# Namespace Weather. Data. Nws

#### Classes

#### **Alert**

A representation of alert features from the National Weather Service (NWS) API.

**AlertProperties** 

<u>AlertReference</u>

<u>AlertsResponse</u>

**ErrorResponse** 

**GeoCode** 

**PaginationInfo** 

#### Enums

#### **AlertCategory**

A representation of the category of an alert from the National Weather Service (NWS) API.

#### **AlertCertainty**

A representation of the likelihood an event will occur in relation to an alert from the National Weather Service (NWS) API.

#### <u>AlertMessageType</u>

A representation of the latest message type of an alert from the National Weather Service (NWS) API.

<u>AlertResponse</u>

<u>AlertSeverity</u>

<u>AlertStatus</u>

<u>AlertUrgency</u>

## Class Alert

Namespace: Weather. Data. Nws

Assembly: Weather.dll

A representation of alert features from the National Weather Service (NWS) API.

```
public class Alert
```

#### **Inheritance**

object 

← Alert

#### **Inherited Members**

# **Properties**

#### Id

Gets or sets the id of the alert.

```
[JsonPropertyName("id")]
public string Id { get; set; }
```

## **Property Value**

<u>string</u> **♂** 

The id of the alert.

## **Properties**

Gets or sets the properties of the alert.

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

#### <u>AlertProperties</u>

The properties of the alert.

# Type

Gets or sets the type of the alert.

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

## **Property Value**

#### $\underline{\text{string}}$

The type of the alert.

# Enum AlertCategory

Namespace: Weather. Data. Nws

Assembly: Weather.dll

A representation of the category of an alert from the National Weather Service (NWS) API.

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

### **Fields**

```
CBRNE = 1
```

A Chemical, Biological, Radiological, Nuclear or High-Yield Explosive alert.

Env = 2

An Environmental alert.

Fire = 4

A Fire alert.

Geo = 8

A Geological alert.

Health = 16

A Health alert.

Infra = 32

An Infrastructure alert.

Met = 64

A Meteorological alert.

0 ther = 128

An alert not described by the other values.

Rescue = 256

A Rescue alert.

Safety = 512

A Safety alert.

Security = 1024

A Security alert.

Transport = 2048

A Transportation alert.

# **Enum AlertCertainty**

Namespace: Weather. Data. Nws

Assembly: Weather.dll

A representation of the likelihood an event will occur in relation to an alert from the National Weather Service (NWS) API.

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

### **Fields**

```
Likely = 1
```

An event is likely to happen in association with the alert.

```
0bserved = 2
```

An event has been observed in association with the alert.

```
Possible = 4
```

An event is possible in association with the alert.

```
Unknown = 8
```

The likelihood of an event is unknown in association with the alert.

```
Unlikely = 16
```

An event is unlikely to occur in association with the alert.

# Enum AlertMessageType

Namespace: Weather. Data. Nws

Assembly: Weather.dll

A representation of the latest message type of an alert from the National Weather Service (NWS) API.

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

### **Fields**

```
Ack = 1
```

The message is an acknowledgement.

```
Alert = 2
```

The message is a new alert.

```
Cancel = 4
```

The message is a cancellation of an alert.

```
Error = 8
```

The message was issued in error.

```
Update = 16
```

the message is an update to an alert.

# Class AlertProperties

Namespace: Weather. Data. Nws

Assembly: Weather.dll

public class AlertProperties

#### **Inheritance**

#### **Inherited Members**

# **Properties**

#### AffectedZones

```
[JsonPropertyName("affectedZones")]
public IEnumerable<string> AffectedZones { get; set; }
```

#### **Property Value**

<u>IEnumerable</u> ♂ < <u>string</u> ♂ >

## AreaDescription

```
[JsonPropertyName("areaDesc")]
public string AreaDescription { get; set; }
```

#### **Property Value**

<u>string</u> □

## Category

```
[JsonPropertyName("category")]
public AlertCategory Category { get; set; }
```

### **Property Value**

**AlertCategory** 

## Certainty

```
[JsonPropertyName("certainty")]
public AlertCertainty Certainty { get; set; }
```

### **Property Value**

<u>AlertCertainty</u>

# Description

```
[JsonPropertyName("description")]
public string Description { get; set; }
```

#### **Property Value**

### **Effective**

```
[JsonPropertyName("effective")]
public DateTime Effective { get; set; }
```

## **Property Value**

#### **Ends**

```
[JsonPropertyName("ends")]
public DateTime? Ends { get; set; }
```

### **Property Value**

<u>DateTime</u> **□**?

#### **Event**

```
[JsonPropertyName("event")]
public string Event { get; set; }
```

### **Property Value**

## **Expires**

```
[JsonPropertyName("expires")]
public DateTime Expires { get; set; }
```

### **Property Value**

#### Geocode

```
[JsonPropertyName("geoCode")]
public GeoCode Geocode { get; set; }
```

### **Property Value**

### Headline

```
[JsonPropertyName("headline")]
public string? Headline { get; set; }
```

#### **Property Value**

#### Id

```
[JsonPropertyName("id")]
public string Id { get; set; }
```

#### **Property Value**

#### Instruction

```
[JsonPropertyName("instruction")]
public string? Instruction { get; set; }
```

## **Property Value**

 $\underline{\text{string}}$ 

## MessageType

```
[JsonPropertyName("messageType")]
public AlertMessageType MessageType { get; set; }
```

<u>AlertMessageType</u>

#### Onset

```
[JsonPropertyName("onset")]
public DateTime? Onset { get; set; }
```

### **Property Value**

DateTime<sup>□</sup>?

#### References

```
[JsonPropertyName("references")]
public IEnumerable<AlertReference> References { get; set; }
```

## **Property Value**

<u>IEnumerable</u> < <u>AlertReference</u> >

### Response

```
[JsonPropertyName("response")]
public AlertResponse Response { get; set; }
```

### **Property Value**

<u>AlertResponse</u>

#### Sender

```
[JsonPropertyName("sender")]
```

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

#### SenderName

```
[JsonPropertyName("senderName")]
public string SenderName { get; set; }
```

### **Property Value**

#### Sent

```
[JsonPropertyName("sent")]
public DateTime Sent { get; set; }
```

#### **Property Value**

**DateTime ☑** 

## Severity

```
[JsonPropertyName("severity")]
public AlertSeverity Severity { get; set; }
```

### **Property Value**

<u>AlertSeverity</u>

#### **Status**

```
[JsonPropertyName("status")]
public AlertStatus Status { get; set; }
```

**AlertStatus** 

# Urgency

```
[JsonPropertyName("urgency")]
public AlertUrgency Urgency { get; set; }
```

# **Property Value**

<u>AlertUrgency</u>

# Class AlertReference

Namespace: Weather. Data. Nws

Assembly: Weather.dll

public class AlertReference

#### **Inheritance**

<u>object</u> ♂ ← AlertReference

#### **Inherited Members**

# **Properties**

Id

```
[JsonPropertyName("@id")]
public string Id { get; set; }
```

#### **Property Value**

#### Identifier

```
[JsonPropertyName("identifier")]
public string Identifier { get; set; }
```

### **Property Value**

## Sender

```
[JsonPropertyName("sender")]
public string Sender { get; set; }
```

# **Property Value**

### Sent

```
[JsonPropertyName("sent")]
public DateTime Sent { get; set; }
```

# **Property Value**

# Enum AlertResponse

```
Namespace: <a href="Weather.Data.Nws">Weather.Data.Nws</a>
Assembly: Weather.dll

[JsonConverter(typeof(JsonStringEnumConverter))]

public enum AlertResponse
```

# **Fields**

AllClear = 7
Assess = 6
Avoid = 4
Evacuate = 1
Execute = 3
Monitor = 5
None = 8
Prepare = 2
Shelter = 0

# **Enum AlertSeverity**

```
Namespace: <a href="Weather.Data.Nws">Weather.Data.Nws</a>
Assembly: Weather.dll

[JsonConverter(typeof(JsonStringEnumConverter))]

public enum AlertSeverity
```

# **Fields**

```
Extreme = 0

Minor = 3

Moderate = 2

Severe = 1

Unknown = 4
```

# **Enum AlertStatus**

```
Namespace: <a href="Weather.Data.Nws">Weather.Data.Nws</a>
Assembly: Weather.dll

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

# **Fields**

```
Actual = 1
Draft = 16
Exercise = 2
System = 4
Test = 8
```

# Enum AlertUrgency

```
Namespace: <a href="Weather.Data.Nws">Weather.Data.Nws</a>
Assembly: Weather.dll

[JsonConverter(typeof(JsonStringEnumConverter))]

public enum AlertUrgency
```

# **Fields**

```
Expected = 1
Future = 2
Immediate = 0
Past = 3
Unknown = 4
```

# Class AlertsResponse

Namespace: Weather. Data. Nws

Assembly: Weather.dll

public class AlertsResponse

#### **Inheritance**

<u>object</u> 

✓ AlertsResponse

#### **Inherited Members**

## **Properties**

#### **Features**

```
[JsonPropertyName("features")]
public IEnumerable<Alert> Features { get; set; }
```

#### **Property Value**

<u>IEnumerable</u> d' <Alert>

## **Pagination**

```
[JsonPropertyName("pagination")]
public PaginationInfo Pagination { get; set; }
```

### **Property Value**

<u>PaginationInfo</u>

### **Title**

```
[JsonPropertyName("title")]
public string Title { get; set; }
```

## **Property Value**

# Type

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

## **Property Value**

 $\underline{\text{string}}$ 

# Updated

```
[JsonPropertyName("updated")]
public DateTime Updated { get; set; }
```

## **Property Value**

# Class ErrorResponse

Namespace: Weather. Data. Nws

Assembly: Weather.dll

public class ErrorResponse

#### **Inheritance**

<u>object</u> ← ErrorResponse

#### **Inherited Members**

# **Properties**

#### CorrelationId

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

#### **Property Value**

<u>string</u> □

#### Detail

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

#### **Property Value**

#### Instance

```
public string Instance { get; set; }
Property Value
Status
 public int Status { get; set; }
Property Value
<u>int</u>♂
Title
 public string Title { get; set; }
Property Value
Type
 public string Type { get; set; }
```

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# Class GeoCode

```
Namespace: Weather. Data. Nws
```

Assembly: Weather.dll

```
public class GeoCode
```

#### **Inheritance**

object 
 ← GeoCode

#### **Inherited Members**

# **Properties**

#### Same

```
[JsonPropertyName("SAME")]
public IEnumerable<string> Same { get; set; }
```

#### **Property Value**

<u>IEnumerable</u> ♂ < <u>string</u> ♂ >

## Ugc

```
[JsonPropertyName("UGC")]
public IEnumerable<string> Ugc { get; set; }
```

### **Property Value**

<u>IEnumerable</u> ♂ < <u>string</u> ♂ >

# Class PaginationInfo

Namespace: Weather. Data. Nws

Assembly: Weather.dll

public class PaginationInfo

#### **Inheritance**

<u>object</u> 

✓ PaginationInfo

#### **Inherited Members**

# **Properties**

#### Next

```
[JsonPropertyName("next")]
public string Next { get; set; }
```

#### **Property Value**

# Namespace Weather. Services

# Classes

#### **NwsService**

Provides a class for getting data from the National Weather Service (NWS) API.

#### **Interfaces**

#### **INwsService**

Provides an abstraction for getting data from the National Weather Service (NWS) API.

# Interface INwsService

Namespace: Weather. Services

Assembly: Weather.dll

Provides an abstraction for getting data from the National Weather Service (NWS) API.

public interface INwsService

#### Remarks

For more information about the NWS API visit their documentation.

The OneOf package used can be found <a href="here.">here.</a>

### Methods

## GetAlertsAsync()

Gets the latest alerts from the NWS API as an asynchronous operation.

Task<OneOf<AlertResponse, ErrorResponse>> GetAlertsAsync()

#### Returns

<u>Task</u> < OneOf < <u>AlertResponse</u>, <u>ErrorResponse</u> >>

The task object containing the response from the API.

## Class NwsService

Namespace: Weather. Services

Assembly: Weather.dll

Provides a class for getting data from the National Weather Service (NWS) API.

```
public class NwsService : INwsService
```

#### **Inheritance**

object 
object 
← NwsService

#### **Implements**

**INwsService** 

#### **Inherited Members**

<u>object.Equals(object)</u> <u>object.Equals(object, object)</u> <u>object.GetHashCode()</u> , <u>object.GetType()</u> , <u>object.MemberwiseClone()</u> , <u>object.ReferenceEquals(object, object)</u> , <u>object.ToString()</u> .

#### Remarks

For more information about the NWS API visit their documentation.

The OneOf package used can be found <a href="here.">here.</a>

#### Constructors

## NwsService(HttpClient)

Initializes a new instance of the NwsService with the given HttpClient.

```
public NwsService(HttpClient client)
```

#### **Parameters**

The HttpClient to use for calls to the NWS API.

## Methods

# GetAlertsAsync()

Gets the latest alerts from the NWS API as an asynchronous operation.

public Task<OneOf<AlertResponse, ErrorResponse>> GetAlertsAsync()

#### Returns

<u>Task</u> doneOf<<u>AlertResponse</u>, <u>ErrorResponse</u>>>

The task object containing the response from the API.

#### Remarks

The API returns 500 alerts by default.