

Namespace Pelias.NET.Controller.Services

Classes

[Client](#)

Service to interact with Pelias APIs, enabling geocoding and reverse geocoding operations. It provides methods for retrieving geographic data based on query parameters.

Class Client

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

Assembly: Pelias.NET.dll

Service to interact with Pelias APIs, enabling geocoding and reverse geocoding operations. It provides methods for retrieving geographic data based on query parameters.

```
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, HttpClient)

Initializes a new instance of the [Client](#) class with a specified API endpoint and HTTP client.

```
public Client(string endpoint, HttpClient client)
```

Parameters

endpoint [string](#)

The base URI of the Pelias API.

client [HttpClient](#)

The HTTP client used for making requests.

Client(Uri, HttpClient)

Initializes a new instance of the [Client](#) class with a specified API endpoint and HTTP client.

```
public Client(Uri endpoint, HttpClient client)
```

Parameters

`endpoint` [Uri](#)

The base URI of the Pelias API.

`client` [HttpClient](#)

The HTTP client used for making requests.

Properties

Endpoint

Gets or sets the base URI for the Pelias API.

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

Property Value

[Uri](#)

Methods

Reverse(ReverseParameters)

Retrieves a stream asynchronously for the reverse geocoding query.

```
public Task<Response?> Reverse(ReverseParameters query)
```

Parameters

query [ReverseParameters](#)

The query parameters for the reverse geocoding request.

Returns

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

A stream containing the reverse geocoding data.

Search(SearchParameters)

Retrieves a stream asynchronously for the search query.

```
public Task<Response?> Search(SearchParameters query)
```

Parameters

query [SearchParameters](#)

The query parameters for the search request.

Returns

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

A stream containing the search data.

Search(StructuredSearchParameters)

Retrieves a stream asynchronously for the structured search query.

```
public Task<Response?> Search(StructuredSearchParameters query)
```

Parameters

query [StructuredSearchParameters](#)

The query parameters for the structured search request.

Returns

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

A stream containing the structured search data.

Namespace Pelias.NET.Model.Data Annotations

Classes

[TextAttribute](#)

Represents a custom data annotation attribute for validating string values with optional whitespace handling. This attribute extends [StringLengthAttribute](#) and adds the ability to control whether whitespace is allowed in the string.

Class TextAttribute

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

Assembly: Pelias.NET.dll

Represents a custom data annotation attribute for validating string values with optional whitespace handling. This attribute extends [StringLengthAttribute](#) and adds the ability to control whether whitespace is allowed in the string.

```
public class TextAttribute : StringLengthAttribute
```

Inheritance

[object](#) ← [Attribute](#) ← [ValidationAttribute](#) ← [StringLengthAttribute](#) ← [TextAttribute](#)

Inherited Members

[StringLengthAttribute.FormatErrorMessage\(string\)](#) ,
[StringLengthAttribute.MaximumLength](#) , [StringLengthAttribute.MinimumLength](#) ,
[ValidationAttribute.GetValidationResult\(object, ValidationContext\)](#) ,
[ValidationAttribute.IsValid\(object, ValidationContext\)](#) ,
[ValidationAttribute.Validate\(object, ValidationContext\)](#) ,
[ValidationAttribute.Validate\(object, string\)](#) , [ValidationAttribute.ErrorMessage](#) ,
[ValidationAttribute.ErrorMessageResourceName](#) ,
[ValidationAttribute.ErrorMessageResourceType](#) , [ValidationAttribute.ErrorMessageString](#) ,
[ValidationAttribute.RequiresValidationContext](#) , [Attribute.Equals\(object\)](#) ,
[Attribute.GetCustomAttribute\(Assembly, Type\)](#) ,
[Attribute.GetCustomAttribute\(Assembly, Type, bool\)](#) ,
[Attribute.GetCustomAttribute\(MemberInfo, Type\)](#) ,
[Attribute.GetCustomAttribute\(MemberInfo, Type, bool\)](#) ,
[Attribute.GetCustomAttribute\(Module, Type\)](#) ,
[Attribute.GetCustomAttribute\(Module, Type, bool\)](#) ,
[Attribute.GetCustomAttribute\(ParameterInfo, Type\)](#) ,
[Attribute.GetCustomAttribute\(ParameterInfo, Type, bool\)](#) ,
[Attribute.GetCustomAttributes\(Assembly\)](#) ,
[Attribute.GetCustomAttributes\(Assembly, bool\)](#) ,
[Attribute.GetCustomAttributes\(Assembly, Type\)](#) ,
[Attribute.GetCustomAttributes\(Assembly, Type, bool\)](#) ,
[Attribute.GetCustomAttributes\(MemberInfo\)](#) ,
[Attribute.GetCustomAttributes\(MemberInfo, bool\)](#) ,
[Attribute.GetCustomAttributes\(MemberInfo, Type\)](#) ,

[Attribute.GetCustomAttributes\(MemberInfo, Type, bool\)](#) ,
[Attribute.GetCustomAttributes\(Module\)](#) , [Attribute.GetCustomAttributes\(Module, bool\)](#) ,
[Attribute.GetCustomAttributes\(Module, Type\)](#) ,
[Attribute.GetCustomAttributes\(Module, Type, bool\)](#) ,
[Attribute.GetCustomAttributes\(ParameterInfo\)](#) ,
[Attribute.GetCustomAttributes\(ParameterInfo, bool\)](#) ,
[Attribute.GetCustomAttributes\(ParameterInfo, Type\)](#) ,
[Attribute.GetCustomAttributes\(ParameterInfo, Type, bool\)](#) , [Attribute.GetHashCode\(\)](#) ,
[Attribute.IsDefaultAttribute\(\)](#) , [Attribute.IsDefined\(Assembly, Type\)](#) ,
[Attribute.IsDefined\(Assembly, Type, bool\)](#) , [Attribute.IsDefined\(MemberInfo, Type\)](#) ,
[Attribute.IsDefined\(MemberInfo, Type, bool\)](#) , [Attribute.IsDefined\(Module, Type\)](#) ,
[Attribute.IsDefined\(Module, Type, bool\)](#) , [Attribute.IsDefined\(ParameterInfo, Type\)](#) ,
[Attribute.IsDefined\(ParameterInfo, Type, bool\)](#) , [Attribute.Match\(object\)](#) ,
[Attribute.TypeId](#) , [object.Equals\(object, object\)](#) , [object.GetType\(\)](#) ,
[object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Constructors

TextAttribute(bool, int)

Initializes a new instance of the [TextAttribute](#) class. The default value for [AllowWhitespace](#) is [false](#), meaning whitespace is not allowed by default. The [maxLength](#) parameter sets the maximum allowed string length.

```
public TextAttribute(bool allowWhitespace = false, int maxLength = 2147483647)
```

Parameters

allowWhitespace [bool](#)

Indicates whether whitespace should be allowed in the string (default is [false](#)).

maxLength [int](#)

The maximum allowable length of the string. Defaults to [MaxValue](#) if not specified.

Properties

AllowWhitespace

Gets a value that indicates whether whitespace is allowed in the string. The default value is `false`, meaning whitespace is not allowed unless explicitly enabled.

```
public bool AllowWhitespace { get; }
```

Property Value

[bool](#)

Methods

IsValid(object?)

Validates whether the specified value is valid based on the string length and optional whitespace rules.

```
public override bool IsValid(object? value)
```

Parameters

`value` [object](#)

The value to validate. If `null`, validation passes.

Returns

[bool](#)

`true` if the value is valid; otherwise, `false`.

Remarks

If [AllowWhitespace](#) is `false`, the method checks that the value does not consist solely of whitespace. It also ensures that the string length does not exceed the maximum length defined by the base class.

Namespace Pelias.NET.Model.Exceptions

Classes

[TypeMismatchException](#)

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

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. This interface extends the [IEntity](#) interface and implements [IEnumerable<T>](#).

[ICoordinates<TAngle>](#)

Represents an interface for geographic coordinates defined by longitude and latitude. This interface extends [IEntity](#) and implements [IEnumerable<T>](#).

[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. This interface extends the [IEntity](#) interface and implements [IEnumerable<T>](#).

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

Type Parameters

TCoordinates

The type representing the coordinates of the bounding box, which must implement [ICoordinates<TAngle>](#).

TAngle

The type representing an angle measurement, which must implement [IAngle](#).

Inherited Members

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

Properties

BottomLeftCoordinates

Gets the bottom-left coordinates of the bounding box.

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

Property Value

TCoordinates

The bottom-left coordinates as a `TCoordinates` instance.

TopRightCoordinates

Gets the top-right coordinates of the bounding box.

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

Property Value

TCoordinates

The top-right coordinates as a `TCoordinates` instance.

Methods

Contains(TCoordinates)

Checks whether the specified coordinates are within the bounding box.

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

Parameters

`coordinates` TCoordinates

The coordinates to check, represented as a `TCoordinates` instance.

Returns

`bool` ↗

`true` if the coordinates are within the bounds of the bounding box, otherwise `false`.

Remarks

This method checks if both the latitude and longitude of the specified coordinates are within the ranges defined by the top-right and bottom-left coordinates of the bounding box.

Interface ICoordinates<TAngle>

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

Assembly: Pelias.NET.dll

Represents an interface for geographic coordinates defined by longitude and latitude. This interface extends [IEntity](#) and implements [IEnumerable<T>](#).

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

Type Parameters

TAngle

The type representing an angle measurement, which must implement [IAngle](#).

Inherited Members

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

Properties

Latitude

Gets the latitude of the geographic coordinates.

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

Property Value

TAngle

The latitude as a [TAngle](#) representing the angle of the latitude.

Longitude

Gets the longitude of the geographic coordinates.

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

Property Value

TAngle

The longitude as a [TAngle](#) representing the angle of the longitude.

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

Assembly: Pelias.NET.dll

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

```
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.

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

Property Value

[string](#)

Confidence

Gets the confidence level of the geographic entity.

```
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.

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

Property Value

[string](#) ↗

Source

Gets the source of the geographic entity.

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

Property Value

[string](#) ↗

SourceIdentifier

Gets the source identifier of the geographic entity.

```
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

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

Assembly: Pelias.NET.dll

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.

```
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

[NameValuePairCollection](#)

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

[BoundingBoxConverter](#)

Custom JSON converter for [BoundingBox](#), handling the serialization and deserialization of a bounding box.

[CoordinatesConverter](#)

Custom JSON converter for [Coordinates](#), handling the serialization and deserialization of geographic coordinates. This converter is responsible for converting a list of angles to a [Coordinates](#) object.

[DegreesConverter](#)

Custom JSON converter for serializing and deserializing instances of the [Angle](#) class. This converter handles the conversion of [Angle](#) objects to and from JSON format, specifically dealing with angle values represented as numeric degrees.

[EnumsConverter<T>](#)

A custom JSON converter for serializing and deserializing [HashSet<T>](#) of enum values. This converter works for both nullable and non-nullable enums.

Class BoundingBoxConverter

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

Assembly: Pelias.NET.dll

Custom JSON converter for [BoundingBox](#), handling the serialization and deserialization of a bounding box.

```
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 a JSON value and converts it into a [BoundingBox](#) object.

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

Parameters

reader [Utf8JsonReader](#)

The JSON reader to read the value from.

`typeToConvert` [Type](#)

The target type to convert to ([BoundingBox](#)).

`options` [JsonSerializerOptions](#)

The serializer options to use for deserialization.

Returns

[BoundingBox](#)

A [BoundingBox](#) object representing the deserialized bounding box.

Write(Utf8JsonWriter, BoundingBox, JsonSerializerOptions)

Writes a [BoundingBox](#) object to JSON.

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

Parameters

`writer` [Utf8JsonWriter](#)

The JSON writer to write the value to.

`value` [BoundingBox](#)

The [BoundingBox](#) object to serialize.

`options` [JsonSerializerOptions](#)

The serializer options to use for serialization.

Class CoordinatesConverter

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

Assembly: Pelias.NET.dll

Custom JSON converter for [Coordinates](#), handling the serialization and deserialization of geographic coordinates. This converter is responsible for converting a list of angles to a [Coordinates](#) object.

```
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 a JSON value and converts it into a [Coordinates](#) object. This method maps the first angle to longitude and the second angle to latitude.

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

Parameters

reader [Utf8JsonReader](#)

The JSON reader to read the value from.

typeToConvert [Type](#)

The target type to convert to ([Coordinates](#)).

options [JsonSerializerOptions](#)

The serializer options to use for deserialization.

Returns

[Coordinates](#)

A [Coordinates](#) object representing the deserialized geographic coordinates.

Remarks

The input JSON is expected to be an array with two values: the first being the longitude and the second being the latitude.

Write(Utf8JsonWriter, Coordinates, JsonSerializerOptions)

Writes a [Coordinates](#) object to JSON. This method serializes the longitude and latitude as a list of angles.

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

Parameters

writer [Utf8JsonWriter](#)

The JSON writer to write the value to.

value [Coordinates](#)

The [Coordinates](#) object to serialize.

options [JsonSerializerOptions](#)

The serializer options to use for serialization.

Class DegreesConverter

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

Assembly: Pelias.NET.dll

Custom JSON converter for serializing and deserializing instances of the [Angle](#) class. This converter handles the conversion of [Angle](#) objects to and from JSON format, specifically dealing with angle values represented as numeric degrees.

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

Inheritance

[object](#) ← [JsonConverter](#) ← [JsonConverter<Angle>](#) ← [DegreesConverter](#)

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\(\)](#)

Constructors

DegreesConverter()

Initializes a new instance of the [DegreesConverter](#) class.

```
public DegreesConverter()
```

Methods

Read(ref Utf8JsonReader, Type, JsonSerializerOptions)

Converts JSON data to an [Angle](#) object.

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

Parameters

reader [Utf8JsonReader](#)

The [Utf8JsonReader](#) instance used to read the JSON content. This provides a way to read the JSON structure and extract values.

typeToConvert [Type](#)

The type that this converter is responsible for converting to. In this case, it is [Angle](#).

options [JsonSerializerOptions](#)

A [JsonSerializerOptions](#) instance containing options that affect the deserialization process.

Returns

[Angle](#)

An [Angle](#) object corresponding to the JSON data, or `null` if the conversion fails and `throwOnFailure` is `false`. If `throwOnFailure` is `true`, an exception will be thrown if conversion fails.

Exceptions

[JsonException](#)

Thrown if conversion fails and `throwOnFailure` is `true`.

Write(Utf8JsonWriter, Angle, JsonSerializerOptions)

Converts an [Angle](#) object to its JSON representation.

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

Parameters

writer [Utf8JsonWriter](#)

The [Utf8JsonWriter](#) instance used to write the JSON content. This is responsible for serializing the [Angle](#) object to its JSON form.

value [Angle](#)

The [Angle](#) object that is being serialized to JSON.

options [JsonSerializerOptions](#)

A [JsonSerializerOptions](#) instance that contains options affecting serialization.

Class EnumsConverter<T>

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

Assembly: Pelias.NET.dll

A custom JSON converter for serializing and deserializing [HashSet<T>](#) of enum values. This converter works for both nullable and non-nullable enums.

```
public class EnumsConverter<T> : JsonConverter<HashSet<T>> where T : Enum
```

Type Parameters

T

The type of the enum, which must be an enum type.

Inheritance

[object](#) ← [JsonConverter](#) ← [JsonConverter<HashSet<T>>](#) ← [EnumsConverter<T>](#)

Inherited Members

[JsonConverter<HashSet<T>>.CanConvert\(Type\)](#) ,
[JsonConverter<HashSet<T>>.ReadAsPropertyName\(ref Utf8JsonReader, Type, JsonSerializerOptions\)](#) ,
[JsonConverter<HashSet<T>>.WriteAsPropertyName\(Utf8JsonWriter, HashSet<T>, JsonSerializerOptions\)](#) ,
[JsonConverter<HashSet<T>>.HandleNull](#) , [JsonConverter<HashSet<T>>.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 a JSON string and converts it into a [HashSet<T>](#) of enum values. The string is expected to contain comma-separated enum names (case-insensitive).

```
public override HashSet<T> Read(ref Utf8JsonReader reader, Type typeToConvert,
```

```
JsonSerializerOptions options)
```

Parameters

reader [Utf8JsonReader](#)

The [Utf8JsonReader](#) to read the JSON data from.

typeToConvert [Type](#)

The type to convert the JSON data to.

options [JsonSerializerOptions](#)

The [JsonSerializerOptions](#) that can be used for serialization settings.

Returns

[HashSet](#)<T>

A [HashSet](#)<T> containing the deserialized enum values.

Write(Utf8JsonWriter, HashSet<T>, JsonSerializerOptions)

Writes the [HashSet](#)<T> of enum values as a comma-separated string to the JSON writer.

```
public override void Write(Utf8JsonWriter writer, HashSet<T> value,  
JsonSerializerOptions options)
```

Parameters

writer [Utf8JsonWriter](#)

The [Utf8JsonWriter](#) to write the JSON data to.

value [HashSet](#)<T>

The [HashSet](#)<T> of enum values to serialize.

options [JsonSerializerOptions](#)

The [JsonSerializerOptions](#) that can be used for serialization settings.

Namespace Pelias.NET.Model.Objects.

Pelias.Enums

Enums

[Layer](#)

Represents different layers of geographical or administrative features, typically used in geospatial applications. Each layer corresponds to a specific level or type of geographical entity, allowing for fine-grained categorization of locations.

[MatchType](#)

[Path](#)

[Version](#)

Enum Layer

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

Assembly: Pelias.NET.dll

Represents different layers of geographical or administrative features, typically used in geospatial applications. Each layer corresponds to a specific level or type of geographical entity, allowing for fine-grained categorization of locations.

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

Extension Methods

[EnumExtensions.GetEnumMemberValue<T>\(I\)](#)

Fields

`[EnumMember(Value = "address")] Address = 1`

Locations associated with a street address (e.g., residences or office buildings).

`[EnumMember(Value = "borough")] Borough = 4`

Local administrative boundaries, primarily referring to areas within New York City.

`[EnumMember(Value = "coarse")] Coarse = Borough | MacroCounty`

A shorthand for selecting all administrative layers except for venue and address, typically used for broader location queries.

`[EnumMember(Value = "country")] Country = Address | MacroRegion`

Entire countries or nation-states, which are defined by international boundaries.

`[EnumMember(Value = "county")] County = Address | Locality`

Larger official governmental areas, such as counties, that serve as primary subdivisions of a country.

`[EnumMember(Value = "localadmin")] LocalAdmin = Address | Borough`

Local administrative divisions such as municipalities, districts, or smaller jurisdictions.

[EnumMember(Value = "locality")] Locality = Street | Borough

Localized areas such as towns, hamlets, or cities within a country.

[EnumMember(Value = "macrocounty")] MacroCounty = 8

A collection of counties, typically used in European contexts to represent related administrative areas.

[EnumMember(Value = "macroregion")] MacroRegion = Street | MacroCounty

A collection of regions, often used to describe broader geographical areas, primarily in Europe.

[EnumMember(Value = "neighbourhood")] Neighbourhood = Address | Street

Social communities or neighborhoods, often used to define districts or smaller local areas.

[EnumMember(Value = "postalcode")] PostalCode = Address | Coarse

Postal codes used by mail services to identify geographic areas for postal delivery.

[EnumMember(Value = "region")] Region = Address | MacroCounty

States or provinces, which are major subdivisions within a country.

[EnumMember(Value = "street")] Street = 2

Streets, roads, highways, and other thoroughfares used for transportation.

[EnumMember(Value = "venue")] Venue = 0

Points of interest such as businesses, buildings, or structures (typically entities with physical boundaries).

Enum MatchType

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

Assembly: Pelias.NET.dll

```
[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](#)

Provides extension methods for enums, specifically for retrieving the value of the [Enum MemberAttribute](#).

[IDistanceExtensions](#)

Provides extension methods for computing distances using the [IDistance<TCoordinates, TAngle, TLength>](#) interface.

Class EnumExtensions

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

Assembly: Pelias.NET.dll

Provides extension methods for enums, specifically for retrieving the value of the [EnumMemberAttribute](#).

```
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)

Retrieves the string value of the [EnumMemberAttribute](#) associated with the specified enum value. If no [EnumMemberAttribute](#) is found, an [InvalidOperationException](#) is thrown.

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

Parameters

value T

The enum value for which the [EnumMemberAttribute](#) value should be retrieved.

Returns

[string](#)

The string value of the [EnumMemberAttribute](#) for the specified enum value.

Type Parameters

T

The enum type.

Exceptions

[InvalidOperationException](#)

Thrown if the [EnumMemberAttribute](#) is not found for the specified enum value.

Class IDistanceExtensions

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

Assembly: Pelias.NET.dll

Provides extension methods for computing distances using the [IDistance<TCoordinates, TAngle, TLength>](#) interface.

```
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[])

Computes the total distance between a series of coordinates. This method calculates the distance between each consecutive pair of coordinates and sums the results.

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

Parameters

value T

The instance that provides the distance computation logic.

coordinates [Coordinates](#)[]

An array of coordinates between which the distance is to be computed.

Returns

[Length](#)

A [Length](#) representing the total computed distance in meters.

Type Parameters

T

The type that implements the [IDistance<TCoordinates, TAngle, TLength>](#) interface.

Exceptions

[ArgumentException](#)

Thrown when fewer than two coordinates are provided.

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

[BoundingBox](#)

Represents a bounding box with top-right and bottom-left coordinates. Implements the [IBoundingBox<TCoordinates, TAngle>](#) interface.

[Coordinates](#)

Represents a geographical coordinate consisting of longitude and latitude, both expressed as [Angle](#) values. Implements [IEnumerable<T>](#) to enable iteration over the coordinate values.

[Feature](#)

[Geocoding](#)

[Geometry](#)

[Properties](#)

Class BoundingBox

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

Assembly: Pelias.NET.dll

Represents a bounding box with top-right and bottom-left coordinates. Implements the [IBoundingBox<TCoordinates, TAngle>](#) interface.

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

Inheritance

[object](#) ← BoundingBox

Implements

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

Inherited Members

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

Properties

BottomLeftCoordinates

Gets or sets the bottom-left coordinates (southwest corner) of the bounding box.

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

Property Value

[Coordinates](#)

A [Coordinates](#) instance representing the bottom-left coordinates of the bounding box.

TopRightCoordinates

Gets or sets the top-right coordinates (northeast corner) of the bounding box.

```
[JsonPropertyName("northeast")]
public Coordinates TopRightCoordinates { get; set; }
```

Property Value

[Coordinates](#)

A [Coordinates](#) instance representing the top-right coordinates of the bounding box.

Methods

GetEnumerator()

Returns an enumerator that iterates through the coordinates of the bounding box.

```
public IEnumerator<Coordinates> GetEnumerator()
```

Returns

[IEnumerator](#) <[Coordinates](#)>

An enumerator that yields [TopRightCoordinates](#) and [BottomLeftCoordinates](#).

Remarks

This method is an explicit implementation of the [IEnumerable<T>](#) interface. It allows iteration over the bounding box's coordinates using a [foreach](#) loop.

Class Coordinates

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

Assembly: Pelias.NET.dll

Represents a geographical coordinate consisting of longitude and latitude, both expressed as [Angle](#) values. Implements [IEnumerable<T>](#) to enable iteration over the coordinate values.

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

Inheritance

[object](#) ← Coordinates

Implements

[ICoordinates<Angle>](#), [IEntity](#), [IEnumerable<Angle>](#), [IEnumerable](#)

Inherited Members

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

Properties

Latitude

Gets or sets the latitude of the geographic location. Latitude is represented as an [Angle](#) value, expressed in degrees.

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

Property Value

[Angle](#)

Longitude

Gets or sets the longitude of the geographic location. Longitude is represented as an [Angle](#) value, expressed in degrees.

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

Property Value

[Angle](#)

Methods

GetEnumerator()

Returns an enumerator that iterates through the geographic coordinates.

```
public IEnumerator<Angle> GetEnumerator()
```

Returns

[IEnumerator](#)<[Angle](#)>

An enumerator for the [Longitude](#) and [Latitude](#) values.

ToArray()

Converts the geographic coordinates to an array of doubles, where the first element is the longitude and the second element is the latitude, both in degrees.

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

Returns

[double](#)[]

A double array containing the longitude and latitude values in degrees.

Remarks

This method provides a simple conversion of the [Longitude](#) and [Latitude](#) properties to an array of double values. The longitude is the first element, followed by latitude.

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.

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

Property Value

[BoundingBox](#)

Geometry

Gets the geometry of the feature.

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

Property Value

[Geometry](#)

Properties

Gets the properties of the feature.

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

Property Value

[Properties](#)

Type

Gets the type of the feature.

```
[JsonRequired]
[JsonPropertyName("type")]
[Required]
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

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

Assembly: Pelias.NET.dll

```
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.

```
[JsonProperty]
[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

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

Property Value

[string](#) ↗

CountryGroupIdentifier

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

Property Value

[string](#) ↗

Distance

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

Property Value

[double](#) ↗

GroupIdentifier

Gets the group identifier of the geographic entity.

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

Property Value

[string](#) ↗

HouseNumber

```
[JsonPropertyName("housetnumber")]
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](#) ↗

LocalityGroupIdenfier

```
[JsonPropertyName("locality_gid")]
public string? LocalityGroupIdenfier { 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; }
```

```
public string? MacroregionIdentifier { 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

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

Assembly: Pelias.NET.dll

```
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.

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

Property Value

[double](#) ↴

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

[QueryBase](#)

Represents the base class for a query in the Pelias API. This class provides the functionality to validate the object's properties and serialize them into a query string for HTTP requests.

Class QueryBase

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

Assembly: Pelias.NET.dll

Represents the base class for a query in the Pelias API. This class provides the functionality to validate the object's properties and serialize them into a query string for HTTP requests.

```
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. Converts the properties of this object to a name-value collection for URL query string generation.

```
public NameValueCollection ToNameValueCollection()
```

Returns

[NameValuePairCollection](#)

A [NameValuePairCollection](#) containing the query string parameters.

Remarks

This method checks for the [JsonIgnoreAttribute](#) to exclude properties from the URL string when necessary. It also handles the [JsonPropertyNameAttribute](#) to map properties to the correct names and applies any custom converters through the [JsonConverterAttribute](#).

Exceptions

[AggregateException](#)

Thrown if any validation errors occur during the validation of the object.

Validate()

Validates the necessary attributes for URL encoding, including required fields.

```
public List<ValidationResult> Validate()
```

Returns

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

A list of validation results.

Remarks

This method checks the object for any validation attributes and collects validation errors if any are present. It uses the [TryValidateObject\(object, ValidationContext, ICollection<ValidationResult>\)](#) method.

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

Classes

[GeocodingBase](#)

Represents the base class for geocoding query parameters in the Pelias API. This class contains common query properties used for geocoding requests, including controls for the response size, geographical boundaries, data layers, and sources.

[ReverseParameters](#)

[SearchParameters](#)

[StructuredSearchParameters](#)

Represents the parameters for structured search in geocoding requests. Extends [GeocodingBase](#) and provides properties for address and geographic components.

Class GeocodingBase

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

Assembly: Pelias.NET.dll

Represents the base class for geocoding query parameters in the Pelias API. This class contains common query properties used for geocoding requests, including controls for the response size, geographical boundaries, data layers, and sources.

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

Inheritance

[object](#) ↵ [QueryBase](#) ↵ GeocodingBase

Implements

[IQuery](#)

Derived

[ReverseParameters](#), [SearchParameters](#), [StructuredSearchParameters](#)

Inherited Members

[QueryBase.Validate\(\)](#) , [QueryBase.ToNameValueCollection\(\)](#) , [object.Equals\(object\)](#) ↵ ,
[object.Equals\(object, object\)](#) ↵ , [object.GetHashCode\(\)](#) ↵ , [object.GetType\(\)](#) ↵ ,
[object.MemberwiseClone\(\)](#) ↵ , [object.ReferenceEquals\(object, object\)](#) ↵ , [object.ToString\(\)](#) ↵

Properties

BoundaryCircleRadius

Gets or sets the radius of the circular boundary within which the geocoding search will be performed. This is specified in meters.

```
[JsonPropertyName("boundary.circle.radius")]
[JsonIgnore(Condition = JsonIgnoreCondition.WhenWritingNull)]
[Range(0, 3.4028234663852886E+38, ErrorMessage = "Boundary radius must be a
positive number.")]
public float? BoundaryCircleRadius { get; set; }
```

Property Value

[float](#)?

Remarks

The value must be a positive number. If set to `null`, no boundary is applied.

BoundaryCountries

Gets or sets the country boundaries within which to limit the geocoding search. A comma-separated list of country codes (e.g., "US", "CA") can be provided.

```
[JsonPropertyName("boundary.country")]
[JsonIgnore(Condition = JsonIgnoreCondition.WhenWritingNull)]
public string? BoundaryCountries { get; set; }
```

Property Value

[string](#)

Remarks

The value may be `null`, indicating no country boundaries are specified. If provided, it restricts the search results to the specified countries.

BoundaryPeliasGlobalIdentifier

Gets or sets the Pelias Global Identifier (GID) for a boundary to limit the geocoding search. This specifies a particular geographical area.

```
[JsonPropertyName("boundary.gid")]
[JsonIgnore(Condition = JsonIgnoreCondition.WhenWritingNull)]
public string? BoundaryPeliasGlobalIdentifier { get; set; }
```

Property Value

[string](#)

Remarks

The value may be `null`, indicating no specific boundary GID is provided. If provided, it restricts the search results to the specified GID.

Layers

Gets or sets the layers to query for, specifying which types of geographical data to include. A comma-separated list of layer names can be provided.

```
[JsonPropertyName("layers")]
[JsonConverter(typeof(EnumsConverter<Layer>))]
[JsonIgnore(Condition = JsonIgnoreCondition.WhenWritingNull)]
public HashSet<Layer> Layers { get; set; }
```

Property Value

[HashSet](#)<[Layer](#)>

Remarks

The value may be `null`, indicating no specific layers are requested. If provided, it filters the results to the specified layers (e.g., "address", "neighbourhood").

Size

Gets or sets the maximum number of results to return. This parameter controls the size of the response.

```
[JsonPropertyName("size")]
[JsonIgnore(Condition = JsonIgnoreCondition.WhenWritingNull)]
[Range(1, 2147483647, ErrorMessage = "Size must be greater than 0.")]
public int? Size { get; set; }
```

Property Value

[int](#)?

Remarks

The value must be greater than 0. If set to `null`, no size limitation is applied.

Sources

Gets or sets the sources to query from, specifying which data sources to include. A comma-separated list of source names can be provided.

```
[JsonPropertyName("sources")]
[JsonIgnore(Condition = JsonIgnoreCondition.WhenWritingNull)]
public string? Sources { get; set; }
```

Property Value

[string](#)

Remarks

The value may be `null`, indicating no specific sources are requested. If provided, it filters the results to the specified sources (e.g., "osm", "wof").

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](#) , [GeocodingBase.Layers](#) , [GeocodingBase.Sources](#) ,
[GeocodingBase.BoundaryCircleRadius](#) , [GeocodingBase.BoundaryCountries](#) ,
[GeocodingBase.BoundaryPeliasGlobalIdentifier](#) , [QueryBase.Validate\(\)](#) ,
[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(DegreesConverter))]  
[JsonPropertyName("point.lat")]  
[Required]  
public required Angle Latitude { get; set; }
```

Property Value

[Angle](#)

Longitude

```
[JsonRequired]
[JsonConverter(typeof(DegreesConverter))]
[JsonPropertyName("point.lon")]
[Required]
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](#) , [GeocodingBase.Layers](#) , [GeocodingBase.Sources](#) ,
[GeocodingBase.BoundaryCircleRadius](#) , [GeocodingBase.BoundaryCountries](#) ,
[GeocodingBase.BoundaryPeliasGlobalIdentifier](#) , [QueryBase.Validate\(\)](#) ,
[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")]  
[Required]  
[Text(false, 2147483647)]  
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

Represents the parameters for structured search in geocoding requests. Extends [Geocoding Base](#) and provides properties for address and geographic components.

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

Inheritance

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

Implements

[IQuery](#)

Inherited Members

[GeocodingBase.Size](#) , [GeocodingBase.Layers](#) , [GeocodingBase.Sources](#) ,
[GeocodingBase.BoundaryCircleRadius](#) , [GeocodingBase.BoundaryCountries](#) ,
[GeocodingBase.BoundaryPeliasGlobalIdentifier](#) , [QueryBase.Validate\(\)](#) ,
[QueryBase.ToNameValueCollection\(\)](#) , [object.Equals\(object\)](#) ,
[object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) , [object.GetType\(\)](#) ,
[object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Properties

Address

Gets or sets the address to search for in the geocoding query. This field is required for the structured search.

```
[JsonRequired]  
[JsonPropertyName("address")]  
[Required]  
[Text(false, 2147483647)]  
public required string Address { get; set; }
```

Property Value

[string](#)

A string representing the address to search for.

Borough

Gets or sets the borough to narrow down the geocoding search. This field is optional and will be ignored if set to `null`.

```
[JsonPropertyName("borough")]
[JsonIgnore(Condition = JsonIgnoreCondition.WhenWritingNull)]
public string? Borough { get; set; }
```

Property Value

[string](#)

A string representing the borough.

Country

Gets or sets the country to narrow down the geocoding search. This field is optional and will be ignored if set to `null`.

```
[JsonPropertyName("country")]
[JsonIgnore(Condition = JsonIgnoreCondition.WhenWritingNull)]
public string? Country { get; set; }
```

Property Value

[string](#)

A string representing the country.

County

Gets or sets the county to narrow down the geocoding search. This field is optional and will be ignored if set to `null`.

```
[JsonPropertyName("county")]
[JsonIgnore(Condition = JsonIgnoreCondition.WhenWritingNull)]
public string? County { get; set; }
```

Property Value

[string](#)

A string representing the county.

Locality

Gets or sets the locality to narrow down the geocoding search. This field is optional and will be ignored if set to `null`.

```
[JsonPropertyName("locality")]
[JsonIgnore(Condition = JsonIgnoreCondition.WhenWritingNull)]
public string? Locality { get; set; }
```

Property Value

[string](#)

A string representing the locality.

Neighbourhood

Gets or sets the neighbourhood to narrow down the geocoding search. This field is optional and will be ignored if set to `null`.

```
[JsonPropertyName("neighbourhood")]
[JsonIgnore(Condition = JsonIgnoreCondition.WhenWritingNull)]
public string? Neighbourhood { get; set; }
```

Property Value

[string](#)

A string representing the neighbourhood.

Postalcode

Gets or sets the postal code to narrow down the geocoding search. This field is optional and will be ignored if set to `null`.

```
[JsonPropertyName("postalcode")]
[JsonIgnore(Condition = JsonIgnoreCondition.WhenWritingNull)]
public string? Postalcode { get; set; }
```

Property Value

[string](#)

A string representing the postal code.

Region

Gets or sets the region to narrow down the geocoding search. This field is optional and will be ignored if set to `null`.

```
[JsonPropertyName("region")]
[JsonIgnore(Condition = JsonIgnoreCondition.WhenWritingNull)]
public string? Region { get; set; }
```

Property Value

[string](#)

A string representing the region.

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")]  
[Required]  
public required BoundingBox BoundingBox { get; set; }
```

Property Value

[BoundingBox](#)

Features

Gets a list of features in the response.

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

Property Value

[IList](#)<[Feature](#)>

Geocoding

Gets the geocoding information of the response.

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

Property Value

[Geocoding](#)

Type

Gets the type of the response.

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

Property Value

[string](#)