Namespace Pelias.NET.Controller.Services

Classes

[Client](#)

A service to interact with Pelias APIs, enabling the conversion of addresses to geographic coordinates and vice versa.

Class Client

Namespace: [Pelias](#).[NET](#).[Controller](#).[Services](#)

Assembly: Pelias.NET.dll

A service to interact with Pelias APIs, enabling the conversion of addresses to geographic coordinates and vice versa.

```
public class Client : IClient<Response, Geocoding, Feature, Properties, Geometry,
BoundingBox, Coordinates, Angle>
```

Inheritance

[object](#) ← Client

Implements

[IClient](#)<[Response](#), [Geocoding](#), [Feature](#), [Properties](#), [Geometry](#), [BoundingBox](#), [Coordinates](#), [Angle](#)>

Inherited Members

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

Constructors

Client(string, WebProxy)

Initializes a new instance of the [Client](#) class with the specified endpoint and an optional proxy.

```
public Client(string endpoint, WebProxy proxy = null)
```

Parameters

`endpoint` [string](#)

   The URI of the Pelias API endpoint.

`proxy` [WebProxy](#)

The web proxy to be used for requests (optional).

Client(Uri, WebProxy)

Initializes a new instance of the [Client](#) class with the specified endpoint and an optional proxy.

```
public Client(Uri endpoint, WebProxy proxy = null)
```

Parameters

endpoint [Uri⧉](#)

The URI of the Pelias API endpoint.

proxy [WebProxy⧉](#)

The web proxy to be used for requests (optional).

Properties

Endpoint

Gets or sets the endpoint URI for the Pelias API.

```
public Uri Endpoint { get; set; }
```

Property Value

[Uri⧉](#)

Proxy

Gets or sets the web proxy to be used for the requests (optional).

```
public WebProxy Proxy { get; set; }
```

Property Value

[WebProxy⬚](#)

Methods

Reverse(ReverseParameters)

Retrieves a stream asynchronously for the reverse geocoding query.

```
public Task<Stream> Reverse(ReverseParameters query)
```

Parameters

`query` [ReverseParameters](#)

Returns

[Task⬚](#)<[Stream⬚](#)>

Reverse(ReverseParameters, bool)

Retrieves a response asynchronously for the reverse geocoding query.

```
public Task<Response> Reverse(ReverseParameters query, bool debug = false)
```

Parameters

`query` [ReverseParameters](#)

`debug` [bool⬚](#)

Returns

[Task⬚](#)<[Response](#)>

Search(SearchParameters)

Retrieves a stream asynchronously for the search query.

```
public Task<Stream> Search(SearchParameters query)
```

Parameters

query   SearchParameters

Returns

Task☒<Stream☒>

Search(SearchParameters, bool)

Retrieves a response asynchronously for the search query.

```
public Task<Response> Search(SearchParameters query, bool debug = false)
```

Parameters

query   SearchParameters

debug   bool☒

Returns

Task☒<Response>

Search(StructuredSearchParameters)

Retrieves a stream asynchronously for the structured search query.

```
public Task<Stream> Search(StructuredSearchParameters query)
```

Parameters

query   StructuredSearchParameters

Returns

Task↗ <Stream↗ >

Search(StructuredSearchParameters, bool)

Retrieves a response asynchronously for the structured search query.

```
public Task<Response> Search(StructuredSearchParameters query, bool debug = false)
```

Parameters

query StructuredSearchParameters

debug bool↗

Returns

Task↗ <Response>

Namespace Pelias.NET.Model.Exceptions

Classes

[CollectionIterationException](#)

Represents an exception that is thrown when there is an issue during the iteration of a collection.

[MissingEntryException](#)

Represents an exception that is thrown when a required entry is missing.

[TypeMismatchException](#)

Represents an exception that is thrown when there is a type mismatch during an operation.

Class CollectionIterationException

Namespace: [Pelias](#).[NET](#).[Model](#).[Exceptions](#)

Assembly: Pelias.NET.dll

Represents an exception that is thrown when there is an issue during the iteration of a collection.

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

Inheritance

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

Implements

[ISerializable](#)

Inherited Members

[Exception.GetBaseException()](#) , [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

CollectionIterationException(string)

Initializes a new instance of the [CollectionIterationException](#) class with a specified error message.

```
public CollectionIterationException(string message)
```

Parameters

`message` [string](#)

The error message that explains the reason for the exception.

Class MissingEntryException

Namespace: [Pelias](.).[NET](.).[Model](.).[Exceptions](.)

Assembly: Pelias.NET.dll

Represents an exception that is thrown when a required entry is missing.

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

Inheritance

[object](.) ← [Exception](.) ← MissingEntryException

Implements

[ISerializable](.)

Inherited Members

[Exception.GetBaseException()](.) , [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

MissingEntryException(string)

Initializes a new instance of the [MissingEntryException](.) class with a specified error
message.

```
public MissingEntryException(string message)
```

Parameters

`message` [string](.)

The error message that explains the reason for the exception.

Class TypeMismatchException

Namespace: [Pelias](#).[NET](#).[Model](#).[Exceptions](#)

Assembly: Pelias.NET.dll

Represents an exception that is thrown when there is a type mismatch during an operation.

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

Inheritance

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

Implements

[ISerializable](#)

Inherited Members

[Exception.GetBaseException()](#) , [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

TypeMismatchException(string)

Initializes a new instance of the [TypeMismatchException](#) class with a specified error message.

```
public TypeMismatchException(string message)
```

Parameters

`message` [string](#)

The error message that explains the reason for the exception.

Namespace Pelias.NET.Model.Interfaces

Interfaces

[IClient<TResponse, TGeocoding, TFeature, TProperties, TGeometry, TBoundingBox, TCoordinates, TAngle>](#)

Represents a generic interface for Pelias API clients with specified generic types.

[IEntity](#)

Represents an entity.

Interface IClient<TResponse, TGeocoding, TFeature, TProperties, TGeometry, TBoundingBox, TCoordinates, TAngle>

Namespace: [Pelias](#).[NET](#).[Model](#).[Interfaces](#)

Assembly: Pelias.NET.dll

Represents a generic interface for Pelias API clients with specified generic types.

```
public interface IClient<TResponse, TGeocoding, TFeature, TProperties, TGeometry,
TBoundingBox, TCoordinates, TAngle> where TResponse : IResponse<TGeocoding,
TFeature, TProperties, TGeometry, TBoundingBox, TCoordinates, TAngle> where
TGeocoding : IGeocoding where TFeature : IFeature<TProperties, TGeometry,
TBoundingBox, TCoordinates, TAngle> where TProperties : IProperties where TGeometry
: IGeometry<TBoundingBox, TCoordinates, TAngle> where TBoundingBox :
IBoundingBox<TCoordinates, TAngle> where TCoordinates : ICoordinates<TAngle> where
TAngle : IAngle
```

Type Parameters

`TResponse`

The type representing the response from Pelias API.

`TGeocoding`

The type representing geocoding information in the response.

`TFeature`

The type representing a feature in the response.

`TProperties`

The type representing properties of a feature.

`TGeometry`

The type representing the geometry of a feature.

`TBoundingBox`

The type representing the bounding box of a feature.

`TCoordinates`

The type representing the coordinates of a feature.

`TAngle`

The type representing an angle measurement.

Interface IEntity

Namespace: [Pelias](#).[NET](#).[Model](#).[Interfaces](#)

Assembly: Pelias.NET.dll

Represents an entity.

```
public interface IEntity
```

Methods

GetMissingProperties(JsonElement, JsonElement, List<JsonProperty>, List<Exception>, bool)

Compares two JSON elements and returns a list of missing properties in the source compared to the target.

```
public static IEnumerable<List<JsonProperty>> GetMissingProperties(JsonElement
source, JsonElement target, List<JsonProperty> parents, List<Exception> exceptions,
bool raiseExceptions = false)
```

Parameters

`source` [JsonElement](#)⬈

The source JSON element.

`target` [JsonElement](#)⬈

The target JSON element to compare against.

`parents` [List](#)⬈<[JsonProperty](#)⬈>

The list of parent properties (used for tracking nested properties).

`exceptions` [List](#)⬈<[Exception](#)⬈>

A list to store exceptions during the comparison.

`raiseExceptions` [bool](#)⬈

Flag to determine whether to raise exceptions for mismatches (default is false).

Returns

[IEnumerable](#)⬀<[List](#)⬀<[JsonProperty](#)⬀>>

A collection of lists, each representing a path to a missing property in the source element.

Namespace Pelias.NET.Model.Interfaces.GeographicInformationSystems

Interfaces

[IBoundingBox<TCoordinates, TAngle>](#)

Represents an interface for a bounding box defined by top-right and bottom-left coordinates, extending the general entity interface.

[ICoordinates<TAngle>](#)

Represents an interface for geographic coordinates defined by longitude and latitude, extending the general entity interface.

[IFeature<TProperties, TGeometry, TBoundingBox, TCoordinates, TAngle>](#)

Represents an interface for a geographic feature, extending the general entity interface, with properties, geometry, and bounding box information.

[IGeocoding](#)

Represents an interface for geocoding information, extending the general entity interface.

[IGeometry<TBoundingBox, TCoordinates, TAngle>](#)

Represents an interface for geographic geometry, extending the general entity interface, with coordinates information.

[IMeasurement](#)

Represents an interface for a geographic measurement, extending the general entity interface.

[IProperties](#)

Represents an interface for properties of a geographic entity, extending the general entity interface.

Interface IBoundingBox<TCoordinates, TAngle>

Namespace: [Pelias](#).[NET](#).[Model](#).[Interfaces](#).[GeographicInformationSystems](#)

Assembly: Pelias.NET.dll

Represents an interface for a bounding box defined by top-right and bottom-left coordinates, extending the general entity interface.

```
public interface IBoundingBox<TCoordinates, TAngle> : IEntity where TCoordinates :
ICoordinates<TAngle> where TAngle : IAngle
```

Type Parameters

`TCoordinates`

The type representing the coordinates of the bounding box.

`TAngle`

The type representing an angle measurement.

Inherited Members

[IEntity.GetMissingProperties(JsonElement, JsonElement, List<JsonProperty>, List<Exception>, bool)](#)

Properties

BottomLeftCoordinates

Gets the bottom-left coordinates of the bounding box.

```
TCoordinates BottomLeftCoordinates { get; }
```

Property Value

TCoordinates

TopRightCoordinates

Gets the top-right coordinates of the bounding box.

```
TCoordinates TopRightCoordinates { get; }
```

Property Value

TCoordinates

Methods

Contains(TCoordinates)

Checks whether the specified coordinates are within the bounding box.

```
bool Contains(TCoordinates coordinates)
```

Parameters

coordinates TCoordinates

The coordinates to check.

Returns

[bool]↗

True if the coordinates are within the bounding box, otherwise false.

Interface ICoordinates<TAngle>

Namespace: [Pelias](#).[NET](#).[Model](#).[Interfaces](#).[GeographicInformationSystems](#)

Assembly: Pelias.NET.dll

Represents an interface for geographic coordinates defined by longitude and latitude, extending the general entity interface.

```
public interface ICoordinates<TAngle> : IEntity where TAngle : IAngle
```

Type Parameters

`TAngle`

The type representing an angle measurement.

Inherited Members
[IEntity.GetMissingProperties(JsonElement, JsonElement, List<JsonProperty>, List<Exception>, bool)](#)

Properties

Latitude

Gets the latitude of the coordinates.

```
TAngle Latitude { get; }
```

Property Value

TAngle

Longitude

Gets the longitude of the coordinates.

```
TAngle Longitude { get; }
```

Property Value

TAngle

Interface IFeature<TProperties, TGeometry, TBoundingBox, TCoordinates, TAngle>

Namespace: [Pelias](#).[NET](#).[Model](#).[Interfaces](#).[GeographicInformationSystems](#)

Assembly: Pelias.NET.dll

Represents an interface for a geographic feature, extending the general entity interface, with properties, geometry, and bounding box information.

```
public interface IFeature<TProperties, TGeometry, TBoundingBox, TCoordinates,
TAngle> : IEntity where TProperties : IProperties where TGeometry :
IGeometry<TBoundingBox, TCoordinates, TAngle> where TBoundingBox :
IBoundingBox<TCoordinates, TAngle> where TCoordinates : ICoordinates<TAngle> where
TAngle : IAngle
```

Type Parameters

`TProperties`

  The type representing properties of the feature.

`TGeometry`

  The type representing the geometry of the feature.

`TBoundingBox`

  The type representing the bounding box of the feature.

`TCoordinates`

  The type representing the coordinates of the feature.

`TAngle`

  The type representing an angle measurement.

Inherited Members

[IEntity.GetMissingProperties(JsonElement, JsonElement, List<JsonProperty>, List<Exception>, bool)](#)

Properties

BoundingBox

Gets the bounding box of the feature.

```
TBoundingBox BoundingBox { get; }
```

Property Value

TBoundingBox

Geometry

Gets the geometry of the feature.

```
TGeometry Geometry { get; }
```

Property Value

TGeometry

Properties

Gets the properties of the feature.

```
TProperties Properties { get; }
```

Property Value

TProperties

Type

Gets the type of the feature.

```
string Type { get; }
```

Property Value

[string](#)⧉

Interface IGeocoding

Namespace: [Pelias](#).[NET](#).[Model](#).[Interfaces](#).[GeographicInformationSystems](#)

Assembly: Pelias.NET.dll

Represents an interface for geocoding information, extending the general entity interface.

```
public interface IGeocoding : IEntity
```

Inherited Members
[IEntity.GetMissingProperties(JsonElement, JsonElement, List<JsonProperty>, List<Exception>, bool)](#)

Properties

Attribution

Gets the attribution information for the geocoding data.

```
string Attribution { get; }
```

Property Value

[string](#)⧉

Timestamp

Gets the timestamp of the geocoding information.

```
long Timestamp { get; }
```

Property Value

[long](#)⧉

Version

Gets the version of the geocoding information.

```
string Version { get; }
```

Property Value

[string](#)

Interface IGeometry<TBoundingBox, TCoordinates, TAngle>

Namespace: [Pelias](#).[NET](#).[Model](#).[Interfaces](#).[GeographicInformationSystems](#)

Assembly: Pelias.NET.dll

Represents an interface for geographic geometry, extending the general entity interface, with coordinates information.

```
public interface IGeometry<TBoundingBox, TCoordinates, TAngle> : IEntity where
TBoundingBox : IBoundingBox<TCoordinates, TAngle> where TCoordinates :
ICoordinates<TAngle> where TAngle : IAngle
```

Type Parameters

`TBoundingBox`

   The type representing the bounding box of the geometry.

`TCoordinates`

   The type representing the coordinates of the geometry.

`TAngle`

   The type representing an angle measurement.

Inherited Members

[IEntity.GetMissingProperties(JsonElement, JsonElement, List<JsonProperty>, List<Exception>, bool)](#)

Properties

Coordinates

Gets the coordinates of the geometry.

```
TCoordinates Coordinates { get; }
```

Property Value

TCoordinates

Interface IMeasurement

Namespace: [Pelias](#).[NET](#).[Model](#).[Interfaces](#).[GeographicInformationSystems](#)

Assembly: Pelias.NET.dll

Represents an interface for a geographic measurement, extending the general entity interface.

```
public interface IMeasurement : IEntity
```

Inherited Members

[IEntity.GetMissingProperties(JsonElement, JsonElement, List<JsonProperty>, List<Exception>, bool)](#)

Interface IProperties

Namespace:

Assembly: Pelias.NET.dll

Represents an interface for properties of a geographic entity, extending the general entity interface.

```csharp
public interface IProperties : IEntity
```

Inherited Members

[IEntity.GetMissingProperties(JsonElement, JsonElement, List<JsonProperty>, List<Exception>, bool)](.)

Properties

Accuracy

Gets the accuracy information of the geographic entity.

```csharp
string Accuracy { get; }
```

Property Value

[string](.)

Confidence

Gets the confidence level of the geographic entity.

```csharp
double Confidence { get; }
```

Property Value

[double](.)

GroupIdentifier

Gets the group identifier of the geographic entity.

```
string GroupIdentifier { get; }
```

Property Value

[string](#)↗

Identifier

Gets the identifier of the geographic entity.

```
string Identifier { get; }
```

Property Value

[string](#)↗

Label

Gets the label of the geographic entity.

```
string Label { get; }
```

Property Value

[string](#)↗

Layer

Gets the layer of the geographic entity.

```
string Layer { get; }
```

Property Value

[string](#)↗

Name

Gets the name of the geographic entity.

```csharp
string Name { get; }
```

Property Value

[string](#)↗

Source

Gets the source of the geographic entity.

```csharp
string Source { get; }
```

Property Value

[string](#)↗

SourceIdentifier

Gets the source identifier of the geographic entity.

```csharp
string SourceIdentifier { get; }
```

Property Value

[string](#)↗

Namespace Pelias.NET.Model.Interfaces. GeographicInformationSystems. Measurements

Interfaces

IDistance<TCoordinates, TAngle, TLength>

Represents an interface for calculating geographical distance between two points, extending the general measurement interface.

IMeasure

Represents an interface for a geographic measurement, extending the general entity interface.

Interface IDistance<TCoordinates, TAngle, TLength>

Namespace: [Pelias](#).[NET](#).[Model](#).[Interfaces](#).[GeographicInformationSystems](#).[Measurements](#)

Assembly: Pelias.NET.dll

Represents an interface for calculating geographical distance between two points, extending the general measurement interface.

```
public interface IDistance<TCoordinates, TAngle, TLength> : IMeasurement, IEntity
where TCoordinates : ICoordinates<TAngle> where TAngle : IAngle where TLength
 : ILength
```

Type Parameters

`TCoordinates`

The type representing the coordinates of the points.

`TAngle`

The type representing an angle measurement.

`TLength`

The type representing a length measurement.

Inherited Members

[IEntity.GetMissingProperties(JsonElement, JsonElement, List<JsonProperty>, List<Exception>, bool)](#)

Fields

MEAN_EARTH_RADIUS

Radius at equator in meters (World Geodetic System 1984).

```
public const double MEAN_EARTH_RADIUS = 6371009
```

Field Value

[double ↗](#)

Methods

Compute(TCoordinates, TCoordinates)

Computes the geographical distance between two points.

```
TLength Compute(TCoordinates source, TCoordinates target)
```

Parameters

`source` TCoordinates

   The coordinates of the source point.

`target` TCoordinates

   The coordinates of the target point.

Returns

TLength

   The distance between the two points in the specified length unit.

Interface IMeasure

Represents an interface for a geographic measurement, extending the general entity interface.

```
public interface IMeasure : IEntity
```

Inherited Members

IEntity.GetMissingProperties(JsonElement, JsonElement, List<JsonProperty>, List<Exception>, bool)

Namespace Pelias.NET.Model.Interfaces. GeographicInformationSystems. Measurements.Measures

Interfaces

IAngle

Represents an interface for an angle measurement, extending the general measurement interface.

ILength

Represents an interface for a length measurement, extending the general measurement interface.

Interface IAngle

Namespace: Pelias.NET.Model.Interfaces.GeographicInformationSystems.Measurements.Measures

Assembly: Pelias.NET.dll

Represents an interface for an angle measurement, extending the general measurement interface.

```
public interface IAngle : IMeasure, IEntity
```

Inherited Members

IEntity.GetMissingProperties(JsonElement, JsonElement, List<JsonProperty>, List<Exception>, bool)

Properties

Degrees

Gets the angle value in degrees.

```
double Degrees { get; }
```

Property Value

double↗

Interface ILength

Namespace: [Pelias](#).[NET](#).[Model](#).[Interfaces](#).[GeographicInformationSystems](#).[Measurements](#).[Measures](#)

Assembly: Pelias.NET.dll

Represents an interface for a length measurement, extending the general measurement interface.

```
public interface ILength : IMeasure, IEntity
```

Inherited Members

[IEntity.GetMissingProperties(JsonElement, JsonElement, List<JsonProperty>, List<Exception>, bool)](#)

Fields

MILE

Conversion factor: 1 mile in meters.

```
public const double MILE = 1609.344
```

Field Value

[double](#)

Properties

Meters

Gets the length value in meters.

```
double Meters { get; }
```

Property Value

[double ↗](#)

Miles

Gets the length value in miles, calculated based on the conversion factor.

```csharp
double Miles { get; }
```

Property Value

[double ↗](#)

Namespace Pelias.NET.Model.Interfaces.Protocols.Http

Interfaces

[IQuery](#)

Represents an interface for an HTTP query with methods to create parameters for URL encoding.

[IResponse<TGeocoding, TFeature, TProperties, TGeometry, TBoundingBox, TCoordinates, TAngle>](#)

Represents a generic interface for a Pelias API response with specified generic types, extending the general entity interface.

Interface IQuery

Namespace: [Pelias](#).[NET](#).[Model](#).[Interfaces](#).[Protocols](#).[Http](#)

Assembly: Pelias.NET.dll

Represents an interface for an HTTP query with methods to create parameters for URL encoding.

```
public interface IQuery
```

Methods

ToNameValueCollection()

Creates a collection of parameters with their respective values for URL encoding.

```
NameValueCollection ToNameValueCollection()
```

Returns

[NameValueCollection⬀](#)

A collection of parameters for URL encoding.

Interface IResponse<TGeocoding, TFeature, TProperties, TGeometry, TBoundingBox, TCoordinates, TAngle>

Namespace: [Pelias](#).[NET](#).[Model](#).[Interfaces](#).[Protocols](#).[Http](#)

Assembly: Pelias.NET.dll

Represents a generic interface for a Pelias API response with specified generic types, extending the general entity interface.

```
public interface IResponse<TGeocoding, TFeature, TProperties, TGeometry,
TBoundingBox, TCoordinates, TAngle> : IEntity where TGeocoding : IGeocoding where
TFeature : IFeature<TProperties, TGeometry, TBoundingBox, TCoordinates, TAngle>
where TProperties : IProperties where TGeometry : IGeometry<TBoundingBox,
TCoordinates, TAngle> where TBoundingBox : IBoundingBox<TCoordinates, TAngle> where
TCoordinates : ICoordinates<TAngle> where TAngle : IAngle
```

Type Parameters

`TGeocoding`

The type representing geocoding information in the response.

`TFeature`

The type representing a feature in the response.

`TProperties`

The type representing properties of a feature.

`TGeometry`

The type representing the geometry of a feature.

`TBoundingBox`

The type representing the bounding box of a feature.

`TCoordinates`

The type representing the coordinates of a feature.

TAngle

The type representing an angle measurement.

Inherited Members

[IEntity.GetMissingProperties(JsonElement, JsonElement, List<JsonProperty>, List<Exception>, bool)](#)

Properties

BoundingBox

Gets or sets the bounding box of the response.

```
TBoundingBox BoundingBox { get; }
```

Property Value

TBoundingBox

Features

Gets a list of features in the response.

```
IList<TFeature> Features { get; }
```

Property Value

[IList](#)<TFeature>

Geocoding

Gets the geocoding information of the response.

```
TGeocoding Geocoding { get; }
```

Property Value

TGeocoding

Type

Gets the type of the response.

```
string Type { get; }
```

Property Value

[string](#)↗

Namespace Pelias.NET.Model.Objects. Pelias.Converters

Classes

[AngleConverter](#)

Custom JSON converter for the Angle class, facilitating JSON serialization and deserialization.

[BoundingBoxConverter](#)

Custom JSON converter for converting BoundingBox to and from JSON.

[CoordinatesConverter](#)

Custom JSON converter for converting Coordinates to and from JSON.

Class AngleConverter

Namespace: Pelias.NET.Model.Objects.Pelias.Converters
Assembly: Pelias.NET.dll

Custom JSON converter for the Angle class, facilitating JSON serialization and deserialization.

```
public class AngleConverter : JsonConverter<Angle>
```

Inheritance

object ← JsonConverter ← JsonConverter<Angle> ← AngleConverter

Inherited Members

JsonConverter<Angle>.CanConvert(Type) ,
JsonConverter<Angle>.ReadAsPropertyName(ref Utf8JsonReader, Type,
JsonSerializerOptions) ,
JsonConverter<Angle>.WriteAsPropertyName(Utf8JsonWriter, Angle, JsonSerializerOptions)
 ,
JsonConverter<Angle>.HandleNull , JsonConverter<Angle>.Type ,
object.Equals(object) , object.Equals(object, object) , object.GetHashCode() ,
object.GetType() , object.MemberwiseClone() , object.ReferenceEquals(object, object) ,
object.ToString()

Methods

Read(ref Utf8JsonReader, Type, JsonSerializerOptions)

Reads and converts JSON to an Angle object.

```
public override Angle Read(ref Utf8JsonReader reader, Type typeToConvert,
JsonSerializerOptions options)
```

Parameters

`reader` Utf8JsonReader

The JSON reader.

typeToConvert [Type](#)⧉

   The type to convert.

options [JsonSerializerOptions](#)⧉

   The serializer options.

Returns

[Angle](#)

   An Angle object.

Write(Utf8JsonWriter, Angle, JsonSerializerOptions)

Writes an Angle object to JSON.

```
public override void Write(Utf8JsonWriter writer, Angle value,
JsonSerializerOptions options)
```

Parameters

writer [Utf8JsonWriter](#)⧉

   The JSON writer.

value [Angle](#)

   The Angle object to write.

options [JsonSerializerOptions](#)⧉

   The serializer options.

Class BoundingBoxConverter

Namespace: [Pelias](#).[NET](#).[Model](#).[Objects](#).[Pelias](#).[Converters](#)

Assembly: Pelias.NET.dll

Custom JSON converter for converting BoundingBox to and from JSON.

```
public class BoundingBoxConverter : JsonConverter<BoundingBox>
```

Inheritance

[object](#) ← [JsonConverter](#) ← [JsonConverter](#)<[BoundingBox](#)> ← BoundingBoxConverter

Inherited Members

[JsonConverter<BoundingBox>.CanConvert(Type)](#) ,
[JsonConverter<BoundingBox>.ReadAsPropertyName(ref Utf8JsonReader, Type, JsonSerializerOptions)](#) ,
[JsonConverter<BoundingBox>.WriteAsPropertyName(Utf8JsonWriter, BoundingBox, JsonSerializerOptions)](#) ,
[JsonConverter<BoundingBox>.HandleNull](#) , [JsonConverter<BoundingBox>.Type](#) ,
[object.Equals(object)](#) , [object.Equals(object, object)](#) , [object.GetHashCode()](#) ,
[object.GetType()](#) , [object.MemberwiseClone()](#) , [object.ReferenceEquals(object, object)](#) ,
[object.ToString()](#)

Methods

Read(ref Utf8JsonReader, Type, JsonSerializerOptions)

Reads JSON and converts it to a BoundingBox object.

```
public override BoundingBox Read(ref Utf8JsonReader reader, Type typeToConvert,
JsonSerializerOptions options)
```

Parameters

`reader` [Utf8JsonReader](#)

`typeToConvert` [Type](#)

options JsonSerializerOptions⧉

Returns

BoundingBox

Write(Utf8JsonWriter, BoundingBox, JsonSerializerOptions)

Writes a BoundingBox object to JSON.

```
public override void Write(Utf8JsonWriter writer, BoundingBox value,
JsonSerializerOptions options)
```

Parameters

writer Utf8JsonWriter⧉

value BoundingBox

options JsonSerializerOptions⧉

Class CoordinatesConverter

Namespace: [Pelias](#).[NET](#).[Model](#).[Objects](#).[Pelias](#).[Converters](#)

Assembly: Pelias.NET.dll

Custom JSON converter for converting Coordinates to and from JSON.

```
public class CoordinatesConverter : JsonConverter<Coordinates>
```

Inheritance

[object](#) ← [JsonConverter](#) ← [JsonConverter](#)<[Coordinates](#)> ← CoordinatesConverter

Inherited Members

[JsonConverter<Coordinates>.CanConvert(Type)](#) ,
[JsonConverter<Coordinates>.ReadAsPropertyName(ref Utf8JsonReader, Type, JsonSerializerOptions)](#) ,
[JsonConverter<Coordinates>.WriteAsPropertyName(Utf8JsonWriter, Coordinates, JsonSerializerOptions)](#) ,
[JsonConverter<Coordinates>.HandleNull](#) , [JsonConverter<Coordinates>.Type](#) ,
[object.Equals(object)](#) , [object.Equals(object, object)](#) , [object.GetHashCode()](#) ,
[object.GetType()](#) , [object.MemberwiseClone()](#) , [object.ReferenceEquals(object, object)](#) ,
[object.ToString()](#)

Methods

Read(ref Utf8JsonReader, Type, JsonSerializerOptions)

Reads JSON and converts it to a Coordinates object.

```
public override Coordinates Read(ref Utf8JsonReader reader, Type typeToConvert,
JsonSerializerOptions options)
```

Parameters

`reader` [Utf8JsonReader](#)

`typeToConvert` [Type](#)

options JsonSerializerOptions⤢

Returns

[Coordinates](#)

Write(Utf8JsonWriter, Coordinates, JsonSerializerOptions)

Writes a Coordinates object to JSON.

```
public override void Write(Utf8JsonWriter writer, Coordinates value,
JsonSerializerOptions options)
```

Parameters

writer [Utf8JsonWriter⤢](#)

value [Coordinates](#)

options [JsonSerializerOptions⤢](#)

Namespace Pelias.NET.Model.Objects. Pelias.Enums

Enums

MatchType

Path

Version

Enum MatchType

```
[Flags]
[JsonConverter(typeof(JsonStringEnumConverter))]
public enum MatchType
```

Extension Methods
[EnumExtensions.GetEnumMemberValue<T>(T)](#)

Fields

[EnumMember(Value = "exact")] Exact = 0

[EnumMember(Value = "fallback")] Fallback = 2

[EnumMember(Value = "interpolated")] Interpolated = 1

Enum Path

Namespace: [Pelias](#).[NET](#).[Model](#).[Objects](#).[Pelias](#).[Enums](#)

Assembly: Pelias.NET.dll

```
[Flags]
[JsonConverter(typeof(JsonStringEnumConverter))]
public enum Path
```

Extension Methods
[EnumExtensions.GetEnumMemberValue<T>(T)](#)

Fields

[EnumMember(Value = "reverse")] Reverse = 0

[EnumMember(Value = "search")] Search = 1

[EnumMember(Value = "search/structured")] StructuredSearch = 2

Enum Version

Namespace: [Pelias](#).[NET](#).[Model](#).[Objects](#).[Pelias](#).[Enums](#)

Assembly: Pelias.NET.dll

```
[Flags]
[JsonConverter(typeof(JsonStringEnumConverter))]
public enum Version
```

Extension Methods
[EnumExtensions.GetEnumMemberValue<T>(T)](#)

Fields

```
[EnumMember(Value = "V1")] V1 = 0
```

Namespace Pelias.NET.Model.Objects. Pelias.Extensions

Classes

EnumExtensions

IDistanceExtensions

Class EnumExtensions

Namespace: [Pelias](#).[NET](#).[Model](#).[Objects](#).[Pelias](#).[Extensions](#)

Assembly: Pelias.NET.dll

```
public static class EnumExtensions
```

Inheritance

[object](#) ← EnumExtensions

Inherited Members

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

Methods

GetEnumMemberValue<T>(T)

```
public static string GetEnumMemberValue<T>(this T value) where T : Enum
```

Parameters

`value` T

Returns

[string](#)

Type Parameters

`T`

Class IDistanceExtensions

Namespace: [Pelias](#).[NET](#).[Model](#).[Objects](#).[Pelias](#).[Extensions](#)

Assembly: Pelias.NET.dll

```
public static class IDistanceExtensions
```

Inheritance

[object](#) ← IDistanceExtensions

Inherited Members

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

Methods

Compute<T>(T, params Coordinates[])

```
public static Length Compute<T>(this T value, params Coordinates[] coordinates)
where T : IDistance<Coordinates, Angle, Length>
```

Parameters

`value` T

`coordinates` [Coordinates](#)[]

Returns

[Length](#)

Type Parameters

`T`

Namespace Pelias.NET.Model.Objects. Pelias.GeographicInformationSystems

Classes

BoundingBox

Coordinates

Feature

Geocoding

Geometry

Properties

Class BoundingBox

Namespace: [Pelias](#).[NET](#).[Model](#).[Objects](#).[Pelias](#).[GeographicInformationSystems](#)

Assembly: Pelias.NET.dll

```
public class BoundingBox : IBoundingBox<Coordinates, Angle>, IEntity
```

Inheritance

[object](#) ← BoundingBox

Implements

[IBoundingBox](#)<[Coordinates](#), [Angle](#)>, [IEntity](#)

Inherited Members

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

Properties

BottomLeftCoordinates

Gets the bottom-left coordinates of the bounding box.

```
[JsonPropertyName("southwest")]
public Coordinates BottomLeftCoordinates { get; set; }
```

Property Value

[Coordinates](#)

TopRightCoordinates

Gets the top-right coordinates of the bounding box.

```
[JsonPropertyName("northeast")]
```

```
public Coordinates TopRightCoordinates { get; set; }
```

Property Value

[Coordinates](#)

Methods

ToArray()

```
public double[] ToArray()
```

Returns

[double](#)[]

Class Coordinates

Namespace:

```
public class Coordinates : ICoordinates<Angle>, IEntity
```

Inheritance

object ← Coordinates

Implements

ICoordinates<Angle>, IEntity

Inherited Members

object.Equals(object) , object.Equals(object, object) , object.GetHashCode() ,
object.GetType() , object.MemberwiseClone() , object.ReferenceEquals(object, object) ,
object.ToString()

Properties

Latitude

Gets the latitude of the coordinates.

```
public Angle Latitude { get; set; }
```

Property Value

Angle

Longitude

Gets the longitude of the coordinates.

```
public Angle Longitude { get; set; }
```

Property Value

[Angle](#)

Methods

ToArray()

```
public double[] ToArray()
```

Returns

[double](#)[]

Class Feature

Namespace: Pelias.NET.Model.Objects.Pelias.GeographicInformationSystems

Assembly: Pelias.NET.dll

```
public class Feature : IFeature<Properties, Geometry, BoundingBox, Coordinates,
Angle>, IEntity
```

Inheritance

object ← Feature

Implements

IFeature<Properties, Geometry, BoundingBox, Coordinates, Angle>, IEntity

Inherited Members

object.Equals(object) , object.Equals(object, object) , object.GetHashCode() ,
object.GetType() , object.MemberwiseClone() , object.ReferenceEquals(object, object) ,
object.ToString()

Properties

BoundingBox

Gets the bounding box of the feature.

```
[JsonRequired]
[JsonConverter(typeof(BoundingBoxConverter))]
[JsonPropertyName("bbox")]
public required BoundingBox BoundingBox { get; set; }
```

Property Value

BoundingBox

Geometry

Gets the geometry of the feature.

```
[JsonRequired]
[JsonPropertyName("geometry")]
public required Geometry Geometry { get; set; }
```

Property Value

[Geometry](#)

Properties

Gets the properties of the feature.

```
[JsonRequired]
[JsonPropertyName("properties")]
public required Properties Properties { get; set; }
```

Property Value

[Properties](#)

Type

Gets the type of the feature.

```
[JsonRequired]
[JsonPropertyName("type")]
public required string Type { get; set; }
```

Property Value

[string](#)⧉

Class Geocoding

Namespace: [Pelias](#).[NET](#).[Model](#).[Objects](#).[Pelias](#).[GeographicInformationSystems](#)

Assembly: Pelias.NET.dll

```
public class Geocoding : IGeocoding, IEntity
```

Inheritance

[object](#) ← Geocoding

Implements

[IGeocoding](#), [IEntity](#)

Inherited Members

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

Properties

Attribution

Gets the attribution information for the geocoding data.

```
[JsonRequired]
[JsonPropertyName("attribution")]
public required string Attribution { get; set; }
```

Property Value

[string](#)

Timestamp

Gets the timestamp of the geocoding information.

```
[JsonRequired]
[JsonPropertyName("timestamp")]
public required long Timestamp { get; set; }
```

Property Value

[long↗](#)

Version

Gets the version of the geocoding information.

```
[JsonRequired]
[JsonPropertyName("version")]
public required string Version { get; set; }
```

Property Value

[string↗](#)

Class Geometry

Namespace: [Pelias](#).[NET](#).[Model](#).[Objects](#).[Pelias](#).[GeographicInformationSystems](#)

Assembly: Pelias.NET.dll

```
public class Geometry : IGeometry<BoundingBox, Coordinates, Angle>, IEntity
```

Inheritance

[object](#) ← Geometry

Implements

[IGeometry](#)<[BoundingBox](#), [Coordinates](#), [Angle](#)>, [IEntity](#)

Inherited Members

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

Properties

Coordinates

Gets the coordinates of the geometry.

```
[JsonConverter(typeof(CoordinatesConverter))]
[JsonPropertyName("coordinates")]
public Coordinates Coordinates { get; set; }
```

Property Value

[Coordinates](#)

Type

```
[JsonPropertyName("type")]
public string Type { get; set; }
```

Property Value

[string](#)

Class Properties

```
public class Properties : IProperties, IEntity
```

Inheritance

[object](#) ← Properties

Implements

[IProperties](#), [IEntity](#)

Inherited Members

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

Constructors

Properties(string, string, string, string, string, string, double, string, string)

```
public Properties(string identifier, string groupIdentifier, string layer, string
source, string sourceIdentifier, string name, double confidence, string accuracy,
string label)
```

Parameters

identifier [string](#)

groupIdentifier [string](#)

layer [string](#)

source [string](#)

sourceIdentifier [string](#)

name string⤻

confidence double⤻

accuracy string⤻

label string⤻

Properties

Accuracy

Gets the accuracy information of the geographic entity.

```
[JsonRequired]
[JsonPropertyName("accuracy")]
public required string Accuracy { get; set; }
```

Property Value

string⤻

Borough

```
[JsonPropertyName("borough")]
public string? Borough { get; set; }
```

Property Value

string⤻

BoroughGroupIdentifier

```
[JsonPropertyName("borough_gid")]
public string? BoroughGroupIdentifier { get; set; }
```

Property Value

[string](#)

Confidence

Gets the confidence level of the geographic entity.

```
[JsonRequired]
[Range(0, 1)]
[JsonPropertyName("confidence")]
public required double Confidence { get; set; }
```

Property Value

[double](#)

Country

```
[JsonPropertyName("country")]
public string? Country { get; set; }
```

Property Value

[string](#)

CountryAbbreviation

```
[JsonPropertyName("country_a")]
public string? CountryAbbreviation { get; set; }
```

Property Value

[string](#)

CountryCode

```csharp
[JsonPropertyName("country_code")]
public string? CountryCode { get; set; }
```

Property Value

[string](#)

CountryGroupIdentifier

```csharp
[JsonPropertyName("country_gid")]
public string? CountryGroupIdentifier { get; set; }
```

Property Value

[string](#)

Distance

```csharp
[JsonPropertyName("distance")]
public double Distance { get; set; }
```

Property Value

[double](#)

GroupIdentifier

Gets the group identifier of the geographic entity.

```csharp
[JsonRequired]
[JsonPropertyName("gid")]
public required string GroupIdentifier { get; set; }
```

Property Value

[string](#)

HouseNumber

```
[JsonPropertyName("housenumber")]
public string? HouseNumber { get; set; }
```

Property Value

[string](#)

Identifier

Gets the identifier of the geographic entity.

```
[JsonRequired]
[JsonPropertyName("id")]
public required string Identifier { get; set; }
```

Property Value

[string](#)

Label

Gets the label of the geographic entity.

```
[JsonRequired]
[JsonPropertyName("label")]
public required string Label { get; set; }
```

Property Value

[string](#)

Layer

Gets the layer of the geographic entity.

```
[JsonRequired]
[JsonPropertyName("layer")]
public required string Layer { get; set; }
```

Property Value

[string](#)↗

LocalAdministrator

```
[JsonPropertyName("localadmin")]
public string? LocalAdministrator { get; set; }
```

Property Value

[string](#)↗

LocalAdministratorGroupIdentifier

```
[JsonPropertyName("localadmin_gid")]
public string? LocalAdministratorGroupIdentifier { get; set; }
```

Property Value

[string](#)↗

Locality

```
[JsonPropertyName("locality")]
public string? Locality { get; set; }
```

Property Value

[string↗](#)

LocalityGroupIdentifier

```
[JsonPropertyName("locality_gid")]
public string? LocalityGroupIdentifier { get; set; }
```

Property Value

[string↗](#)

Macroregion

```
[JsonPropertyName("macroregion")]
public string? Macroregion { get; set; }
```

Property Value

[string↗](#)

MacroregionAbbreviation

```
[JsonPropertyName("macroregion_a")]
public string? MacroregionAbbreviation { get; set; }
```

Property Value

[string↗](#)

MacroregionGroupIdentifier

```
[JsonPropertyName("macroregion_gid")]
```

```
public string? MacroregionGroupIdentifier { get; set; }
```

Property Value

[string](#)↗

MatchType

```
[JsonPropertyName("match_type")]
public MatchType? MatchType { get; set; }
```

Property Value

[MatchType](#)?

Name

Gets the name of the geographic entity.

```
[JsonRequired]
[JsonPropertyName("name")]
public required string Name { get; set; }
```

Property Value

[string](#)↗

Neighbourhood

```
[JsonPropertyName("neighbourhood")]
public string? Neighbourhood { get; set; }
```

Property Value

[string](#)↗

NeighbourhoodGroupIdentifier

```
[JsonPropertyName("neighbourhood_gid")]
public string? NeighbourhoodGroupIdentifier { get; set; }
```

Property Value

[string](#)

Ocean

```
[JsonPropertyName("ocean")]
public string? Ocean { get; set; }
```

Property Value

[string](#)

OceanGroupIdentifier

```
[JsonPropertyName("ocean_gid")]
public string? OceanGroupIdentifier { get; set; }
```

Property Value

[string](#)

PostalCode

```
[JsonPropertyName("postalcode")]
public string? PostalCode { get; set; }
```

Property Value

[string](#)

Region

```
[JsonPropertyName("region")]
public string? Region { get; set; }
```

Property Value

[string](#)

RegionAbbreviation

```
[JsonPropertyName("region_a")]
public string? RegionAbbreviation { get; set; }
```

Property Value

[string](#)

RegionGroupIdentifier

```
[JsonPropertyName("region_gid")]
public string? RegionGroupIdentifier { get; set; }
```

Property Value

[string](#)

Source

Gets the source of the geographic entity.

```
[JsonRequired]
[JsonPropertyName("source")]
```

```
public required string Source { get; set; }
```

Property Value

[string](#)↗

SourceIdentifier

Gets the source identifier of the geographic entity.

```
[JsonRequired]
[JsonPropertyName("source_id")]
public required string SourceIdentifier { get; set; }
```

Property Value

[string](#)↗

Street

```
[JsonPropertyName("street")]
public string? Street { get; set; }
```

Property Value

[string](#)↗

Namespace Pelias.NET.Model.Objects. Pelias.GeographicInformationSystems. Measurements.Distances.Ellipsoid

Classes

VincentyFormulae

Class VincentyFormulae

Namespace:
 [Pelias](#).[NET](#).[Model](#).[Objects](#).[Pelias](#).[GeographicInformationSystems](#).[Measurements](#).[Distances](#).[Ellipsoid](#)

Assembly: Pelias.NET.dll

```
public class VincentyFormulae : IDistance<Coordinates, Angle, Length>,
IMeasurement, IEntity
```

Inheritance

[object](#) ← VincentyFormulae

Implements

[IDistance](#)<[Coordinates](#), [Angle](#), [Length](#)>, [IMeasurement](#), [IEntity](#)

Inherited Members

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

Extension Methods

[IDistanceExtensions.Compute<T>(T, params Coordinates[])](#)

Fields

EARTH_EQUATORIAL_RADIUS

Radius at equator in meters (World Geodetic System 1984)

```
public const double EARTH_EQUATORIAL_RADIUS = 6378137
```

Field Value

[double](#)

ITERATIONS

```
public const int ITERATIONS = 200
```

Field Value

[int↗](#)

TOLERANCE

```
public const double TOLERANCE = 1E-11
```

Field Value

[double↗](#)

Methods

Compute(Coordinates, Coordinates)

Computes the geographical distance between two points.

```
public Length Compute(Coordinates source, Coordinates target)
```

Parameters

`source` [Coordinates](#)

   The coordinates of the source point.

`target` [Coordinates](#)

   The coordinates of the target point.

Returns

[Length](#)

   The distance between the two points in the specified length unit.

Compute(Coordinates, Coordinates, int, double)

Returns the geographical distance and azimuth between two given points using the inverse method of the formulae published by Thaddeus Vincenty

```
public double Compute(Coordinates source, Coordinates target, int iterations = 200,
double tolerance = 1E-11)
```

Parameters

source Coordinates

target Coordinates

iterations int↗

tolerance double↗

Returns

double↗

Namespace Pelias.NET.Model.Objects. Pelias.GeographicInformationSystems. Measurements.Distances.Sphere

Classes

[HaversineFormula](#)

[SphericalLawOfCosines](#)

Class HaversineFormula

Namespace:
 Pelias.NET.Model.Objects.Pelias.GeographicInformationSystems.Measurements.Distances.Sphere

Assembly: Pelias.NET.dll

```
public class HaversineFormula : IDistance<Coordinates, Angle, Length>,
IMeasurement, IEntity
```

Inheritance

object ← HaversineFormula

Implements

IDistance<Coordinates, Angle, Length>, IMeasurement, IEntity

Inherited Members

object.Equals(object) , object.Equals(object, object) , object.GetHashCode() ,
object.GetType() , object.MemberwiseClone() , object.ReferenceEquals(object, object) ,
object.ToString()

Extension Methods

IDistanceExtensions.Compute<T>(T, params Coordinates[])

Methods

Compute(Coordinates, Coordinates)

Returns the geographical distance as the great-circle distance between two points using the haversine formula

```
public Length Compute(Coordinates source, Coordinates target)
```

Parameters

source Coordinates

target Coordinates

Returns

[Length](#)

Class SphericalLawOfCosines

Namespace:
 Pelias.NET.Model.Objects.Pelias.GeographicInformationSystems.Measurements.Distances.Sphere

Assembly: Pelias.NET.dll

```
public class SphericalLawOfCosines : IDistance<Coordinates, Angle, Length>,
IMeasurement, IEntity
```

Inheritance

object ← SphericalLawOfCosines

Implements

IDistance<Coordinates, Angle, Length>, IMeasurement, IEntity

Inherited Members

object.Equals(object) , object.Equals(object, object) , object.GetHashCode() ,
object.GetType() , object.MemberwiseClone() , object.ReferenceEquals(object, object) ,
object.ToString()

Extension Methods

IDistanceExtensions.Compute<T>(T, params Coordinates[])

Methods

Compute(Coordinates, Coordinates)

Returns the geographical distance between two points using the great-circle formula

```
public Length Compute(Coordinates source, Coordinates target)
```

Parameters

source Coordinates

target Coordinates

Returns

[Length](#)

Namespace Pelias.NET.Model.Objects. Pelias.GeographicInformationSystems. Measurements.Measures

Classes

Angle

Length

Class Angle

Namespace: Pelias.NET.Model.Objects.Pelias.GeographicInformationSystems.Measurements.Measures

Assembly: Pelias.NET.dll

```
public class Angle : IAngle, IMeasure, IEntity
```

Inheritance

object ← Angle

Implements

IAngle, IMeasure, IEntity

Inherited Members

object.Equals(object) , object.Equals(object, object) , object.GetHashCode() ,
object.GetType() , object.MemberwiseClone() , object.ReferenceEquals(object, object) ,
object.ToString()

Constructors

Angle(double)

```
public Angle(double degrees)
```

Parameters

degrees double

Fields

RADIAN

Radian in degree

```
public const double RADIAN = 57.29577951308232
```

Field Value

[double↗](#)

Properties

Degrees

Gets the angle value in degrees.

```
public double Degrees { get; set; }
```

Property Value

[double↗](#)

Radians

```
public double Radians { get; set; }
```

Property Value

[double↗](#)

Class Length

```
public class Length : ILength, IMeasure, IEntity
```

Inheritance

object ← Length

Implements

ILength, IMeasure, IEntity

Inherited Members

object.Equals(object) , object.Equals(object, object) , object.GetHashCode() ,
object.GetType() , object.MemberwiseClone() , object.ReferenceEquals(object, object) ,
object.ToString()

Constructors

Length(double)

```
public Length(double meters)
```

Parameters

meters double

Properties

Meters

Gets the length value in meters.

```
public double Meters { get; set; }
```

Property Value

[double](#)⍈

Miles

Gets the length value in miles, calculated based on the conversion factor.

```csharp
public double Miles { get; set; }
```

Property Value

[double](#)⍈

Namespace Pelias.NET.Model.Objects. Pelias.Protocols.Http.Requests.Queries

Classes

QueryBase

Class QueryBase

Namespace: [Pelias](#).[NET](#).[Model](#).[Objects](#).[Pelias](#).[Protocols](#).[Http](#).[Requests](#).[Queries](#)

Assembly: Pelias.NET.dll

```
public abstract class QueryBase : IQuery
```

Inheritance

[object](#) ← QueryBase

Implements

[IQuery](#)

Derived

[GeocodingBase](#)

Inherited Members

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

Methods

ToNameValueCollection()

Creates a collection of parameters with their respective values for URL encoding.

```
public NameValueCollection ToNameValueCollection()
```

Returns

[NameValueCollection](#)

Namespace Pelias.NET.Model.Objects. Pelias.Protocols.Http.Requests.Queries. Geocoding

Classes

[GeocodingBase](#)

[ReverseParameters](#)

[SearchParameters](#)

[StructuredSearchParameters](#)

Class GeocodingBase

Namespace: Pelias.NET.Model.Objects.Pelias.Protocols.Http.Requests.Queries.Geocoding

Assembly: Pelias.NET.dll

```
public abstract class GeocodingBase : QueryBase, IQuery
```

Inheritance

object ← QueryBase ← GeocodingBase

Implements

IQuery

Derived

ReverseParameters, SearchParameters, StructuredSearchParameters

Inherited Members

QueryBase.ToNameValueCollection() , object.Equals(object) ,
object.Equals(object, object) , object.GetHashCode() , object.GetType() ,
object.MemberwiseClone() , object.ReferenceEquals(object, object) , object.ToString()

Properties

Size

```
[JsonPropertyName("size")]
public int Size { get; set; }
```

Property Value

int

Class ReverseParameters

Namespace: [Pelias](#).[NET](#).[Model](#).[Objects](#).[Pelias](#).[Protocols](#).[Http](#).[Requests](#).[Queries](#).[Geocoding](#)

Assembly: Pelias.NET.dll

```
public class ReverseParameters : GeocodingBase, IQuery
```

Inheritance

[object](#)⧉ ← [QueryBase](#) ← [GeocodingBase](#) ← ReverseParameters

Implements

[IQuery](#)

Inherited Members

[GeocodingBase.Size](#) , [QueryBase.ToNameValueCollection()](#) , [object.Equals(object)](#)⧉ ,
[object.Equals(object, object)](#)⧉ , [object.GetHashCode()](#)⧉ , [object.GetType()](#)⧉ ,
[object.MemberwiseClone()](#)⧉ , [object.ReferenceEquals(object, object)](#)⧉ , [object.ToString()](#)⧉

Properties

Latitude

```
[JsonRequired]
[JsonConverter(typeof(AngleConverter))]
[JsonPropertyName("point.lat")]
public required Angle Latitude { get; set; }
```

Property Value

[Angle](#)

Longitude

```
[JsonRequired]
[JsonConverter(typeof(AngleConverter))]
```

```
[JsonPropertyName("point.lon")]
public required Angle Longitude { get; set; }
```

Property Value

Angle

Class SearchParameters

Namespace: [Pelias](#).[NET](#).[Model](#).[Objects](#).[Pelias](#).[Protocols](#).[Http](#).[Requests](#).[Queries](#).[Geocoding](#)

Assembly: Pelias.NET.dll

```
public class SearchParameters : GeocodingBase, IQuery
```

Inheritance

[object](#) ← [QueryBase](#) ← [GeocodingBase](#) ← SearchParameters

Implements

[IQuery](#)

Inherited Members

[GeocodingBase.Size](#) , [QueryBase.ToNameValueCollection()](#) , [object.Equals(object)](#) ,
[object.Equals(object, object)](#) , [object.GetHashCode()](#) , [object.GetType()](#) ,
[object.MemberwiseClone()](#) , [object.ReferenceEquals(object, object)](#) , [object.ToString()](#)

Properties

Text

```
[JsonRequired]
[JsonPropertyName("text")]
public required string Text { get; set; }
```

Property Value

[string](#)

Class StructuredSearchParameters

Namespace: Pelias.NET.Model.Objects.Pelias.Protocols.Http.Requests.Queries.Geocoding

Assembly: Pelias.NET.dll

```
public class StructuredSearchParameters : GeocodingBase, IQuery
```

Inheritance

object ← QueryBase ← GeocodingBase ← StructuredSearchParameters

Implements

IQuery

Inherited Members

GeocodingBase.Size , QueryBase.ToNameValueCollection() , object.Equals(object) ,
object.Equals(object, object) , object.GetHashCode() , object.GetType() ,
object.MemberwiseClone() , object.ReferenceEquals(object, object) , object.ToString()

Properties

Address

```
[JsonRequired]
[JsonPropertyName("address")]
public required string Address { get; set; }
```

Property Value

string

Borough

```
[JsonPropertyName("borough")]
public string? Borough { get; set; }
```

Property Value

[string](#)

Country

```
[JsonPropertyName("country")]
public string? Country { get; set; }
```

Property Value

[string](#)

County

```
[JsonPropertyName("county")]
public string? County { get; set; }
```

Property Value

[string](#)

Locality

```
[JsonPropertyName("locality")]
public string? Locality { get; set; }
```

Property Value

[string](#)

Neighbourhood

```
[JsonPropertyName("neighbourhood")]
public string? Neighbourhood { get; set; }
```

Property Value

[string](#)

Postalcode

```
[JsonPropertyName("postalcode")]
public string? Postalcode { get; set; }
```

Property Value

[string](#)

Region

```
[JsonPropertyName("region")]
public string? Region { get; set; }
```

Property Value

[string](#)

Namespace Pelias.NET.Model.Objects. Pelias.Protocols.Http.Responses

Classes

Response

Class Response

Namespace: [Pelias](#).[NET](#).[Model](#).[Objects](#).[Pelias](#).[Protocols](#).[Http](#).[Responses](#)

Assembly: Pelias.NET.dll

```
public class Response : IResponse<Geocoding, Feature, Properties, Geometry,
BoundingBox, Coordinates, Angle>, IEntity
```

Inheritance

[object](#) ← Response

Implements
[IResponse](#)<[Geocoding](#), [Feature](#), [Properties](#), [Geometry](#), [BoundingBox](#), [Coordinates](#), [Angle](#)>,
[IEntity](#)

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

Properties

BoundingBox

Gets or sets the bounding box of the response.

```
[JsonRequired]
[JsonConverter(typeof(BoundingBoxConverter))]
[JsonPropertyName("bbox")]
public required BoundingBox BoundingBox { get; set; }
```

Property Value

[BoundingBox](#)

Features

Gets a list of features in the response.

```
[JsonRequired]
[JsonPropertyName("features")]
public required IList<Feature> Features { get; set; }
```

Property Value

IList<Feature>

Geocoding

Gets the geocoding information of the response.

```
[JsonRequired]
[JsonPropertyName("geocoding")]
public required Geocoding Geocoding { get; set; }
```

Property Value

Geocoding

Type

Gets the type of the response.

```
[JsonRequired]
[JsonPropertyName("type")]
public required string Type { get; set; }
```

Property Value

string