

# 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]
- *Version:* 1.0.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.

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

3 • **System.Net.WebClient.OpenWrite** sends a  
4 **System.IO.Stream** to the server hosting a resource.

5 • **System.Net.WebClient.UploadData** sends a byte array to  
6 the server hosting a resource and returns a byte array  
7 containing the response from the server, if any.

8 • **System.Net.WebClient.UploadFile** sends a local file to the  
9 server hosting a resource and returns a byte array containing  
10 the response from the server, if any.

11 • **System.Net.WebClient.UploadValues** sends a  
12 **System.Collections.Specialized.NameValueCollection**  
13 collection to the server hosting a resource and returns a byte  
14 array containing the response from the server, if any.

15 The **System.Net.WebClient** class also provides the following methods  
16 for downloading data from a resource.

17 • **System.Net.WebClient.DownloadData** downloads data from  
18 a resource and returns a byte array.

19 • **System.Net.WebClient.DownloadFile** downloads data from  
20 a resource to a local file.

21 • **System.Net.WebClient.OpenRead** returns the data from the  
22 resource as a **System.IO.Stream**.

23 ]

24

# 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  
10 **System.Net.WebClient** class with properties set to **null**.

11

# 1 WebClient.DownloadData(System.String) 2 Method

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

## 8 Summary

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

## 10 Parameters

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

13  
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## 14 Return Value

16 A **System.Byte** array containing the data downloaded from the  
17 resource specified by *address*.

## 18 Description

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

## 27 Exceptions

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29

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

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

```
3 [ILASM]  
4 .method public hidebysig instance void DownloadFile(string  
5 address, string 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  
10 writes the data to the specified file.

## 11 Parameters

12  
13

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

14  
15

## 15 Description

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

24  
25  
26

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

## 27 Exceptions

28  
29

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

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**Permissions**

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

5  
6  
7

# 1 WebClient.OpenRead(System.String)

## 2 Method

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

### 8 Summary

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

### 11 Parameters

12  
13

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

14  
15  
16

### Return Value

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

### 18 Description

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

27  
28 [Note: This method creates a **System.IO.Stream** instance used to  
29 access the data specified by the absolute URI. The caller of this  
30 method is responsible for calling **System.IO.Stream.Close** to release  
31 the resources allocated for the stream.]

### 32 Exceptions

33  
34

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

# 1 WebClient.OpenWrite(System.String)

## 2 Method

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

### 8 Summary

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

### 11 Parameters

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

14  
15  
16

### Return Value

17 A **System.IO.Stream** used to write data to the resource.

### 18 Description

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

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

30  
31 [Note: The underlying request is made with the POST method.]

### 32 Exceptions

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Exception	Condition
<b>System.Net.WebException</b>	The absolute URI is not valid.

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	-or- An error occurred while opening the stream.
--	---

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

```
3 [ILASM]  
4 .method public hidebysig instance class System.IO.Stream  
5 OpenWrite(string 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  
10 by the specified URI using the specified protocol method.

## 11 Parameters

12  
13

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

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## 15 Return Value

17 A **System.IO.Stream** used to write data to the resource.

## 18 Description

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

28 [Note: This method returns a writable stream that is used to send data  
29 to a resource. The underlying request is made with the protocol  
30 method specified by *method*. For more information about protocol  
31 methods, see **System.Net.WebRequest.Method**.  
32

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

1 **System.Net.WebException.Status** property set to indicate the  
2 error.]

3 **Exceptions**

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

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

```
3 [ILASM]  
4 .method public hidebysig instance class System.Byte[]  
5 UploadData(string 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  
10 URI.

## 11 Parameters

12  
13

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

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## 15 Return Value

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

## 19 Description

20 This method is equivalent to **System.Net.WebClient.UploadData**  
21 (*address*, "POST", *data*).  
22

23 If the **System.Net.WebClient.BaseAddress** property of the current  
24 instance is not **System.String.Empty**, *address* is combined with  
25 **System.Net.WebClient.BaseAddress** to form the absolute URI of  
26 the requested data. If the **System.Net.WebClient.BaseAddress**  
27 property of the current instance is **System.String.Empty**, *address* is  
28 required to be the absolute URI of the requested data. If the  
29 **System.Net.WebClient.QueryString** property of the current  
30 instance is not **System.String.Empty**, it is appended to *address*.  
31

32 [Note: This method sends a data buffer to a resource. The underlying  
33 request is made using the POST method.  
34

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

1 **Exceptions**  
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3

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

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

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

## 10 Summary

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

## 13 Parameters

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

## 16 Return Value

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

## 21 Description

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

30  
31 [Note: For more information about protocol methods, see  
32 **System.Net.WebRequest.Method**.  
33

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

3  
4 If *method* specifies a method that is not recognized by the server, the  
5 underlying protocol classes determine what occurs. Typically, a  
6 **System.Net.WebException** is thrown with the  
7 **System.Net.WebException.Status** property set to indicate the  
8 error.]

9 **Exceptions**

10  
11

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

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

```
3 [ILASM]  
4 .method public hidebysig instance class System.Byte[]  
5 UploadFile(string 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  
10 specified URI.

## 11 Parameters

12  
13

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

14  
15  
16

## 15 Return Value

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

## 19 Description

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

22  
23  
24  
25  
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31

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*.

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

1 **Exceptions**

2

3

Exception	Condition
<p><b>System.Net.WebException</b></p>	<p>The absolute URI is not valid.</p> <p>-or-</p> <p><i>filename</i> is <b>null</b> or <b>System.String.Empty</b> 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>
<p><b>System.Security.SecurityException</b></p>	<p>Local file access has not been granted.</p>

4

5 **Permissions**

6

7

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

8

9

10

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

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

## 9 Summary

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

## 12 Parameters

13  
14

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

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## 16 Return Value

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

## 20 Description

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

29  
30 [Note: For more information about protocol methods, see  
31 **System.Net.WebRequest.Method**.

32  
33 If *method* specifies a protocol method that is not recognized by the

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

5 **Exceptions**

6  
7

Exception	Condition
<p><b>System.Net.WebException</b></p>	<p>The absolute URI is not valid.</p> <p>-or-</p> <p><i>filename</i> is <b>null</b> or <b>System.String.Empty</b> 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>
<p><b>System.Security.SecurityException</b></p>	<p>The caller does not have the required permissions.</p>

8  
9 **Permissions**

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11

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

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

```
[ILASM]
.method public hidebysig instance class System.Byte[]
UploadValues(string address, class
System.Collections.Specialized.NameValueCollection data)

[C#]
public byte[] UploadValues(string address,
NameValueCollection data)
```

## Summary

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

## Parameters

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

## Return Value

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

## Description

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

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

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

1 instance is not **System.String.Empty**, it is appended to *address*.

2

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

4 **Exceptions**

5

6

Exception	Condition
<b>System.Net.WebException</b>	The absolute URI is not valid.  -or-  <i>data</i> is <b>null</b> .  -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 <b>null</b> , and is not "application/x-www-form-urlencoded".

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

```
[ILASM]
.method public hidebysig instance class System.Byte[]
UploadValues(string address, string method, class
System.Collections.Specialized.NameValueCollection data)

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

## Summary

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

## Parameters

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

## Return Value

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

## Description

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

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

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

4  
5 [Note: If *method* specifies a protocol method that is not recognized by  
6 the server, the underlying protocol classes determine what occurs.  
7 Typically, a **System.Net.WebException** is thrown with the  
8 **System.Net.WebException.Status** property set to indicate the  
9 error.]

10 **Exceptions**

11  
12

Exception	Condition
<b>System.Net.WebException</b>	The absolute URI is not valid.  -or-  <i>data</i> is <b>null</b> .  -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 <b>null</b> , and is not "application/x-www-form-urlencoded".

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# 1 WebClient.BaseAddress Property

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

## 8 Summary

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

## 11 Property Value

12

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

## 16 Description

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

## 20 Exceptions

21

22

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

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25

# 1 WebClient.Credentials Property

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

## 10 Summary

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

## 13 Property Value

14

15 A **System.Net.ICredentials** containing the authentication credentials  
16 for the request. The default is **null**.

## 17 Description

18 The **System.Net.WebClient.Credentials** property contains the  
19 authentication credentials required to access the Internet resource.

20

# 1 WebClient.Headers Property

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

## 10 Summary

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

## 13 Property Value

14

15 A **System.Net.WebHeaderCollection** containing header name/value  
16 pairs associated with the request or, if this property has not been set  
17 or was set to **null**, a new instance of the  
18 **System.Net.WebHeaderCollection** class.

## 19 Description

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

25

# 1 WebClient.QueryString Property

```
2 [ILASM]
3 .property class
4 System.Collections.Specialized.NameValueCollection
5 QueryString { public hidebysig specialname instance class
6 System.Collections.Specialized.NameValueCollection
7 get_QueryString() public hidebysig specialname instance
8 void set_QueryString(class
9 System.Collections.Specialized.NameValueCollection value) }
10
11 [C#]
12 public NameValueCollection QueryString { get; set; }
```

## 12 Summary

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

## 15 Property Value

16

17 A **System.Collections.Specialized.NameValueCollection** that  
18 contains query name/value pairs associated with the request or, if this  
19 property has not been set or was set to **null**, a new instance of the  
20 **System.Collections.Specialized.NameValueCollection** class.

## 21 Description

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

28

# 1 WebClient.ResponseHeaders Property

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

## 9 Summary

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

## 12 Property Value

13

14 A **System.Net.WebHeaderCollection** containing header name/value  
15 pairs associated with the response.

## 16 Description

17 This property is read-only.

18

19 The **System.Net.WebClient.ResponseHeaders** property contains a  
20 **System.Net.WebHeaderCollection** instance containing header  
21 information the **System.Net.WebClient** receives from the Internet  
22 resource.

23