeration key of a given en-US localized objectType.

```
string GetObjectTypeEnumeration(string resource)
```

Parameters

resource [string](#)

The en-US value for the localization resource.

Returns

[string](#)

The enumeration key of the en-US objectType if found, original resource if not.

Remarks

The resource parameter must be the value of a Metasys objectTypeEnumSet en-US value, otherwise no key will be found.

Localize(string, CultureInfo)

Localizes the specified resource key for the current MetasysClient locale or specified culture.

```
string Localize(string resource, CultureInfo cultureInfo = null)
```

Parameters

resource [string](#)

The key for the localization resource.

cultureInfo [CultureInfo](#)

Optional culture specification.

Returns

[string](#)

Localized string if the resource was found, the default en-US localized string if not found, or the resource parameter value if neither resource is found.

Remarks

The resource parameter must be the key of a Metasys enumeration resource, otherwise no translation will be found.

Interface IEnumerationService

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Defines method to provide enumeration infos for endpoints of the Metasys Enumerations API.

```
public interface IEnumerationService : IBasicService
```

Inherited Members

[IBasicService.Version](#) , [IBasicService.Culture](#) , [IBasicService.GetObjectTypeEnumeration\(string\)](#) ,
[IBasicService.Localize\(string, CultureInfo\)](#)

Methods

Create(string, IEnumerable<string>)

Create a new custom enumeration.

```
void Create(string name, IEnumerable<string> values)
```

Parameters

name [string](#)

The name of the new custom enumeration.

values [IEnumerable<string>](#)

The list of values (string) included in the new custom enumeration.

CreateAsync(string, IEnumerable<string>)

Create a new custom enumeration.

```
Task CreateAsync(string name, IEnumerable<string> values)
```

Parameters

name [string](#)

The name of the new custom enumeration.

values [IEnumerable](#)<[string](#)>

The list of values (string) included in the new custom enumeration.

Returns

[Task](#)

Delete(string)

Delete an enumeration. Only custom enumerations may be deleted.

`void Delete(string id)`

Parameters

id [string](#)

The identifier of the enumeration.

DeleteAsync(string)

Delete an enumeration. Only custom enumerations may be deleted.

`Task DeleteAsync(string id)`

Parameters

id [string](#)

The identifier of the enumeration.

Returns

Edit(string, string, IEnumerable<string>)

Edit an existing custom enumeration.

```
void Edit(string id, string name, IEnumerable<string> values)
```

Parameters

id [string](#)

The identifier of the existing custom enumeration.

name [string](#)

The new name of the custom enumeration.

values [IEnumerable<string>](#)

The list of new values (string) for the existing custom enumeration.

EditAsync(string, string, IEnumerable<string>)

Edit an existing custom enumeration.

```
Task EditAsync(string id, string name, IEnumerable<string> values)
```

Parameters

id [string](#)

The identifier of the existing custom enumeration.

name [string](#)

The new name of the custom enumeration.

values [IEnumerable<string>](#)

The list of new values (string) for the existing custom enumeration.

Returns

[Task](#)

Get()

Get all the Enumerations

```
IEnumerable<MetasysEnumeration> Get()
```

Returns

[IEnumerable](#)<[MetasysEnumeration](#)>

GetAsync()

Get all the Enumerations

```
Task<IEnumerable<MetasysEnumeration>> GetAsync()
```

Returns

[Task](#)<[IEnumerable](#)<[MetasysEnumeration](#)>>

GetValues(string)

Get an enumeration values

```
IEnumerable<MetasysEnumValue> GetValues(string id)
```

Parameters

id [string](#)

The identifier of the enumeration.

Returns

[IEnumerable](#)<MetasysEnumValue>

GetValuesAsync(string)

Get an enumeration values

`Task<IEnumerable<MetasysEnumValue>> GetValuesAsync(string id)`

Parameters

`id string`

The identifier of the enumeration.

Returns

[Task](#)<[IEnumerable](#)<MetasysEnumValue>>

Replace(string, string, IEnumerable<string>)

Replace and existing custom enumeration.

`void Replace(string id, string name, IEnumerable<string> values)`

Parameters

`id string`

The identifier of the existing custom enumeration.

`name string`

The new name of the custom enumeration.

`values IEnumerable<string>`

The list of new values (string) for the existing custom enumeration.

ReplaceAsync(string, string, IEnumerable<string>)

Replace and existing custom enumeration.

Task `ReplaceAsync(string id, string name, IEnumerable<string> values)`

Parameters

`id` [string](#)

The identifier of the existing custom enumeration.

`name` [string](#)

The new name of the custom enumeration.

`values` [IEnumerable<string>](#)

The list of new values (string) for the existing custom enumeration.

Returns

[Task](#)

Interface IEquipmentService

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Defines method to provide equipment infos for endpoints of the Metasys Equipments API.

```
public interface IEquipmentService : IBasicService
```

Inherited Members

[IBasicService.Version](#) , [IBasicService.Culture](#) , [IBasicService.GetObjectTypeEnumeration\(string\)](#) ,
[IBasicService.Localize\(string, CultureInfo\)](#)

Methods

FindById(ObjectId)

Retrieves the specified equipment instance.

```
MetasysObject FindById(ObjectId equipmentId)
```

Parameters

equipmentId [ObjectId](#)

Returns

[MetasysObject](#)

FindByIdAsync(ObjectId)

Retrieves the specified equipment instance.

```
Task<MetasysObject> FindByIdAsync(ObjectId equipmentId)
```

Parameters

`equipmentId` [ObjectId](#)

Returns

[Task](#) <[MetasysObject](#)>

Get(int?, int?)

Retrieves a collection of equipment instances.

```
IEnumerable<MetasysObject> Get(int? page = null, int? pageSize = null)
```

Parameters

`page` [int](#)?

Specifies the number of the page to be retrieved (optional).

`pageSize` [int](#)?

Specifies the number of items per page. Default is 1000. (optional).

Returns

[IEnumerable](#) <[MetasysObject](#)>

Remarks

If the param 'page' is specified then it will return only the items associated to the specified page number. Otherwise all the items will be returned.

GetAsync(int?, int?)

Retrieves a collection of equipment instances.

```
Task<IEnumerable<MetasysObject>> GetAsync(int? page = null, int? pageSize = null)
```

Parameters

page [int](#)?

Specifies the number of the page to be retrieved (optional).

pageSize [int](#)?

Specifies the number of items per page. Default is 1000. (optional).

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

Remarks

If the param 'page' is specified then it will return only the items associated to the specified page number. Otherwise all the items will be returned.

GetHostedByNetworkDevice(ObjectId)

Retrieves the collection of equipment instances that are hosted by the specified network device or its children.

[IEnumerable](#)<[MetasysObject](#)> **GetHostedByNetworkDevice**([ObjectId](#) networkDeviceId)

Parameters

networkDeviceId [ObjectId](#)

Returns

[IEnumerable](#)<[MetasysObject](#)>

GetHostedByNetworkDeviceAsync(ObjectId)

Retrieves the collection of equipment that serve the specified space.

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>> **GetHostedByNetworkDeviceAsync**([ObjectId](#) networkDeviceId)

Parameters

`networkDeviceId ObjectId`

Returns

`Task<IEnumerable<MetasysObject>>`

GetPoints(ObjectId, bool)

Retrieves the collection of points that are defined by the specified equipment instance.

```
IEnumerable<MetasysPoint> GetPoints(ObjectId equipmentId, bool readAttributeValue = true)
```

Parameters

`equipmentId ObjectId`

The id of the equipment.

`readAttributeValue bool`

Set to false if you would not read Points Attribute Value.

Returns

`IEnumerable<MetasysPoint>`

Remarks

Reading the Attribute Value attribute could take time depending on the number of points.

GetPointsAsync(ObjectId, bool)

Retrieves the collection of points that are defined by the specified equipment instance.

```
Task<IEnumerable<MetasysPoint>> GetPointsAsync(ObjectId equipmentId, bool readAttributeValue = true)
```

Parameters

equipmentId [ObjectId](#)

The id of the equipment.

readAttributeValue [bool](#)

Set to false if you would not read Points Attribute Value.

Returns

[Task](#)<[IEnumerable](#)<[MetasysPoint](#)>>

Remarks

Reading the Attribute Value attribute could take time depending on the number of points.

GetServedByEquipment(ObjectId)

Retrieves the equipment served by the specified equipment instance.

[IEnumerable](#)<[MetasysObject](#)> **GetServedByEquipment**([ObjectId](#) equipmentId)

Parameters

equipmentId [ObjectId](#)

Returns

[IEnumerable](#)<[MetasysObject](#)>

GetServedByEquipmentAsync(ObjectId)

Retrieves the equipment served by the specified equipment instance.

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>> **GetServedByEquipmentAsync**([ObjectId](#) equipmentId)

Parameters

equipmentId [ObjectId](#)

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

GetServingASpace(ObjectId)

Retrieves the collection of equipment that serve the specified space.

`IEnumerable<MetasysObject> GetServingASpace(ObjectId spaceId)`

Parameters

spaceId [ObjectId](#)

Returns

[IEnumerable](#)<[MetasysObject](#)>

GetServingASpaceAsync(ObjectId)

Retrieves the collection of equipment that serve the specified space.

`Task<IEnumerable<MetasysObject>> GetServingASpaceAsync(ObjectId spaceId)`

Parameters

spaceId [ObjectId](#)

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

GetServingAnEquipment(ObjectId)

Retrieves the collection of equipment that serve the specified equipment instance.

```
IEnumerable<MetasysObject> GetServingAnEquipment(ObjectId equipmentId)
```

Parameters

equipmentId [ObjectId](#)

Returns

[IEnumerable](#)<[MetasysObject](#)>

GetServingAnEquipmentAsync(ObjectId)

Retrieves the collection of equipment that serve the specified equipment instance.

```
Task<IEnumerable<MetasysObject>> GetServingAnEquipmentAsync(ObjectId equipmentId)
```

Parameters

equipmentId [ObjectId](#)

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

Interface IMetasysClient

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

An HTTP client for consuming the most commonly used endpoints of the Metasys API.

```
public interface IMetasysClient : IBasicService
```

Inherited Members

[IBasicService.Version](#) , [IBasicService.Culture](#) , [IBasicService.GetObjectTypeEnumeration\(string\)](#) ,
[IBasicService.Localize\(string, CultureInfo\)](#)

Properties

Activities

Services for Activities.

```
IActivityService Activities { get; set; }
```

Property Value

[IActivityService](#)

Alarms

Services for Alarms.

```
IAlarmsService Alarms { get; set; }
```

Property Value

[IAlarmsService](#)

Audits

Services for Audits.

```
IAuditService Audits { get; set; }
```

Property Value

[IAuditService](#)

Enumerations

Services for Enumerations.

```
IEnumerationService Enumerations { get; set; }
```

Property Value

[IEnumerationService](#)

Equipments

Services for Equipments.

```
IEquipmentService Equipments { get; set; }
```

Property Value

[IEquipmentService](#)

Hostname

The hostname of Metasys API server.

```
string Hostname { get; set; }
```

Property Value

[string ↗](#)

NetworkDevices

Services for Network Devices.

```
INetworkDeviceService NetworkDevices { get; set; }
```

Property Value

[INetworkDeviceService](#)

Spaces

Services for Spaces.

```
ISpaceService Spaces { get; set; }
```

Property Value

[ISpaceService](#)

Streams

Services for Streams.

```
IStreamService Streams { get; set; }
```

Property Value

[IStreamService](#)

Timeout

The timeout of https request.

```
int Timeout { get; set; }
```

Property Value

[int](#)

Trends

Services for Trends and Samples.

```
ITrendService Trends { get; set; }
```

Property Value

[ITrendService](#)

Methods

GetAccessToken()

Returns the current session access token.

```
AccessToken GetAccessToken()
```

Returns

[AccessToken](#)

Current session's Access Token.

GetCommandEnumeration(string)

Attempts to get the enumeration key of a given en-US localized command.

```
string GetCommandEnumeration(string resource)
```

Parameters

resource [string](#)

The en-US value for the localization resource.

Returns

[string](#)

The enumeration key of the en-US command if found, original resource if not.

Remarks

The resource parameter must be the value of a Metasys commandIdEnumSet en-US value, otherwise no key will be found.

GetCommands(ObjectId)

Get all available commands given the id of the object.

```
IEnumerable<Command> GetCommands(ObjectId id)
```

Parameters

id [ObjectId](#)

Returns

[IEnumerable](#)<[Command](#)>

List of Commands.

GetCommandsAsync(ObjectId)

Get all available commands given the id of the object.

```
Task<IEnumerable<Command>> GetCommandsAsync(ObjectId id)
```

Parameters

id [Object](#)

Returns

[Task](#)<IEnumerable<Command>>

List of Commands.

GetEquipment()

Retrieves a collection of equipment instances.

```
[Obsolete("Use EquipmentServiceProvider.Get(int?, int?) instead.")]  
IEnumerable<MetasysObject> GetEquipment()
```

Returns

[IEnumerable](#)<[MetasysObject](#)>

Remarks

This method is deprecated. Please use [Get\(int?, int?\)](#) or [GetAsync\(int?, int?\)](#) instead.

GetEquipmentAsync()

Retrieves a collection of equipment instances.

```
[Obsolete("Use EquipmentServiceProvider.GetAsync(int?, int?) instead.")]  
Task<IEnumerable<MetasysObject>> GetEquipmentAsync()
```

Returns

[Task](#)<IEnumerable<MetasysObject>>

Remarks

This method is deprecated. Please use [Get\(int?, int?\)](#) or [GetAsync\(int?, int?\)](#) instead.

GetEquipmentPoints(Guid, bool)

~~Retrieves the collection of points that are defined by the specified equipment instance~~

```
[Obsolete("Use EquipmentServiceProvider.GetPoints(ObjectId, bool) instead.")]  
IEnumerable<MetasysPoint> GetEquipmentPoints(Guid equipmentId, bool  
readAttributeValue = true)
```

Parameters

equipmentId [Guid](#)

The Guid of the equipment.

readAttributeValue [bool](#)

Set to false if you would not read Points Attribute Value.

Returns

[IEnumerable](#)<[MetasysPoint](#)>

Remarks

This method is deprecated Please use [GetPoints\(ObjectId, bool\)](#) or [GetPointsAsync\(ObjectId, bool\)](#) instead.

GetEquipmentPointsAsync(Guid, bool)

~~Retrieves the collection of points that are defined by the specified equipment instance~~

```
[Obsolete("Use EquipmentServiceProvider.GetPointsAsync(ObjectId, bool) instead.")]  
Task<IEnumerable<MetasysPoint>> GetEquipmentPointsAsync(Guid equipmentId, bool  
readAttributeValue = true)
```

Parameters

`equipmentId` [Guid](#)

The Guid of the equipment.

`readAttributeValue` [bool](#)

Set to false if you would not read Points Attribute Value.

Returns

[Task](#)<[IEnumerable](#)<[MetasysPoint](#)>>

Remarks

This method is deprecated Please use [GetPoints\(ObjectId, bool\)](#) or [GetPointsAsync\(ObjectId, bool\)](#) instead.

GetNetworkDeviceTypes()

Gets all available network device types.

[IEnumerable](#)<[MetasysObjectType](#)> [GetNetworkDeviceTypes\(\)](#)

Returns

[IEnumerable](#)<[MetasysObjectType](#)>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetNetworkDeviceTypesAsync()

Gets all available network device types.

[Task](#)<[IEnumerable](#)<[MetasysObjectType](#)>> [GetNetworkDeviceTypesAsync\(\)](#)

Returns

[Task](#)<IEnumerable<[MetasysObjectType](#)>>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetNetworkDevices(NetworkDeviceTypeEnum)

Gets all network devices.

```
IEnumerable<MetasysObject> GetNetworkDevices(NetworkDeviceTypeEnum  
networkDevicetype)
```

Parameters

networkDevicetype [NetworkDeviceTypeEnum](#)

Network Device Type enum

Returns

[IEnumerable](#)<[MetasysObject](#)>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetNetworkDevices(string)

Gets all network devices.

```
[Obsolete("Use GetNetworkDevices(NetworkDeviceTypeEnum) instead.")]
```

```
IEnumerable<MetasysObject> GetNetworkDevices(string type = null)
```

Parameters

type [string](#)

Optional type number as a string

Returns

[IEnumerable](#)<[MetasysObject](#)>

Remarks

Note this method has been deprecated. Please use [GetNetworkDevices\(NetworkDeviceTypeEnum\)](#), or [GetNetworkDevicesAsync\(NetworkDeviceTypeEnum\)](#) instead.

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetNetworkDevicesAsync(NetworkDeviceTypeEnum)

Gets all network devices.

```
Task<IEnumerable<MetasysObject>> GetNetworkDevicesAsync(NetworkDeviceTypeEnum  
networkDevicetype)
```

Parameters

networkDevicetype [NetworkDeviceTypeEnum](#)

Network Device Type enum

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

Exceptions

[MetasysHttpException](#)

[MetasysHttpException](#)

GetNetworkDevicesAsync(string)

Gets all network devices.

```
[Obsolete("Use GetNetworkDevicesAsync(NetworkDeviceTypeEnum) instead.")]  
Task<IEnumerable<MetasysObject>> GetNetworkDevicesAsync(string type = null)
```

Parameters

type [string](#)

Optional type number as a string

Returns

[Task](#)<IEnumerable<MetasysObject>>

Remarks

Note this method has been deprecated. Please use [GetNetworkDevices\(NetworkDeviceTypeEnum\)](#) or [GetNetworkDevicesAsync\(NetworkDeviceTypeEnum\)](#) instead.

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetObjectIdentifier(string)

Given the Item Reference of an object, returns the object identifier.

```
ObjectId GetObjectIdentifier(string itemReference)
```

Parameters

itemReference [string](#)

Returns

[ObjectId](#)

An [ObjectId](#) for the specified object.

Remarks

The itemReference will be automatically URL encoded.

Exceptions

[MetasysHttpException](#)

GetObjectIdentifierAsync(string)

Given the Item Reference of an object, returns the object identifier.

```
Task<ObjectId> GetObjectIdentifierAsync(string itemReference)
```

Parameters

[itemReference string](#)

Returns

[Task<ObjectId>](#)

An [ObjectId](#) for the specified object.

Remarks

The itemReference will be automatically URL encoded.

Exceptions

[MetasysHttpException](#)

GetObjects(ObjectId, int, bool, bool)

Gets all child objects given a parent id. Level indicates how deep to retrieve objects.

```
IEnumerable<MetasysObject> GetObjects(ObjectId id, int levels = 1, bool includeInternalObjects = false, bool includeExtensions = false)
```

Parameters

id [ObjectId](#)

The ID of the parent object.

levels [int](#)

The depth of the children to retrieve.

includeInternalObjects [bool](#)

Set it to true to see also internal objects that are not displayed in the Metasys tree.

includeExtensions [bool](#)

Set it to true to get also the extensions of the object.

Returns

[IEnumerable](#)<[MetasysObject](#)>

Remarks

A level of 1 only retrieves immediate children of the parent object.

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetObjects(ObjectId, string)

Gets all child objects given a parent id and object type.

```
IEnumerable<MetasysObject> GetObjects(ObjectId objectId, string objectType)
```

Parameters

`objectId` [ObjectId](#)

`objectType` [string](#)

The object type enum set.

Returns

[IEnumerable](#)<[MetasysObject](#)>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetObjectsAsync(ObjectId, int, bool, bool)

Gets all child objects given a parent id. Level indicates how deep to retrieve objects.

```
Task<IEnumerable<MetasysObject>> GetObjectsAsync(ObjectId id, int levels = 1, bool includeInternalObjects = false, bool includeExtensions = false)
```

Parameters

`id` [ObjectId](#)

The ID of the parent object.

`levels` [int](#)

The depth of the children to retrieve.

`includeInternalObjects` [bool](#)

Set it to true to see also internal objects that are not displayed in the Metasys tree.

`includeExtensions` [bool](#)

Set it to true to get also the extensions of the object.

Returns

[Task<IEnumerable<MetasysObject>>](#)

Remarks

A level of 1 only retrieves immediate children of the parent object.

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetObjectsAsync(ObjectId, string)

Gets all child objects given a parent id and object type.

```
Task<IEnumerable<MetasysObject>> GetObjectsAsync(ObjectId objectId,  
string objectType)
```

Parameters

objectId [ObjectId](#)

objectType [string](#)

The object type enum set.

Returns

[Task<IEnumerable<MetasysObject>>](#)

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetServerTime()

Returns the current server time in UTC format.

`DateTime GetServerTime()`

Returns

[DateTime](#)

The current Server time.

Exceptions

[MetasysHttpException](#)

Occurs when it's not possible to read date time from HTTP response.

GetServerTimeAsync()

Returns the current server time in UTC format.

`Task<DateTime> GetServerTimeAsync()`

Returns

[Task](#)<[DateTime](#)>

The current Server time.

Exceptions

[MetasysHttpException](#)

Occurs when it's not possible to read date time from HTTP response.

GetSpaceChildren(Guid)

~~Retrieves the collection of spaces that are located within the specified space.~~

```
[Obsolete("Use SpaceServiceProvider.GetChildren(ObjectId) instead.")]  
IEnumerable<MetasysObject> GetSpaceChildren(Guid spaceId)
```

Parameters

spaceId [Guid](#)

The GUID of the parent space.

Returns

[IEnumerable](#)<[MetasysObject](#)>

Remarks

This method is deprecated. Please use [GetChildren\(ObjectId\)](#) or [GetChildrenAsync\(ObjectId\)](#) instead.

GetSpaceChildrenAsync(Guid)

~~Retrieves the collection of spaces that are located within the specified space.~~

```
[Obsolete("Use SpaceServiceProvider.GetChildrenAsync(ObjectId) instead.")]  
Task<IEnumerable<MetasysObject>> GetSpaceChildrenAsync(Guid spaceId)
```

Parameters

spaceId [Guid](#)

The GUID of the parent space.

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

Remarks

This method is deprecated. Please use [GetChildren\(ObjectId\)](#) or [GetChildrenAsync\(ObjectId\)](#) instead.

GetSpaceEquipment(Guid)

Retrieves the collection of equipment that serve the specified space.

```
[Obsolete("Use EquipmentServiceProvider.GetServingASpace(ObjectId) instead.")]  
IEnumerable<MetasysObject> GetSpaceEquipment(Guid spaceId)
```

Parameters

spaceId [Guid](#)

Returns

[IEnumerable](#)<[MetasysObject](#)>

Remarks

This method is deprecated Please use [GetServingASpace\(ObjectId\)](#) or [GetServingASpaceAsync\(ObjectId\)](#) instead.

GetSpaceEquipmentAsync(Guid)

Retrieves the collection of equipment that serve the specified space.

```
[Obsolete("Use EquipmentServiceProvider.GetServingASpaceAsync(ObjectId) instead.")]  
Task<IEnumerable<MetasysObject>> GetSpaceEquipmentAsync(Guid spaceId)
```

Parameters

spaceId [Guid](#)

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

Remarks

This method is deprecated Please use [GetServingASpace\(ObjectId\)](#) or [GetServingASpaceAsync\(ObjectId\)](#) instead.

GetSpaceTypes()

Retrieves the collection of all spaces types. **This method is deprecated.** Please use [GetTypes\(\)](#) or [GetTypesAsync\(\)](#) instead.

`IEnumerable<MetasysObjectType> GetSpaceTypes()`

Returns

`IEnumerable<MetasysObjectType>`

GetSpaceTypesAsync()

Retrieves the collection of all spaces types. **This method is deprecated.** Please use [GetTypes\(\)](#) or [GetTypesAsync\(\)](#) instead.

`Task<IEnumerable<MetasysObjectType>> GetSpaceTypesAsync()`

Returns

`Task<IEnumerable<MetasysObjectType>>`

GetSpaces(SpaceTypeEnum?)

Retrieves a collection of spaces.

```
[Obsolete("Use SpaceServiceProvider.Get(SpaceTypeEnum?, int?, int?,  
string) instead.")]  
IEnumerable<MetasysObject> GetSpaces(SpaceTypeEnum? type = null)
```

Parameters

`type SpaceTypeEnum?`

Optional type ID belonging to SpaceTypeEnum.

Returns

[IEnumerable<MetasysObject>](#)

Remarks

This method is deprecated Please use [Get\(SpaceTypeEnum?, int?, int?, string\)](#) or [GetAsync\(SpaceTypeEnum?, int?, int?, string\)](#) instead.

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetSpacesAsync(SpaceTypeEnum?)

Retrieves a collection of spaces.

```
[Obsolete("SpaceServiceProvider.GetAsync(SpaceTypeEnum?, int?, int?, string) instead.")]
Task<IEnumerable<MetasysObject>> GetSpacesAsync(SpaceTypeEnum? type = null)
```

Parameters

type [SpaceTypeEnum?](#)

Optional type ID belonging to SpaceTypeEnum.

Returns

[Task<IEnumerable<MetasysObject>>](#)

Remarks

This method is deprecated Please use [Get\(SpaceTypeEnum?, int?, int?, string\)](#) or [GetAsync\(SpaceTypeEnum?, int?, int?, string\)](#) instead.

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

ReadProperty(ObjectId, string)

Read one attribute value given the id of the object.

```
Variant ReadProperty(ObjectId id, string attributeName)
```

Parameters

[id ObjectId](#)

[attributeName string](#)

Returns

[Variant](#)

Variant if the attribute exists, null if does not exist.

Exceptions

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParseException](#)

[MetasysHttpNotFoundException](#)

[MetasysPropertyException](#)

ReadPropertyAsync(ObjectId, string)

Read one attribute value given the id of the object.

```
Task<Variant> ReadPropertyAsync(ObjectId id, string attributeName)
```

Parameters

[id ObjectId](#)

[attributeName string](#)

Returns

[Task](#)<[Variant](#)>

Variant if the attribute exists, null if does not exist.

Exceptions

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParseException](#)

[MetasysHttpNotFoundException](#)

[MetasysPropertyException](#)

ReadPropertyMultiple(IEnumerable<Object Id>, IEnumerable<string>)

Read many attribute values given the ids of the objects.

```
IEnumerable<VariantMultiple> ReadPropertyMultiple(IEnumerable<Object Id> ids,  
IEnumerable<string> attributeNames)
```

Parameters

ids [IEnumerable](#)<[Object Id](#)>

attributeNames [IEnumerable](#)<[string](#)>

Returns

[IEnumerable](#)<[VariantMultiple](#)>

A list of VariantMultiple with all the specified attributes (if existing).

Exceptions

[MetasysHttpException](#)

[MetasysPropertyException](#)

ReadPropertyMultiple(IEnumerable<Guid>, IEnumerable<string>)

Read many attribute values given the Guids of the objects.

```
[Obsolete("Use ReadPropertyMultiple(IEnumerable<ObjectId>,
IEnumerable<string>) instead.")]
IEnumerable<VariantMultiple> ReadPropertyMultiple(IEnumerable<Guid> ids,
IEnumerable<string> attributeNames)
```

Parameters

ids [IEnumerable<Guid>](#)

attributeNames [IEnumerable<string>](#)

Returns

[IEnumerable<VariantMultiple>](#)

A list of VariantMultiple with all the specified attributes (if existing).

Remarks

This method is deprecated. Please use [ReadPropertyMultiple\(IEnumerable<ObjectId>, IEnumerable<string>\)](#) or [ReadPropertyMultipleAsync\(IEnumerable<ObjectId>, IEnumerable<string>\)](#) instead.

Exceptions

[MetasysHttpException](#)

[MetasysPropertyException](#)

ReadPropertyMultipleAsync(IEnumerable<ObjectId>, IEnumerable<string>)

Read many attribute values given the ids of the objects.

```
Task<IEnumerable<VariantMultiple>> ReadPropertyMultipleAsync(IEnumerable<ObjectId> ids, IEnumerable<string> attributeNames)
```

Parameters

`ids` [IEnumerable<ObjectId>](#)

`attributeNames` [IEnumerable<string>](#)

Returns

[Task<IEnumerable<VariantMultiple>>](#)

A list of VariantMultiple with all the specified attributes (if existing).

Exceptions

[MetasysHttpException](#)

[MetasysPropertyException](#)

ReadPropertyMultipleAsync(IEnumerable<Guid>, IEnumerable<string>)

~~Read many attribute values given the Guids of the objects.~~

[Obsolete("Use ReadPropertyMultipleAsync(IEnumerable<ObjectId>, IEnumerable<string>) instead.")]

```
Task<IEnumerable<VariantMultiple>> ReadPropertyMultipleAsync(IEnumerable<Guid> ids, IEnumerable<string> attributeNames)
```

Parameters

`ids` [IEnumerable<Guid>](#)

`attributeNames` [IEnumerable<string>](#)

Returns

[Task<IEnumerable<VariantMultiple>>](#)

A list of VariantMultiple with all the specified attributes (if existing).

Remarks

This method is deprecated. Please use [ReadPropertyMultiple\(IEnumerable<ObjectId>, IEnumerable<string>\)](#), or [ReadPropertyMultipleAsync\(IEnumerable<ObjectId>, IEnumerable<string>\)](#) instead.

Exceptions

[MetasysHttpException](#)

[MetasysPropertyException](#)

Refresh()

Requests a new access token from the server before the current token expires.

AccessToken **Refresh()**

Returns

[AccessToken](#)

Access Token.

Exceptions

[MetasysHttpException](#)

[MetasysTokenException](#)

RefreshAsync()

Requests a new access token from the server before the current token expires.

Task<AccessToken> **RefreshAsync()**

Returns

[Task](#)<AccessToken>

Access Token.

Exceptions

[MetasysHttpException](#)

[MetasysTokenException](#)

SendAsync(HttpRequestMessage, HttpCompletionOption, CancellationToken)

Send an HTTP request as an asynchronous operation.

This method currently only supports 1 value per header rather than multiple. In a future revision, this is planned to be addressed.

```
Task<HttpResponseMessage> SendAsync(HttpRequestMessage request, HttpCompletionOption completionOption = HttpCompletionOption.ResponseContentRead, CancellationToken cancellationToken = default)
```

Parameters

request [HttpRequestMessage](#)

The HTTP request message to send.

completionOption [HttpCompletionOption](#)

When the operation should complete (as soon as a response is available or after reading the whole response content).

cancellationToken [CancellationToken](#)

The cancellation token to cancel operation.

Returns

[Task](#)<HttpResponseMessage>

The task object representing the asynchronous operation.

SendCommand(ObjectId, string, IEnumerable<object>)

Send a command to an object.

```
void SendCommand(ObjectId id, string command, IEnumerable<object> values = null)
```

Parameters

`id` [ObjectId](#)

`command` [string](#)

`values` [IEnumerable](#)<[object](#)>

Exceptions

[MetasysHttpException](#)

SendCommandAsync(ObjectId, string, IEnumerable<object>)

Send a command to an object.

```
Task SendCommandAsync(ObjectId id, string command, IEnumerable<object> values  
= null)
```

Parameters

`id` [ObjectId](#)

`command` [string](#)

`values` [IEnumerable](#)<[object](#)>

Returns

[Task](#)

Exceptions

[MetasysHttpException](#)

TryLogin(string, bool)

Attempts to login to the given host using Credential Manager and retrieve an access token.

```
AccessToken TryLogin(string credManTarget, bool refresh = true)
```

Parameters

`credManTarget` [string](#)

The Credential Manager target where to pick the credentials.

`refresh` [bool](#)

Flag to set automatic access token refreshing to keep session active.

Returns

[AccessToken](#)

Remarks

This method can be overridden by extended class with other Credential Manager implementations.

TryLogin(string, string, bool)

Attempts to login to the given host and retrieve an access token.

```
AccessToken TryLogin(string username, string password, bool refresh = true)
```

Parameters

`username` [string](#)

`password` [string](#)

`refresh` [bool](#)

Flag to set automatic access token refreshing to keep session active.

Returns

[AccessToken](#)

Access Token.

Exceptions

[MetasysHttpException](#)

[MetasysTokenException](#)

TryLoginAsync(string, bool)

Attempts to login to the given host using Credential Manager and retrieve an access token.

```
Task<AccessToken> TryLoginAsync(string credManTarget, bool refresh = true)
```

Parameters

credManTarget [string](#)

The Credential Manager target where to pick the credentials.

refresh [bool](#)

Flag to set automatic access token refreshing to keep session active.

Returns

[Task](#)<AccessToken>

Remarks

This method can be overridden by extended class with other Credential Manager implementations.

TryLoginAsync(string, string, bool)

Attempts to login to the given host and retrieve an access token.

```
Task<AccessToken> TryLoginAsync(string username, string password, bool refresh = true)
```

Parameters

`username` [string](#)

`password` [string](#)

`refresh` [bool](#)

Flag to set automatic access token refreshing to keep session active.

Returns

[Task](#)<[AccessToken](#)>

Access Token.

Exceptions

[MetasysHttpException](#)

[MetasysTokenException](#)

WriteProperty(ObjectId, string, object)

Write a single attribute given the id of the object.

```
void WriteProperty(ObjectId id, string attributeName, object newValue)
```

Parameters

`id` [ObjectId](#)

The id of the attribute

`attributeName` [string](#)

The name of the attribute

`newValue` [object](#)

The new value of the attribute

Exceptions

[MetasysHttpException](#)

WritePropertyAsync(ObjectId, string, object)

Write a single attribute given the id of the object.

```
Task WritePropertyAsync(ObjectId id, string attributeName, object newValue)
```

Parameters

id [ObjectId](#)

The id of the attribute

attributeName [string](#)

The name of the attribute

newValue [object](#)

The new value of the attribute

Returns

[Task](#)

Exceptions

[MetasysHttpException](#)

WritePropertyMultiple(IEnumerable<ObjectId>, Dictionary<string, object>)

Write to many attribute values given the ids of the objects.

```
void WritePropertyMultiple(IEnumerable<ObjectId> ids, Dictionary<string, object> attributeValues)
```

Parameters

`ids` `IEnumerable<ObjectId>`

`attributeValues` `Dictionary<string, object>`

The (attribute, value) pairs.

Exceptions

[MetasysHttpException](#)

WritePropertyMultiple(IEnumerable<ObjectId>, IEnumerable<(string Attribute, object Value)>)

Write to many attribute values given the ids of the objects.

```
void WritePropertyMultiple(IEnumerable<ObjectId> ids, IEnumerable<(string Attribute, object Value)> attributeValues)
```

Parameters

`ids` `IEnumerable<ObjectId>`

`attributeValues` `IEnumerable<(string Attribute, object Value)>`

The (attribute, value) pairs.

Exceptions

[MetasysHttpException](#)

WritePropertyMultiple(IEnumerable<Guid>, Dictionary<string, object>)

~~Write to many attribute values given the Guids of the objects.~~

```
[Obsolete("Use WritePropertyMultiple(IEnumerable<ObjectId>, Dictionary<string, object>) instead.")]
```

```
void WritePropertyMultiple(IEnumerable<Guid> ids, Dictionary<string, object> attributeValues)
```

Parameters

ids [IEnumerable<Guid>](#)

attributeValues [Dictionary<string, object>](#)

The (attribute, value) pairs.

Remarks

This method is deprecated. Please use one of the following instead:

[WritePropertyMultiple\(IEnumerable<ObjectId>, Dictionary<string, object>\)](#),

[WritePropertyMultiple\(IEnumerable<ObjectId>, IEnumerable<\(string Attribute, object Value\)>\)](#),

[WritePropertyMultipleAsync\(IEnumerable<ObjectId>, Dictionary<string, object>\)](#), or

[WritePropertyMultipleAsync\(IEnumerable<ObjectId>, IEnumerable<\(string Attribute, object Value\)>\)](#).

Exceptions

[MetasysHttpException](#)

WritePropertyMultiple(IEnumerable<Guid>, IEnumerable<(string Attribute, object Value)>)

~~Write to many attribute values given the Guids of the objects.~~

```
[Obsolete("Use WritePropertyMultiple(IEnumerable<ObjectId>, IEnumerable<string, object>) instead.")]
void WritePropertyMultiple(IEnumerable<Guid> ids, IEnumerable<(string Attribute, object Value)> attributeValues)
```

Parameters

ids [IEnumerable<Guid>](#)

attributeValues [IEnumerable<\(string Attribute, object Value\)>](#)

The (attribute, value) pairs.

Remarks

This method is deprecated. Please use one of the following instead:

[WritePropertyMultiple\(IEnumerable<ObjectId>, Dictionary<string, object>\)](#),
[WritePropertyMultiple\(IEnumerable<ObjectId>, IEnumerable<\(string Attribute, object Value\)>\)](#),
[WritePropertyMultipleAsync\(IEnumerable<ObjectId>, Dictionary<string, object>\)](#), or
[WritePropertyMultipleAsync\(IEnumerable<ObjectId>, IEnumerable<\(string Attribute, object Value\)>\)](#).

Exceptions

[MetasysHttpException](#)

WritePropertyMultipleAsync(IEnumerable<ObjectId>, Dictionary<string, object>)

Write to many attribute values given the ids of the objects.

```
Task WritePropertyMultipleAsync(IEnumerable<ObjectId> ids, Dictionary<string, object> attributeValues)
```

Parameters

ids [IEnumerable<ObjectId>](#)

attributeValues [Dictionary<string, object>](#)

The (attribute, value) pairs.

Returns

[Task](#)

Exceptions

[MetasysHttpException](#)

WritePropertyMultipleAsync(IEnumerable<ObjectId>, IEnumerable<(string Attribute, object Value)>)

Write asynchronously to many attribute values given the ids of the objects.

```
Task WritePropertyMultipleAsync(IEnumerable<ObjectId> ids, IEnumerable<(string Attribute, object Value)> attributeValues)
```

Parameters

ids [IEnumerable<ObjectId>](#)

attributeValues [IEnumerable<\(string Attribute, object Value\)>](#)

Returns

[Task](#)

WritePropertyMultipleAsync(IEnumerable<Guid>, Dictionary<string, object>)

Write to many attribute values given the Guids of the objects.

```
[Obsolete("Use WritePropertyMultiple(IEnumerable<ObjectId>, Dictionary<string, object>) instead.")]
Task WritePropertyMultipleAsync(IEnumerable<Guid> ids, Dictionary<string, object> attributeValues)
```

Parameters

ids [IEnumerable<Guid>](#)

attributeValues [Dictionary<string, object>](#)

The (attribute, value) pairs.

Returns

[Task](#)

Remarks

This method is deprecated. Please use one of the following instead:

[WritePropertyMultiple\(IEnumerable<ObjectId>, Dictionary<string, object>\)](#),
[WritePropertyMultiple\(IEnumerable<ObjectId>, IEnumerable<\(string Attribute, object Value\)>\)](#), or
[WritePropertyMultipleAsync\(IEnumerable<ObjectId>, Dictionary<string, object>\)](#).
[WritePropertyMultipleAsync\(IEnumerable<ObjectId>, IEnumerable<\(string Attribute, object Value\)>\)](#).

Exceptions

[MetasyHttpException](#)

WritePropertyMultipleAsync(IEnumerable<Guid>, IEnumerable<(string Attribute, object Value)>)

~~Write asynchronously to many attribute values given the Guids of the objects.~~

```
[Obsolete("Use WritePropertyMultipleAsync(IEnumerable<ObjectId>, Dictionary<string, object>) instead.")]
Task WritePropertyMultipleAsync(IEnumerable<Guid> ids, IEnumerable<(string Attribute, object Value)> attributeValues)
```

Parameters

ids [IEnumerable<Guid>](#)

attributeValues [IEnumerable<\(string Attribute, object Value\)>](#)

Returns

[Task](#)

Remarks

This method is deprecated. Please use [WritePropertyMultipleAsync\(IEnumerable<ObjectId>, Dictionary<string, object>\)](#) or [WritePropertyMultipleAsync\(IEnumerable<ObjectId>, IEnumerable<\(string Attribute, object Value\)>\)](#) instead.

Interface INetworkDeviceService

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Defines method to provide network device infos for endpoints of the Metasys Network Devices API.

```
public interface INetworkDeviceService : IBasicService
```

Inherited Members

[IBasicService.Version](#) , [IBasicService.Culture](#) , [IBasicService.GetObjectTypeEnumeration\(string\)](#) ,
[IBasicService.Localize\(string, CultureInfo\)](#)

Methods

FindById(Guid)

Retrieves the specified network device.

```
MetasysObject FindById(Guid networkDeviceId)
```

Parameters

networkDeviceId [Guid](#)

The identifier of the network device.

Returns

[MetasysObject](#)

The specified alarm details.

FindByIdAsync(Guid)

Retrieves the specified network device.

```
Task<MetasysObject> FindByIdAsync(Guid networkDeviceId)
```

Parameters

networkDeviceId [Guid](#)

The identifier of the network device.

Returns

[Task](#)<MetasysObject>

The specified alarm details.

Get(NetworkDeviceTypeEnum)

Retrieves a collection of network devices.

```
IEnumerable<MetasysObject> Get(NetworkDeviceTypeEnum networkDevicetype)
```

Parameters

networkDevicetype [NetworkDeviceTypeEnum](#)

Network Device Type enum

Returns

[IEnumerable](#)<MetasysObject>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

Get(string)

Retrieves a collection of network devices.

```
IEnumerable<MetasysObject> Get(string type = null)
```

Parameters

type [string](#)

Optional type number as a string

Returns

[IEnumerable](#)<[MetasysObject](#)>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetAsync(NetworkDeviceClassificationEnum)

Retrieves a collection of network devices.

```
Task<IEnumerable<MetasysObject>> GetAsync(NetworkDeviceClassificationEnum classificationEnum)
```

Parameters

classificationEnum [NetworkDeviceClassificationEnum](#)

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetAsync(NetworkDeviceTypeEnum)

Retrieves a collection of network devices.

```
Task<IEnumerable<MetasysObject>> GetAsync(NetworkDeviceTypeEnum networkDevicetype)
```

Parameters

networkDevicetype [NetworkDeviceTypeEnum](#)

Network Device Type enum

Returns

[Task](#)<IEnumerable<MetasysObject>>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetAsync(string)

Retrieves a collection of network devices.

```
Task<IEnumerable<MetasysObject>> GetAsync(string type = null)
```

Parameters

type [string](#)

Optional type number as a string

Returns

[Task](#)<IEnumerable<MetasysObject>>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetChildren(Guid)

Retrieves the collection of network devices that are children of the specified network device.

`IEnumerable<MetasysObject> GetChildren(Guid networkDeviceId)`

Parameters

`networkDeviceId` [Guid](#)

Returns

[IEnumerable](#)<[MetasysObject](#)>

GetChildrenAsync(Guid)

Retrieves the collection of network devices that are children of the specified network device.

`Task<IEnumerable<MetasysObject>> GetChildrenAsync(Guid networkDeviceId)`

Parameters

`networkDeviceId` [Guid](#)

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

GetHostingAnEquipment(Guid)

List network devices hosting an equipment instance

`IEnumerable<MetasysObject> GetHostingAnEquipment(Guid equipmentId)`

Parameters

equipmentId [Guid](#)

Returns

[IEnumerable](#)<[MetasysObject](#)>

GetHostingAnEquipmentAsync(Guid)

List network devices hosting an equipment instance

`Task<IEnumerable<MetasysObject>> GetHostingAnEquipmentAsync(Guid equipmentId)`

Parameters

equipmentId [Guid](#)

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

GetServingASpace(Guid)

List network devices serving a space.

`IEnumerable<MetasysObject> GetServingASpace(Guid spaceId)`

Parameters

spaceId [Guid](#)

Returns

[IEnumerable](#)<[MetasysObject](#)>

GetServingASpaceAsync(Guid)

List network devices serving a space.

```
Task<IEnumerable<MetasysObject>> GetServingASpaceAsync(Guid spaceId)
```

Parameters

`spaceId` [Guid](#)

Returns

[Task](#)<IEnumerable<MetasysObject>>

GetTypes()

Retrieves the collection of all network device types.

```
IEnumerable<MetasysObjectType> GetTypes()
```

Returns

[IEnumerable](#)<MetasysObjectType>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetTypesAsync()

Retrieves the collection of all network device types.

```
Task<IEnumerable<MetasysObjectType>> GetTypesAsync()
```

Returns

[Task](#)<IEnumerable<MetasysObjectType>>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

Interface ISpaceService

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Defines method to provide space infos for endpoints of the Metasys Spaces API.

```
public interface ISpaceService : IBasicService
```

Inherited Members

[IBasicService.Version](#) , [IBasicService.Culture](#) , [IBasicService.GetObjectTypeEnumeration\(string\)](#) ,
[IBasicService.Localize\(string, CultureInfo\)](#)

Methods

FindById(ObjectId)

Retrieves the specified space.

```
MetasysObject FindById(ObjectId spaceId)
```

Parameters

spaceId [ObjectId](#)

The identifier of the space.

Returns

[MetasysObject](#)

The specified alarm details.

FindByIdAsync(ObjectId)

Retrieves the specified space.

```
Task<MetasysObject> FindByAsync(ObjectId spaceId)
```

Parameters

spaceId [ObjectId](#)

The identifier of the space.

Returns

[Task](#)<[MetasysObject](#)>

The specified alarm details.

Get(SpaceTypeEnum?, int?, int?, string)

Retrieves a collection of spaces.

```
IEnumerable<MetasysObject> Get(SpaceTypeEnum? type = null, int? page = null, int?  
pageSize = null, string sort = null)
```

Parameters

type [SpaceTypeEnum](#)?

Optional, type ID (numeric for v2, v3 - enumset key string for v4).

page [int](#)?

Optional, the page numer of items to return (default = 1).

pageSize [int](#)?

Optional, the maximum number of items to return in the response (default = 100, max = 1000).

sort [string](#)

Optional, the criteria to use when sorting results (default = name).

Returns

[IEnumerable<MetasysObject>](#)

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

Get(string, int?, int?, string)

Retrieves a collection of spaces.

```
IEnumerable<MetasysObject> Get(string type, int? page = null, int? pageSize = null,  
string sort = null)
```

Parameters

type [string](#)

Optional, type ID (numeric for v2, v3 - enumset key string for v4).

page [int](#)?

Optional, the page numer of items to return (default = 1).

pageSize [int](#)?

Optional, the maximum number of items to return in the response (default = 100, max = 1000).

sort [string](#)

Optional, the criteria to use when sorting results (default = name).

Returns

[IEnumerable<MetasysObject>](#)

GetAsync(SpaceTypeEnum?, int?, int?, string)

Retrieves a collection of spaces.

```
Task<IEnumerable<MetasysObject>> GetAsync(SpaceTypeEnum? type = null, int? page = null, int? pageSize = null, string sort = null)
```

Parameters

type [SpaceTypeEnum?](#)

Optional, type ID (numeric for v2, v3 - enumset key string for v4).

page [int?](#)

Optional, the page numer of items to return (default = 1).

pageSize [int?](#)

Optional, the maximum number of items to return in the response (default = 100, max = 1000).

sort [string](#)

Optional, the criteria to use when sorting results (default = name).

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetAsync(string, int?, int?, string)

Retrieves a collection of spaces.

```
Task<IEnumerable<MetasysObject>> GetAsync(string type, int? page = null, int? pageSize = null, string sort = null)
```

Parameters

type [string](#)

Optional, type ID (numeric for v2, v3 - enumset key string for v4).

page [int](#)?

Optional, the page numer of items to return (default = 1).

pageSize [int](#)?

Optional, the maximum number of items to return in the response (default = 100, max = 1000).

sort [string](#)

Optional, the criteria to use when sorting results (default = name).

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

GetChildren(ObjectId)

Retrieves the collection of spaces that are located within the specified space.

[IEnumerable](#)<[MetasysObject](#)> **GetChildren**([ObjectId](#) spaceId)

Parameters

spaceId [ObjectId](#)

The id of the parent space.

Returns

[IEnumerable](#)<[MetasysObject](#)>

GetChildrenAsync(ObjectId)

Retrieves the collection of spaces that are located within the specified space.

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>> **GetChildrenAsync**([ObjectId](#) spaceId)

Parameters

spaceId [ObjectId](#)

The id of the parent space.

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

GetServedByEquipment(ObjectId)

Retrieves the collection of spaces served by the specified network device.

[IEnumerable](#)<[MetasysObject](#)> **GetServedByEquipment**([ObjectId](#) equipmentId)

Parameters

equipmentId [ObjectId](#)

Returns

[IEnumerable](#)<[MetasysObject](#)>

GetServedByEquipmentAsync(ObjectId)

Retrieves the collection of spaces served by the specified network device.

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>> **GetServedByEquipmentAsync**([ObjectId](#) equipmentId)

Parameters

equipmentId [ObjectId](#)

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

GetServedByNetworkDevice(ObjectId)

Retrieves the collection of spaces served by the specified network device.

```
IEnumerable<MetasysObject> GetServedByNetworkDevice(ObjectId networkDeviceId)
```

Parameters

networkDeviceId [ObjectId](#)

Returns

[IEnumerable](#)<[MetasysObject](#)>

GetServedByNetworkDeviceAsync(ObjectId)

Retrieves the collection of spaces served by the specified network device.

```
Task<IEnumerable<MetasysObject>> GetServedByNetworkDeviceAsync(ObjectId  
networkDeviceId)
```

Parameters

networkDeviceId [ObjectId](#)

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

GetTypes()

Retrieves the collection of all spaces types.

```
IEnumerable<MetasysObjectType> GetTypes()
```

Returns

[IEnumerable](#)<[MetasysObjectType](#)>

GetTypesAsync()

Retrieves the collection of all spaces types.

```
Task<IEnumerable<MetasyObject>> GetTypesAsync()
```

Returns

[Task](#)<IEnumerable<MetasyObject>>

Interface IStreamService

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Defines methods to provide Streams infos for endpoints of the Metasys Stream API.

```
public interface IStreamService : IBasicService
```

Inherited Members

[IBasicService.Version](#) , [IBasicService.Culture](#) , [IBasicService.GetObjectTypeEnumeration\(string\)](#) ,
[IBasicService.Localize\(string, CultureInfo\)](#)

Properties

AccessToken

Access Token

```
AccessToken AccessToken { get; set; }
```

Property Value

[AccessToken](#)

ResultChannel

Stream channel result

```
ChannelReader<StreamMessage> ResultChannel { get; }
```

Property Value

[ChannelReader](#)<[StreamMessage](#)>

Methods

ConnectAsync()

Connect method

```
Task<bool> ConnectAsync()
```

Returns

[Task](#)<bool>

Dispose()

Dispose method

```
void Dispose()
```

GetAlarmEvents()

Return the list of Alarm events

```
List<StreamMessage> GetAlarmEvents()
```

Returns

[List](#)<StreamMessage>

GetAuditEvents()

Return the list of Audit events

```
List<StreamMessage> GetAuditEvents()
```

Returns

[List](#) <StreamMessage>

GetCOV()

Return the first value of COV values

StreamMessage **GetCOV()**

Returns

[StreamMessage](#)

GetCOVList()

Return the list of COV values

List<StreamMessage> **GetCOVList()**

Returns

[List](#) <StreamMessage>

GetRequestIds()

Return the list of request Ids

List<Guid> **GetRequestIds()**

Returns

[List](#) <Guid>

KeepAlive(AccessToken)

Call the related API (with a new Token) to keep the Stream Alive

```
Task KeepAlive(AccessToken accessToken)
```

Parameters

accessToken [AccessToken](#)

Returns

[Task](#)

LoadActivitySubscriptions(string)

Add a subscription for an Activity according to the ActivityType

```
void LoadActivitySubscriptions(string activityType)
```

Parameters

activityType [string](#)

LoadCOVSubscriptions(IEnumerable<Guid>)

Add a list of subscriptions for COV (presentValue).

```
void LoadCOVSubscriptions(IEnumerable<Guid> ids)
```

Parameters

ids [IEnumerable](#)<[Guid](#)>

LoadCOVSubscriptions(Guid)

Add a subscription for a COV (presentValue).

```
void LoadCOVSubscriptions(Guid id)
```

Parameters

[id](#) [Guid](#)

StartCollectingAlarmsAsync(int)

Start collecting the Alarm events from the stream

Task `StartCollectingAlarmsAsync(int maxNumber = 100)`

Parameters

[maxNumber](#) [int](#)

Returns

[Task](#)

StartCollectingAuditsAsync(int)

Start collecting the Audit events from the stream

Task `StartCollectingAuditsAsync(int maxNumber = 100)`

Parameters

[maxNumber](#) [int](#)

Returns

[Task](#)

StartReadingCOV(Guid)

Start reading a COV value from the stream

```
void StartReadingCOV(Guid id)
```

Parameters

id [Guid](#)

StartReadingCOVAsync(IEnumerable<Guid>)

Start reading multiple COV values from the stream

```
Task StartReadingCOVAsync(IEnumerable<Guid> ids)
```

Parameters

ids [IEnumerable](#)<[Guid](#)>

Returns

[Task](#)

StartReadingCOVAsync(Guid)

Start reading a COV value from the stream

```
Task StartReadingCOVAsync(Guid id)
```

Parameters

id [Guid](#)

Returns

[Task](#)

StopCollectingAlarms(Guid)

Stop collecting Alarm events from the stream

```
void StopCollectingAlarms(Guid requestId)
```

Parameters

requestId [Guid](#)

StopCollectingAudits(Guid)

Stop collecting Audit events from the stream

```
void StopCollectingAudits(Guid requestId)
```

Parameters

requestId [Guid](#)

StopReadingCOV(Guid)

Stop reading COV Stream Value.

```
void StopReadingCOV(Guid requestId)
```

Parameters

requestId [Guid](#)

SubscribeAsync(Guid, string, string, Dictionary<string, string>, dynamic)

Subscribe method

```
Task<string> SubscribeAsync(Guid requestId, string method, string relativeUrl,  
Dictionary<string, string> query = null, dynamic body = null)
```

Parameters

`requestId` [Guid](#)

`method` [string](#)

`relativeUrl` [string](#)

`query` [Dictionary](#)<[string](#), [string](#)>

`body` dynamic

Returns

[Task](#)<[string](#)>

UnsubscribeAsync(Guid)

Unsubscribe method

`Task UnsubscribeAsync(Guid requestId)`

Parameters

`requestId` [Guid](#)

Returns

[Task](#)

Events

AlarmOccurred

Event fired when an Alarm event occurs

`event EventHandler<StreamEventArgs> AlarmOccurred`

Event Type

[EventHandler](#)<StreamEventArgs>

AuditOccurred

Event fired when an Audit event occurs

event EventHandler<StreamEventArgs> AuditOccurred

Event Type

[EventHandler](#)<StreamEventArgs>

COVValueChanged

Event fired when a COV value changes

event EventHandler<StreamEventArgs> COVValueChanged

Event Type

[EventHandler](#)<StreamEventArgs>

HeartBeatOccurred

Event fired when an HeartBeat occurs

event EventHandler<EventSourceMessageEventArgs> HeartBeatOccurred

Event Type

[EventHandler](#)<EventSourceMessageEventArgs>

Interface ITrendService

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

```
public interface ITrendService : IBasicService
```

Inherited Members

[IBasicService.Version](#) , [IBasicService.Culture](#) , [IBasicService.GetObjectTypeEnumeration\(string\)](#) ,
[IBasicService.Localize\(string, CultureInfo\)](#)

Methods

GetNetDevSamples(ObjectId, AttributeEnumSet, TimeFilter)

Retrieves available samples for the given network device attribute, filtered by startTime and endTime.

```
PagedResult<Sample> GetNetDevSamples(ObjectId networkDeviceId, AttributeEnumSet  
attributeName, TimeFilter filter)
```

Parameters

networkDeviceId [ObjectId](#)

The identifier of the network device.

attributeName [AttributeEnumSet](#)

The textual identifier of the attribute.

filter [TimeFilter](#)

The filter that specifies: startTime, endTime, page, pageSize, sort.

Returns

[PagedResult<Sample>](#)

The list of samples.

Remarks

StartTime and EndTime are mandatory parameters.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetNetDevSamples(ObjectId, int, TimeFilter)

Retrieves available samples for the given network device attribute, filtered by startTime and endTime.

```
PagedResult<Sample> GetNetDevSamples(ObjectId networkDeviceId, int attributeId,  
TimeFilter filter)
```

Parameters

networkDeviceId [ObjectId](#)

The identifier of the network device.

attributeId [int](#)

The numeric identifier of the attribute.

filter [TimeFilter](#)

The filter that specifies: startTime, endTime, page, pageSize, sort.

Returns

[PagedResult<Sample>](#)

The list of samples.

Remarks

StartTime and EndTime are mandatory parameters.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetNetDevSamplesAsync(ObjectId, AttributeEnumSet, TimeFilter)

Retrieves available samples for the given network device attribute, filtered by startTime and endTime.

```
Task<PagedResult<Sample>> GetNetDevSamplesAsync(ObjectId networkDeviceId,  
AttributeEnumSet attributeName, TimeFilter filter)
```

Parameters

networkDeviceId [ObjectId](#)

The identifier of the network device.

attributeName [AttributeEnumSet](#)

The textual identifier of the attribute.

filter [TimeFilter](#)

The filter that specifies: startTime, endTime, page, pageSize, sort.

Returns

[Task](#) <PagedResult<Sample>>

The list of samples.

Remarks

StartTime and EndTime are mandatory parameters.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetNetDevSamplesAsync(ObjectId, int, TimeFilter)

Retrieves available samples for the given network device attribute, filtered by startTime and endTime.

```
Task<PagedResult<Sample>> GetNetDevSamplesAsync(ObjectId networkDeviceId, int  
attributeId, TimeFilter filter)
```

Parameters

networkDeviceId [ObjectId](#)

The identifier of the network device.

attributeId [int](#)

The numeric identifier of the attribute.

filter [TimeFilter](#)

The filter that specifies: startTime, endTime, page, pageSize, sort.

Returns

[Task](#) <[PagedResult](#)<[Sample](#)>>

The list of samples.

Remarks

StartTime and EndTime are mandatory parameters.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetNetDevTrendedAttributes(ObjectId)

Get the list of trended attributes for the given Network Device.

`List<MetasysAttribute> GetNetDevTrendedAttributes(ObjectId id)`

Parameters

`id ObjectId`

The identifier of the network device.

Returns

[List](#) <[MetasysAttribute](#)>

The list of trended attributes.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetNetDevTrendedAttributesAsync(ObjectId)

Get the list of trended attributes for the given Network Device.

```
Task<List<MetasysAttribute>> GetNetDevTrendedAttributesAsync(ObjectId id)
```

Parameters

id [ObjectId](#)

The identifier of the network device.

Returns

[Task<List<MetasysAttribute>>](#)

The list of trended attributes.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetSamples(ObjectId, AttributeEnumSet, TimeFilter)

Retrieves available samples for the given object attribute, filtered by startTime and endTime.

```
PagedResult<Sample> GetSamples(ObjectId objectId, AttributeEnumSet attributeName,  
TimeFilter filter)
```

Parameters

objectId [ObjectId](#)

The identifier of the object.

attributeName [AttributeEnumSet](#)

The textual identifier of the attribute.

filter [TimeFilter](#)

The filter that specifies: startTime, endTime, page, pageSize, sort.

Returns

[PagedResult<Sample>](#)

The list of samples.

Remarks

StartTime and EndTime are mandatory parameters.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetSamples(ObjectId, int, TimeFilter)

Retrieves available samples for the given object attribute, filtered by startTime and endTime.

```
PagedResult<Sample> GetSamples(ObjectId objectId, int attributeId,  
TimeFilter filter)
```

Parameters

objectId [ObjectId](#)

The identifier of the object.

attributeId [int](#)

The numeric identifier of the attribute.

filter [TimeFilter](#)

The filter that specifies: startTime, endTime, page, pageSize, sort.

Returns

[PagedResult<Sample>](#)

The list of samples.

Remarks

StartTime and EndTime are mandatory parameters.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetSamplesAsync(ObjectId, AttributeEnumSet, TimeFilter)

Retrieves available samples for the given object attribute, filtered by startTime and endTime.

```
Task<PagedResult<Sample>> GetSamplesAsync(ObjectId objectId, AttributeEnumSet  
attributeName, TimeFilter filter)
```

Parameters

objectId [ObjectId](#)

The identifier of the object.

attributeName [AttributeEnumSet](#)

The textual identifier of the attribute.

filter [TimeFilter](#)

The filter that specifies: startTime, endTime, page, pageSize, sort.

Returns

[Task](#)<[PagedResult](#)<Sample>>

The list of samples.

Remarks

StartTime and EndTime are mandatory parameters.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetSamplesAsync(ObjectId, int, TimeFilter)

Retrieves available samples for the given object attribute, filtered by startTime and endTime.

```
Task<PagedResult<Sample>> GetSamplesAsync(ObjectId objectId, int attributeId,  
TimeFilter filter)
```

Parameters

objectId [ObjectId](#)

The identifier of the object.

attributeId [int](#)

The numeric identifier of the attribute.

filter [TimeFilter](#)

The filter that specifies: startTime, endTime, page, pageSize, sort.

Returns

[Task](#)<[PagedResult](#)<[Sample](#)>>

The list of samples.

Remarks

StartTime and EndTime are mandatory parameters.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetTrendedAttributes(ObjectId)

Get the list of trended attributes for the given object.

```
List<MetasysAttribute> GetTrendedAttributes(ObjectId id)
```

Parameters

id [ObjectId](#)

The identifier of the object.

Returns

[List](#)<[MetasysAttribute](#)>

The list of trended attributes.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetTrendedAttributesAsync(ObjectId)

Get the list of trended attributes for the given object.

```
Task<List<MetasysAttribute>> GetTrendedAttributesAsync(ObjectId id)
```

Parameters

[id ObjectId](#)

The identifier of the object.

Returns

[Task<List<MetasysAttribute>>](#)

The list of trended attributes.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

Class LegacyData

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

LegacyData is a structure that holds information about Legacy Information.

```
public class LegacyData
```

Inheritance

[object](#) ← LegacyData

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Properties

ClassLevel

Class Level

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

Property Value

[string](#)

Remarks

This is available since Metasys API v3.

ClassLevelUrl

Class Level URL

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

Property Value

[string](#)

Remarks

This is available only in Metasys API v2 and v1.

Description

Description

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

Property Value

[string](#)

Remarks

This is available since Metasys API v3.

DescriptionUrl

Description URL

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

Property Value

[string](#)

Remarks

This is available only in Metasys API v2 and v1.

FullyQualifiedItemReference

The fully Qualified Item Reference

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

Property Value

[string](#)

ItemName

Item Name

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

Property Value

[string](#)

OriginApplication

Origin Application

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

Property Value

[string](#)

Remarks

This is available since Metasys API v3.

OriginApplicationUrl

Origin Application URL

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

Property Value

[string](#) ↗

Remarks

This is available only in Metasys API v2 and v1.

Class LegacyInfo

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Legacy information for the audit.

```
public class LegacyInfo
```

Inheritance

[object](#) ← LegacyInfo

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Properties

ClassLevel

Class Level information of the audit.

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

Property Value

[string](#)

Remarks

Available since Metasys API v3.

Description

Description of the audit.

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

Property Value

[string](#) ↗

Remarks

Available since Metasys API v3.

FullyQualifiedItemReference

FQR of the object related to the audit.

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

Property Value

[string](#) ↗

ItemName

Name of the item related to the audit.

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

Property Value

[string](#) ↗

OriginApplication

Origin Application of the audit.

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

Property Value

[string](#) ↗

Remarks

Available since Metasys API v3.

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

obj [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

Class LogFactory

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Factory to provide log4net.ILog LogFactoryInstance.

```
public sealed class LogFactory
```

Inheritance

[object](#) ← LogFactory

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Properties

Instance

Gets the instance of [LogFactory](#).

```
public static LogFactory Instance { get; }
```

Property Value

[LogFactory](#)

Methods

CreateLogger(Type)

Creates a logger for the specified source.

```
public ILog CreateLogger(Type sourceType)
```

Parameters

sourceType [Type ↗](#)

The specified source type of logger

Returns

ILog

An Instance of diagnostic logger

Class LogInitializer

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Responsible for the Log initialization.

```
public class LogInitializer
```

Inheritance

[object](#) ← LogInitializer

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Constructors

LogInitializer(Type)

Initialize Log4Net Logger using Factory.

```
public LogInitializer(Type source)
```

Parameters

source [Type](#)

Fields

Logger

Instance implementing ILogger.

```
public readonly ILog Logger
```

Field Value

ILog

Class ManageException

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Manage Http exceptions.

```
public sealed class ManageException
```

Inheritance

[object](#) ← ManageException

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Methods

ThrowHttpException(FlurlHttpException)

Throws a Metasys Exception from a Flurl.Http exception.

```
public static void ThrowHttpException(FlurlHttpException exception)
```

Parameters

exception FlurlHttpException

The exception to catch.

Class Measurement

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

A measurement expressed in terms of value and unit.

```
public class Measurement
```

Inheritance

[object](#) ← Measurement

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Properties

Units

Fully qualified enumeration value for the unit.

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

Property Value

[string](#)

Remarks

This is available since Metasys API v3.

UnitsUrl

Route to the endpoint for the current unit enumset.

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

Property Value

[string](#) ↗

Remarks

This is available only in Metasys API v2 and v1.

Value

The value of measurement.

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

Property Value

[string](#) ↗

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

obj [object](#) ↗

Returns

[bool](#) ↗

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

Class MetasysAnnotation

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Base class for a Metasys Annotation.

```
public abstract class MetasysAnnotation
```

Inheritance

[object](#) ← MetasysAnnotation

Derived

[AlarmAnnotation](#), [AuditAnnotation](#)

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Properties

Action

Action of the annotation.

```
[JsonProperty(Required = Required.Always)]  
public string Action { get; set; }
```

Property Value

[string](#)

CreationTime

Creation time of the annotation.

```
[JsonProperty(Required = Required.Always)]  
public DateTime CreationTime { get; set; }
```

Property Value

[DateTime](#)

Text

Text of the annotation.

```
[JsonProperty(Required = Required.Always)]  
public string Text { get; set; }
```

Property Value

[string](#)

User

User who made the annotation.

```
[JsonProperty(Required = Required.Always)]  
public string User { get; set; }
```

Property Value

[string](#)

Class MetasysAttribute

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

DTO for the attribute of an Object.

```
public class MetasysAttribute
```

Inheritance

[object](#) ← MetasysAttribute

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#)

Properties

Description

The description of the attribute.

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

Property Value

[string](#)

Id

The integer ID of the attribute.

```
public int Id { get; set; }
```

Property Value

[int ↗](#)

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

obj [object ↗](#)

Returns

[bool ↗](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int ↗](#)

ToString()

Return a pretty JSON string of the current object.

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

Returns

[string ↗](#)

Class MetasysClient

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

An HTTP client for consuming the most commonly used endpoints of the Metasys API.

```
public class MetasysClient : BasicServiceProvider, IMetasysClient, IBasicService
```

Inheritance

[object](#) ↗ ← [ObjectUtil](#) ← [BasicServiceProvider](#) ← [MetasysClient](#)

Implements

[IMetasysClient](#), [IBasicService](#)

Inherited Members

[BasicServiceProvider.Client](#) , [BasicServiceProvider.MinVersionSupported](#) ,
[BasicServiceProvider.MaxVersionSupported](#) , [BasicServiceProvider.Log](#) ,
[BasicServiceProvider.LogClientErrors](#) ,
[BasicServiceProvider.ToMetasysObject\(IEnumerable<TreeObject>, ApiVersion, MetasysObjectTypeEnum?\)](#) ,
[BasicServiceProvider.ToMetasysObject\(JToken, ApiVersion, MetasysObjectTypeEnum?\)](#) ,
[BasicServiceProvider.ToMetasysObject\(List<JToken>, ApiVersion, MetasysObjectTypeEnum?\)](#) ,
[BasicServiceProvider.ToNetworkDevice\(JToken, ApiVersion\)](#) ,
[BasicServiceProvider.ToNetworkDevice\(List<JToken>, ApiVersion\)](#) ,
[BasicServiceProvider.GetObjectChildrenAsync\(object, Dictionary<string, string>, int\)](#) ,
[BasicServiceProvider.GetResourceTypesAsync\(string, string\)](#) ,
[BasicServiceProvider.GetType\(JToken\)](#) , [BasicServiceProvider.GetObjectTypeEnumeration\(string\)](#) ,
[BasicServiceProvider.Localize\(string, CultureInfo\)](#) , [BasicServiceProvider.GetEnumValues\(string\)](#) ,
[BasicServiceProvider.GetEnumValuesAsync\(string\)](#) , [BasicServiceProvider.GetType\(int, string, string\)](#) ,
[BasicServiceProvider.GetWithFullUrl\(string\)](#) , [BasicServiceProvider.ParseObjectIdentifier\(JToken\)](#) ,
[BasicServiceProvider.GetRequestAsync\(string, Dictionary<string, string>, params object\[\]\)](#) ,
[BasicServiceProvider.GetPagedResultsAsync<T>\(string, Dictionary<string, string>, params object\[\]\)](#) ,
[BasicServiceProvider.GetAllAvailablePagesAsync\(string, Dictionary<string, string>, params string\[\]\)](#) ,
[BasicServiceProvider.ThrowHttpException\(FlurlHttpException\)](#) ,
[BasicServiceProvider.ToDictionary\(object\)](#) ,
[BasicServiceProvider.GetBatchRequestAsync\(string, IEnumerable<ObjectId>, IEnumerable<string>, params string\[\]\)](#) ,

```
BasicServiceProvider.PostBatchRequestAsync(string, IEnumerable<BatchRequestParam>, params
string[]),
BasicServiceProvider.PutBatchRequestAsync(string, IEnumerable<BatchRequestParam>, params
string[]),
BasicServiceProvider.PatchBatchRequestAsync(string, IEnumerable<BatchRequestParam>),
BasicServiceProvider.CheckVersion(ApiVersion), ObjectUtil.GetJTokenValue(JToken, string),
ObjectUtil.GetJTokenDate(JToken, string), object.Equals(object) , object.Equals(object, object) ,
object.GetHashCode() , object.GetType() , object.MemberwiseClone() ,
object.ReferenceEquals(object, object) , object.ToString()
```

Constructors

MetasysClient(string, bool, ApiVersion, CultureInfo, bool, int)

Creates a new MetasysClient.

```
public MetasysClient(string hostname, bool ignoreCertificateErrors = false,
ApiVersion version = ApiVersion.v2, CultureInfo cultureInfo = null, bool
logClientErrors = true, int timeout = 300)
```

Parameters

hostname [string](#)

The hostname of the Metasys server.

ignoreCertificateErrors [bool](#)

Use to bypass server certificate verification.

version [ApiVersion](#)

The server's Api version.

cultureInfo [CultureInfo](#)

Localization culture for Metasys enumeration translations.

logClientErrors [bool](#)

Set this flag to false to disable logging of client errors.

`timeout int`

Set the Timeout (in seconds) of the https request.

Remarks

Takes an optional boolean flag for ignoring certificate errors by bypassing certificate verification steps. Verification bypass is not recommended due to security concerns. If your Metasys server is missing a valid certificate it is recommended to add one to protect your private data from attacks over external networks. Takes an optional flag for the api version of your Metasys server. Takes an optional CultureInfo which is useful for formatting numbers and localization of strings. If not specified, the machine's current culture is used. Takes an optional flag for logging client errors. If not specified, it is enabled by default according to log4Net.config file.

Fields

AccessToken

The current session token.

```
protected AccessToken AccessToken
```

Field Value

[AccessToken](#)

IdentifiersDictionary

Stores retrieved Ids and serves as an in-memory caching layer.

```
protected Dictionary<string, ObjectId> IdentifiersDictionary
```

Field Value

[Dictionary<string, ObjectId>](#)

RefreshToken

The flag used to control automatic session refreshing.

```
protected bool RefreshToken
```

Field Value

[bool](#)

Properties

Activities

Services for Activities.

```
public IActivityService Activities { get; set; }
```

Property Value

[IActivityService](#)

Alarms

Services for Alarms.

```
public IAlarmsService Alarms { get; set; }
```

Property Value

[IAlarmsService](#)

Audits

Services for Audits.

```
public IAuditService Audits { get; set; }
```

Property Value

[IAuditService](#)

Culture

The current Culture Used for localization.

```
public CultureInfo Culture { get; set; }
```

Property Value

[CultureInfo](#)

Enumerations

Services for Enumerations.

```
public IEnumerationService Enumerations { get; set; }
```

Property Value

[IEnumerationService](#)

Equipments

Services for Equipments.

```
public IEquipmentService Equipments { get; set; }
```

Property Value

[IEquipmentService](#)

Hostname

The hostname of Metasys API server.

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

Property Value

[string](#)

IgnoreCertificateErrors

An optional boolean flag for ignoring certificate errors by bypassing certificate verification steps.

```
protected bool IgnoreCertificateErrors { get; set; }
```

Property Value

[bool](#)

NetworkDevices

Services for Network Devices.

```
public INetworkDeviceService NetworkDevices { get; set; }
```

Property Value

[INetworkDeviceService](#)

Spaces

Services for Spaces.

```
public ISpaceService Spaces { get; set; }
```

Property Value

[ISpaceService](#)

Streams

Services for Streams.

```
public IStreamService Streams { get; set; }
```

Property Value

[IStreamService](#)

Timeout

The timeout of https request.

```
public int Timeout { get; set; }
```

Property Value

[int](#)

Trends

Services for Trends and Samples.

```
public ITrendService Trends { get; set; }
```

Property Value

[ITrendService](#)

Version

The Metasys server's Api version.

```
public ApiVersion Version { get; set; }
```

Property Value

[ApiVersion](#)

Methods

GetAccessToken()

Returns the current session access token.

```
public AccessToken GetAccessToken()
```

Returns

[AccessToken](#)

Current session's Access Token.

GetCommandEnumeration(string)

Attempts to get the enumeration key of a given en-US localized command.

```
public string GetCommandEnumeration(string resource)
```

Parameters

[resource](#) [string](#)

The en-US value for the localization resource.

Returns

[string](#)

The enumeration key of the en-US command if found, original resource if not.

Remarks

The resource parameter must be the value of a Metasys commandIdEnumSet en-US value, otherwise no key will be found.

GetCommands(ObjectId)

Get all available commands given the id of the object.

```
public IEnumerable<Command> GetCommands(ObjectId id)
```

Parameters

[id ObjectId](#)

Returns

[IEnumerable<Command>](#)

List of Commands.

GetCommandsAsync(ObjectId)

Get all available commands given the id of the object.

```
public Task<IEnumerable<Command>> GetCommandsAsync(ObjectId id)
```

Parameters

[id ObjectId](#)

Returns

[Task<IEnumerable<Command>>](#)

List of Commands.

GetEquipment()

Retrieves a collection of equipment instances.

```
public IEnumerable<MetasysObject> GetEquipment()
```

Returns

[IEnumerable](#)<[MetasysObject](#)>

Remarks

This method is deprecated. Please use [Get\(int?, int?\)](#) or [GetAsync\(int?, int?\)](#) instead.

GetEquipmentAsync()

Retrieves a collection of equipment instances.

```
public Task<IEnumerable<MetasysObject>> GetEquipmentAsync()
```

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

Remarks

This method is deprecated. Please use [Get\(int?, int?\)](#) or [GetAsync\(int?, int?\)](#) instead.

GetEquipmentPoints(Guid, bool)

Retrieves the collection of points that are defined by the specified equipment instance

```
public IEnumerable<MetasysPoint> GetEquipmentPoints(Guid equipmentId, bool  
readAttributeValue = true)
```

Parameters

equipmentId [Guid](#)

The Guid of the equipment.

readAttributeValue [bool](#)

Set to false if you would not read Points Attribute Value.

Returns

[IEnumerable](#)<[MetasysPoint](#)>

Remarks

This method is deprecated Please use [GetPoints\(ObjectId, bool\)](#) or [GetPointsAsync\(ObjectId, bool\)](#) instead.

GetEquipmentPointsAsync(Guid, bool)

Retrieves the collection of points that are defined by the specified equipment instance

```
public Task<IEnumerable<MetasysPoint>> GetEquipmentPointsAsync(Guid equipmentId,  
    bool readAttributeValue = true)
```

Parameters

equipmentId [Guid](#)

The Guid of the equipment.

readAttributeValue [bool](#)

Set to false if you would not read Points Attribute Value.

Returns

[Task](#)<[IEnumerable](#)<[MetasysPoint](#)>>

Remarks

This method is deprecated Please use [GetPoints\(ObjectId, bool\)](#) or [GetPointsAsync\(ObjectId, bool\)](#) instead.

GetNetworkDeviceTypes()

Gets all available network device types.

```
public IEnumerable<MetasysObjectType> GetNetworkDeviceTypes()
```

Returns

[IEnumerable](#)<[MetasysObjectType](#)>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetNetworkDeviceTypesAsync()

Gets all available network device types.

```
public Task<IEnumerable<MetasysObjectType>> GetNetworkDeviceTypesAsync()
```

Returns

[Task](#)<[IEnumerable](#)<[MetasysObjectType](#)>>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetNetworkDevices(NetworkDeviceTypeEnum)

Gets all network devices.

```
public IEnumerable<MetasysObject> GetNetworkDevices(NetworkDeviceTypeEnum  
networkDevicetype)
```

Parameters

networkDevicetype [NetworkDeviceTypeEnum](#)

Network Device Type enum

Returns

[IEnumerable](#)<[MetasysObject](#)>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetNetworkDevices(string)

Gets all network devices.

```
public IEnumerable<MetasysObject> GetNetworkDevices(string type = null)
```

Parameters

type [string](#)

Optional type number as a string

Returns

[IEnumerable](#)<[MetasysObject](#)>

Remarks

Note this method has been deprecated. Please use [GetNetworkDevices\(NetworkDeviceTypeEnum\)](#) or [GetNetworkDevicesAsync\(NetworkDeviceTypeEnum\)](#) instead.

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetNetworkDevicesAsync(NetworkDeviceTypeEnum)

Gets all network devices.

```
public Task<IEnumerable<MetasysObject>> GetNetworkDevicesAsync(NetworkDeviceTypeEnum  
networkDevicetype)
```

Parameters

networkDevicetype [NetworkDeviceTypeEnum](#)

Network Device Type enum

Returns

[Task](#)<IEnumerable<MetasysObject>>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetNetworkDevicesAsync(string)

~~Gets all network devices.~~

```
public Task<IEnumerable<MetasysObject>> GetNetworkDevicesAsync(string type = null)
```

Parameters

type [string](#)

Optional type number as a string

Returns

[Task](#)<IEnumerable<MetasysObject>>

Remarks

Note this method has been deprecated. Please use [GetNetworkDevices\(NetworkDeviceTypeEnum\)](#) or [GetNetworkDevicesAsync\(NetworkDeviceTypeEnum\)](#) instead.

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetObjectIdentifier(string)

Given the Item Reference of an object, returns the object identifier.

```
public ObjectId GetObjectIdentifier(string itemReference)
```

Parameters

[itemReference](#) [string](#) ↗

Returns

[ObjectId](#)

An [ObjectId](#) for the specified object.

Remarks

The itemReference will be automatically URL encoded.

Exceptions

[MetasysHttpException](#)

GetObjectIdentifierAsync(string)

Given the Item Reference of an object, returns the object identifier.

```
public Task<ObjectId> GetObjectIdentifierAsync(string itemReference)
```

Parameters

itemReference [string](#)

Returns

[Task](#)<[ObjectId](#)>

An [ObjectId](#) for the specified object.

Remarks

The itemReference will be automatically URL encoded.

Exceptions

[MetasysHttpException](#)

GetObjects(ObjectId, int, bool, bool)

Gets all child objects given a parent id. Level indicates how deep to retrieve objects.

```
public IEnumerable<MetasysObject> GetObjects(ObjectId id, int levels = 1, bool includeInternalObjects = false, bool includeExtensions = false)
```

Parameters

id [ObjectId](#)

The ID of the parent object.

levels [int](#)

The depth of the children to retrieve.

includeInternalObjects [bool](#)

Set it to true to see also internal objects that are not displayed in the Metasys tree.

includeExtensions [bool](#)

Set it to true to get also the extensions of the object.

Returns

[IEnumerable<MetasysObject>](#)

Remarks

A level of 1 only retrieves immediate children of the parent object.

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetObjects(ObjectId, string)

Gets all child objects given a parent id and object type.

```
public IEnumerable<MetasysObject> GetObjects(ObjectId id, string objectType)
```

Parameters

id [ObjectId](#)

objectType [string](#)

The object type enum set.

Returns

[IEnumerable<MetasysObject>](#)

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetObjectsAsync(ObjectId, int, bool, bool)

Gets all child objects given a parent id. Level indicates how deep to retrieve objects.

```
public Task<IEnumerable<MetasysObject>> GetObjectsAsync(ObjectId id, int levels,  
bool includeInternalObjects = false, bool includeExtensions = false)
```

Parameters

id [ObjectId](#)

The ID of the parent object.

levels [int](#)

The depth of the children to retrieve.

includeInternalObjects [bool](#)

Set it to true to see also internal objects that are not displayed in the Metasys tree.

includeExtensions [bool](#)

Set it to true to get also the extensions of the object.

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

Remarks

A level of 1 only retrieves immediate children of the parent object.

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetObjectsAsync(ObjectId, string)

Gets all child objects given a parent id and object type.

```
public Task<IEnumerable<MetasysObject>> GetObjectsAsync(ObjectId objectId,  
string objectType)
```

Parameters

`objectId` [Objectid](#)

`objectType` [string](#)

The object type enum set.

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetServerTime()

Returns the current server time in UTC format.

```
public DateTime GetServerTime()
```

Returns

[DateTime](#)

The current Server time.

Exceptions

[MetasysHttpException](#)

Occurs when it's not possible to read date time from HTTP response.

GetServerTimeAsync()

Returns the current server time in UTC format.

```
public Task<DateTime> GetServerTimeAsync()
```

Returns

[Task](#)<[DateTime](#)>

The current Server time.

Exceptions

[MetasysHttpException](#)

Occurs when it's not possible to read date time from HTTP response.

GetSpaceChildren(Guid)

~~Retrieves the collection of spaces that are located within the specified space.~~

```
public IEnumerable<MetasysObject> GetSpaceChildren(Guid spaceId)
```

Parameters

spaceId [Guid](#)

The GUID of the parent space.

Returns

[IEnumerable](#)<[MetasysObject](#)>

Remarks

This method is deprecated. Please use [GetChildren\(ObjectId\)](#) or [GetChildrenAsync\(ObjectId\)](#) instead.

GetSpaceChildrenAsync(Guid)

~~Retrieves the collection of spaces that are located within the specified space.~~

```
public Task<IEnumerable<MetasysObject>> GetSpaceChildrenAsync(Guid spaceId)
```

Parameters

spaceId [Guid](#)

The GUID of the parent space.

Returns

[Task](#)<IEnumerable<MetasysObject>>

Remarks

This method is deprecated. Please use [GetChildren\(ObjectId\)](#) or [GetChildrenAsync\(ObjectId\)](#) instead.

GetSpaceEquipment(Guid)

~~Retrieves the collection of equipment that serve the specified space.~~

```
public IEnumerable<MetasysObject> GetSpaceEquipment(Guid spaceId)
```

Parameters

spaceId [Guid](#)

Returns

[IEnumerable](#)<MetasysObject>

Remarks

This method is deprecated Please use [GetServingASpace\(ObjectId\)](#) or [GetServingASpaceAsync\(ObjectId\)](#) instead.

GetSpaceEquipmentAsync(Guid)

Retrieves the collection of equipment that serve the specified space.

```
public Task<IEnumerable<MetasysObject>> GetSpaceEquipmentAsync(Guid spaceId)
```

Parameters

spaceId [Guid](#)

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

Remarks

This method is deprecated Please use [GetServingASpace\(ObjectId\)](#) or [GetServingASpaceAsync\(ObjectId\)](#) instead.

GetSpaceTypes()

Retrieves the collection of all spaces types. **This method is deprecated**. Please use [GetTypes\(\)](#) or [GetTypesAsync\(\)](#) instead.

```
public IEnumerable<MetasysObjectType> GetSpaceTypes()
```

Returns

[IEnumerable](#)<[MetasysObjectType](#)>

GetSpaceTypesAsync()

Retrieves the collection of all spaces types. **This method is deprecated**. Please use [GetTypes\(\)](#) or [GetTypesAsync\(\)](#) instead.

```
public Task<IEnumerable<MetasysObjectType>> GetSpaceTypesAsync()
```

Returns

[Task](#)<IEnumerable<MetasysObjectType>>

GetSpaces(SpaceTypeEnum?)

~~Retrieves a collection of spaces.~~

```
public IEnumerable<MetasysObject> GetSpaces(SpaceTypeEnum? type = null)
```

Parameters

type [SpaceTypeEnum?](#)

Optional type ID belonging to SpaceTypeEnum.

Returns

[IEnumerable](#)<MetasysObject>

Remarks

This method is deprecated Please use [Get\(SpaceTypeEnum?, int?, int?, string\)](#) or [GetAsync\(SpaceTypeEnum?, int?, int?, string\)](#) instead.

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetSpacesAsync(SpaceTypeEnum?)

~~Retrieves a collection of spaces.~~

```
public Task<IEnumerable<MetasysObject>> GetSpacesAsync(SpaceTypeEnum? type = null)
```

Parameters

type [SpaceTypeEnum?](#)

Optional type ID belonging to SpaceTypeEnum.

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

Remarks

This method is deprecated Please use [Get\(SpaceTypeEnum?, int?, int?, string\)](#) or [GetAsync\(SpaceTypeEnum?, int?, int?, string\)](#) instead.

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

InitFlurlClient(string)

Initialize the HTTP client with a base URL.

```
protected void InitFlurlClient(string hostname)
```

Parameters

hostname [string](#)

ReadProperty(ObjectId, string)

Read one attribute value given the id of the object.

```
public Variant ReadProperty(ObjectId id, string attributeName)
```

Parameters

id [ObjectId](#)

`attributeName` [string](#)

Returns

[Variant](#)

Variant if the attribute exists, null if does not exist.

Exceptions

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysPropertyException](#)

ReadPropertyAsync(ObjectId, string)

Read one attribute value given the id of the object.

```
public Task<Variant> ReadPropertyAsync(ObjectId id, string attributeName)
```

Parameters

`id` [ObjectId](#)

`attributeName` [string](#)

Returns

[Task](#)<[Variant](#)>

Variant if the attribute exists, null if does not exist.

Exceptions

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysPropertyException](#)

ReadPropertyMultiple(IEnumerable<ObjectId>, IEnumerable<string>)

Read many attribute values given the ids of the objects.

```
public IEnumerable<VariantMultiple> ReadPropertyMultiple(IEnumerable<ObjectId> ids, IEnumerable<string> attributeNames)
```

Parameters

`ids` [IEnumerable<ObjectId>](#)

`attributeNames` [IEnumerable<string>](#)

Returns

[IEnumerable<VariantMultiple>](#)

A list of VariantMultiple with all the specified attributes (if existing).

Exceptions

[MetasysHttpException](#)

[MetasysPropertyException](#)

ReadPropertyMultiple(IEnumerable<Guid>, IEnumerable<string>)

~~Read many attribute values given the Guids of the objects.~~

```
[Obsolete("Use ReadPropertyMultiple(IEnumerable<ObjectId>, IEnumerable<string>) instead.")]
```

```
public IEnumerable<VariantMultiple> ReadPropertyMultiple(IEnumerable<Guid> ids,  
IEnumerable<string> attributeNames)
```

Parameters

ids [IEnumerable<Guid>](#)

attributeNames [IEnumerable<string>](#)

Returns

[IEnumerable<VariantMultiple>](#)

A list of VariantMultiple with all the specified attributes (if existing).

Remarks

This method is deprecated. Please use [ReadPropertyMultiple\(IEnumerable<ObjectId>, IEnumerable<string>\)](#) or [ReadPropertyMultipleAsync\(IEnumerable<ObjectId>, IEnumerable<string>\)](#) instead.

Exceptions

[MetasysHttpException](#)

[MetasysPropertyException](#)

ReadPropertyMultipleAsync(IEnumerable<ObjectId>, IEnumerable<string>)

Read many attribute values given the ids of the objects.

```
public Task<IEnumerable<VariantMultiple>>  
ReadPropertyMultipleAsync(IEnumerable<ObjectId> ids, IEnumerable<string>  
attributeNames)
```

Parameters

ids [IEnumerable<ObjectId>](#)

attributeNames [IEnumerable<string>](#)

Returns

[Task<IEnumerable<VariantMultiple>>](#)

A list of VariantMultiple with all the specified attributes (if existing).

Exceptions

[MetasysHttpException](#)

[MetasysPropertyException](#)

ReadPropertyMultipleAsync(IEnumerable<Guid>, IEnumerable<string>)

~~Read many attribute values given the Guids of the objects.~~

```
[Obsolete("Use ReadPropertyMultipleAsync(IEnumerable<ObjectId>,  
IEnumerable<string>) instead.")]  
public Task<IEnumerable<VariantMultiple>>  
ReadPropertyMultipleAsync(IEnumerable<Guid> ids, IEnumerable<string> attributeNames)
```

Parameters

ids [IEnumerable<Guid>](#)

attributeNames [IEnumerable<string>](#)

Returns

[Task<IEnumerable<VariantMultiple>>](#)

A list of VariantMultiple with all the specified attributes (if existing).

Remarks

This method is deprecated. Please use [ReadPropertyMultiple\(IEnumerable<ObjectId>, IEnumerable<string>\)](#) or [ReadPropertyMultipleAsync\(IEnumerable<ObjectId>, IEnumerable<string>\)](#) instead.

Exceptions

[MetasysHttpException](#)

[MetasysPropertyException](#)

Refresh()

Requests a new access token from the server before the current token expires.

```
public AccessToken Refresh()
```

Returns

[AccessToken](#)

Access Token.

Exceptions

[MetasysHttpException](#)

[MetasysTokenException](#)

RefreshAsync()

Requests a new access token from the server before the current token expires.

```
public Task<AccessToken> RefreshAsync()
```

Returns

[Task<AccessToken>](#)

Access Token.

Exceptions

[MetasysHttpException](#)

[MetasyTokenException](#)

SendAsync([HttpRequestMessage](#), [HttpCompletionOption](#), [CancellationToken](#))

Send an HTTP request as an asynchronous operation.

This method currently only supports 1 value per header rather than multiple. In a future revision, this is planned to be addressed.

```
public Task<HttpResponseMessage> SendAsync(HttpRequestMessage requestMessage,  
HttpCompletionOption completionOption = HttpCompletionOption.ResponseContentRead,  
CancellationToken cancellationToken = default)
```

Parameters

[requestMessage](#) [HttpRequestMessage](#)

[completionOption](#) [HttpCompletionOption](#)

When the operation should complete (as soon as a response is available or after reading the whole response content).

[cancellationToken](#) [CancellationToken](#)

The cancellation token to cancel operation.

Returns

[Task](#)<[HttpResponseMessage](#)>

The task object representing the asynchronous operation.

SendCommand([ObjectId](#), [string](#), [IEnumerable<object>](#))

Send a command to an object.

```
public void SendCommand(ObjectId id, string command, IEnumerable<object> values  
= null)
```

Parameters

`id ObjectId`

`command string`

`values IEnumerable<object>`

Exceptions

[MetasysHttpException](#)

SendCommandAsync(ObjectId, string, IEnumerable<object>)

Send a command to an object.

```
public Task SendCommandAsync(ObjectId id, string command, IEnumerable<object> values  
= null)
```

Parameters

`id ObjectId`

`command string`

`values IEnumerable<object>`

Returns

[Task](#)

Exceptions

[MetasysHttpException](#)

TryLogin(string, bool)

Attempts to login to the given host using Credential Manager and retrieve an access token.

```
public virtual AccessToken TryLogin(string credManTarget, bool refresh = true)
```

Parameters

credManTarget [string](#)

The Credential Manager target where to pick the credentials.

refresh [bool](#)

Flag to set automatic access token refreshing to keep session active.

Returns

[AccessToken](#)

Remarks

This method can be overridden by extended class with other Credential Manager implementations.

TryLogin(string, string, bool)

Attempts to login to the given host and retrieve an access token.

```
public AccessToken TryLogin(string username, string password, bool refresh = true)
```

Parameters

username [string](#)

password [string](#)

refresh [bool](#)

Flag to set automatic access token refreshing to keep session active.

Returns

[AccessToken](#)

Access Token.

Exceptions

[MetasysHttpException](#)

[MetasysTokenException](#)

TryLoginAsync(string, bool)

Attempts to login to the given host using Credential Manager and retrieve an access token.

```
public virtual Task<AccessToken> TryLoginAsync(string credManTarget, bool refresh = true)
```

Parameters

credManTarget [string](#)

The Credential Manager target where to pick the credentials.

refresh [bool](#)

Flag to set automatic access token refreshing to keep session active.

Returns

[Task](#)<[AccessToken](#)>

Remarks

This method can be overridden by extended class with other Credential Manager implementations.

TryLoginAsync(string, string, bool)

Attempts to login to the given host and retrieve an access token.

```
public Task<AccessToken> TryLoginAsync(string username, string password, bool refresh = true)
```

Parameters

`username` [string](#)

`password` [string](#)

`refresh` [bool](#)

Flag to set automatic access token refreshing to keep session active.

Returns

[Task](#)<[AccessToken](#)>

Access Token.

Exceptions

[MetasysHttpException](#)

[MetasysTokenException](#)

WriteProperty(ObjectId, string, object)

Write a single attribute given the id of the object.

```
public void WriteProperty(ObjectId id, string attributeName, object newValue)
```

Parameters

`id` [ObjectId](#)

The id of the attribute

`attributeName` [string](#)

The name of the attribute

`newValue` [object](#)

The new value of the attribute

Exceptions

[MetasysHttpException](#)

WritePropertyAsync(ObjectId, string, object)

Write a single attribute given the id of the object.

```
public Task WritePropertyAsync(ObjectId id, string attributeName, object newValue)
```

Parameters

[id ObjectId](#)

The id of the attribute

[attributeName string](#)

The name of the attribute

[newValue object](#)

The new value of the attribute

Returns

[Task](#)

Exceptions

[MetasysHttpException](#)

WritePropertyMultiple(IEnumerable<ObjectId>, Dictionary<string, object>)

Write to many attribute values given the ids of the objects.

```
public void WritePropertyMultiple(IEnumerable<ObjectId> ids, Dictionary<string, object> attributeValues)
```

Parameters

`ids` `IEnumerable<ObjectId>`

`attributeValues` `Dictionary<string, object>`

The (attribute, value) pairs.

Exceptions

[MetasysHttpException](#)

`WritePropertyMultiple(IEnumerable<ObjectId>, IEnumerable<(string Attribute, object Value)>)`

Write to many attribute values given the ids of the objects.

```
public void WritePropertyMultiple(IEnumerable<ObjectId> ids, IEnumerable<(string Attribute, object Value)> attributeValues)
```

Parameters

`ids` `IEnumerable<ObjectId>`

`attributeValues` `IEnumerable<(string Attribute, object Value)>`

The (attribute, value) pairs.

Exceptions

[MetasysHttpException](#)

`WritePropertyMultiple(IEnumerable<Guid>, Dictionary<string, object>)`

~~Write to many attribute values given the Guids of the objects.~~

```
[Obsolete("Use WritePropertyMultiple(IEnumerable<ObjectId>, Dictionary<string, object>) instead.")]
public void WritePropertyMultiple(IEnumerable<Guid> ids, Dictionary<string, object> attributeValues)
```

Parameters

`ids` [IEnumerable<Guid>](#)

`attributeValues` [Dictionary<string, object>](#)

The (attribute, value) pairs.

Remarks

This method is deprecated. Please use one of the following instead:

[WritePropertyMultiple\(IEnumerable<ObjectId>, Dictionary<string, object>\)](#),

[WritePropertyMultiple\(IEnumerable<ObjectId>, IEnumerable<\(string Attribute, object Value\)>\)](#),

[WritePropertyMultipleAsync\(IEnumerable<ObjectId>, Dictionary<string, object>\)](#), or

[WritePropertyMultipleAsync\(IEnumerable<ObjectId>, IEnumerable<\(string Attribute, object Value\)>\)](#).

Exceptions

[MetasysHttpException](#)

WritePropertyMultiple(IEnumerable<Guid>, IEnumerable<(string Attribute, object Value)>)

~~Writes many attribute values given the Guids of the objects.~~

```
[Obsolete("Use WritePropertyMultiple(IEnumerable<ObjectId> ids,  
IEnumerable<ValueTuple<string, Value>>) instead.")]  
public void WritePropertyMultiple(IEnumerable<Guid> ids, IEnumerable<(string  
Attribute, object Value)> attributeValues)
```

Parameters

`ids` [IEnumerable<Guid>](#)

`attributeValues` [IEnumerable<\(string Attribute, object Value\)>](#)

The (attribute, value) pairs.

Remarks

This method is deprecated. Please use one of the following instead:

[WritePropertyMultiple\(IEnumerable<ObjectId>, Dictionary<string, object>\)](#),

[WritePropertyMultiple\(IEnumerable<ObjectId>, IEnumerable<\(string Attribute, object Value\)>\)](#),
[WritePropertyMultipleAsync\(IEnumerable<ObjectId>, Dictionary<string, object>\)](#), or
[WritePropertyMultipleAsync\(IEnumerable<ObjectId>, IEnumerable<\(string Attribute, object Value\)>\)](#).

Exceptions

[MetasysHttpException](#)

WritePropertyMultipleAsync(IEnumerable<ObjectId>, Dictionary<string, object>)

Write to many attribute values given the ids of the objects.

```
public Task WritePropertyMultipleAsync(IEnumerable<ObjectId> ids, Dictionary<string, object> attributeValues)
```

Parameters

ids [IEnumerable<ObjectId>](#)

attributeValues [Dictionary<string, object>](#)

The (attribute, value) pairs.

Returns

[Task](#)

Exceptions

[MetasysHttpException](#)

WritePropertyMultipleAsync(IEnumerable<ObjectId>, IEnumerable<(string Attribute, object Value)>)

Write asynchronously to many attribute values given the ids of the objects.

```
public Task WritePropertyMultipleAsync(IEnumerable<ObjectId> ids,
```

```
IEnumerable<(string Attribute, object Value)> attributeValues)
```

Parameters

ids [IEnumerable<ObjectId>](#)

attributeValues [IEnumerable<\(string Attribute, object Value\)>](#)

Returns

[Task](#)

WritePropertyMultipleAsync(IEnumerable<Guid>, Dictionary<string, object>)

~~Write to many attribute values given the Guids of the objects.~~

```
[Obsolete("Use WritePropertyMultipleAsync(IEnumerable<ObjectId>, Dictionary<string, object>) instead.")]
public Task WritePropertyMultipleAsync(IEnumerable<Guid> ids, Dictionary<string, object> attributeValues)
```

Parameters

ids [IEnumerable<Guid>](#)

attributeValues [Dictionary<string, object>](#)

The (attribute, value) pairs.

Returns

[Task](#)

Remarks

This method is deprecated. Please use one of the following instead:

[WritePropertyMultiple\(IEnumerable<ObjectId>, Dictionary<string, object>\),](#)

[WritePropertyMultiple\(IEnumerable<ObjectId>, IEnumerable<\(string Attribute, object Value\)>\),](#)

[WritePropertyMultipleAsync\(IEnumerable<ObjectId>, Dictionary<string, object>\)](#), or
[WritePropertyMultipleAsync\(IEnumerable<ObjectId>, IEnumerable<\(string Attribute, object Value\)>\)](#).

Exceptions

[MetasysHttpException](#)

WritePropertyMultipleAsync(IEnumerable<Guid>, IEnumerable<(string Attribute, object Value)>)

~~Write asynchronously to many attribute values given the Guids of the objects.~~

```
[Obsolete("Use WritePropertyMultipleAsync(IEnumerable<ObjectId> ids,  
IEnumerable<ValueTuple<string, Value>>) instead.")]  
public Task WritePropertyMultipleAsync(IEnumerable<Guid> ids, IEnumerable<(string  
Attribute, object Value)> attributeValues)
```

Parameters

ids [IEnumerable<Guid>](#)

attributeValues [IEnumerable<\(string Attribute, object Value\)>](#)

Returns

[Task](#)

Remarks

This method is deprecated. Please use [WritePropertyMultipleAsync\(IEnumerable<ObjectId>, Dictionary<string, object>\)](#) or [WritePropertyMultipleAsync\(IEnumerable<ObjectId>, IEnumerable<\(string Attribute, object Value\)>\)](#) instead.

Class MetasysCommandException

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

An exception that is thrown when a MetasysObject could not be created from a Http response.

```
[Serializable]
public class MetasysCommandException : MetasysHttpException, ISerializable
```

Inheritance

```
object ↪ ← Exception ↪ ← MetasysException ← MetasysHttpException ←
MetasysHttpException ← MetasysCommandException
```

Implements

[ISerializable](#)

Inherited Members

```
MetasysHttpException.Call , MetasysHttpException.ResponseBody , Exception.GetBaseException() ↪ ,
Exception.GetObjectData(SerializationInfo, StreamingContext) ↪ , Exception.GetType() ↪ ,
Exception.ToString() ↪ , Exception.Data ↪ , Exception.HelpLink ↪ , Exception.HResult ↪ ,
Exception.InnerException ↪ , Exception.Message ↪ , Exception.Source ↪ , Exception.StackTrace ↪ ,
Exception.TargetSite ↪ , Exception.SerializeObjectState ↪ , object.Equals(object) ↪ ,
object.Equals(object, object) ↪ , object.GetHashCode() ↪ , object.MemberwiseClone() ↪ ,
object.ReferenceEquals(object, object) ↪
```

Constructors

MetasysCommandException(string, Exception)

Initializes a new instance of the MetasysObjectException.

```
public MetasysCommandException(string response, Exception inner)
```

Parameters

response [string](#)

The Http response.

inner [Exception](#)

The inner exception.

Struct MetasysEnumValue

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

MetasysEnumValue is a structure that hold information about a Metasys Enumeration values

```
public struct MetasysEnumValue
```

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Properties

Key

Key that identifies the Enumeration Value.

```
public readonly string Key { get; }
```

Property Value

[string](#)

Name

Name of the Enumeration Value.

```
public readonly string Name { get; }
```

Property Value

[string](#)

Value

Enumeration Value.

```
public readonly int Value { get; }
```

Property Value

[int](#)

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

[obj](#) [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

ToString()

Return a pretty JSON string of the current object.

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

Returns

[string](#)

Struct MetasysEnumeration

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

MetasysEnumeration is a structure that hold information about a Metasys Enumeration definition

```
public struct MetasysEnumeration
```

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Properties

IsMultiState

Specify if the Enumeration is related to a multistate object.

```
public readonly bool IsMultiState { get; }
```

Property Value

[bool](#)

IsTwoState

Specify if the Enumeration is related to a binary object.

```
public readonly bool IsTwoState { get; }
```

Property Value

[bool](#)

Key

Key that identifies the Enumeration set.

```
public readonly string Key { get; }
```

Property Value

[string](#)

Name

Name of the Enumeration set.

```
public readonly string Name { get; }
```

Property Value

[string](#)

NumberOfStates

Specify the number of states when the Enumeration is related to a multistate object.

```
public readonly int NumberOfStates { get; }
```

Property Value

[int](#)

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

obj [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

ToString()

Return a pretty JSON string of the current object.

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

Returns

[string](#)

Class MetasysException

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

A general exception that is thrown when any type of Metasys Exception occurs.

```
[Serializable]
public class MetasysException : Exception, ISerializable
```

Inheritance

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

Implements

[ISerializable](#)

Derived

[MetasysHttpException](#), [MetasysUnsupportedApiVersion](#)

Inherited Members

[Exception.GetBaseException\(\)](#), [Exception.GetObjectData\(SerializationInfo, StreamingContext\)](#),
[Exception.GetType\(\)](#), [Exception.ToString\(\)](#), [Exception.Data](#), [Exception.HelpLink](#),
[Exception.HResult](#), [Exception.InnerException](#), [Exception.Message](#), [Exception.Source](#),
[Exception.StackTrace](#), [Exception.TargetSite](#), [Exception.SerializeObjectState](#),
[object.Equals\(object\)](#), [object.Equals\(object, object\)](#), [object.GetHashCode\(\)](#),
[object.MemberwiseClone\(\)](#), [object.ReferenceEquals\(object, object\)](#)

Constructors

MetasysException(Exception)

Initializes a new instance of the MetasysException class from another exception.

```
public MetasysException(Exception e)
```

Parameters

e [Exception](#)

The Exception.

MetasysException(string)

Initializes a new instance of the MetasysException class with a specified message.

```
public MetasysException(string message)
```

Parameters

message [string](#)

The reason the exception was thrown.

MetasysException(string, Exception)

Initializes a new instance of the MetasysException class with a specified message.

```
public MetasysException(string message, Exception inner)
```

Parameters

message [string](#)

The reason the exception was thrown.

inner [Exception](#)

The inner exception.

Class MetasysGuidException

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

An exception that is thrown when a Guid could not be created from a Http response.

```
[Serializable]
public class MetasysGuidException : MetasysHttpParsingException, ISerializable
```

Inheritance

```
object ↪ ← Exception ↪ ← MetasysException ← MetasysHttpException ←
MetasysHttpParsingException ← MetasysGuidException
```

Implements

[ISerializable](#)

Inherited Members

```
MetasysHttpException.Call , MetasysHttpException.ResponseBody , Exception.GetBaseException() ↪ ,
Exception.GetObjectData(SerializationInfo, StreamingContext) ↪ , Exception.GetType() ↪ ,
Exception.ToString() ↪ , Exception.Data ↪ , Exception.HelpLink ↪ , Exception.HResult ↪ ,
Exception.InnerException ↪ , Exception.Message ↪ , Exception.Source ↪ , Exception.StackTrace ↪ ,
Exception.TargetSite ↪ , Exception.SerializeObjectState ↪ , object.Equals(object) ↪ ,
object.Equals(object, object) ↪ , object.GetHashCode() ↪ , object.MemberwiseClone() ↪ ,
object.ReferenceEquals(object, object) ↪
```

Constructors

MetasysGuidException(string, Exception)

Initializes a new instance of the MetasysGuidException with the given argument for the Guid.

```
public MetasysGuidException(string response, Exception inner)
```

Parameters

response [string](#)

The argument passed to the Guid constructor.

inner [Exception](#)

The inner exception.

Class MetasysHttpException

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

An exception that is thrown when a Flurl.Http exception occurs.

```
[Serializable]
public class MetasysHttpException : MetasysException, ISerializable
```

Inheritance

[object](#) ← [Exception](#) ← [MetasysException](#) ← MetasysHttpException

Implements

[ISerializable](#)

Derived

[MetasysHttpNotFoundException](#), [MetasysHttpParsingException](#), [MetasysHttpTimeoutException](#)

Inherited Members

[Exception.GetBaseException\(\)](#), [Exception.GetObjectData\(SerializationInfo, StreamingContext\)](#),
[Exception.GetType\(\)](#), [Exception.ToString\(\)](#), [Exception.Data](#), [Exception.HelpLink](#),
[Exception.HResult](#), [Exception.InnerException](#), [Exception.Message](#), [Exception.Source](#),
[Exception.StackTrace](#), [Exception.TargetSite](#), [Exception.SerializeObjectState](#),
[object.Equals\(object\)](#), [object.Equals\(object, object\)](#), [object.GetHashCode\(\)](#),
[object.MemberwiseClone\(\)](#), [object.ReferenceEquals\(object, object\)](#)

Constructors

MetasysHttpException(FlurlHttpException)

Initializes a new instance of the MetasysHttpException class using the Flurl.Http.FlurlHttpException class.

```
public MetasysHttpException(FlurlHttpException e)
```

Parameters

e FlurlHttpException

The Flurl.Http exception.

MetasysHttpException(string, string)

Initializes a new instance of the MetasysHttpException class without an HttpCall.

```
public MetasysHttpException(string message, string response)
```

Parameters

message [string](#)

response [string](#)

MetasysHttpException(string, string, Exception)

Initializes a new instance of the MetasysHttpException class without an HttpCall.

```
public MetasysHttpException(string message, string response, Exception inner)
```

Parameters

message [string](#)

response [string](#)

inner [Exception](#)

The inner exception.

Properties

Call

An object containing details about the failed Http call.

```
public HttpCall Call { get; }
```

Property Value

HttpCall

ResponseBody

The string representation of the Http response body from the failed call if any.

```
public string ResponseBody { get; }
```

Property Value

[string](#)

Class MetasysHttpNotFoundException

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

An exception that is thrown when a resource is not found

```
[Serializable]
public class MetasysHttpNotFoundException : MetasysHttpException, ISerializable
```

Inheritance

[object](#) ← [Exception](#) ← [MetasysException](#) ← [MetasysHttpException](#) ←
MetasysHttpNotFoundException

Implements

[ISerializable](#)

Inherited Members

[MetasysHttpException.Call](#) , [MetasysHttpException.ResponseBody](#) , [Exception.GetBaseException\(\)](#) ,
[Exception.GetObjectData\(SerializationInfo, StreamingContext\)](#) , [Exception.GetType\(\)](#) ,
[Exception.ToString\(\)](#) , [Exception.Data](#) , [Exception.HelpLink](#) , [Exception.HResult](#) ,
[Exception.InnerException](#) , [Exception.Message](#) , [Exception.Source](#) , [Exception.StackTrace](#) ,
[Exception.TargetSite](#) , [Exception.SerializeObjectState](#) , [object.Equals\(object\)](#) ,
[object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#)

Constructors

MetasysHttpNotFoundException(FlurlHttpException)

Initializes a new instance of the MetasysNotFoundException

```
public MetasysHttpNotFoundException(FlurlHttpException inner)
```

Parameters

inner FlurlHttpException

Class MetasysHttpParsingException

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

An exception that is thrown when a Flurl.Http.FlurlHttpParsingException exception occurs.

```
[Serializable]
public class MetasysHttpParsingException : MetasysHttpException, ISerializable
```

Inheritance

[object](#) ← [Exception](#) ← [MetasysException](#) ← [MetasysHttpException](#) ← MetasysHttpParsingException

Implements

[ISerializable](#)

Derived

[MetasysCommandException](#), [MetasysGuidException](#), [MetasysObjectException](#),
[MetasysObjectTypeException](#), [MetasysPropertyException](#), [MetasysTokenException](#)

Inherited Members

[MetasysHttpException.Call](#), [MetasysHttpException.ResponseBody](#), [Exception.GetBaseException\(\)](#),
[Exception.GetObjectData\(SerializationInfo, StreamingContext\)](#), [Exception.GetType\(\)](#),
[Exception.ToString\(\)](#), [Exception.Data](#), [Exception.HelpLink](#), [Exception.HResult](#),
[Exception.InnerException](#), [Exception.Message](#), [Exception.Source](#), [Exception.StackTrace](#),
[Exception.TargetSite](#), [Exception.SerializeObjectState](#), [object.Equals\(object\)](#),
[object.Equals\(object, object\)](#), [object.GetHashCode\(\)](#), [object.MemberwiseClone\(\)](#),
[object.ReferenceEquals\(object, object\)](#)

Constructors

MetasysHttpParsingException(FlurlParsingException)

Initializes a new instance of the MetasysHttpParsingException class using the Flurl.Http.FlurlHttpParsingException class.

```
public MetasysHttpParsingException(FlurlParsingException e)
```

Parameters

e [FlurlParsingException](#)

The Flurl.Http exception.

MetasysHttpParsingException(string)

Initializes a new generic instance of the MetasysHttpParsingException class.

```
public MetasysHttpParsingException(string response)
```

Parameters

response [string](#)

The Http response.

MetasysHttpParsingException(string, Exception)

Initializes a new instance of the MetasysHttpParsingException class with an inner exception.

```
public MetasysHttpParsingException(string response, Exception inner)
```

Parameters

response [string](#)

The Http response.

inner [Exception](#)

The inner exception.

MetasysHttpParsingException(string, string, Exception)

Initializes a new instance of the MetasysHttpParsingException class with a message and inner exception.

```
public MetasyHttpParsingException(string message, string response, Exception inner)
```

Parameters

message [string](#)

The original exception message.

response [string](#)

The Http response.

inner [Exception](#)

The inner exception.

Class MetasysHttpTimeoutException

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

An exception that is thrown when a Flurl.Http.FlurlHttpTimeoutException exception occurs.

```
[Serializable]
public class MetasysHttpTimeoutException : MetasysHttpException, ISerializable
```

Inheritance

[object](#) ← [Exception](#) ← [MetasysException](#) ← [MetasysHttpException](#) ←
MetasysHttpTimeoutException

Implements

[ISerializable](#)

Inherited Members

[MetasysHttpException.Call](#) , [MetasysHttpException.ResponseBody](#) , [Exception.GetBaseException\(\)](#) ,
[Exception.GetObjectData\(SerializationInfo, StreamingContext\)](#) , [Exception.GetType\(\)](#) ,
[Exception.ToString\(\)](#) , [Exception.Data](#) , [Exception.HelpLink](#) , [Exception.HResult](#) ,
[Exception.InnerException](#) , [Exception.Message](#) , [Exception.Source](#) , [Exception.StackTrace](#) ,
[Exception.TargetSite](#) , [Exception.SerializeObjectState](#) , [object.Equals\(object\)](#) ,
[object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#)

Constructors

MetasysHttpTimeoutException(FlurlHttpTimeoutException)

Initializes a new instance of the MetasysHttpTimeoutException class using the
Flurl.Http.FlurlHttpTimeoutException class.

```
public MetasysHttpTimeoutException(FlurlHttpTimeoutException e)
```

Parameters

e [FlurlHttpTimeoutException](#)

The Flurl.Http exception.

Class MetasysObject

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

MetasysObject is a structure that holds information about a Metasys object.

```
public class MetasysObject : ObjectUtil
```

Inheritance

[object](#) ↗ ← [ObjectUtil](#) ← MetasysObject

Inherited Members

[ObjectUtil.GetJTokenValue\(JToken, string\)](#) , [ObjectUtil.GetJTokenDate\(JToken, string\)](#) ,
[object.Equals\(object, object\)](#) ↗ , [object.GetType\(\)](#) ↗ , [object.MemberwiseClone\(\)](#) ↗ ,
[object.ReferenceEquals\(object, object\)](#) ↗

Constructors

MetasysObject()

Default constructor for Metasys Object.

```
public MetasysObject()
```

Properties

Category

The specific category of the Metasys Object Type.

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

Property Value

[string](#) ↗

CategoryUrl

Reference of the Metasys Object uthorization Category.

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

Property Value

[string](#)

Children

The direct children objects of the Metasys object.

```
public IEnumerable<MetasysObject> Children { get; set; }
```

Property Value

[IEnumerable](#)<[MetasysObject](#)>

ChildrenCount

The number of direct children objects.

```
public int ChildrenCount { get; set; }
```

Property Value

[int](#)

The number of children or -1 if there is no children data.

Classification

Classification of the object

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

Property Value

[string](#)

Description

The description of the Metasys object.

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

Property Value

[string](#)

EquipmentDefinitionName

Name of the Equipment Definition mapped with the Equipment Instance

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

Property Value

[string](#)

Id

The id of the Metasys object.

```
[JsonProperty(Required = Required.Always)]  
public ObjectId Id { get; set; }
```

Property Value

[ObjectId](#)

ItemReference

The item reference of the Metasys object.

```
[JsonProperty(Required = Required.Always)]  
public string ItemReference { get; set; }
```

Property Value

[string](#)

Name

The name of the Metasys object.

```
[JsonProperty(Required = Required.Always)]  
public string Name { get; set; }
```

Property Value

[string](#)

ObjectCategory

Metasys Object Authorization Category.

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

Property Value

[string](#)

ObjectType

The resource type detail reference.

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

Property Value

[string](#)

Remarks

This is available since Metasys API v3.

Type

The actual Metasys Object type.

```
public MetasysObjectTypeEnum? Type { get; set; }
```

Property Value

[MetasysObjectTypeEnum?](#)

TypeUrl

The resource type detail reference.

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

Property Value

[string](#)

Remarks

This is available only on Metasys API v2 and v1.

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

obj [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

ToString()

Return a pretty JSON string of the current object.

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

Returns

[string](#)

Class MetasysObjectCollectionExtension

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

A helper to work with Metasys Objects collections.

```
public static class MetasysObjectCollectionExtension
```

Inheritance

[object](#) ← MetasysObjectCollectionExtension

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Methods

FindById(IEnumerable<MetasysObject>, ObjectId)

Returns the MetasysObject in the collection with the given ID.

```
public static MetasysObject FindById(this IEnumerable<MetasysObject> source,  
ObjectId id)
```

Parameters

source [IEnumerable](#)<MetasysObject>

id [ObjectId](#)

The Id of the Metasys Object.

Returns

[MetasysObject](#)

FindByName(IEnumerable<MetasysObject>, string)

Returns the first MetasysObject in the collection with the given name.

```
public static MetasysObject FindByName(this IEnumerable<MetasysObject> source,  
string name)
```

Parameters

source [IEnumerable<MetasysObject>](#)

name [string](#)

The name of the Metasys object.

Returns

[MetasysObject](#)

Class MetasysObjectException

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

An exception that is thrown when a MetasysObject could not be created from a Http response.

`[Serializable]`

`public class MetasysObjectException : MetasysHttpException, ISerializable`

Inheritance

`object` ← `Exception` ← `MetasysException` ← `MetasysHttpException` ←
`MetasysHttpParsingException` ← `MetasysObjectException`

Implements

`ISerializable`

Inherited Members

`MetasysHttpException.Call`, `MetasysHttpException.ResponseBody`, `Exception.GetBaseException()`,
`Exception.GetObjectData(SerializationInfo, StreamingContext)`, `Exception.GetType()`,
`Exception.ToString()`, `Exception.Data`, `Exception.HelpLink`, `Exception.HResult`,
`Exception.InnerException`, `Exception.Message`, `Exception.Source`, `Exception.StackTrace`,
`Exception.TargetSite`, `Exception.SerializeObjectState`, `object.Equals(object)`,
`object.Equals(object, object)`, `object.GetHashCode()`, `object.MemberwiseClone()`,
`object.ReferenceEquals(object, object)`

Constructors

MetasysObjectException(Exception)

Initializes a new instance of the MetasysObjectException.

`public MetasysObjectException(Exception inner)`

Parameters

`inner` `Exception`

The inner exception.

MetasysObjectException(string, Exception)

Initializes a new instance of the MetasysObjectException.

```
public MetasysObjectException(string response, Exception inner)
```

Parameters

response [string](#)

The Http response.

inner [Exception](#)

The inner exception.

Struct MetasysObjectType

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

MetasysObjectType is a structure that hold information about a Metasys

```
public struct MetasysObjectType
```

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Properties

Description

The translated description of the object type.

```
public readonly string Description { get; }
```

Property Value

[string](#)

The translated description of the object type or the default en-US version.

DescriptionEnumerationKey

The enumeration key of the description.

```
public readonly string DescriptionEnumerationKey { get; }
```

Property Value

[string](#)

The enumeration key of the object type or the default en-US version if not found.

Id

The number id of the object type.

```
public readonly int Id { get; }
```

Property Value

[int](#)

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

obj [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

ToString()

Return a pretty JSON string of the current object.

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

Returns

[string](#)

Enum MetasysObjectTypeEnum

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Collection of Metasys Object Types.

```
public enum MetasysObjectTypeEnum
```

Fields

Equipment = 3

Metasys Object of type Equipment.

Object = 1

Generic Metasys Object.

Space = 2

Metasys Object of type Space.

Class MetasysObjectTypeException

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

An exception that is thrown when a MetasysObjectType could not be created from a Http response.

```
[Serializable]
public class MetasysObjectTypeException : MetasysHttpParsingException, ISerializable
```

Inheritance

```
object ↳ Exception ↳ MetasysException ↳ MetasysHttpException ↳
MetasysHttpParsingException ↳ MetasysObjectTypeException
```

Implements

[ISerializable](#)

Inherited Members

```
MetasysHttpException.Call , MetasysHttpException.ResponseBody , Exception.GetBaseException() ,
Exception.GetObjectData(SerializationInfo, StreamingContext) ,
Exception.GetType() ,
Exception.ToString() ,
Exception.Data ,
Exception.HelpLink ,
Exception.HResult ,
Exception.InnerException ,
Exception.Message ,
Exception.Source ,
Exception.StackTrace ,
Exception.TargetSite ,
Exception.SerializeObjectState ,
object.Equals(object) ,
object.Equals(object, object) ,
object.GetHashCode() ,
object.MemberwiseClone() ,
object.ReferenceEquals(object, object)
```

Constructors

MetasysObjectTypeException(string, Exception)

Initializes a new instance of the MetasysObjectTypeException.

```
public MetasysObjectTypeException(string response, Exception inner)
```

Parameters

response [string](#)

The Http response.

inner [Exception](#)

The inner exception.

Class MetasysPoint

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Point is a structure that holds information about an object attribute mapped to a point.

```
public class MetasysPoint : ObjectUtil
```

Inheritance

[object](#) ↳ [ObjectUtil](#) ↳ MetasysPoint

Inherited Members

[ObjectUtil.GetJTokenValue\(JToken, string\)](#) , [ObjectUtil.GetJTokenDate\(JToken, string\)](#) ,
[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Constructors

MetasysPoint()

Default Constructor for Point.

```
public MetasysPoint()
```

Properties

Attribute

Attribute where the point is mapped

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

Property Value

[string](#)

AttributeUrl

Full URL of the attribute where the point is mapped

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

Property Value

[string](#)

Category

Category of the Point.

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

PropertyValue

[string](#)

EquipmentName

The name of the Equipment that contains the Point

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

PropertyValue

[string](#)

IsDisplayData

Flag that states when the attribute object contains data suitable to display

```
public bool IsDisplayData { get; set; }
```

Property Value

[bool](#)

Label

The Label of the Point.

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

Property Value

[string](#)

ObjectId

The ID of the object where the point is mapped

```
public Guid ObjectId { get; set; }
```

PropertyValue

[Guid](#)

ObjectUrl

Full URL of the object where the point is mapped

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

PropertyValue

[string](#)

PresentValue

Value of the attribute where the point is mapped

```
public Variant PresentValue { get; set; }
```

Property Value

[Variant](#)

ShortName

The Short name of the Point.

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

Property Value

[string](#)

Methods

ToString()

Return a pretty JSON string of the current object.

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

Returns

[string](#)

Class MetasysPointCollectionExtension

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

A helper to work with MetasysPoint collections.

```
public static class MetasysPointCollectionExtension
```

Inheritance

[object](#) ← MetasysPointCollectionExtension

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Methods

FindByShortName(IEnumerable<MetasysPoint>, string)

Returns the first MetasysPoint in the collection with the given short name.

```
public static MetasysPoint FindByShortName(this IEnumerable<MetasysPoint> source,  
string shortName)
```

Parameters

source [IEnumerable](#)<MetasysPoint>

shortName [string](#)

The short name of the Metasys point.

Returns

[MetasysPoint](#)

Class MetasysPropertyException

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

An exception that is thrown when a Variant could not be created from a Http response.

```
[Serializable]
public class MetasysPropertyException : MetasysHttpParsingException, ISerializable
```

Inheritance

```
object ↪ ← Exception ↪ ← MetasysException ← MetasysHttpException ←
MetasysHttpParsingException ← MetasysPropertyException
```

Implements

```
ISerializable ↪
```

Inherited Members

```
MetasysHttpException.Call , MetasysHttpException.ResponseBody , Exception.GetBaseException() ↪ ,
Exception.GetObjectData(SerializationInfo, StreamingContext) ↪ , Exception.GetType() ↪ ,
Exception.ToString() ↪ , Exception.Data ↪ , Exception.HelpLink ↪ , Exception.HResult ↪ ,
Exception.InnerException ↪ , Exception.Message ↪ , Exception.Source ↪ , Exception.StackTrace ↪ ,
Exception.TargetSite ↪ , Exception.SerializeObjectState ↪ , object.Equals(object) ↪ ,
object.Equals(object, object) ↪ , object.GetHashCode() ↪ , object.MemberwiseClone() ↪ ,
object.ReferenceEquals(object, object) ↪
```

Constructors

MetasysPropertyException(string, Exception)

Initializes a new instance of the MetasysPropertyException.

```
public MetasysPropertyException(string response, Exception inner)
```

Parameters

response [string](#) ↪

The Http response.

[inner Exception](#)

The inner exception.

Remarks

By passing the response in the message the value/values can still be seen. This information can be useful despite the Variant construction failing.

Class MetasysTokenException

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

An exception that is thrown when an AccessToken could not be created from a Http response.

```
[Serializable]
public class MetasysTokenException : MetasysHttpException, ISerializable
```

Inheritance

```
object ↪ ← Exception ↪ ← MetasysException ← MetasysHttpException ←
MetasysHttpException ← MetasysTokenException
```

Implements

[ISerializable](#)

Inherited Members

```
MetasysHttpException.Call , MetasysHttpException.ResponseBody , Exception.GetBaseException() ↪ ,
Exception.GetObjectData(SerializationInfo, StreamingContext) ↪ , Exception.GetType() ↪ ,
Exception.ToString() ↪ , Exception.Data ↪ , Exception.HelpLink ↪ , Exception.HResult ↪ ,
Exception.InnerException ↪ , Exception.Message ↪ , Exception.Source ↪ , Exception.StackTrace ↪ ,
Exception.TargetSite ↪ , Exception.SerializeObjectState ↪ , object.Equals(object) ↪ ,
object.Equals(object, object) ↪ , object.GetHashCode() ↪ , object.MemberwiseClone() ↪ ,
object.ReferenceEquals(object, object) ↪
```

Constructors

MetasysTokenException(string, Exception)

Initializes a new instance of the MetasysTokenException.

```
public MetasysTokenException(string response, Exception inner)
```

Parameters

response [string](#)

The Http response.

[inner Exception](#)

The inner exception.

Remarks

Since access tokens are sensitive information it is important to protect them from being automatically logged. For this reason the response should not be passed into the base Exception in the message, but rather accessed through the MetasysHttpException ResponseBody property.

Class MetasysUnsupportedApiVersion

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

An exception that is thrown when the given API version is invalid or not supported

```
[Serializable]
public class MetasysUnsupportedApiVersion : MetasysException, ISerializable
```

Inheritance

[object](#) ← [Exception](#) ← [MetasysException](#) ← MetasysUnsupportedApiVersion

Implements

[ISerializable](#)

Inherited Members

[Exception.GetBaseException\(\)](#) , [Exception.GetObjectData\(SerializationInfo, StreamingContext\)](#) ,
[Exception.GetType\(\)](#) , [Exception.ToString\(\)](#) , [Exception.Data](#) , [Exception.HelpLink](#) ,
[Exception.HResult](#) , [Exception.InnerException](#) , [Exception.Message](#) , [Exception.Source](#) ,
[Exception.StackTrace](#) , [Exception.TargetSite](#) , [Exception.SerializeObjectState](#) ,
[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Constructors

MetasysUnsupportedApiVersion(string)

Initializes a new instance of the MetasysUnsupportedApiVersion with a predefined message given the API Version

```
public MetasysUnsupportedApiVersion(string version)
```

Parameters

`version string`

Class NetworkDevice

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

NetworkDevice is a structure that hold information about a Metasys Network Device

```
public class NetworkDevice
```

Inheritance

[object](#) ← NetworkDevice

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#)

Properties

Id

Item Unique Identifier (GUID)

```
[JsonProperty(Required = Required.Always)]  
public Guid Id { get; set; }
```

Property Value

[Guid](#)

ItemReference

Item fully qualified reference

```
[JsonProperty(Required = Required.Always)]  
public string ItemReference { get; set; }
```

Property Value

[string](#) ↗

Name

Item name

```
[JsonProperty(Required = Required.Always)]  
public string Name { get; set; }
```

Property Value

[string](#) ↗

ObjectType

The resource type detail reference.

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

Property Value

[string](#) ↗

Remarks

This is available since Metasys API v3.

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

obj [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

ToString()

Return a pretty JSON string of the current object.

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

Returns

[string](#)

Class NetworkDeviceServiceProvider

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Provide network device item for the endpoints of the Metasys Network Devices API.

```
public sealed class NetworkDeviceServiceProvider : BasicServiceProvider,  
INetworkDeviceService, IBasicService
```

Inheritance

[object](#) ← [ObjectUtil](#) ← [BasicServiceProvider](#) ← NetworkDeviceServiceProvider

Implements

[INetworkDeviceService](#), [IBasicService](#)

Inherited Members

[BasicServiceProvider.Version](#) , [BasicServiceProvider.MinVersionSupported](#) ,
[BasicServiceProvider.MaxVersionSupported](#) , [BasicServiceProvider.Culture](#) ,
[BasicServiceProvider.LogClientErrors](#) , [BasicServiceProvider.GetResourceTypesAsync\(string, string\)](#) ,
[BasicServiceProvider.GetObjectTypeEnumeration\(string\)](#) ,
[BasicServiceProvider.Localize\(string, CultureInfo\)](#) , [BasicServiceProvider.ToDictionary\(object\)](#) ,
[ObjectUtil.GetJTokenValue\(JToken, string\)](#) , [ObjectUtil.GetJTokenDate\(JToken, string\)](#) ,
[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Constructors

NetworkDeviceServiceProvider(IFlurlClient, ApiVersion, bool)

Initializes a new instance of [NetworkDeviceServiceProvider](#) with supplied data.

```
public NetworkDeviceServiceProvider(IFlurlClient client, ApiVersion version, bool  
logClientErrors = true)
```

Parameters

client IFlurlClient

The FlurlClient to get response from URL.

[version](#) [ApiVersion](#)

The server's Api version.

[logClientErrors](#) [bool](#)

Set this flag to false to disable logging of client errors.

Methods

FindById(Guid)

Retrieves the specified network device.

```
public MetasysObject FindById(Guid networkDeviceId)
```

Parameters

[networkDeviceId](#) [Guid](#)

The identifier of the network device.

Returns

[MetasysObject](#)

The specified alarm details.

FindByIdAsync(Guid)

Retrieves the specified network device.

```
public Task<MetasysObject> FindByIdAsync(Guid networkDeviceId)
```

Parameters

[networkDeviceId](#) [Guid](#)

The identifier of the network device.

Returns

[Task](#) <[MetasysObject](#)>

The specified alarm details.

Get(NetworkDeviceTypeEnum)

Retrieves a collection of network devices.

```
public IEnumerable<MetasysObject> Get(NetworkDeviceTypeEnum networkDevicetype)
```

Parameters

networkDevicetype [NetworkDeviceTypeEnum](#)

Network Device Type enum

Returns

[IEnumerable](#) <[MetasysObject](#)>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

Get(string)

Retrieves a collection of network devices.

```
public IEnumerable<MetasysObject> Get(string type = null)
```

Parameters

type [string](#)

Optional type number as a string

Returns

[IEnumerable<MetasysObject>](#)

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetAsync(NetworkDeviceClassificationEnum)

Retrieves a collection of network devices.

```
public Task<IEnumerable<MetasysObject>> GetAsync(NetworkDeviceClassificationEnum classificationEnum)
```

Parameters

classificationEnum [NetworkDeviceClassificationEnum](#)

Returns

[Task<IEnumerable<MetasysObject>>](#)

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetAsync(NetworkDeviceTypeEnum)

Retrieves a collection of network devices.

```
public Task<IEnumerable<MetasysObject>> GetAsync(NetworkDeviceTypeEnum networkDevicetype)
```

Parameters

networkDevicetype [NetworkDeviceTypeEnum](#)

Network Device Type enum

Returns

[Task](#)<IEnumerable<[MetasysObject](#)>>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetAsync(string)

Retrieves a collection of network devices.

```
public Task<IEnumerable<MetasysObject>> GetAsync(string type = null)
```

Parameters

type [string](#)

Optional type number as a string

Returns

[Task](#)<IEnumerable<[MetasysObject](#)>>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetByClassificationAsync(string)

```
public Task<IEnumerable<MetasysObject>> GetByClassificationAsync(string classification = null)
```

Parameters

classification [string](#)

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

GetChildren(Guid)

Retrieves the collection of network devices that are children of the specified network device.

```
public IEnumerable<MetasysObject> GetChildren(Guid networkDeviceId)
```

Parameters

networkDeviceId [Guid](#)

Returns

[IEnumerable](#)<[MetasysObject](#)>

GetChildrenAsync(Guid)

Retrieves the collection of network devices that are children of the specified network device.

```
public Task<IEnumerable<MetasysObject>> GetChildrenAsync(Guid networkDeviceId)
```

Parameters

networkDeviceId [Guid](#)

Returns

[Task](#)<IEnumerable<MetasysObject>>

GetHostingAnEquipment(Guid)

List network devices hosting an equipment instance

```
public IEnumerable<MetasysObject> GetHostingAnEquipment(Guid equipmentId)
```

Parameters

equipmentId [Guid](#)

Returns

[IEnumerable](#)<MetasysObject>

GetHostingAnEquipmentAsync(Guid)

List network devices hosting an equipment instance

```
public Task<IEnumerable<MetasysObject>> GetHostingAnEquipmentAsync(Guid equipmentId)
```

Parameters

equipmentId [Guid](#)

Returns

[Task](#)<IEnumerable<MetasysObject>>

GetServingASpace(Guid)

List network devices serving a space.

```
public IEnumerable<MetasysObject> GetServingASpace(Guid spaceId)
```

Parameters

spaceId [Guid](#)

Returns

[IEnumerable](#)<[MetasysObject](#)>

GetServingASpaceAsync(Guid)

List network devices serving a space.

```
public Task<IEnumerable<MetasysObject>> GetServingASpaceAsync(Guid spaceId)
```

Parameters

spaceId [Guid](#)

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

GetTypes()

Retrieves the collection of all network device types.

```
public IEnumerable<MetasysObjectType> GetTypes()
```

Returns

[IEnumerable](#)<[MetasysObjectType](#)>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetTypesAsync()

Retrieves the collection of all network device types.

```
public Task<IEnumerable<MetasysObjectType>> GetTypesAsync()
```

Returns

[Task](#)<IEnumerable<MetasysObjectType>>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

Enum NetworkDeviceTypeEnum

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Enumeration of possible Network Device Type.

```
public enum NetworkDeviceTypeEnum
```

Fields

ADS = 425

ADS.

BACnetIP = 343

BACnet IP.

FEC = 194

FEC.

FXSNC = 455

FX SNC.

FieldBusMSTP = 195

Field Bus MTSP.

IOM = 578

IOM.

JCIFamilyBACnetDevice = 197

JCI Family BACnet Device.

NAE35NIE39 = 613

NAE35-NIE39.

NAE45NIE49 = 192

NAE45-NIE49.

NAE55NIE59 = 185

NAE55-NIE59.

NAE85LCS85NIE89 = 610

NAE85-LCS85-NIE89.

NCE25NIE29 = 651

NCE25-NIE29.

NCE35 = 193

NCE35.

NIE85 = 611

NIE85.

RDDEV = 640

RDDEV.

RIOM = 598

RIOM.

SNC = 448

SNC.

SNE1050 = 872

SNE1050.

SNE1100 = 871

SNE1100.

SNE1100L = 873

SNE1100L.

SNE2200 = 877

SNE2200.

SensorActuatorBus = 196

Sensor/Actuator Bus.

VNDController = 427

VND Controller.

VNDIntegration = 426

VND Integration.

Struct ObjectId

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

A Metasys Object Identifier

```
public record struct ObjectId : IEquatable<ObjectId>, IEquatable<string>,
IEquatable<Guid>
```

Implements

[IEquatable](#)<ObjectId>, [IEquatable](#)<string>, [IEquatable](#)<Guid>

Inherited Members

[ValueType.Equals\(object\)](#), [object.Equals\(object, object\)](#), [object.GetType\(\)](#),
[object.ReferenceEquals\(object, object\)](#)

Remarks

Wherever an ObjectId is required you can pass a string instead.

This is because this is just a token type to signify that an object identifier is required. As such it has implicit conversions to/from string.

Constructors

ObjectId()

Creates a default instance of [ObjectId](#) that is synonymous with an empty string.

```
public ObjectId()
```

ObjectId(string)

A Metasys Object Identifier

```
public ObjectId(string Value)
```

Parameters

Value [string](#)

Remarks

Wherever an ObjectId is required you can pass a string instead.

This is because this is just a token type to signify that an object identifier is required. As such it has implicit conversions to/from string.

Properties

Value

```
public string Value { readonly get; set; }
```

Property Value

[string](#)

Methods

Equals(ObjectId)

```
public bool Equals(ObjectId other)
```

Parameters

other [ObjectId](#)

Returns

[bool](#)

Equals(Guid)

```
public bool Equals(Guid other)
```

Parameters

other [Guid](#)

Returns

[bool](#)

Equals(string)

```
public bool Equals(string other)
```

Parameters

other [string](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

ToString()

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

Returns

[string](#)

Operators

implicit operator Guid(ObjectId)

Implicitly convert a [ObjectId](#) to [Guid](#)

```
[Obsolete("This is not guaranteed to always succeed. Please use methods that use  
strings or ObjectIds for object identifiers instead.")]  
public static implicit operator Guid(ObjectId objectId)
```

Parameters

objectId [ObjectId](#)

Returns

[Guid](#)

Remarks

This method is deprecated. This method is not guaranteed to always succeed in the future. While Metasys object identifiers have always safely converted to Guids they make no guarantee that they will always. Nor does the REST API spec document them as Guids.

To avoid issues, use methods from this library that take an [ObjectId](#) for object identifiers. You can even pass strings to those methods as strings will implicitly convert to ObjectId.

implicit operator string(ObjectId)

Implicitly convert an [ObjectId](#) to [string](#)

```
public static implicit operator string(ObjectId objectId)
```

Parameters

`objectId` [ObjectId](#)

Returns

[string](#)

implicit operator ObjectId(Guid)

Implicitly convert a [Guid](#) to [ObjectId](#)

```
public static implicit operator ObjectId(Guid value)
```

Parameters

`value` [Guid](#)

Returns

[ObjectId](#)

implicit operator ObjectId(string)

Implicitly convert a [string](#) to [ObjectId](#)

```
public static implicit operator ObjectId(string value)
```

Parameters

`value` [string](#)

Returns

[ObjectId](#)

Class ObjectRequest

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Request related to an object

```
public class ObjectRequest
```

Inheritance

[object](#) ← ObjectRequest

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Properties

Body

Body to specify extra values related to the request, e.g. "text": "Annotation text"

```
public object Body { get; set; }
```

Property Value

[object](#)

Id

Choosen ID to indentify the request/response.

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

Property Value

[string](#)

RelativeUrl

Relative Url to read from the endpoint, e.g."00000000-0000-0000-0000-000000000001/attributes/presentValue"

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

Property Value

[string](#)

Enum OriginApplicationsEnum

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Enumeration of possible OriginApplications for an Audit.

```
[Flags]  
public enum OriginApplicationsEnum
```

Fields

AlarmEvent = 1

Origin Application: AlarmEvent (Enum id 0)

AuditTrails = 2

Origin Application: AuditTrails (Enum id 1)

DeviceManager = 512

Origin Application: DeviceManager (Enum id 9)

DeviceServices = 4

Origin Application: DeviceServices (Enum id 2)

EnergyManagement = 2048

Origin Application: EnergyManagement (Enum id 11)

General = 256

Origin Application: General (Enum id 8)

Interlock = 4096

Origin Application: Interlock (Enum id 12)

MCE = 8

Origin Application: MCE (Enum id 3)

MCO = 8192

Origin Application: MCO (Enum id 13)

N2 = 128

Origin Application: N2 (Enum id 7)

Schedule = 16384

Origin Application: Schedule (Enum id 14)

SiteServices = 16

Origin Application: SiteServices (Enum id 0)

SystemSecurity = 64

Origin Application: SystemSecurity (Enum id 6)

Trend = 32

Origin Application: Trend (Enum id 5)

WebServices = 1024

Origin Application: WebServices (Enum id 10)

Remarks

The actual values sent to the server are specified in the description.

Class PagedResult<T>

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Generic Paged Result Object containing Items along with paging information.

```
public class PagedResult<T>
```

Type Parameters

T

Inheritance

[object](#) ← PagedResult<T>

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Constructors

PagedResult()

Initialize an empty instance of PagedResult.

```
public PagedResult()
```

PagedResult(JToken)

Creates a new PagedResult from a JToken response.

```
public PagedResult(JToken response)
```

Parameters

```
response JToken
```

Properties

CurrentPage

The actual page.

```
public int CurrentPage { get; set; }
```

Property Value

[int](#)

Items

The items of the current page.

```
public List<T> Items { get; set; }
```

Property Value

[List](#)<T>

PageCount

Total number of pages.

```
public int PageCount { get; set; }
```

Property Value

[int](#)

PageSize

Maximum number of elements on a page.

```
public int PageSize { get; set; }
```

Property Value

[int](#)

Total

The total number of elements.

```
public int Total { get; set; }
```

Property Value

[int](#)

Methods

ToString()

Return a pretty JSON string of the current object.

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

Returns

[string](#)

Class Result

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

This holds the information returned as result of a call

```
public class Result
```

Inheritance

[object](#) ← Result

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Properties

Annotation

Text of the Audit Annotation set according to the call.

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

Property Value

[string](#)

Id

The id of the Audit affected by the call.

```
public Guid Id { get; set; }
```

Property Value

[Guid ↗](#)

Status

The Status of the call.

```
public int Status { get; set; }
```

Property Value

[int ↗](#)

Methods

ToString()

Return a pretty JSON string of the current object.

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

Returns

[string ↗](#)

Class Sample

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

DTO for Sample

```
public class Sample
```

Inheritance

[object](#) ← Sample

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#)

Properties

IsReliable

The sample is reliable if true.

```
public bool IsReliable { get; set; }
```

Property Value

[bool](#)

Timestamp

Timestamp of when the sample was recorded.

```
public DateTime Timestamp { get; set; }
```

Property Value

Unit

Unit of measurement of the Sample.

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

Property Value

[string](#)

Value

Value of the Sample.

```
public double Value { get; set; }
```

Property Value

[double](#)

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

obj [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

ToString()

Return a pretty JSON string of the current object.

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

Returns

[string](#)

Class SpaceServiceProvider

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Provide space item for the endpoints of the Metasys Spaces API.

```
public sealed class SpaceServiceProvider : BasicServiceProvider,  
ISpaceService, IBasicService
```

Inheritance

[object](#) ← [ObjectUtil](#) ← [BasicServiceProvider](#) ← SpaceServiceProvider

Implements

[ISpaceService](#), [IBasicService](#)

Inherited Members

[BasicServiceProvider.Version](#) , [BasicServiceProvider.MinVersionSupported](#) ,
[BasicServiceProvider.MaxVersionSupported](#) , [BasicServiceProvider.Culture](#) ,
[BasicServiceProvider.LogClientErrors](#) , [BasicServiceProvider.GetResourceTypesAsync\(string, string\)](#) ,
[BasicServiceProvider.GetObjectTypeEnumeration\(string\)](#) ,
[BasicServiceProvider.Localize\(string, CultureInfo\)](#) , [BasicServiceProvider.ToDictionary\(object\)](#) ,
[ObjectUtil.GetJTokenValue\(JToken, string\)](#) , [ObjectUtil.GetJTokenDate\(JToken, string\)](#) ,
[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Constructors

SpaceServiceProvider(IFlurlClient, ApiVersion, bool)

Initializes a new instance of [NetworkDeviceServiceProvider](#) with supplied data.

```
public SpaceServiceProvider(IFlurlClient client, ApiVersion version, bool  
logClientErrors = true)
```

Parameters

client IFlurlClient

The FlurlClient to get response from URL.

[version](#) [ApiVersion](#)

The server's Api version.

[logClientErrors](#) [bool](#)

Set this flag to false to disable logging of client errors.

Methods

FindById(ObjectId)

Retrieves the specified space.

```
public MetasysObject FindById(ObjectId spaceId)
```

Parameters

[spaceId](#) [ObjectId](#)

The identifier of the space.

Returns

[MetasysObject](#)

The specified alarm details.

FindByIdAsync(ObjectId)

Retrieves the specified space.

```
public Task<MetasysObject> FindByIdAsync(ObjectId spaceId)
```

Parameters

[spaceId](#) [ObjectId](#)

The identifier of the space.

Returns

[Task](#) <[MetasysObject](#)>

The specified alarm details.

Get(SpaceTypeEnum?, int?, int?, string)

Retrieves a collection of spaces.

```
public IEnumerable<MetasysObject> Get(SpaceTypeEnum? type = null, int? page = null, int? pageSize = null, string sort = null)
```

Parameters

type [SpaceTypeEnum](#)?

Optional, type ID (numeric for v2, v3 - enumset key string for v4).

page [int](#)?

Optional, the page numer of items to return (default = 1).

pageSize [int](#)?

Optional, the maximum number of items to return in the response (default = 100, max = 1000).

sort [string](#)?

Optional, the criteria to use when sorting results (default = name).

Returns

[IEnumerable](#) <[MetasysObject](#)>

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

Get(string, int?, int?, string)

Retrieves a collection of spaces.

```
public IEnumerable<MetasysObject> Get(string type, int? page = null, int? pageSize = null, string sort = null)
```

Parameters

type [string](#)?

Optional, type ID (numeric for v2, v3 - enumset key string for v4).

page [int](#)?

Optional, the page numer of items to return (default = 1).

pageSize [int](#)?

Optional, the maximum number of items to return in the response (default = 100, max = 1000).

sort [string](#)?

Optional, the criteria to use when sorting results (default = name).

Returns

[IEnumerable](#)<[MetasysObject](#)>

GetAsync(SpaceTypeEnum?, int?, int?, string)

Retrieves a collection of spaces.

```
public Task<IEnumerable<MetasysObject>> GetAsync(SpaceTypeEnum? type = null, int? page = null, int? pageSize = null, string sort = null)
```

Parameters

type [SpaceTypeEnum](#)?

Optional, type ID (numeric for v2, v3 - enumset key string for v4).

page [int?](#)

Optional, the page numer of items to return (default = 1).

pageSize [int?](#)

Optional, the maximum number of items to return in the response (default = 100, max = 1000).

sort [string](#)

Optional, the criteria to use when sorting results (default = name).

Returns

[Task<IEnumerable<MetasysObject>>](#)

Exceptions

[MetasysHttpException](#)

[MetasysHttpParsingException](#)

GetAsync(string, int?, int?, string)

Retrieves a collection of spaces.

```
public Task<IEnumerable<MetasysObject>> GetAsync(string type, int? page = null, int?  
pageSize = null, string sort = null)
```

Parameters

type [string](#)

Optional, type ID (numeric for v2, v3 - enumset key string for v4).

page [int?](#)

Optional, the page numer of items to return (default = 1).

pageSize [int?](#)

Optional, the maximum number of items to return in the response (default = 100, max = 1000).

sort [string](#)

Optional, the criteria to use when sorting results (default = name).

Returns

[Task](#)<IEnumerable<[MetasysObject](#)>>

GetChildren(ObjectId)

Retrieves the collection of spaces that are located within the specified space.

```
public IEnumerable<MetasysObject> GetChildren(ObjectId spaceId)
```

Parameters

spaceId [ObjectId](#)

The id of the parent space.

Returns

[IEnumerable](#)<[MetasysObject](#)>

GetChildrenAsync(ObjectId)

Retrieves the collection of spaces that are located within the specified space.

```
public Task<IEnumerable<MetasysObject>> GetChildrenAsync(ObjectId spaceId)
```

Parameters

spaceId [ObjectId](#)

The id of the parent space.

Returns

[Task](#)<IEnumerable<[MetasysObject](#)>>

GetServedByEquipment(ObjectId)

Retrieves the collection of spaces served by the specified network device.

```
public IEnumerable<MetasysObject> GetServedByEquipment(ObjectId equipmentId)
```

Parameters

equipmentId [ObjectId](#)

Returns

[IEnumerable](#)<[MetasysObject](#)>

GetServedByEquipmentAsync(ObjectId)

Retrieves the collection of spaces served by the specified network device.

```
public Task<IEnumerable<MetasysObject>> GetServedByEquipmentAsync(ObjectId equipmentId)
```

Parameters

equipmentId [ObjectId](#)

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

GetServedByNetworkDevice(ObjectId)

Retrieves the collection of spaces served by the specified network device.

```
public IEnumerable<MetasysObject> GetServedByNetworkDevice(ObjectId networkDeviceId)
```

Parameters

networkDeviceId [ObjectId](#)

Returns

[IEnumerable](#)<[MetasysObject](#)>

GetServedByNetworkDeviceAsync(ObjectId)

Retrieves the collection of spaces served by the specified network device.

```
public Task<IEnumerable<MetasysObject>> GetServedByNetworkDeviceAsync(ObjectId  
networkDeviceId)
```

Parameters

networkDeviceId [ObjectId](#)

Returns

[Task](#)<[IEnumerable](#)<[MetasysObject](#)>>

GetTypes()

Retrieves the collection of all spaces types.

```
public IEnumerable<MetasysObjectType> GetTypes()
```

Returns

[IEnumerable](#)<[MetasysObjectType](#)>

GetTypesAsync()

Retrieves the collection of all spaces types.

```
public Task<IEnumerable<MetasysObjectType>> GetTypesAsync()
```

Returns

[Task](#)<IEnumerable<MetasysObjectType>>

Enum SpaceSortEnum

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Enumeration of possible sort types for a Space.

```
public enum SpaceSortEnum : uint
```

Fields

ItemReference = 0

Item Reference (ascending).

MinusItemReference = 1

Item Reference (descending).

MinusName = 3

Name (descending).

Name = 2

Name (ascending).

Room = 3

Space of Type Room.

Enum SpaceTypeEnum

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Enumeration of possible types for a Space.

```
public enum SpaceTypeEnum
```

Fields

Building = 1

Space of Type Building.

Floor = 2

Space of Type Floor.

Generic = 0

Space of Type Generic.

Room = 3

Space of Type Room.

Class StreamEventArgs

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Defines Stream event arguments.

```
public class StreamEventArgs : EventArgs
```

Inheritance

[object](#) ← [EventArgs](#) ← StreamEventArgs

Inherited Members

[EventArgs.Empty](#) , [object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) ,
[object.GetHashCode\(\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Fields

Value

Event value

```
public StreamMessage Value
```

Field Value

[StreamMessage](#)

Class StreamMessage

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Provides Stream message data

```
public class StreamMessage
```

Inheritance

[object](#) ← StreamMessage

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Constructors

StreamMessage(string, string)

Constructor of the class

```
public StreamMessage(string eventType, string data)
```

Parameters

eventType [string](#)

data [string](#)

Properties

AttributeName

Attribute Name

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

Property Value

[string](#)

CreationTime

Event Creation Time

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

Property Value

[string](#)

Data

JSON encoded string containing an object

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

Property Value

[string](#)

Description

Description

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

Property Value

[string](#)

Event

Event that generated the stream message

```
public string Event { get; }
```

PropertyValue

[string](#)

Id

Item or Activity Id

```
public Guid Id { get; set; }
```

PropertyValue

[Guid](#)

ItemReference

Item Reference (FQR)

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

PropertyValue

[string](#)

ObjectID

Object Identifier (GUID)

```
[JsonProperty(Required = Required.Always)]  
public Guid ObjectId { get; set; }
```

Property Value

[Guid](#)

ObjectName

Object Name

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

Property Value

[string](#)

PresentValue

Present Value

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

Property Value

[string](#)

RequestId

Request Id

```
public Guid RequestId { get; set; }
```

Property Value

[Guid](#)

StreamId

Stream Identifier (String)

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

Property Value

[string](#) ↗

SubscriptionId

Subscription Identifier (String)

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

Property Value

[string](#) ↗

Class StreamServiceProvider

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Provide methods for the endpoints of the Metasys Stream API v4.

```
public sealed class StreamServiceProvider : BasicServiceProvider, IDisposable,  
IStreamService, IBasicService
```

Inheritance

[object](#) ← [ObjectUtil](#) ← [BasicServiceProvider](#) ← StreamServiceProvider

Implements

[IDisposable](#), [IStreamService](#), [IBasicService](#)

Inherited Members

[BasicServiceProvider.Version](#), [BasicServiceProvider.MinVersionSupported](#),
[BasicServiceProvider.MaxVersionSupported](#), [BasicServiceProvider.Culture](#),
[BasicServiceProvider.LogClientErrors](#), [BasicServiceProvider.GetResourceTypesAsync\(string, string\)](#),
[BasicServiceProvider.GetObjectTypeEnumeration\(string\)](#),
[BasicServiceProvider.Localize\(string, CultureInfo\)](#), [BasicServiceProvider.ToDictionary\(object\)](#),
[ObjectUtil.GetJTokenValue\(JToken, string\)](#), [ObjectUtil.GetJTokenDate\(JToken, string\)](#),
[object.Equals\(object\)](#), [object.Equals\(object, object\)](#), [object.GetHashCode\(\)](#),
[object.GetType\(\)](#), [object.ReferenceEquals\(object, object\)](#), [object.ToString\(\)](#)

Constructors

StreamServiceProvider(IFlurlClient, ApiVersion, bool)

Stream Service Provider

```
public StreamServiceProvider(IFlurlClient client, ApiVersion version, bool  
logClientErrors = true)
```

Parameters

client IFlurlClient

[version](#) [ApiVersion](#)

[logClientErrors](#) [bool](#)

Properties

AccessToken

Access Token

```
public AccessToken AccessToken { get; set; }
```

Property Value

[AccessToken](#)

ResultChannel

Channel result

```
public ChannelReader<StreamMessage> ResultChannel { get; }
```

Property Value

[ChannelReader](#)<[StreamMessage](#)>

Methods

ConnectAsync()

Connect method

```
public Task<bool> ConnectAsync()
```

Returns

[Task](#)<bool>

Dispose()

```
public void Dispose()
```

GetAlarmEvents()

Return the list of Alarm events

```
public List<StreamMessage> GetAlarmEvents()
```

Returns

[List](#)<StreamMessage>

GetAuditEvents()

Return the list of Audit events

```
public List<StreamMessage> GetAuditEvents()
```

Returns

[List](#)<StreamMessage>

GetCOV()

Return the first value of COV values

```
public StreamMessage GetCOV()
```

Returns

[StreamMessage](#)

GetCOVList()

Return the list of COV values

```
public List<StreamMessage> GetCOVList()
```

Returns

[List](#)<[StreamMessage](#)>

GetRequestIds()

Return the list of request Ids

```
public List<Guid> GetRequestIds()
```

Returns

[List](#)<[Guid](#)>

KeepAlive(AccessToken)

Call the related API (with a new Token) to keep the Stream Alive

```
public Task KeepAlive(AccessToken accessToken)
```

Parameters

accessToken [AccessToken](#)

Returns

[Task](#)

LoadActivitySubscriptions(string)

Add a subscription for an Activity according to the ActivityType

```
public void LoadActivitySubscriptions(string activityType)
```

Parameters

activityType [string](#)

LoadCOVSubscriptions(IEnumerable<Guid>)

Add a list of subscriptions for COV (presentValue).

```
public void LoadCOVSubscriptions(IEnumerable<Guid> ids)
```

Parameters

ids [IEnumerable](#)<[Guid](#)>

LoadCOVSubscriptions(Guid)

Add a subscription for a COV (presentValue).

```
public void LoadCOVSubscriptions(Guid id)
```

Parameters

id [Guid](#)

StartCollectingAlarmsAsync(int)

Start collecting the Alarm events from the stream

```
public Task StartCollectingAlarmsAsync(int maxNumber = 100)
```

Parameters

maxNumber [int](#)

Returns

[Task](#)

StartCollectingAuditsAsync(int)

Start collecting the Audit events from the stream

```
public Task StartCollectingAuditsAsync(int maxNumber = 100)
```

Parameters

maxNumber [int](#)

Returns

[Task](#)

StartReadingCOV(Guid)

Start reading a COV value from the stream

```
public void StartReadingCOV(Guid id)
```

Parameters

id [Guid](#)

StartReadingCOVAsync(IEnumerable<Guid>)

Start reading multiple COV values from the stream

```
public Task StartReadingCOVAsync(IEnumerable<Guid> ids)
```

Parameters

ids [IEnumerable<Guid>](#)

Returns

[Task](#)

StartReadingCOVAsync(Guid)

Start reading a COV value from the stream

```
public Task StartReadingCOVAsync(Guid id)
```

Parameters

id [Guid](#)

Returns

[Task](#)

StopCollectingAlarms(Guid)

Stop collecting Alarm events from the stream

```
public void StopCollectingAlarms(Guid requestId)
```

Parameters

requestId [Guid](#)

StopCollectingAudits(Guid)

Stop collecting Audit events from the stream

```
public void StopCollectingAudits(Guid requestId)
```

Parameters

requestId [Guid](#)

StopReadingCOV(Guid)

Stop reading COV Stream Value.

```
public void StopReadingCOV(Guid requestId)
```

Parameters

requestId [Guid](#)

SubscribeAsync(Guid, string, string, Dictionary<string, string>, dynamic)

Subscribe method

```
public Task<string> SubscribeAsync(Guid requestId, string method, string relativeUrl, Dictionary<string, string> query = null, dynamic body = null)
```

Parameters

requestId [Guid](#)

method [string](#)

relativeUrl [string](#)

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

body dynamic

Returns

[Task](#)<[string](#)>

UnsubscribeAsync(Guid)

Unsubscribe method

```
public Task UnsubscribeAsync(Guid requestId)
```

Parameters

requestId [Guid](#)

Returns

[Task](#)

Events

AlarmOccurred

Event fired when an Alarm event occurs

```
public event EventHandler<StreamEventArgs> Alarm0ccurred
```

Event Type

[EventHandler](#)<[StreamEventArgs](#)>

AuditOccurred

Event fired when an Audit event occurs

```
public event EventHandler<StreamEventArgs> Audit0ccurred
```

Event Type

[EventHandler](#)<StreamEventArgs>

COVValueChanged

Event fired when a COV value changes

```
public event EventHandler<StreamEventArgs> COVValueChanged
```

Event Type

[EventHandler](#)<StreamEventArgs>

HeartBeatOccurred

Event fired when an HeartBeat occurs

```
public event EventHandler<EventSourceMessageEventArgs> HeartBeat0ccurred
```

Event Type

[EventHandler](#)<EventSourceMessageEventArgs>

Class Subscription

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Provides Subscription Item

```
public class Subscription
```

Inheritance

[object](#) ← Subscription

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Properties

Body

Body of a subscription

```
public dynamic Body { get; set; }
```

Property Value

dynamic

Method

Method of a subscription

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

Property Value

[string](#)

Params

Parameters of a subscription

```
public Dictionary<string, string> Params { get; set; }
```

Property Value

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

RelativeUrl

Relative URL of a subscription

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

Property Value

[string](#)

Class TimeFilter

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Temporal filter for a timeline based request.

```
public class TimeFilter : BasicFilter
```

Inheritance

[object](#) ↳ [BasicFilter](#) ↳ TimeFilter

Derived

[AlarmFilter](#), [AlarmFilterV4Plus](#), [AuditFilter](#)

Inherited Members

[BasicFilter.Page](#) , [BasicFilter.PageSize](#) , [BasicFilter.Sort](#) , [object.Equals\(object\)](#) ↳ ,
[object.Equals\(object, object\)](#) ↳ , [object.GetHashCode\(\)](#) ↳ , [object.GetType\(\)](#) ↳ ,
[object.MemberwiseClone\(\)](#) ↳ , [object.ReferenceEquals\(object, object\)](#) ↳ , [object.ToString\(\)](#) ↳

Properties

EndTime

Latest end time.

```
public DateTime? EndTime { get; set; }
```

Property Value

[DateTime](#)?

StartTime

Earliest start time.

```
public DateTime? StartTime { get; set; }
```

Property Value

[DateTime](#)?

Class TreeObject

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Generic class for handling JSON objects with a hierarchical pattern. Children is null when the object has no children.

```
public class TreeObject
```

Inheritance

[object](#) ← TreeObject

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Properties

Children

List of object's children.

```
public IEnumerable<TreeObject> Children { get; set; }
```

Property Value

[IEnumerable](#)<[TreeObject](#)>

Item

Generic JToken Item.

```
public JToken Item { get; set; }
```

Property Value

JToken

Class TrendServiceProvider

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Provider Class for Trend Service

```
public class TrendServiceProvider : BasicServiceProvider,  
ITrendService, IBasicService
```

Inheritance

[object](#) ← [ObjectUtil](#) ← [BasicServiceProvider](#) ← TrendServiceProvider

Implements

[ITrendService](#), [IBasicService](#)

Inherited Members

[BasicServiceProvider.Client](#) , [BasicServiceProvider.Version](#) ,
[BasicServiceProvider.MinVersionSupported](#) , [BasicServiceProvider.MaxVersionSupported](#) ,
[BasicServiceProvider.Culture](#) , [BasicServiceProvider.Log](#) , [BasicServiceProvider.LogClientErrors](#) ,
[BasicServiceProvider.ToMetasysObject\(IEnumerable<TreeObject>, ApiVersion,](#)
[MetasysObjectTypeEnum?\)](#) ,
[BasicServiceProvider.ToMetasysObject\(JToken, ApiVersion, MetasysObjectTypeEnum?\)](#) ,
[BasicServiceProvider.ToMetasysObject\(List<JToken>, ApiVersion, MetasysObjectTypeEnum?\)](#) ,
[BasicServiceProvider.ToNetworkDevice\(JToken, ApiVersion\)](#) ,
[BasicServiceProvider.ToNetworkDevice\(List<JToken>, ApiVersion\)](#) ,
[BasicServiceProvider.GetObjectChildrenAsync\(object, Dictionary<string, string>, int\)](#) ,
[BasicServiceProvider.GetResourceTypesAsync\(string, string\)](#) ,
[BasicServiceProvider.GetType\(JToken\)](#) , [BasicServiceProvider.GetObjectTypeEnumeration\(string\)](#) ,
[BasicServiceProvider.Localize\(string, CultureInfo\)](#) , [BasicServiceProvider.GetEnumValues\(string\)](#) ,
[BasicServiceProvider.GetEnumValuesAsync\(string\)](#) , [BasicServiceProvider.GetType\(int, string, string\)](#) ,
[BasicServiceProvider.GetWithFullUrl\(string\)](#) , [BasicServiceProvider.ParseObjectIdentifier\(JToken\)](#) ,
[BasicServiceProvider.GetRequestAsync\(string, Dictionary<string, string>, params object\[\]\)](#) ,
[BasicServiceProvider.GetPagedResultsAsync<T>\(string, Dictionary<string, string>, params object\[\]\)](#) ,
[BasicServiceProvider.GetAllAvailablePagesAsync\(string, Dictionary<string, string>, params string\[\]\)](#) ,
[BasicServiceProvider.ThrowHttpException\(FlurlHttpException\)](#) ,
[BasicServiceProvider.ToDictionary\(object\)](#) ,
[BasicServiceProvider.GetBatchRequestAsync\(string, IEnumerable<ObjectId>, IEnumerable<string>,](#)
[params string\[\]\)](#) ,

```
BasicServiceProvider.PostBatchRequestAsync\(string, IEnumerable<BatchRequestParam>, params string\[\]\) ,  
BasicServiceProvider.PutBatchRequestAsync\(string, IEnumerable<BatchRequestParam>, params string\[\]\) ,  
BasicServiceProvider.PatchBatchRequestAsync\(string, IEnumerable<BatchRequestParam>\) ,  
BasicServiceProvider.CheckVersion\(ApiVersion\) , ObjectUtil.GetJTokenValue\(JToken, string\) ,  
ObjectUtil.GetJTokenDate\(JToken, string\) , object.Equals\(object\) , object.Equals\(object, object\) ,  
object.GetHashCode\(\) , object.GetType\(\) , object.MemberwiseClone\(\) ,  
object.ReferenceEquals\(object, object\) , object.ToString\(\)
```

Constructors

TrendServiceProvider(IFlurlClient, ApiVersion, bool)

Initialize a new instance given the Flurl client.

```
public TrendServiceProvider(IFlurlClient client, ApiVersion version, bool logClientErrors = true)
```

Parameters

[client](#) IFlurlClient

[version](#) [ApiVersion](#)

The server's API version.

[logClientErrors](#) [bool](#)

Set this flag to false to disable logging of client errors.

Fields

Units

Caching about read units.

```
protected Dictionary<string, string> Units
```

Field Value

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

Methods

GetNetDevSamples(ObjectId, AttributeEnumSet, TimeFilter)

Retrieves available samples for the given network device attribute, filtered by startTime and endTime.

```
public PagedResult<Sample> GetNetDevSamples(ObjectId networkDeviceId,  
AttributeEnumSet attributeName, TimeFilter filter)
```

Parameters

networkDeviceId [ObjectId](#)

The identifier of the network device.

attributeName [AttributeEnumSet](#)

The textual identifier of the attribute.

filter [TimeFilter](#)

The filter that specifies: startTime, endTime, page, pageSize, sort.

Returns

[PagedResult](#)<[Sample](#)>

The list of samples.

Remarks

StartTime and EndTime are mandatory parameters.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetNetDevSamples(ObjectId, int, TimeFilter)

Retrieves available samples for the given network device attribute, filtered by startTime and endTime.

```
public PagedResult<Sample> GetNetDevSamples(ObjectId networkDeviceId, int  
attributeId, TimeFilter filter)
```

Parameters

networkDeviceId [ObjectId](#)

The identifier of the network device.

attributeId [int](#)

The numeric identifier of the attribute.

filter [TimeFilter](#)

The filter that specifies: startTime, endTime, page, pageSize, sort.

Returns

[PagedResult<Sample>](#)

The list of samples.

Remarks

StartTime and EndTime are mandatory parameters.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetNetDevSamplesAsync(ObjectId, AttributeEnumSet, TimeFilter)

Retrieves available samples for the given network device attribute, filtered by startTime and endTime.

```
public Task<PagedResult<Sample>> GetNetDevSamplesAsync(ObjectId networkDeviceId,  
AttributeEnumSet attributeName, TimeFilter filter)
```

Parameters

networkDeviceId [ObjectId](#)

The identifier of the network device.

attributeName [AttributeEnumSet](#)

The textual identifier of the attribute.

filter [TimeFilter](#)

The filter that specifies: startTime, endTime, page, pageSize, sort.

Returns

[Task](#)<[PagedResult](#)<[Sample](#)>>

The list of samples.

Remarks

StartTime and EndTime are mandatory parameters.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetNetDevSamplesAsync(ObjectId, int, TimeFilter)

Retrieves available samples for the given network device attribute, filtered by startTime and endTime.

```
public Task<PagedResult<Sample>> GetNetDevSamplesAsync(ObjectId networkDeviceId, int  
attributeId, TimeFilter filter)
```

Parameters

networkDeviceId [ObjectId](#)

The identifier of the network device.

attributeId [int](#)

The numeric identifier of the attribute.

filter [TimeFilter](#)

The filter that specifies: startTime, endTime, page, pageSize, sort.

Returns

[Task](#)<[PagedResult](#)<[Sample](#)>>

The list of samples.

Remarks

StartTime and EndTime are mandatory parameters.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetNetDevTrendedAttributes(ObjectId)

Get the list of trended attributes for the given Network Device.

```
public List<MetasysAttribute> GetNetDevTrendedAttributes(ObjectId id)
```

Parameters

id [ObjectId](#)

The identifier of the network device.

Returns

[List](#) <[MetasysAttribute](#)>

The list of trended attributes.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetNetDevTrendedAttributesAsync(ObjectId)

Get the list of trended attributes for the given Network Device.

```
public Task<List<MetasysAttribute>> GetNetDevTrendedAttributesAsync(ObjectId id)
```

Parameters

[id ObjectId](#)

The identifier of the network device.

Returns

[Task<List<MetasysAttribute>>](#)

The list of trended attributes.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParseException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetSamples(ObjectId, AttributeEnumSet, TimeFilter)

Retrieves available samples for the given object attribute, filtered by startTime and endTime.

```
public PagedResult<Sample> GetSamples(ObjectId objectId, AttributeEnumSet  
attributeName, TimeFilter filter)
```

Parameters

objectId [ObjectId](#)

The identifier of the object.

attributeName [AttributeEnumSet](#)

The textual identifier of the attribute.

filter [TimeFilter](#)

The filter that specifies: startTime, endTime, page, pageSize, sort.

Returns

[PagedResult<Sample>](#)

The list of samples.

Remarks

StartTime and EndTime are mandatory parameters.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetSamples(ObjectId, int, TimeFilter)

Retrieves available samples for the given object attribute, filtered by startTime and endTime.

```
public PagedResult<Sample> GetSamples(ObjectId objectId, int attributeId,
```

```
TimeFilter filter)
```

Parameters

objectId [Objectld](#)

The identifier of the object.

attributeId [int](#)

The numeric identifier of the attribute.

filter [TimeFilter](#)

The filter that specifies: startTime, endTime, page, pageSize, sort.

Returns

[PagedResult<Sample>](#)

The list of samples.

Remarks

StartTime and EndTime are mandatory parameters.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetSamplesAsync(ObjectId, AttributeEnumSet, TimeFilter)

Retrieves available samples for the given object attribute, filtered by startTime and endTime.

```
public Task<PagedResult<Sample>> GetSamplesAsync(ObjectId objectId, AttributeEnumSet  
attributeName, TimeFilter filter)
```

Parameters

objectId [ObjectId](#)

The identifier of the object.

attributeName [AttributeEnumSet](#)

The textual identifier of the attribute.

filter [TimeFilter](#)

The filter that specifies: startTime, endTime, page, pageSize, sort.

Returns

[Task](#)<[PagedResult](#)<[Sample](#)>>

The list of samples.

Remarks

StartTime and EndTime are mandatory parameters.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParseException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetSamplesAsync(ObjectId, int, TimeFilter)

Retrieves available samples for the given object attribute, filtered by startTime and endTime.

```
public Task<PagedResult<Sample>> GetSamplesAsync(ObjectId objectId, int attributeId,  
TimeFilter filter)
```

Parameters

objectId [ObjectId](#)

The identifier of the object.

attributeId [int](#)

The numeric identifier of the attribute.

filter [TimeFilter](#)

The filter that specifies: startTime, endTime, page, pageSize, sort.

Returns

[Task](#)<[PagedResult](#)<Sample>>

The list of samples.

Remarks

StartTime and EndTime are mandatory parameters.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetTrendedAttributes(ObjectId)

Get the list of trended attributes for the given object.

```
public List<MetasysAttribute> GetTrendedAttributes(ObjectId id)
```

Parameters

[id ObjectId](#)

The identifier of the object.

Returns

[List<MetasysAttribute>](#)

The list of trended attributes.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

GetTrendedAttributesAsync(ObjectId)

Get the list of trended attributes for the given object.

```
public Task<List<MetasysAttribute>> GetTrendedAttributesAsync(ObjectId id)
```

Parameters

[id ObjectId](#)

The identifier of the object.

Returns

[Task](#) <[List](#) <[MetasysAttribute](#)>>

The list of trended attributes.

Exceptions

[MetasysHttpNotFoundException](#)

[MetasysHttpException](#)

[MetasysHttpTimeoutException](#)

[MetasysHttpParsingException](#)

[MetasysHttpNotFoundException](#)

[MetasysObjectException](#)

Class TriggerValue

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

A Trigger Object (specifically for Alarms).

```
public class TriggerValue
```

Inheritance

[object](#) ← TriggerValue

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Properties

Units

Fully qualified enumeration value for the unit.

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

Property Value

[string](#)

Remarks

This is available since Metasys API v3.

UnitsUrl

Route to the endpoint for the current unit enumset.

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

Property Value

[string](#) ↗

Remarks

This is available only in Metasys API v2 and v1.

Value

The value of measurement.

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

Property Value

[string](#) ↗

item

Item.

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

Property Value

[string](#) ↗

Remarks

This is available since Metasys API v4.

schema

Schema.

```
public TriggerValue.Schema schema { get; set; }
```

Property Value

[TriggerValue.Schema](#)

Remarks

This is available since Metasys API v4.

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

obj [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

Class TriggerValue.Schema

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

```
public class TriggerValue.Schema
```

Inheritance

[object](#) ← TriggerValue.Schema

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Properties

metasysType

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

Property Value

[string](#)

type

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

Property Value

[string](#)

units

```
public TriggerValue.SchemaUnits units { get; set; }
```

Property Value

[TriggerValue.SchemaUnits](#)

Class TriggerValue.SchemaUnits

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

```
public class TriggerValue.SchemaUnits
```

Inheritance

[object](#) ← TriggerValue.SchemaUnits

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Properties

id

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

Property Value

[string](#)

title

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

Property Value

[string](#)

Class UntrustedCertClientFactory

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Provide Untrusted Certificate Client Factory.

```
public class UntrustedCertClientFactory : DefaultHttpClientFactory,  
IHttpClientFactory
```

Inheritance

[object](#) ← DefaultHttpClientFactory ← UntrustedCertClientFactory

Implements

IHttpClientFactory

Inherited Members

[DefaultHttpClientFactory.CreateHttpClient\(HttpMessageHandler\)](#) , [object.Equals\(object\)](#) ,
[object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) , [object.GetType\(\)](#) ,
[object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Methods

CreateMessageHandler()

Create Message Handler.

```
public override HttpMessageHandler CreateMessageHandler()
```

Returns

[HttpMessageHandler](#)

Class Variant

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

Variant is a structure that holds information about an attribute/property value from a single Metasys object.

```
public class Variant
```

Inheritance

[object](#) ← Variant

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#)

Remarks

If the returned property is an array of values the ArrayValue will hold each of these values in a new Variant object.

Properties

ArrayValue

An array of Variant values.

```
public Variant[] ArrayValue { get; }
```

Property Value

[Variant\[\]](#)

Null unless value is an array.

Attribute

The attribute from the Metasys object.

```
public string Attribute { get; }
```

PropertyValue

[string](#)

BooleanValue

The boolean representation of the value.

```
public bool BooleanValue { get; }
```

PropertyValue

[bool](#)

0 if false, numeric value is 0, or attribute is non-numeric. 1 if true or numeric value not equal to 0.

Id

The id of the Metasys object.

```
public ObjectId Id { get; }
```

PropertyValue

[ObjectId](#)

IsReliable

Boolean representation of the reliability of the value.

```
public bool IsReliable { get; }
```

Property Value

[bool](#) ↗

True if the reliability of the value is reliable.

ItemType

The string representation of the item type.

```
public string ItemType { get; }
```

Property Value

[string](#) ↗

Type of the item (e.g. 'string', 'numeric', 'boolean', 'object').

NumericValue

The numeric representation of the value.

```
public double NumericValue { get; }
```

Property Value

[double](#) ↗

Numeric value as specified in the MSSDA Bulletin rawValue. The numeric value for an Array will be 0.

ObjectValue

The object representation of the value.

```
public object ObjectValue { get; }
```

Property Value

[object](#)

Object value specified as Json.

Priority

The priority of the value.

```
public string Priority { get; }
```

Property Value

[string](#)

If the attribute is "presentValue": the priority of the value. Otherwise null by default.

PriorityEnumerationKey

The priority enumeration key of the priority.

```
public string PriorityEnumerationKey { get; }
```

Property Value

[string](#)

If the attribute is "presentValue": the priority enumeration key of the priority. Otherwise null by default.

Reliability

The reliability of the value.

```
public string Reliability { get; }
```

Property Value

[string](#)

If the attribute is "presentValue": the reliability of the value. Otherwise reliable by default.

ReliabilityEnumerationKey

The reliability enumeration key of the reliability.

```
public string ReliabilityEnumerationKey { get; }
```

Property Value

[string](#)

If the attribute is "presentValue": the reliability enumeration key of the reliability. Otherwise reliabilityEnumSet.reliable by default.

StringValue

The string representation of the value.

```
public string StringValue { get; }
```

Property Value

[string](#)

String value as specified in the MSSDA Bulletin stringValue or a translated string if a type of enumeration.

StringValueEnumerationKey

The enumeration key of the StringValue.

```
public string StringValueEnumerationKey { get; }
```

Property Value

[string](#)

The pre-translated StringValue as an enumeration key or the StringValue if it was not an enumeration key. Null if value is not a string, array, or unsupported type.

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

obj [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

ToString()

Return a pretty JSON string of the current object.

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

Returns

[string](#) ↗

Class VariantMultiple

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

A structure for grouping Variant values with the same id.

```
public class VariantMultiple
```

Inheritance

[object](#) ← VariantMultiple

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#)

Extension Methods

[VariantMultipleCollectionExtension.FindAttributeByName\(VariantMultiple, string\)](#)

Properties

Id

The object id.

```
public ObjectId Id { get; }
```

Property Value

[ObjectId](#)

Values

The list of Variants.

```
public IEnumerable<Variant> Values { get; set; }
```

Property Value

[IEnumerable](#)<[Variant](#)>

Methods

Equals(object)

Returns a value indicating whether this instance has values equal to a specified object.

```
public override bool Equals(object obj)
```

Parameters

obj [object](#)

Returns

[bool](#)

GetHashCode()

```
public override int GetHashCode()
```

Returns

[int](#)

ToString()

Return a pretty JSON string of the current object.

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

Returns

[string](#) ↗

Class VariantMultipleCollectionExtension

Namespace: [JohnsonControls.Metasys.BasicServices](#)

Assembly: MetasysServices.dll

A helper to work with VariantMultiple collections.

```
public static class VariantMultipleCollectionExtension
```

Inheritance

[object](#) ← VariantMultipleCollectionExtension

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Methods

FindAttributeByName(VariantMultiple, string)

Returns the Variant object of the collection with the given attribute name.

```
public static Variant FindAttributeByName(this VariantMultiple source, string name)
```

Parameters

source [VariantMultiple](#)

name [string](#)

The name of the attribute

Returns

[Variant](#)

FindById(IEnumerable<VariantMultiple>, ObjectId)

Returns the VariantMultiple in the collection with the given ID.

```
public static VariantMultiple FindById(this IEnumerable<VariantMultiple> source,  
ObjectId id)
```

Parameters

source [IEnumerable](#)<VariantMultiple>

id [ObjectId](#)

The Id of the Metasys Object.

Returns

[VariantMultiple](#)

Namespace JohnsonControls.Metasys.Basic Services.Enums

Enums

[NetworkDeviceClassificationEnum](#)

Network Devices Classification Enumeration.

Enum NetworkDeviceClassificationEnum

Namespace: [JohnsonControls.Metasys.BasicServices.Enums](#)

Assembly: MetasysServices.dll

Network Devices Classification Enumeration.

```
public enum NetworkDeviceClassificationEnum
```

Fields

Archive = 11

Archive

Controller = 3

Controller

Device = 1

Device

Extension = 7

Extension

Folder = 8

Folder

Integration = 2

Integration

NavList = 6

NavList

Object = 0

Object

Point = 4

Point

Reference = 9

Reference

Server = 10

Server

Site = 5

Site

Namespace JohnsonControls.Metasys.Basic Services.Token

Classes

[AccessTokenResponse](#)

Access Token Response

Interfaces

[IAuthTokenProvider](#)

Interface for Authorization Token Provider.

Class AccessTokenResponse

Namespace: [JohnsonControls.Metasys.BasicServices.Token](#)

Assembly: MetasysServices.dll

Access Token Response

```
public class AccessTokenResponse
```

Inheritance

[object](#) ← AccessTokenResponse

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Properties

AccessToken

Access Token

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

Property Value

[string](#)

Expires

Expiration Date Time

```
public DateTime Expires { get; set; }
```

Property Value

Interface IAuthTokenProvider

Namespace: [JohnsonControls.Metasys.BasicServices.Token](#)

Assembly: MetasysServices.dll

Interface for Authorization Token Provider.

```
public interface IAuthTokenProvider
```

Methods

GetAccessTokenAsync()

Get Access Token (async).

```
Task<AccessTokenResponse> GetAccessTokenAsync()
```

Returns

[Task](#)<[AccessTokenResponse](#)>

GetRefreshTokenAsync(string)

Get Refresh Token (async).

```
Task<AccessTokenResponse> GetRefreshTokenAsync(string oldToken)
```

Parameters

oldToken [string](#)

Returns

[Task](#)<[AccessTokenResponse](#)>

Namespace JohnsonControls.Metasys.Basic Services.Utils

Classes

[CredentialUtil](#)

Utility that allows to read Credential Manager targets.

[ObjectUtil](#)

Utility that provides useful methods to handle Json values.

[ResourceManager](#)

Utility that helps the management of resources.

[UserPass](#)

Credentials DTO Class

Class CredentialUtil

Namespace: [JohnsonControls.Metasys.BasicServices.Utils](#)

Assembly: MetasysServices.dll

Utility that allows to read Credential Manager targets.

```
public static class CredentialUtil
```

Inheritance

[object](#) ← CredentialUtil

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Methods

GetCredential(string)

Retrieve the credentials for the given target.

```
public static UserPass GetCredential(string target)
```

Parameters

target [string](#)

Returns

[UserPass](#)

RemoveCredentials(string)

Remove credentials for the given target.

```
public static bool RemoveCredentials(string target)
```

Parameters

target [string](#)

Returns

[bool](#)

SetCredentials(string, string, string, PersistanceType)

Set the credentials for the given target.

```
public static bool SetCredentials(string target, string username, string password,
PersistanceType persistenceType)
```

Parameters

target [string](#)

username [string](#)

password [string](#)

persistenceType PersistanceType

Returns

[bool](#)

convertToUnSecureString(SecureString)

Returns the plain text of a secure string.

```
public static string convertToUnSecureString(SecureString secstrPassword)
```

Parameters

secstrPassword [SecureString](#)

Returns

[string](#)

Class ObjectUtil

Namespace: [JohnsonControls.Metasys.BasicServices.Utils](#)

Assembly: MetasysServices.dll

Utility that provides useful methods to handle Json values.

```
public class ObjectUtil
```

Inheritance

[object](#) ← ObjectUtil

Derived

[BasicServiceProvider](#), [MetasysObject](#), [MetasysPoint](#)

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Methods

GetJTokenDate(JToken, string)

Get the date value of a JToken field.

```
public static DateTime GetJTokenDate(JToken jToken, string field)
```

Parameters

jToken JToken

field string

Returns

[DateTime](#)

GetJTokenValue(JToken, string)

Get the string value of a JToken field.

```
public static string GetJTokenValue(JToken jToken, string field)
```

Parameters

jToken JToken

field [string](#)

Returns

[string](#)

Class ResourceManager

Namespace: [JohnsonControls.Metasys.BasicServices.Utils](#)

Assembly: MetasysServices.dll

Utility that helps the management of resources.

```
public static class ResourceManager
```

Inheritance

[object](#) ← ResourceManager

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Methods

GetCommandEnumeration(string)

Attempts to get the enumeration key of a given en-US localized command.

```
public static string GetCommandEnumeration(string resource)
```

Parameters

resource [string](#)

The en-US value for the localization resource.

Returns

[string](#)

The enumeration key of the en-US command if found, original resource if not.

Remarks

The resource parameter must be the value of a Metasys commandIdEnumSet en-US value, otherwise no key will be found.

GetObjectTypeEnumSet(string)

Attempts to get the enumeration key of a given en-US localized objectType.

```
public static string GetObjectTypeEnumeration(string resource)
```

Parameters

resource [string](#)

The en-US value for the localization resource.

Returns

[string](#)

The enumeration key of the en-US objectType if found, original resource if not.

Remarks

The resource parameter must be the value of a Metasys objectTypeEnumSet en-US value, otherwise no key will be found.

Localize(string, CultureInfo)

Localizes the specified resource key for the current MetasysClient locale or specified culture.

```
public static string Localize(string resource, CultureInfo cultureInfo = null)
```

Parameters

resource [string](#)

The key for the localization resource.

cultureInfo [CultureInfo](#)

Optional culture specification.

Returns

[string](#)

Localized string if the resource was found, the default en-US localized string if not found, or the resource parameter value if neither resource is found.

Remarks

The resource parameter must be the key of a Metasys enumeration resource, otherwise no translation will be found.

Class UserPass

Namespace: [JohnsonControls.Metasys.BasicServices.Utils](#)

Assembly: MetasysServices.dll

Credentials DTO Class

```
public class UserPass
```

Inheritance

[object](#) ← UserPass

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Constructors

UserPass(string, string)

Constructor of Secure Strings given plain text string

```
public UserPass(string user, string psw)
```

Parameters

user [string](#)

psw [string](#)

Properties

Password

Password's credentials

```
public SecureString Password { get; }
```

Property Value

[SecureString](#)

Username

Username's credentials

```
public SecureString Username { get; }
```

Property Value

[SecureString](#)