

# System.Net.WebClient Class

```
[ILAsm]
.class public sealed WebClient extends System.MarshalByRefObject

[C#]
public sealed class WebClient: MarshalByRefObject
```

## Assembly Info:

- *Name:* System
- *Public Key:* [00 00 00 00 00 00 00 00 04 00 00 00 00 00 00 00]
- *Version:* 2.0.x.x
- *Attributes:*
  - CLSCompliantAttribute(true)

## Implements:

- **System.IDisposable**

## Summary

Provides common methods for sending data to and receiving data from a resource identified by a URI.

## Inherits From: System.MarshalByRefObject

**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

[*Note:* The `System.Net.WebClient` class provides common methods for sending data to or receiving data from any local, Intranet, or Internet resource identified by a URI.

The `System.Net.WebClient` class uses the `System.Net.WebRequest` class to provide access to Internet resources. `System.Net.WebClient` instances can access data with any class derived from `System.Net.WebRequest` that is registered with the `System.Net.WebRequest.RegisterPrefix` method.

By default, the CLI supports URIs with the "http:", "https:", and "file:" schemes.

The `System.Net.WebClient` class provides the following methods for uploading data to a resource.

- `System.Net.WebClient.OpenWrite` sends a `System.IO.Stream` to the server hosting a resource.

- 1 • `System.Net.WebClient.UploadData` sends a byte array to the server hosting a  
2 resource and returns a byte array containing the response from the server, if any.
- 3 • `System.Net.WebClient.UploadFile` sends a local file to the server hosting a  
4 resource and returns a byte array containing the response from the server, if any.
- 5 • `System.Net.WebClient.UploadValues` sends a  
6 `System.Collections.Specialized.NameValueCollection` collection to the server  
7 hosting a resource and returns a byte array containing the response from the server,  
8 if any.

9 The `System.Net.WebClient` class also provides the following methods for downloading data  
10 from a resource.

- 11 • `System.Net.WebClient.DownloadData` downloads data from a resource and returns  
12 a byte array.
- 13 • `System.Net.WebClient.DownloadFile` downloads data from a resource to a local  
14 file.
- 15 • `System.Net.WebClient.OpenRead` returns the data from the resource as a  
16 `System.IO.Stream`.

17 ]

18

# 1 WebClient() Constructor

```
2 [ILAsm]  
3 public rtspecialname specialname instance void .ctor()  
4 [C#]  
5 public WebClient()
```

## 6 Summary

7 Constructs a new instance of the `System.Net.WebClient` class.

## 8 Description

9 This constructor creates a new instance of the `System.Net.WebClient` class with  
10 properties set to `null`.

11

# 1 WebClient.DownloadData(System.String)

## 2 Method

```
3 [ILAsm]  
4 .method public hidebysig instance class System.Byte[] DownloadData(string  
5 address)  
  
6 [C#]  
7 public byte[] DownloadData(string address)
```

### 8 Summary

9 Downloads data from the resource identified by the specified URI.

### 10 Parameters

Parameter	Description
<i>address</i>	A System.String that specifies the URI from which data will be downloaded.

### 11 Return Value

13 A System.Byte array containing the data downloaded from the resource specified by  
14 *address*.

### 15 Description

16 If the System.Net.WebClient.BaseAddress property of the current instance is not  
17 System.String.Empty, *address* is combined with System.Net.WebClient.BaseAddress  
18 to form the absolute URI of the requested data. If the  
19 System.Net.WebClient.BaseAddress property of the current instance is  
20 System.String.Empty, *address* is required to be the absolute URI of the requested  
21 data. If the System.Net.WebClient.QueryString property of the current instance is not  
22 System.String.Empty, it is appended to *address*.

### 23 Exceptions

Exception	Condition
<b>System.Net.WebException</b>	The absolute URI is not valid.  -or-  An error occurred while downloading data.

24



# 1 WebClient.DownloadFile(System.String, 2 System.String) Method

```
3 [ILAsm]  
4 .method public hidebysig instance void DownloadFile(string address, string  
5 fileName)  
  
6 [C#]  
7 public void DownloadFile(string address, string fileName)
```

## 8 Summary

9 Downloads data from the resource identified by the specified URI, and writes the data to  
10 the specified file.

## 11 Parameters

Parameter	Description
<i>address</i>	A System.String that specifies the URI from which data will be downloaded.
<i>fileName</i>	A System.String that specifies the name of the local file to which data will be written.

12

## 13 Description

14 If the System.Net.WebClient.BaseAddress property of the current instance is not  
15 System.String.Empty, *address* is combined with System.Net.WebClient.BaseAddress  
16 to form the absolute URI of the requested data. If the  
17 System.Net.WebClient.BaseAddress property of the current instance is  
18 System.String.Empty, *address* is required to be the absolute URI of the requested  
19 data. If the System.Net.WebClient.QueryString property of the current instance is not  
20 System.String.Empty, it is appended to *address*.

21

22 This method downloads data from the absolute URI to local file, *fileName*. If *fileName*  
23 already exists, the existing file is overwritten.

## 24 Exceptions

Exception	Condition
<b>System.Net.WebException</b>	The absolute URI is not valid.  -or-  <i>filename</i> is null or System.String.Empty or

	contains invalid characters, or the specified path to the file does not exist.  -or-  An error occurred while downloading data.
<b>System.Security.SecurityException</b>	The caller does not have permission to write to local files.

1

2 **Permissions**

Permission	Description
<b>System.Security.Permissions.FileIOPermission</b>	Requires permission to write to files. See <code>System.Security.Permissions.FileIOPermissionAccess.Write</code> .

3

4

# WebClient.OpenRead(System.String) Method

```
[ILAsm]  
.method public hidebysig instance class System.IO.Stream OpenRead(string  
address)  
  
[C#]  
public Stream OpenRead(string address)
```

## Summary

Opens a readable `System.IO.Stream` containing the data downloaded from the resource identified by the specified URI.

## Parameters

Parameter	Description
<i>address</i>	A <code>System.String</code> that specifies the URI from which data will be downloaded.

## Return Value

A `System.IO.Stream` used to read data from a resource.

## Description

If the `System.Net.WebClient.BaseAddress` property of the current instance is not `System.String.Empty`, *address* is combined with `System.Net.WebClient.BaseAddress` to form the absolute URI of the requested data. If the `System.Net.WebClient.BaseAddress` property of the current instance is `System.String.Empty`, *address* is required to be the absolute URI of the requested data. If the `System.Net.WebClient.QueryString` property of the current instance is not `System.String.Empty`, it is appended to *address*.

[*Note:* This method creates a `System.IO.Stream` instance used to access the data specified by the absolute URI. The caller of this method is responsible for calling `System.IO.Stream.Close` to release the resources allocated for the stream.]

## Exceptions

Exception	Condition
<code>System.Net.WebException</code>	The absolute URI is not valid.  -or-

An error occurred while downloading data.

1

2

# WebClient.OpenWrite(System.String) Method

```
[ILAsm]
.method public hidebysig instance class System.IO.Stream OpenWrite(string
address)

[C#]
public Stream OpenWrite(string address)
```

## Summary

Opens a `System.IO.Stream` for writing data to the resource identified by the specified URI.

## Parameters

Parameter	Description
<i>address</i>	A <code>System.String</code> that specifies the URI to receive the data.

## Return Value

A `System.IO.Stream` used to write data to the resource.

## Description

This method is equivalent to `System.Net.WebClient.OpenWrite(address, "POST")`.

If the `System.Net.WebClient.BaseAddress` property of the current instance is not `System.String.Empty`, *address* is combined with `System.Net.WebClient.BaseAddress` to form the absolute URI of the requested data. If the `System.Net.WebClient.BaseAddress` property of the current instance is `System.String.Empty`, *address* is required to be the absolute URI of the requested data. If the `System.Net.WebClient.QueryString` property of the current instance is not `System.String.Empty`, it is appended to *address*.

[*Note:* The underlying request is made with the POST method.]

## Exceptions

Exception	Condition
<code>System.Net.WebException</code>	The absolute URI is not valid.  -or-

An error occurred while opening the stream.

1

2

# 1 WebClient.OpenWrite(System.String, 2 System.String) Method

```
3 [ILAsm]  
4 .method public hidebysig instance class System.IO.Stream OpenWrite(string  
5 address, string method)  
  
6 [C#]  
7 public Stream OpenWrite(string address, string method)
```

## 8 Summary

9 Opens a `System.IO.Stream` for writing data to the resource identified by the specified  
10 URI using the specified protocol method.

## 11 Parameters

Parameter	Description
<i>address</i>	A <code>System.String</code> that specifies the URI of the resource to receive the data.
<i>method</i>	A <code>System.String</code> that specifies the protocol method used to send the data to the resource identified by <i>address</i> .

12

## 13 Return Value

14 A `System.IO.Stream` used to write data to the resource.

## 15 Description

16 If the `System.Net.WebClient.BaseAddress` property of the current instance is not  
17 `System.String.Empty`, *address* is combined with `System.Net.WebClient.BaseAddress`  
18 to form the absolute URI of the requested data. If the  
19 `System.Net.WebClient.BaseAddress` property of the current instance is  
20 `System.String.Empty`, *address* is required to be the absolute URI of the requested  
21 data. If the `System.Net.WebClient.QueryString` property of the current instance is not  
22 `System.String.Empty`, it is appended to *address*.

23

24 [*Note:* This method returns a writable stream that is used to send data to a resource.  
25 The underlying request is made with the protocol method specified by *method*. For more  
26 information about protocol methods, see `System.Net.WebRequest.Method`.

27

28 If the *method* parameter specifies a method that is not recognized by the server, the  
29 underlying protocol classes determine what occurs. Typically, a  
30 `System.Net.WebException` is thrown with the `System.Net.WebException.Status`  
31 property set to indicate the error.

1

2 ]

### 3 Exceptions

Exception	Condition
<b>System.Net.WebException</b>	The absolute URI is not valid.  -or-  An error occurred while opening the stream.

4

5

# WebClient.UploadData(System.String, System.String, System.Byte[]) Method

```
[ILAsm]
.method public hidebysig instance class System.Byte[] UploadData(string
address, string method, class System.Byte[] data)

[C#]
public byte[] UploadData(string address, string method, byte[] data)
```

## Summary

Uploads the specified data to the resource identified by the specified URI using the specified protocol method.

## Parameters

Parameter	Description
<i>address</i>	A <code>System.String</code> that specifies the URI of the resource to receive the data.
<i>method</i>	A <code>System.String</code> that specifies the protocol method used to send the data to the resource identified by <i>address</i> .
<i>data</i>	A <code>System.Byte</code> array containing data to send to the resource.

## Return Value

A `System.Byte` array containing the body of the response, if any, from the server hosting the resource.

## Description

If the `System.Net.WebClient.BaseAddress` property of the current instance is not `System.String.Empty`, *address* is combined with `System.Net.WebClient.BaseAddress` to form the absolute URI of the requested data. If the `System.Net.WebClient.BaseAddress` property of the current instance is `System.String.Empty`, *address* is required to be the absolute URI of the requested data. If the `System.Net.WebClient.QueryString` property of the current instance is not `System.String.Empty`, it is appended to *address*.

[Note: For more information about protocol methods, see `System.Net.WebRequest.Method`.

This method does not encode the contents of *data* before uploading it to the resource.

If *method* specifies a method that is not recognized by the server, the underlying

1 protocol classes determine what occurs. Typically, a `System.Net.WebException` is  
2 thrown with the `System.Net.WebException.Status` property set to indicate the error.  
3  
4 ]

## 5 Exceptions

Exception	Condition
<b>System.Net.WebException</b>	The absolute URI is not valid.  -or-  <i>data</i> is null.  -or-  An error occurred while opening the stream or uploading the data.  -or-  There was no response from the server hosting the resource.

6

7

# 1 WebClient.UploadData(System.String, 2 System.Byte[]) Method

```
3 [ILAsm]  
4 .method public hidebysig instance class System.Byte[] UploadData(string  
5 address, class System.Byte[] data)  
  
6 [C#]  
7 public byte[] UploadData(string address, byte[] data)
```

## 8 Summary

9 Uploads the specified data to the resource identified by the specified URI.

## 10 Parameters

Parameter	Description
<i>address</i>	A System.String that specifies the URI of the resource to receive the data.
<i>data</i>	A System.Byte array containing data to send to the resource.

11

## 12 Return Value

13 A System.Byte array containing the body of the response, if any, from the server  
14 hosting the resource.

## 15 Description

16 This method is equivalent to System.Net.WebClient.UploadData (*address*, "POST",  
17 *data*).

18

19 If the System.Net.WebClient.BaseAddress property of the current instance is not  
20 System.String.Empty, *address* is combined with System.Net.WebClient.BaseAddress  
21 to form the absolute URI of the requested data. If the  
22 System.Net.WebClient.BaseAddress property of the current instance is  
23 System.String.Empty, *address* is required to be the absolute URI of the requested  
24 data. If the System.Net.WebClient.QueryString property of the current instance is not  
25 System.String.Empty, it is appended to *address*.

26

27 [Note: This method sends a data buffer to a resource. The underlying request is made  
28 using the POST method.

29

30 This method does not encode the contents of *data* before uploading it to the resource.

31

32 ]

## 33 Exceptions

Exception	Condition
<b>System.Net.WebException</b>	The absolute URI is not valid.  -or-  <i>data</i> is null.  -or-  An error occurred while opening the stream or uploading the data.  -or-  There was no response from the server hosting the resource.

1

2

# WebClient.UploadFile(System.String, System.String, System.String) Method

```
[ILAsm]
.method public hidebysig instance class System.Byte[] UploadFile(string
address, string method, string fileName)

[C#]
public byte[] UploadFile(string address, string method, string fileName)
```

## Summary

Uploads the specified local file using the specified protocol method to the resource identified by the specified URI.

## Parameters

Parameter	Description
<i>address</i>	A <code>System.String</code> that specifies the URI of the resource to receive the file.
<i>method</i>	A <code>System.String</code> that specifies the protocol method used to send the data to the resource identified by <i>address</i> .
<i>fileName</i>	A <code>System.String</code> that specifies the file to send to the resource.

## Return Value

A `System.Byte` array containing the body of the response, if any, from the server hosting the resource.

## Description

If the `System.Net.WebClient.BaseAddress` property of the current instance is not `System.String.Empty`, *address* is combined with `System.Net.WebClient.BaseAddress` to form the absolute URI of the requested data. If the `System.Net.WebClient.BaseAddress` property of the current instance is `System.String.Empty`, *address* is required to be the absolute URI of the requested data. If the `System.Net.WebClient.QueryString` property of the current instance is not `System.String.Empty`, it is appended to *address*.

[*Note:* For more information about protocol methods, see `System.Net.WebRequest.Method`.

If *method* specifies a protocol method that is not recognized by the server, the underlying protocol classes determine what occurs. Typically, a `System.Net.WebException` is thrown with the `System.Net.WebException.Status`

1 property set to indicate the error.  
 2  
 3 ]

4 **Exceptions**

Exception	Condition
<b>System.Net.WebException</b>	The absolute URI is not valid.  -or-  <i>filename</i> is null or <code>System.String.Empty</code> or contains invalid characters, or the specified path to the file does not exist.  -or-  An error occurred while opening the stream or uploading the file.  -or-  There was no response from the server hosting the resource.  -or-  The Content-Type header begins with "multipart".
<b>System.Security.SecurityException</b>	The caller does not have the required permissions.

5  
 6 **Permissions**

Permission	Description
<b>System.Security.Permissions.FileIOPermission</b>	Requires permission to access path information and read files. See <code>System.Security.Permissions.FileIOPermissionAccess.PathDiscovery</code> and <code>System.Security.Permissions.FileIOPermissionAccess.Read</code> .

7  
 8

# 1 WebClient.UploadFile(System.String, 2 System.String) Method

```
3 [ILAsm]  
4 .method public hidebysig instance class System.Byte[] UploadFile(string  
5 address, string fileName)  
  
6 [C#]  
7 public byte[] UploadFile(string address, string fileName)
```

## 8 Summary

9 Uploads the specified local file to the resource identified by the specified URI.

## 10 Parameters

Parameter	Description
<i>address</i>	A System.String that specifies the URI of the resource to receive the file.
<i>fileName</i>	A System.String that specifies the file to send to the resource.

11

## 12 Return Value

13 A System.Byte array containing the body of the response, if any, from the server  
14 hosting the resource.

## 15 Description

16 This method is equivalent to System.Net.WebClient.UploadFile (*address*, "POST",  
17 *filename*).

18

19 If the System.Net.WebClient.BaseAddress property of the current instance is not  
20 System.String.Empty, *address* is combined with System.Net.WebClient.BaseAddress  
21 to form the absolute URI of the requested data. If the  
22 System.Net.WebClient.BaseAddress property of the current instance is  
23 System.String.Empty, *address* is required to be the absolute URI of the requested  
24 data. If the System.Net.WebClient.QueryString property of the current instance is not  
25 System.String.Empty, it is appended to *address*.

26

27 [Note: This method sends a local file to a resource. The underlying request is made  
28 using the POST method.]

29

30

## 31 Exceptions

Exception	Condition
<b>System.Net.WebException</b>	<p>The absolute URI is not valid.</p> <p>-or-</p> <p><i>filename</i> is null or <code>System.String.Empty</code> or contains invalid characters, or the specified path to the file does not exist.</p> <p>-or-</p> <p>An error occurred while opening the stream or uploading the file.</p> <p>-or-</p> <p>There was no response from the server hosting the resource.</p> <p>-or-</p> <p>The Content-Type header begins with "multipart".</p>
<b>System.Security.SecurityException</b>	Local file access has not been granted.

1

2 Permissions

Permission	Description
<b>System.Security.Permissions.FileIOPermission</b>	Requires permission to access path information and read files. See <code>System.Security.Permissions.FileIOPermissionAccess.PathDiscovery</code> and <code>System.Security.Permissions.FileIOPermissionAccess.Read</code> .

3

4

# 1 WebClient.UploadValues(System.String, 2 System.String, 3 System.Collections.Specialized.NameValueCollection) 4 Method

```
5 [ILAsm]  
6 .method public hidebysig instance class System.Byte[] UploadValues(string  
7 address, string method, class  
8 System.Collections.Specialized.NameValueCollection data)  
  
9 [C#]  
10 public byte[] UploadValues(string address, string method,  
11 NameValueCollection data)
```

## 12 Summary

13 Uploads the specified name/value collection to the specified resource using the specified  
14 method.

## 15 Parameters

Parameter	Description
<i>address</i>	A System.String that specifies the URI of the resource to receive the collection <i>data</i> .
<i>method</i>	A System.String that specifies the protocol method used to send <i>data</i> to the resource.
<i>data</i>	The System.Collections.Specialized.NameValueCollection to send to the resource identified by <i>address</i> .

## 16 17 Return Value

18 A System.Byte array containing the body of the response, if any, from the server  
19 hosting the resource.

## 20 Description

21 If the Content-Type header is null, this method sets it to "application/x-www-form-  
22 urlencoded".

23  
24 If the System.Net.WebClient.BaseAddress property of the current instance is not  
25 System.String.Empty, *address* is combined with System.Net.WebClient.BaseAddress  
26 to form the absolute URI of the requested data. If the

1 `System.Net.WebClient.BaseAddress` property of the current instance is  
2 `System.String.Empty`, *address* is required to be the absolute URI of the requested  
3 data. If the `System.Net.WebClient.QueryString` property of the current instance is not  
4 `System.String.Empty`, it is appended to *address*.

5  
6 [Note: If *method* specifies a protocol method that is not recognized by the server, the  
7 underlying protocol classes determine what occurs. Typically, a  
8 `System.Net.WebException` is thrown with the `System.Net.WebException.Status`  
9 property set to indicate the error.]

10  
11

12 **Exceptions**

Exception	Condition
<b>System.Net.WebException</b>	The absolute URI is not valid.  -or-  <i>data</i> is null.  -or-  An error occurred while opening the stream or uploading the data.  -or-  There was no response from the server hosting the resource.  -or-  The Content-Type header is not null, and is not "application/x-www-form-urlencoded".

13  
14

# 1 WebClient.UploadValues(System.String, 2 System.Collections.Specialized.NameValueCollection) 3 Method

```
4 [ILAsm]  
5 .method public hidebysig instance class System.Byte[] UploadValues(string  
6 address, class System.Collections.Specialized.NameValueCollection data)  
  
7 [C#]  
8 public byte[] UploadValues(string address, NameValueCollection data)
```

## 9 Summary

10 Uploads the specified name/value collection to the specified resource.

## 11 Parameters

Parameter	Description
<i>address</i>	A System.String that specifies the URI of the resource to receive the collection <i>data</i> .
<i>data</i>	The System.Collections.Specialized.NameValueCollection to send to the resource identified by <i>address</i> .

12

## 13 Return Value

14 A System.Byte array containing the body of the response, if any, from the server  
15 hosting the resource.

## 16 Description

17 This method is equivalent to System.Net.WebClient.UploadValues (*address*, "POST",  
18 *data*).

19

20 If the Content-Type header is null, this method sets it to "application/x-www-form-  
21 urlencoded".

22

23 If the System.Net.WebClient.BaseAddress property of the current instance is not  
24 System.String.Empty, *address* is combined with System.Net.WebClient.BaseAddress  
25 to form the absolute URI of the requested data. If the  
26 System.Net.WebClient.BaseAddress property of the current instance is  
27 System.String.Empty, *address* is required to be the absolute URI of the requested  
28 data. If the System.Net.WebClient.QueryString property of the current instance is not  
29 System.String.Empty, it is appended to *address*.

30

1 [Note: The underlying request is made using the POST method.]  
2  
3

4 **Exceptions**

Exception	Condition
<b>System.Net.WebException</b>	The absolute URI is not valid.  -or-  <i>data</i> is null.  -or-  An error occurred while opening the stream or uploading the data.  -or-  There was no response from the server hosting the resource.  -or-  The Content-Type header is not null, and is not "application/x-www-form-urlencoded".

5  
6

# 1 WebClient.BaseAddress Property

```
2 [ILAsm]  
3 .property string BaseAddress { public hidebysig specialname instance  
4 string get_BaseAddress() public hidebysig specialname instance void  
5 set_BaseAddress(string value) }  
6 [C#]  
7 public string BaseAddress { get; set; }
```

## 8 Summary

9 Gets or sets the base URI for requests made by a `System.Net.WebClient`.

## 10 Property Value

11 A `System.String` containing the base URI for requests made by a  
12 `System.Net.WebClient` or, `System.String.Empty`, if no value was set or null was  
13 specified for a set operation.

## 14 Description

15 [*Note:* The `System.Net.WebClient.BaseAddress` property contains a base URI that is  
16 combined with the relative address specified when calling an upload or download  
17 method.]  
18  
19

## 20 Exceptions

Exception	Condition
<b>System.ArgumentException</b>	The value specified for a set operation is not null or <code>System.String.Empty</code> , and is not a URI in a format recognized by the <code>System.Uri</code> class.

21

22

# 1 WebClient.Credentials Property

```
2 [ILAsm]  
3 .property class System.Net.ICredentials Credentials { public hidebysig  
4 specialname instance class System.Net.ICredentials get_Credentials()  
5 public hidebysig specialname instance void set_Credentials(class  
6 System.Net.ICredentials value) }  
7 [C#]  
8 public ICredentials Credentials { get; set; }
```

## 9 Summary

10 Gets or sets the network credentials used to authenticate the client making the current  
11 request.

## 12 Property Value

13 A `System.Net.ICredentials` containing the authentication credentials for the request.  
14 The default is `null`.

## 15 Description

16 The `System.Net.WebClient.Credentials` property contains the authentication  
17 credentials required to access the Internet resource.

18

# 1 WebClient.Headers Property

```
2 [ILAsm]  
3 .property class System.Net.WebHeaderCollection Headers { public hidebysig  
4 specialname instance class System.Net.WebHeaderCollection get_Headers()  
5 public hidebysig specialname instance void set_Headers(class  
6 System.Net.WebHeaderCollection value) }  
  
7 [C#]  
8 public WebHeaderCollection Headers { get; set; }
```

## 9 Summary

10 Gets or sets a collection of header name/value pairs associated with the request.

## 11 Property Value

12 A `System.Net.WebHeaderCollection` containing header name/value pairs associated  
13 with the request or, if this property has not been set or was set to null, a new instance  
14 of the `System.Net.WebHeaderCollection` class.

## 15 Description

16 [*Note:* This property stores the header information that the current instance sends with  
17 a request. This is an unrestricted collection of headers; setting headers that are  
18 protected in `System.Net.WebRequest` descendants like `System.Net.HttpWebRequest` is  
19 allowed.]  
20  
21

22

# 1 WebClient.QueryString Property

```
2 [ILAsm]  
3 .property class System.Collections.Specialized.NameValueCollection  
4 QueryString { public hidebysig specialname instance class  
5 System.Collections.Specialized.NameValueCollection get_QueryString()  
6 public hidebysig specialname instance void set_QueryString(class  
7 System.Collections.Specialized.NameValueCollection value) }  
  
8 [C#]  
9 public NameValueCollection QueryString { get; set; }
```

## 10 Summary

11 Gets or sets a collection of query name/value pairs associated with the request.

## 12 Property Value

13 A `System.Collections.Specialized.NameValueCollection` that contains query  
14 name/value pairs associated with the request or, if this property has not been set or was  
15 set to null, a new instance of the  
16 `System.Collections.Specialized.NameValueCollection` class.

## 17 Description

18 The `System.Net.WebClient.QueryString` property contains a  
19 `System.Collections.Specialized.NameValueCollection` instance containing  
20 name/value pairs that are appended to the URI as a query string. The contents of the  
21 `System.Net.WebClient.QueryString` property are preceded by a question mark (?),  
22 and each name/value pair is separated by an ampersand (&).

23

# 1 WebClient.ResponseHeaders Property

```
2 [ILAsm]  
3 .property class System.Net.WebHeaderCollection ResponseHeaders { public  
4 hidebysig specialname instance class System.Net.WebHeaderCollection  
5 get_ResponseHeaders() }  
6 [C#]  
7 public WebHeaderCollection ResponseHeaders { get; }
```

## 8 Summary

9 Gets a collection of header name/value pairs associated with the response.

## 10 Property Value

11 A System.Net.WebHeaderCollection containing header name/value pairs associated  
12 with the response.

## 13 Description

14 This property is read-only.

15  
16 The System.Net.WebClient.ResponseHeaders property contains a  
17 System.Net.WebHeaderCollection instance containing header information the  
18 System.Net.WebClient receives from the Internet resource.

19