System.Net.HttpWebRequest Class

[ILASM]
```
.class public serializable HttpWebRequest extends
System.Net.WebRequest
```

[C#]
```
public class HttpWebRequest: WebRequest
```

Assembly Info:

- *Name:* System
- *Public Key:* [00 00 00 00 00 00 00 00 04 00 00 00 00 00 00 00]
- *Version:* 1.0.x.x
- *Attributes:*
  - CLSCompliantAttribute(true)

Summary

Provides an HTTP-specific implementation of the **System.Net.WebRequest** class.

Inherits From: System.Net.WebRequest

Library: Networking

Thread Safety: All public static members of this type are safe for multithreaded operations. No instance members are guaranteed to be thread safe.

Description

This class implements properties and methods defined in **System.Net.WebRequest** and provides additional properties and methods that enable the user to interact directly with servers using the Hypertext Transfer Protocol (HTTP).

[*Note:* Instances of this class are automatically created by the **System.Net.WebRequest** class. For example, an instance of **System.Net.HttpWebRequest** is created when the **System.Net.WebRequest.Create** method is called and a Uniform Resource Identifier (URI) beginning with `http://` is specified. It is expected that an instance of this class will be constructed for every request made to the server. For example, after a call to **System.Net.HttpWebRequest.Abort** cancels an asynchronous operation, a call to **System.Net.HttpWebRequest.GetRequestStream** causes a **System.Net.WebException** to be thrown.

Requests can be sent synchronously or asynchronously. The **System.Net.HttpWebRequest.GetResponse** method sends a request to a server synchronously and returns a **System.Net.HttpWebResponse** instance containing the response. An asynchronous request for a resource is sent using the **System.Net.HttpWebRequest.BeginGetResponse** and **System.Net.HttpWebRequest.EndGetResponse** methods.

Request data is sent using a request stream. The **System.Net.HttpWebRequest.GetRequestStream**, **System.Net.HttpWebRequest.BeginGetRequestStream**, and **System.Net.HttpWebRequest.EndGetRequestStream** methods return a **System.IO.Stream** instance used to send data.

When errors occur while accessing an Internet resource, the **System.Net.HttpWebRequest** class throws a **System.Net.WebException**, and the **System.Net.WebException.Status** property that indicates the source of the error. When **System.Net.WebException.Status** is **System.Net.WebExceptionStatus.ProtocolError**, the **System.Net.WebException.Response** property contains the **System.Net.HttpWebResponse** received from the Internet resource.

Certain HTTP headers are protected; the user cannot set them directly in the header collection obtained from the **System.Net.HttpWebRequest.Headers** property. Instead, these headers are set using the associated properties of a **System.Net.HttpWebRequest** instance, or are set by the system. The following table describes how each protected header is set.

Header	**Set by**
Accept	**System.Net.HttpWebRequest.Accept**
Connection	**System.Net.HttpWebRequest.Connection** **System.Net.HttpWebRequest.KeepAlive**
Content-Length	**System.Net.HttpWebRequest.ContentLength**
Content-Type	**System.Net.HttpWebRequest.ContentType**
Expect	**System.Net.HttpWebRequest.Expect**
Date	Set to current date by the system.
Host	Set to current host by the system.
if-Modified-since	**System.Net.HttpWebRequest.IfModifiedSince**
Range	**System.Net.HttpWebRequest.AddRange**
Referer	**System.Net.HttpWebRequest.Referer**
Transfer-Encoding	**System.Net.HttpWebRequest.TransferEncoding** **System.Net.HttpWebRequest.SendChunked**

User-Agent	**System.Net.HttpWebRequest.UserAgent**

]

HttpWebRequest.Abort() Method

```
[ILASM]
.method public hidebysig virtual void Abort()

[C#]
public override void Abort()
```

Summary

Cancels an asynchronous operation.

Description

System.Net.HttpWebRequest.Abort cancels any pending asynchronous operation. After this method is called, calling **System.Net.HttpWebRequest.GetResponse**, **System.Net.HttpWebRequest.BeginGetResponse**, **System.Net.HttpWebRequest.EndGetResponse**, **System.Net.HttpWebRequest.GetRequestStream**, **System.Net.HttpWebRequest.BeginGetRequestStream**, or **System.Net.HttpWebRequest.EndGetRequestStream** will throw a **System.Net.WebException** with **System.Net.WebException.Status** set to **System.Net.WebExceptionStatus.RequestCanceled**.

[*Note:* If no pending request exists, calling this method does not cause an exception to be thrown.

This method overrides **System.Net.WebRequest.Abort**.]

HttpWebRequest.AddRange(System.Int32, System.Int32) Method

```
[ILASM]
.method public hidebysig instance void AddRange(int32 from,
int32 to)

[C#]
public void AddRange(int from, int to)
```

Summary

Adds a HTTP Range header to the current instance for a specified range.

Parameters

Parameter	Description
from	A **System.Int32** indicating the starting byte position of the entity-body data to be returned.
to	A **System.Int32** indicating the last byte.

Description

This method is equivalent to **System.Net.HttpWebRequest.AddRange**("bytes", *from*, *to*).

[*Note:* The HTTP Range header specifies either a single range of bytes or a set of byte ranges in an entity-body to be returned. If the server accessed by the current instance supports the use of this header, this allows for the partial retrieval of the entity due to, for example, the entity being particularly large or there having been a failed transfer of data.

For more information on the HTTP Range header, see Section 14.35 of RFC 2616.]

Exceptions

Exception	Condition
System.ArgumentOutOfRangeException	*from* < 0. -or- *to* < 0.

	-or- *from > to.*
System.InvalidOperationException	The range header could not be added.

HttpWebRequest.AddRange(System.Int32) Method

[ILASM]
```
.method public hidebysig instance void AddRange(int32
range)
```

[C#]
```
public void AddRange(int range)
```

Summary

Adds a HTTP Range header to the current instance for a specific range from the beginning or end of the requested data.

Parameters

Parameter	Description
range	A **System.Int32** that specifies the starting or ending point of the range. If this value is positive, the range is from the beginning of the data to *range*. If this value is negative, the range is from *range* to the end of the data.

Description

This method is equivalent to **System.Net.HttpWebRequest.AddRange**("bytes", *range*).

[*Note:* The HTTP Range header specifies either a single range of bytes or a set of byte ranges in an entity-body to be returned. If the server accessed by the current instance supports the use of this header, this allows for the partial retrieval of the entity due to, for example, the entity being particularly large or there having been a failed transfer of data.

For more information on the HTTP Range header, see Section 14.35 of RFC 2616.]

Exceptions

Exception	Condition
System.InvalidOperationException	The range header could not be added.

HttpWebRequest.AddRange(System.String, System.Int32, System.Int32) Method

```
[ILASM]
.method public hidebysig instance void AddRange(string
rangeSpecifier, int32 from, int32 to)

[C#]
public void AddRange(string rangeSpecifier, int from, int
to)
```

Summary

Adds a HTTP Range header to the current instance for a specified range.

Parameters

Parameter	Description
rangeSpecifier	A **System.String** that contains the description of the range.
from	A **System.Int32** designating the position at which to start sending data.
to	A **System.Int32** designating the position at which to stop sending data.

Description

[*Note:* The HTTP Range header specifies either a single range of bytes or a set of byte ranges in an entity-body to be returned. If the server accessed by the current instance supports the use of this header, this allows for the partial retrieval of the entity due to, for example, the entity being particularly large or there having been a failed transfer of data.

For more information on the HTTP Range header, see Section 14.35 of IETF RFC 2616.]

Exceptions

Exception	Condition
System.ArgumentNullException	*rangeSpecifier* is **null**.
System.ArgumentOutOfRangeException	*from* < 0. -or-

	to < 0. -or- *from* > *to.*
System.ArgumentException	*rangeSpecifier* is invalid.
System.InvalidOperationException	The range header could not be added.

HttpWebRequest.AddRange(System.String, System.Int32) Method

```
[ILASM]
.method public hidebysig instance void AddRange(string
rangeSpecifier, int32 range)

[C#]
public void AddRange(string rangeSpecifier, int range)
```

Summary

Adds a HTTP Range header to the current request for a specific range from the beginning or end of the requested data.

Parameters

Parameter	Description
rangeSpecifier	A **System.String** that contains the description of the range.
range	A **System.Int32** that designates the starting or ending point of the range. If this value is positive, the range is from the beginning of the data to *range*. If this value is negative, the range is from *range* to the end of the data.

Description

[*Note:* The HTTP Range header specifies either a single range of bytes or a set of byte ranges in an entity-body to be returned. If the server accessed by the current instance supports the use of this header, this allows for the partial retrieval of the entity due to, for example, the entity being particularly large or there having been a failed transfer of data.

For more information on the HTTP Range header, see Section 14.35 of RFC 2616.]

Exceptions

Exception	Condition
System.ArgumentNullException	*rangeSpecifier* is **null**.
System.ArgumentException	*rangeSpecifier* is invalid.
System.InvalidOperationException	The range header could not be added.

HttpWebRequest.BeginGetRequestStream (System.AsyncCallback, System.Object) Method

```
[ILASM]
.method public hidebysig virtual class System.IAsyncResult
BeginGetRequestStream(class System.AsyncCallback callback,
object state)

[C#]
public override IAsyncResult
BeginGetRequestStream(AsyncCallback callback, object state)
```

Summary

Begins an asynchronous request for a stream in which to write data to be sent in the current instance.

Parameters

Parameter	Description
callback	A **System.AsyncCallback** delegate to be called when the stream is available. Can be **null**.
state	A **System.Object** containing state information for the asynchronous request. Can be **null**.

Return Value

A **System.IAsyncResult** that contains information about the asynchronous operation.

Description

This method starts an asynchronous operation. To get the request stream, call the **System.Net.HttpWebRequest.EndGetRequestStream** method and specify the **System.IAsyncResult** object returned by this method. [*Note:* The **System.Net.HttpWebRequest.EndGetRequestStream** method should be called exactly once for each call to **System.Net.HttpWebRequest.BeginGetRequestStream**.]

If the *callback* parameter is not **null**, the method(s) referenced by *callback* are invoked when the asynchronous operation completes. The **System.IAsyncResult** object returned by this method is passed as the argument to the method(s) referenced by *callback*.

The *state* parameter can be any object that the caller wishes to have available for the duration of the asynchronous operation. This object is available via the **System.IAsyncResult.AsyncState** property of the object returned by this method.

The value of the **System.Net.HttpWebRequest.ContentLength** property of the current instance is required to be set prior to calling this method.

[*Note:* The method(s) invoked by the callback delegate can call the **System.Net.HttpWebRequest.EndGetRequestStream** method to retrieve the stream.

This method is the asynchronous version of the **System.Net.HttpWebRequest.GetRequestStream** method.

This method overrides **System.Net.WebRequest.BeginGetRequestStream**.]

Exceptions

Exception	Condition
System.InvalidOperationException	The stream is being used by a previous call to **System.Net.HttpWebRequest.BeginGetRequ** -or- No writeable stream is available.
System.Net.ProtocolViolationException	The **System.Net.HttpWebRequest.ContentL** property of the current instance is not set. -or- The **System.Net.HttpWebRequest.Method** p the current instance is "GET" or "HEAD".
System.Net.WebException	**System.Net.HttpWebRequest.Abort** was pre called. -or- An error occurred while processing the request

HttpWebRequest.BeginGetResponse(System.AsyncCallback, System.Object) Method

```
[ILASM]
.method public hidebysig virtual class System.IAsyncResult
BeginGetResponse(class System.AsyncCallback callback,
object state)

[C#]
public override IAsyncResult BeginGetResponse(AsyncCallback
callback, object state)
```

Summary

Begins sending the current HTTP request asynchronously.

Parameters

Parameter	Description
callback	A **System.AsyncCallback** delegate to be called when the stream is available. Can be **null**.
state	A **System.Object** containing state information for the asynchronous request. Can be **null**.

Return Value

A **System.IAsyncResult** that contains information about the asynchronous operation.

Description

This method starts an asynchronous operation. To get the response, call the **System.Net.HttpWebRequest.EndGetResponse** method and specify the **System.IAsyncResult** object returned by this method. [*Note:* The **System.Net.HttpWebRequest.EndGetResponse** method should be called exactly once for each call to **System.Net.HttpWebRequest.BeginGetResponse**.]

If the *callback* parameter is not **null**, the method referenced by *callback* is invoked when the asynchronous operation completes. The **System.IAsyncResult** object returned by this method is passed as the argument to the method referenced by *callback*.

The *state* parameter can be any object that the caller wishes to have available for the duration of the asynchronous operation. This object is available via the **System.IAsyncResult.AsyncState** property of the object returned by this method.

[*Note:* The method(s) invoked by the callback delegate can call the **System.Net.HttpWebRequest.EndGetResponse** method to retrieve the response.

This method is the asynchronous version of the **System.Net.HttpWebRequest.GetResponse** method.

This method overrides **System.Net.WebRequest.BeginGetResponse**.]

Exceptions

Exception	Condition
System.InvalidOperationException	**System.Net.HttpWebRequest.BeginGetResp** or **System.Net.HttpWebRequest.GetRespon** was previously called on this instance.
System.Net.ProtocolViolationException	The **System.Net.HttpWebRequest.ContentLe** property of the current instance has not been s
System.Net.WebException	**System.Net.HttpWebRequest.Abort** was previously called.

HttpWebRequest.EndGetRequestStream(System.IAsyncResult) Method

```
[ILASM]
.method public hidebysig virtual class System.IO.Stream
EndGetRequestStream(class System.IAsyncResult asyncResult)

[C#]
public override Stream EndGetRequestStream(IAsyncResult
asyncResult)
```

Summary

Completes an asynchronous request for a stream that was started by the **System.Net.HttpWebRequest.BeginGetRequestStream** method.

Parameters

Parameter	Description
asyncResult	The **System.IAsyncResult** object that holds the state information for the asynchronous operation.

Return Value

A **System.IO.Stream** to write request data to.

Description

[*Note:* The caller is responsible for calling the **System.IO.Stream.Close** method to close the stream.

This method overrides **System.Net.WebRequest.EndGetRequestStream**.]

Exceptions

Exception	Condition
System.ArgumentNullException	*asyncResult* is **null**.
System.ArgumentException	*asyncResult* was not returned by the current instan from a call to **System.Net.WebRequest.BeginGetRequestStrea**
System.InvalidOperationException	This method was called previously using *asyncResu*

	-or- No stream is available.
System.Net.WebException	**System.Net.HttpWebRequest.Abort** was previous called. -or- An error occurred while processing the request.

HttpWebRequest.EndGetResponse(System.IAsyncResult) Method

```
[ILASM]
.method public hidebysig virtual class
System.Net.WebResponse EndGetResponse(class
System.IAsyncResult asyncResult)

[C#]
public override WebResponse EndGetResponse(IAsyncResult
asyncResult)
```

Summary

Returns a **System.Net.WebResponse** that contains a response to the specified pending Internet request.

Parameters

Parameter	Description
asyncResult	The **System.IAsyncResult** object that hold the state information for the asynchronous operation.

Return Value

A **System.Net.WebResponse** that contains a response to the Internet request referenced by *asyncResult*.

Description

[*Note:* This method completes an asynchronous request for an Internet resource that was started by calling **System.Net.HttpWebRequest.BeginGetResponse**.

This method overrides **System.Net.WebRequest.EndGetResponse**.]

Exceptions

Exception	Condition
System.ArgumentNullException	*asyncResult* is **null**.
System.ArgumentException	*asyncResult* was not returned by the current instance from a call to **System.Net.WebRequest.BeginGetResponse**.

System.InvalidOperationException	This method was called previously using *asyncResult.* -or- The **System.Net.HttpWebRequest.ContentLength** property of the current instance is greater than 0 but the data has not been written to the request stream.
System.Net.WebException	**System.Net.HttpWebRequest.Abort** was previously called. -or- An error occurred while processing the request.

HttpWebRequest.GetHashCode() Method

[ILASM]
```
.method public hidebysig virtual int32 GetHashCode()
```

[C#]
```
public override int GetHashCode()
```

Summary

Generates a hash code for the current instance.

Return Value

A **System.Int32** containing the hash code for the current instance.

Description

The algorithm used to generate the hash code is unspecified.

[*Note:* This method overrides **System.Object.GetHashCode**.]

HttpWebRequest.GetRequestStream() Method

```
[ILASM]
.method public hidebysig virtual class System.IO.Stream
GetRequestStream()

[C#]
public override Stream GetRequestStream()
```

Summary

Returns a **System.IO.Stream** for writing data to the Internet resource requested by the current instance.

Return Value

A **System.IO.Stream** for writing data to an Internet resource requested by the current instance.

Description

The value of the **System.Net.HttpWebRequest.ContentLength** property is required to be set before writing data to the stream.

[*Note:* This method returns a stream to use to send data for the **System.Net.HttpWebRequest**. Once the **System.IO.Stream** instance has been returned, data can be sent with the **System.Net.HttpWebRequest** by using the **System.IO.Stream.Write** method.

Call the **System.IO.Stream.Close** method to close the stream and release the connection for reuse. Failure to close the stream may cause the application to run out of connections.

This method overrides **System.Net.WebRequest.GetRequestStream**.]

Exceptions

Exception	Condition
System.Net.ProtocolViolationException	The **System.Net.HttpWebRequest.Method** property of the current instance is "GET" or "HE -or- The **System.Net.HttpWebRequest.ContentLe**

	property of the current instance is not set.
System.InvalidOperationException	The **System.Net.HttpWebRequest.GetRequestSt** method was called more than once. -or- No writeable stream is available.
System.Net.WebException	**System.Net.HttpWebRequest.Abort** was previously called. -or- The timeout period for the request expired. -or- An error occurred while processing the request

HttpWebRequest.GetResponse() Method

[ILASM]

```
.method public hidebysig virtual class
System.Net.WebResponse GetResponse()
```

[C#]

```
public override WebResponse GetResponse()
```

Summary

Returns a response to an Internet request.

Return Value

A **System.Net.WebResponse** containing the response from the Internet resource requested by the current instance.

Description

[*Note:* This method returns a **System.Net.WebResponse** instance containing the response from the Internet resource requested by the current instance. The actual instance returned is an instance of **System.Net.HttpWebResponse**, and can be typecast to that class to access HTTP-specific properties.

This method overrides **System.Net.WebRequest.GetResponse**.]

Exceptions

Exception	Condition
System.Net.ProtocolViolationException	The **System.Net.HttpWebRequest.ContentLengt** property of the current instance is not set.
System.Net.WebException	**System.Net.HttpWebRequest.Abort** was previously called. -or- The timeout period for the request expired. -or- An error occurred while processing the request

HttpWebRequest.Accept Property

```
[ILASM]
.property string Accept { public hidebysig specialname
instance string get_Accept() public hidebysig specialname
instance void set_Accept(string value) }

[C#]
public string Accept { get; set; }
```

Summary

Gets or sets a **System.String** containing the value of the HTTP Accept header.

Property Value

A **System.String** containing the value of the HTTP Accept header. The default value of this property is **null**.

Description

[*Note:* For additional information see section 14.1 of IETF RFC 2068 - HTTP/1.1.]

HttpWebRequest.Address Property

[ILASM]

```
.property class System.Uri Address { public hidebysig
specialname instance class System.Uri get_Address() }
```

[C#]

```
public Uri Address { get; }
```

Summary

Gets the URI that responds to the current request.

Property Value

A **System.Uri** identifying the Internet resource that responds to the current request. The default is the URI used by the **System.Net.WebRequest.Create** method to initialize the current instance.

Description

This property is read-only.

The value of this property is set to the URI that is the source of the response after all redirections are complete.

[*Note:* The URI of the original request is kept in the **System.Net.HttpWebRequest.RequestUri** property.]

HttpWebRequest.AllowAutoRedirect Property

[ILASM]

```
.property bool AllowAutoRedirect { public hidebysig
specialname instance bool get_AllowAutoRedirect() public
hidebysig specialname instance void
set_AllowAutoRedirect(bool value) }
```

[C#]

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

Summary

Gets or sets a **System.Boolean** value that indicates whether the current request will follow redirection responses.

Property Value

true if the current request will automatically follow redirection responses from the Internet resource; otherwise **false.** The default value is **true**.

Description

[*Note:* Set **System.Net.HttpWebRequest.AllowAutoRedirect** to **true** to allow the current request to automatically follow HTTP redirection headers to the new location of a resource.

The maximum number of redirections to follow is set by the **System.Net.HttpWebRequest.MaximumAutomaticRedirections** property.]

HttpWebRequest.AllowWriteStreamBuffering Property

```
[ILASM]
.property bool AllowWriteStreamBuffering { public hidebysig
specialname instance bool get_AllowWriteStreamBuffering()
public hidebysig specialname instance void
set_AllowWriteStreamBuffering(bool value) }

[C#]
public bool AllowWriteStreamBuffering { get; set; }
```

Summary

Gets or sets a **System.Boolean** value that indicates whether to buffer the data sent to the Internet resource requested by the current instance.

Property Value

true to enable buffering of the data sent to the Internet resource requested by the current instance; **false** to disable buffering. The default is **true**.

Description

[*Note:* When **System.Net.HttpWebRequest.AllowWriteStreamBuffering** is **true**, the data is buffered in memory so it is ready to be resent in the event of redirections or authentication requests.

Depending on available memory, setting **System.Net.HttpWebRequest.AllowWriteStreamBuffering** as **true** might impact system performance when uploading large amounts of data.]

HttpWebRequest.Connection Property

[ILASM]

```
.property string Connection { public hidebysig specialname
instance string get_Connection() public hidebysig
specialname instance void set_Connection(string value) }
```

[C#]

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

Summary

Gets or sets the value of the Connection HTTP header.

Property Value

A **System.String** containing the value of the Connection HTTP header. The default value is **null**.

Description

The current request sends the **System.Net.HttpWebRequest.Connection** property to the Internet resource as the Connection HTTP header.

[*Note:* If **System.Net.HttpWebRequest.KeepAlive** is **true**, the value "Keep-alive" is appended to the end of the Connection header.

For additional information see section 14.10 of IETF RFC 2068 - HTTP/1.1.]

Exceptions

Exception	Condition
System.ArgumentException	The value of **System.Net.HttpWebRequest.Connection** is set to "Keep-alive" or "Close". This value is case insensitive.

HttpWebRequest.ConnectionGroupName Property

[ILASM]

```
.property string ConnectionGroupName { public hidebysig
virtual specialname string get_ConnectionGroupName() public
hidebysig virtual specialname void
set_ConnectionGroupName(string value) }
```

[C#]

```
public override string ConnectionGroupName { get; set; }
```

Summary

Gets or sets the name of the connection group for the current instance.

Property Value

A **System.String** that contains the name of the connection group for the current instance. The default value is **null**.

Description

[*Note:* The **System.Net.HttpWebRequest.ConnectionGroupName** property enables a request to be associated with a connection group. This is useful when an application makes requests to one server for different users, such as a Web site that retrieves customer information from a database server.

Each connection group creates additional connections for a server. This may result in exceeding **System.Net.ServicePoint.ConnectionLimit** for that server.

This property overrides **System.Net.WebRequest.ConnectionGroupName**.]

HttpWebRequest.ContentLength Property

[ILASM]

```
.property int64 ContentLength { public hidebysig virtual
specialname int64 get_ContentLength() public hidebysig
virtual specialname void set_ContentLength(int64 value) }
```

[C#]

```
public override long ContentLength { get; set; }
```

Summary

Gets or sets the Content-length HTTP header.

Property Value

A **System.Int64** value that specifies the number of bytes of data to send to the Internet resource. The default is -1, which indicates that this value has not been set.

Description

The **System.Net.HttpWebRequest.ContentLength** property contains the value to send as the Content-length HTTP header of the request.

Any value other than -1 in the **System.Net.HttpWebRequest.ContentLength** property indicates that the request will upload data; only methods that upload data are allowed in the **System.Net.HttpWebRequest.Method** property.

This property is required to be set prior to writing data to the request data stream. Once the **System.Net.HttpWebRequest.ContentLength** property is set to a value, that number of bytes is required to be written to the request data stream. [*Note:* Get the request data stream by calling **System.Net.HttpWebRequest.GetRequestStream**, or **System.Net.HttpWebRequest.BeginGetRequestStream** and **System.Net.HttpWebRequest.EndGetRequestStream**.]

[*Note:* For additional information see section 14.13 of IETF RFC 2068 - HTTP/1.1.

This property overrides **System.Net.WebRequest.ContentLength**.]

Exceptions

Exception	Condition

System.InvalidOperationException	Data has already been written to the request stream.
System.ArgumentOutOfRangeException	A value less than zero is specified for a set operation.

HttpWebRequest.ContentType Property

[ILASM]

```
.property string ContentType { public hidebysig virtual
specialname string get_ContentType() public hidebysig
virtual specialname void set_ContentType(string value) }
```

[C#]

```
public override string ContentType { get; set; }
```

Summary

Gets or sets the value of the Content-type HTTP header of the current instance.

Property Value

The value of the Content-type HTTP header of the current instance. The default value is **null**.

Description

The **System.Net.HttpWebRequest.ContentType** property contains the media type of the current instance. Values assigned to the **System.Net.HttpWebRequest.ContentType** property replace any existing contents when the request sends the Content-type HTTP header.

[*Note:* To clear the Content-type HTTP header, set the **System.Net.HttpWebRequest.ContentType** property to **null.**

For additional information see section 14.17 of IETF RFC 2068 - HTTP/1.1.

This property overrides **System.Net.WebRequest.ContentType**.]

HttpWebRequest.ContinueDelegate Property

[ILASM]

```
.property class System.Net.HttpContinueDelegate
ContinueDelegate { public hidebysig specialname instance
class System.Net.HttpContinueDelegate
get_ContinueDelegate() public hidebysig specialname
instance void set_ContinueDelegate(class
System.Net.HttpContinueDelegate value) }
```

[C#]

```
public HttpContinueDelegate ContinueDelegate { get; set; }
```

Summary

Gets or sets the delegate method whose methods are invoked when an HTTP 100-continue response is received by the current instance.

Property Value

A **System.Net.HttpContinueDelegate** that references the methods that are invoked when an HTTP Continue response is received. The default value is **null**.

Description

[*Note:* This delegate is useful to display the status of responses received by the current instance.]

HttpWebRequest.Credentials Property

[ILASM]

```
.property class System.Net.ICredentials Credentials {
public hidebysig virtual specialname class
System.Net.ICredentials get_Credentials() public hidebysig
virtual specialname void set_Credentials(class
System.Net.ICredentials value) }
```

[C#]

```
public override ICredentials Credentials { get; set; }
```

Summary

Gets or sets the credentials used for authenticating the current request.

Property Value

A **System.Net.ICredentials** object containing the authentication credentials associated with the current instance. The default is **null**.

Description

[*Note:* The **System.Net.HttpWebRequest.Credentials** property contains authentication information to identify the client making the request. The **System.Net.HttpWebRequest.Credentials** property can be either an instance of **System.Net.NetworkCredential**, in which case the user, password, and domain information contained in the **System.Net.NetworkCredential** instance is used to authenticate the request, or it can be an instance of **System.Net.CredentialCache**, in which case the uniform resource identifier (URI) of the request is used to determine the user, password, and domain information to use to authenticate the request.

This property overrides **System.Net.WebRequest.Credentials**.]

HttpWebRequest.Expect Property

```
[ILASM]
.property string Expect { public hidebysig specialname
instance string get_Expect() public hidebysig specialname
instance void set_Expect(string value) }

[C#]
public string Expect { get; set; }
```

Summary

Gets or sets the value of the HTTP Expect header.

Property Value

A **System.String** that contains the contents of the HTTP Expect header. The default value is **null**.

Description

[*Note:* By default, **System.Net.HttpWebRequest.Expect** is **null**. Other values can be added to the list that **System.Net.HttpWebRequest.Expect** maintains, or all values except "100-continue" can be deleted from the list by setting **System.Net.HttpWebRequest.Expect** to **null**.

For additional information see section 14.20 of IETF RFC 2068 - HTTP/1.1.]

Exceptions

Exception	Condition
System.ArgumentException	The value specified for a set operation is "100-continue". This value is case insensitive.

HttpWebRequest.HaveResponse Property

```
[ILASM]
.property bool HaveResponse { public hidebysig specialname
instance bool get_HaveResponse() }

[C#]
public bool HaveResponse { get; }
```

Summary

Gets a **System.Boolean** value indicating whether a response has been received for the current instance.

Property Value

true if a response has been received; otherwise **false**.

Description

This property is read-only.

HttpWebRequest.Headers Property

```
[ILASM]
.property class System.Net.WebHeaderCollection Headers {
public hidebysig virtual specialname class
System.Net.WebHeaderCollection get_Headers() public
hidebysig virtual specialname void set_Headers(class
System.Net.WebHeaderCollection value) }

[C#]
public override WebHeaderCollection Headers { get; set; }
```

Summary

Gets or sets the collection of HTTP header name/value pairs associated with the current instance.

Property Value

A **System.Net.WebHeaderCollection** containing the name/value pairs of the headers for the current instance.

Description

The following table lists the HTTP headers that cannot be set using the collection returned by this property.

Header	Set by
Accept	**System.Net.HttpWebRequest.Accept**.
Connection	**System.Net.HttpWebRequest.Connection**. **System.Net.HttpWebRequest.KeepAlive**.
Content-Length	**System.Net.HttpWebRequest.ContentLength**.
Content-Type	**System.Net.HttpWebRequest.ContentType**.
Expect	**System.Net.HttpWebRequest.Expect**.
Date	Set by the system to the current date.
Host	Set by the system to the current host information.
Range	**System.Net.HttpWebRequest.AddRange**.
Referer	**System.Net.HttpWebRequest.Referer**.
Transfer-Encoding	**System.Net.HttpWebRequest.TransferEncoding**. **System.Net.HttpWebRequest.SendChunked**.
User-Agent	**System.Net.HttpWebRequest.UserAgent**.

[*Note:* This property overrides **System.Net.WebRequest.Headers**.]

Exceptions

Exception	Condition
System.InvalidOperationException	A set operation was requested but data has already been written to the request data stream.

HttpWebRequest.IfModifiedSince Property

[ILASM]

```
.property valuetype System.DateTime IfModifiedSince {
public hidebysig specialname instance valuetype
System.DateTime get_IfModifiedSince() public hidebysig
specialname instance void set_IfModifiedSince(valuetype
System.DateTime value) }
```

[C#]

```
public DateTime IfModifiedSince { get; set; }
```

Summary

Gets or sets the value of the HTTP If-Modified-Since header.

Property Value

A **System.DateTime** that contains the contents of the HTTP If-Modified-Since header. The default value is the current date and time of the system.

Description

[*Note:* For additional information see section 14.25 of IETF RFC 2068 - HTTP/1.1.]

HttpWebRequest.KeepAlive Property

[ILASM]

```
.property bool KeepAlive { public hidebysig specialname
instance bool get_KeepAlive() public hidebysig specialname
instance void set_KeepAlive(bool value) }
```

[C#]

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

Summary

Gets or sets a **System.Boolean** value indicating whether to make a persistent connection to the server hosting the Internet resource requested by the current instance.

Property Value

true indicates that the current request will contain an HTTP Connection header with the value "Keep-alive"; otherwise, **false**. The default value is **true**.

Description

[*Note:* An application uses **System.Net.HttpWebRequest.KeepAlive** to indicate a preference for persistent connections. When this property is **true**, the application makes persistent connections to the servers that support them.]

HttpWebRequest.MaximumAutomaticRedirections Property

[ILASM]

```
.property int32 MaximumAutomaticRedirections { public
hidebysig specialname instance int32
get_MaximumAutomaticRedirections() public hidebysig
specialname instance void
set_MaximumAutomaticRedirections(int32 value) }
```

[C#]

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

Summary

Gets or sets the maximum number of redirects that the current instance will follow.

Property Value

A **System.Int32** value that indicates the maximum number of redirection responses that the current instance will follow. The default value is implementation-defined.

Description

[*Note:* This property sets the maximum number of redirections for the request to follow if the **System.Net.HttpWebRequest.AllowAutoRedirect** property is **true**.]

Exceptions

Exception	Condition
System.ArgumentException	The value specified for a set operation is less than or equal to zero.

HttpWebRequest.MediaType Property

[ILASM]

```
.property string MediaType { public hidebysig specialname
instance string get_MediaType() public hidebysig
specialname instance void set_MediaType(string value) }
```

[C#]

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

Summary

Gets or sets the media type of the current request.

Property Value

A **System.String** that identifies the media type of the current request. The default value is **null**.

Description

[*Note:* The value of this property affects the **System.Net.HttpWebResponse.CharacterSet** property. When this property is set in the current instance, the corresponding media type is chosen from the list of character sets returned in the response HTTP Content-type header.]

HttpWebRequest.Method Property

[ILASM]

```
.property string Method { public hidebysig virtual
specialname string get_Method() public hidebysig virtual
specialname void set_Method(string value) }
```

[C#]

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

Summary

Gets or sets the HTTP protocol request method used by the current instance.

Property Value

A **System.String** containing an HTTP method. The default value is "GET".

Description

If the **System.Net.HttpWebRequest.ContentLength** property is set to any value other than -1, the **System.Net.HttpWebRequest.Method** property is required to be set to a protocol method that sends request data.

The **System.Net.HttpWebRequest.Method** property can be set to any of the following HTTP 1.1 protocol methods:

HTTP Method	**Description**
GET	Retrieves in entity-body form the information identified by the **System.Net.HttpWebRequest.RequestUri** property of the current instance.
HEAD	Identical to GET except that the message-body is not returned in the response.
POST	Requests that the origin server accept the entity enclosed in the request as a new subordinate of the resource identified the Request-URI in the Request-Line.
PUT	Requests that the enclosed entity be stored under the supplied Request-URI.
DELETE	Requests that the origin server delete the resource identified by the Request-URI.
TRACE	Invokes a remote, application-layer loopback of the request message.
OPTIONS	Requests information about the communication options available on the request/response chain identified by the Request-URI. [*Note:* This allows

	the client to determine the options and/or requirements associated with a resource, or the capabilities of a server, without implying a resource action or initiating a resource retrieval.]

[*Note:* For detailed information regarding these methods, see sections 9.2 to 9.8 of RFC 2616.

This property overrides **System.Net.WebRequest.Method**.]

Exceptions

Exception	Condition
System.ArgumentException	**null**, **System.String.Empty**, or an invalid value was specified for a set operation.

HttpWebRequest.Pipelined Property

```
[ILASM]
.property bool Pipelined { public hidebysig specialname
instance bool get_Pipelined() public hidebysig specialname
instance void set_Pipelined(bool value) }

[C#]
public bool Pipelined { get; set; }
```

Summary

Gets or sets a **System.Boolean** value indicating whether to pipeline the current request to the Internet resource.

Property Value

true if the current request can be pipelined; otherwise, **false**. The default is **true**.

Description

An application uses this property to indicate a preference for pipelined connections. If **System.Net.HttpWebRequest.Pipelined** is **true**, an application makes pipelined connections to servers that support them.

[*Note:* Pipelined connections are made only when the **System.Net.HttpWebRequest.KeepAlive** property is **true**.]

HttpWebRequest.PreAuthenticate Property

[ILASM]

```
.property bool PreAuthenticate { public hidebysig virtual
specialname bool get_PreAuthenticate() public hidebysig
virtual specialname void set_PreAuthenticate(bool value) }
```

[C#]

```
public override bool PreAuthenticate { get; set; }
```

Summary

Gets or sets a Boolean value that indicates whether to send HTTP preauthentication header information with current instance without waiting for an authentication challenge from the requested resource.

Property Value

true to send a HTTP WWW-authenticate header with the current instance without waiting for an authentication challenge from the requested resource; otherwise, **false**. The default is **false**.

Description

When **System.Net.HttpWebRequest.PreAuthenticate** is **true** and credentials are supplied, the HTTP WWW-authenticate header is sent with the current instance without waiting for an authentication challenge from the requested resource; otherwise the request uses standard authentication procedures.

[*Note:* Set this property to **true** to allow clients to improve server efficiency by avoiding extra round trips caused by authentication challenges.

This property overrides **System.Net.WebRequest.PreAuthenticate**.]

HttpWebRequest.ProtocolVersion Property

[ILASM]
```
.property class System.Version ProtocolVersion { public
hidebysig specialname instance class System.Version
get_ProtocolVersion() public hidebysig specialname instance
void set_ProtocolVersion(class System.Version value) }
```

[C#]
```
public Version ProtocolVersion { get; set; }
```

Summary

Gets or sets the version of the HTTP protocol to use for the current request.

Property Value

A **System.Version** that represents the HTTP version to use for the request. The default is **System.Net.HttpVersion.Version11**.

Description

The **System.Net.HttpWebRequest** class supports only versions 1.0 and 1.1 of HTTP. Setting **System.Net.HttpWebRequest.ProtocolVersion** to a different version causes a **System.ArgumentException** exception to be thrown.

[*Note:* To set the **System.Net.HttpWebRequest.ProtocolVersion** property of the current instance, specify one of the members of the use the **System.Net.HttpVersion** class.]

Exceptions

Exception	Condition
System.ArgumentException	The HTTP version is set to a value other than 1.0 or 1.1.

HttpWebRequest.Proxy Property

```
[ILASM]
.property class System.Net.IWebProxy Proxy { public
hidebysig virtual specialname class System.Net.IWebProxy
get_Proxy() public hidebysig virtual specialname void
set_Proxy(class System.Net.IWebProxy value) }

[C#]
public override IWebProxy Proxy { get; set; }
```

Summary

Gets or sets network proxy information for the current instance.

Property Value

The **System.Net.WebProxy** instance to use as a proxy for the current instance. The default value is set by calling **System.Net.GlobalProxySelection.Select**.

Description

The **System.Net.HttpWebRequest.Proxy** property identifies the **System.Net.WebProxy** instance to use to communicate with the destination server.

[*Note:* To specify that no proxy should be used, set the **System.Net.HttpWebRequest.Proxy** property to the proxy instance returned by the **System.Net.GlobalProxySelection.GetEmptyWebProxy** method.

This property overrides **System.Net.WebRequest.Proxy**.]

Exceptions

Exception	Condition
System.ArgumentNullException	A set operation was requested and the specified value was **null**.
System.InvalidOperationException	A set operation was requested but data has already been sent to the request stream.
System.Security.SecurityException	The caller does not have permission for the requested operation.

Permissions

Permission	Description
System.Security.Permissions.WebPermission	Requires unrestricted **System.Net.WebPermission**. See **System.Security.Permissions.PermissionState.Unrestricted**.

HttpWebRequest.Referer Property

[ILASM]

```
.property string Referer { public hidebysig specialname
instance string get_Referer() public hidebysig specialname
instance void set_Referer(string value) }
```

[C#]

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

Summary

Gets or sets the value of the HTTP Referer header.

Property Value

A **System.String** containing the value of the HTTP Referer header. The default value is **null**.

Description

[*Note:* For additional information see section 14.36 of IETF RFC 2068 - HTTP/1.1.]

HttpWebRequest.RequestUri Property

[ILASM]

```
.property class System.Uri RequestUri { public hidebysig
virtual specialname class System.Uri get_RequestUri() }
```

[C#]

```
public override Uri RequestUri { get; }
```

Summary

Gets the **System.Uri** of the resource that receives requests sent by the current instance.

Property Value

The **System.Uri** of the resource that receives requests sent by the current instance.

Description

This property is read-only.

This property is the **System.Uri** instance passed to the current instance via the **System.Net.WebRequest.Create** method.

[*Note:* Following a redirection header does not change the **System.Net.HttpWebRequest.RequestUri** property. The URI of the resource that actually responded to the current instance is contained by **System.Net.HttpWebRequest.Address** property of the current instance.

This property overrides **System.Net.WebRequest.RequestUri**.]

HttpWebRequest.SendChunked Property

[ILASM]

```
.property bool SendChunked { public hidebysig specialname
instance bool get_SendChunked() public hidebysig
specialname instance void set_SendChunked(bool value) }
```

[C#]

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

Summary

Gets or sets a value indicating whether to send data in segments.

Property Value

true to send data in segments; otherwise, **false**. The default value is **false**.

Description

When **System.Net.HttpWebRequest.SendChunked** is **true**, the request sends data to the destination in segments. The destination server is required to support receiving chunked data.

[*Note:* Set this property to **true** only if the server specified by the **System.Net.HttpWebRequest.Address** property of the current instance accepts chunked data (i.e. is HTTP/1.1 or greater in compliance). If the server does not accept chunked data, buffer all data to be written and send a HTTP Content-Length header with the buffered data.]

Exceptions

Exception	Condition
System.InvalidOperationException	A set operation was requested but data has already been written to the request data stream.

HttpWebRequest.ServicePoint Property

```
[ILASM]
.property class System.Net.ServicePoint ServicePoint {
public hidebysig specialname instance class
System.Net.ServicePoint get_ServicePoint() }

[C#]
public ServicePoint ServicePoint { get; }
```

Summary

Gets the service point to use for the current instance.

Property Value

A **System.Net.ServicePoint** that represents the network connection to the destination. The value of this property is **null** until the **System.Net.HttpWebRequest.GetResponse** method is called.

Description

This property is read-only.

HttpWebRequest.Timeout Property

[ILASM]

```
.property int32 Timeout { public hidebysig virtual
specialname int32 get_Timeout() public hidebysig virtual
specialname void set_Timeout(int32 value) }
```

[C#]

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

Summary

Gets or sets the length of time before the request times out.

Property Value

A **System.Int32** indicating the number of milliseconds to wait for a response until the request times out, or **System.Threading.Timeout.Infinite** to indicate that the request does not time out.

Description

System.Net.HttpWebRequest.Timeout is the number of milliseconds that a synchronous request made with the **System.Net.HttpWebRequest.GetResponse** method waits for a response. If a resource does not respond within the time-out period, the request throws a **System.Net.WebException** with the **System.Net.WebException.Status** property set to **System.Net.WebExceptionStatus.Timeout**.

[*Note:* This property overrides **System.Net.WebRequest.Timeout**.]

Exceptions

Exception	Condition
System.ArgumentOutOfRangeException	A value less than zero and not equal to **System.Threading.Timeout.Infinite** is specified for a set operation.

HttpWebRequest.TransferEncoding Property

[ILASM]

```
.property string TransferEncoding { public hidebysig
specialname instance string get_TransferEncoding() public
hidebysig specialname instance void
set_TransferEncoding(string value) }
```

[C#]

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

Summary

Gets or sets the value of the HTTP Transfer-encoding header.

Property Value

A **System.String** that contains the value of the HTTP Transfer-encoding header. The default value is **null**.

Description

This property can be set in the current instance only if the **System.Net.HttpWebRequest.SendChunked** property in the current instance is **true**.

[*Note:* Clearing **System.Net.HttpWebRequest.TransferEncoding** by setting it to **null** has no effect on the value of **System.Net.HttpWebRequest.SendChunked**.

Values assigned to the **System.Net.HttpWebRequest.TransferEncoding** property replace any existing contents.

For additional information see section 14.41 of IETF RFC 2068 - HTTP/1.1.]

Exceptions

Exception	Condition
System.InvalidOperationException	**System.Net.HttpWebRequest.TransferEncoding** is set when **System.Net.HttpWebRequest.SendChunked** is **false**.
System.ArgumentException	**System.Net.HttpWebRequest.TransferEncoding**

	is set to the value "Chunked". This value is case insensitive.

HttpWebRequest.UserAgent Property

[ILASM]

```
.property string UserAgent { public hidebysig specialname
instance string get_UserAgent() public hidebysig
specialname instance void set_UserAgent(string value) }
```

[C#]

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

Summary

Gets or sets the value of the HTTP User-agent header.

Property Value

A **System.String** containing the value of the HTTP User-agent header. The default value is **null**.

Description

[*Note:* For additional information see section 14.43 of IETF RFC 2068 - HTTP/1.1.]