

System.Net.WebProxy Class

```
[ILASM]
.class public serializable WebProxy extends System.Object
implements System.Net.IWebProxy

[C#]
public class WebProxy: IWebProxy
```

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.Net.IWebProxy

Summary

Contains HTTP proxy settings for the **System.Net.WebRequest** class.

Inherits From: System.Object

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

System.Net.WebRequest instances use **System.Net.WebProxy** instances to override the proxy settings in **System.Net.GlobalProxySelection**.

[Note: Local requests are identified by the lack of a period (.) in the authority of the URI, as in "http://webserver/" versus "http://www.contoso.com/ ".]

Example

The following example sets a **System.Net.WebProxy** for a **System.Net.WebRequest**. The **System.Net.WebRequest** instance uses the proxy to connect to external Internet resources.

```
1
2      [C#]

3      using System;
4      using System.Net;
5
6      public class WebProxyExample {
7
8          public static void Main() {
9
10             WebProxy proxyObject =
11                 new WebProxy("http://proxyserver:80/",true);
12             WebRequest req =
13                 WebRequest.Create("http://www.contoso.com");
14             req.Proxy = proxyObject;
15         }
16     }
17
```

1 WebProxy() Constructor

```
2 [ILASM]
3 public rtspecialname specialname instance void .ctor()
4
5 [C#]
6 public WebProxy()
```

6 Summary

7 Constructs and initializes a new instance of the
8 **System.Net.WebProxy** class.

9 Description

10 This constructor initializes the properties of the new instance as
11 follows.

Property	Value
System.Net.WebProxy.Address	null
System.Net.WebProxy.BypassArrayList	A new empty System.Collections.ArrayList .
System.Net.WebProxy.BypassList	A new empty System.String array.
System.Net.WebProxy.BypassProxyOnLocal	false
System.Net.WebProxy.Credentials	null

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WebProxy(System.Uri) Constructor

```
[ILASM]
public rtspecialname specialname instance void .ctor(class
System.Uri Address)

[C#]
public WebProxy(Uri Address)
```

Summary

Constructs and initializes a new instance of the **System.Net.WebProxy** class using the specified **System.Uri**.

Parameters

Parameter	Description
<i>Address</i>	A System.Uri containing the address of the proxy server.

Description

This constructor initializes the properties of the new instance as follows.

Property	Value
System.Net.WebProxy.Address	<i>Address</i>
System.Net.WebProxy.BypassArrayList	A new empty System.Collections.ArrayList .
System.Net.WebProxy.BypassList	A new empty System.String array.
System.Net.WebProxy.BypassProxyOnLocal	false
System.Net.WebProxy.Credentials	null

WebProxy(System.Uri, System.Boolean) Constructor

```
[ILASM]  
public rtspecialname specialname instance void .ctor(class  
System.Uri Address, bool BypassOnLocal)
```

```
[C#]  
public WebProxy(Uri Address, bool BypassOnLocal)
```

Summary

Constructs and initializes a new instance of the **System.Net.WebProxy** class using the specified **System.Uri** and specified bypass setting.

Parameters

Parameter	Description
<i>Address</i>	A System.Uri containing the address of the proxy server.
<i>BypassOnLocal</i>	A System.Boolean that indicates whether or not to bypass the proxy for local connections. Specify true to bypass the proxy for local connections; otherwise, false .

Description

The properties of the new instance are initialized as detailed in the following table.

Property	Value
System.Net.WebProxy.Address	<i>Address</i>
System.Net.WebProxy.BypassArrayList	A new empty System.Collections.ArrayList .
System.Net.WebProxy.BypassList	A new empty System.String array.
System.Net.WebProxy.BypassProxyOnLocal	<i>BypassOnLocal</i>
System.Net.WebProxy.Credentials	null

WebProxy(System.Uri, System.Boolean, System.String[]) Constructor

```
[ILASM]
public rtspecialname specialname instance void .ctor(class
System.Uri Address, bool BypassOnLocal, class
System.String[] BypassList)

[C#]
public WebProxy(Uri Address, bool BypassOnLocal, string[]
BypassList)
```

Summary

Constructs a new instance of the **System.Net.WebProxy** class with the specified **System.Uri**, bypass setting, and list of URIs to bypass.

Parameters

Parameter	Description
<i>Address</i>	A System.Uri containing the address of the proxy server.
<i>BypassOnLocal</i>	A System.Boolean that indicates whether or not to bypass the proxy for local connections. Specify true to bypass the proxy for local connections; otherwise, false .
<i>BypassList</i>	A System.String array of regular expressions that describe the URIs that will not be accessed using the current instance. [Note: For more information on the format of these regular expressions, see IETF RFC 2396, Appendix B.]

Description

This constructor initializes the properties of the new instance as follows.

Property	Value
System.Net.WebProxy.Address	<i>Address</i>
System.Net.WebProxy.BypassArrayList	A new System.Collections.ArrayList constructed from <i>BypassList</i> or, if <i>BypassList</i> is null , a new empty System.Collections.ArrayList .
System.Net.WebProxy.BypassList	<i>BypassList</i> or, if <i>BypassList</i> is null , a new empty System.String array.

System.Net.WebProxy.BypassProxyOnLocal	<i>BypassOnLocal</i>
System.Net.WebProxy.Credentials	null

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WebProxy(System.Uri, System.Boolean, System.String[], System.Net.ICredentials) Constructor

```
[ILASM]
public rtspecialname specialname instance void .ctor(class
System.Uri Address, bool BypassOnLocal, class
System.String[] BypassList, class System.Net.ICredentials
Credentials)

[C#]
public WebProxy(Uri Address, bool BypassOnLocal, string[]
BypassList, ICredentials Credentials)
```

Summary

Constructs and initializes a new instance of the **System.Net.WebProxy** class with the specified **System.Uri**, bypass setting, list of URIs to bypass, and credentials.

Parameters

Parameter	Description
<i>Address</i>	A System.Uri containing the address of the proxy server.
<i>BypassOnLocal</i>	A System.Boolean that indicates whether or not to bypass the proxy for local connections. Specify true to bypass the proxy for local connections; otherwise, false .
<i>BypassList</i>	A System.String array of regular expressions that describe the URIs that will not be accessed using the current instance. [Note: For more information on the format of these regular expressions, see IETF RFC 2396, Appendix B.]
<i>Credentials</i>	A System.Net.ICredentials object to submit to the proxy server for client authentication.

Description

This constructor initializes the properties of the new instance as follows.

Property	Value
System.Net.WebProxy.Address	<i>Address</i>
System.Net.WebProxy.BypassArrayList	A new System.Collections.ArrayList constructed from <i>BypassList</i> or, if

	<i>BypassList</i> is null , a new empty System.Collections.ArrayList .
System.Net.WebProxy.BypassList	<i>BypassList</i> or, if <i>BypassList</i> is null , a new empty System.String array.
System.Net.WebProxy.BypassProxyOnLocal	<i>BypassOnLocal</i>
System.Net.WebProxy.Credentials	<i>Credentials</i>

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WebProxy(System.String, System.Int32) Constructor

```
[ILASM]
public rtspecialname specialname instance void .ctor(string
Host, int32 Port)

[C#]
public WebProxy(string Host, int Port)
```

Summary

Constructs and initializes a new instance of the **System.Net.WebProxy** class with the specified host and port number.

Parameters

Parameter	Description
<i>Host</i>	A System.String containing the name of the proxy server.
<i>Port</i>	A System.Int32 that contains the port number to use when accessing <i>Host</i> .

Description

This constructor initializes the properties of the new instance as follows.

Property	Value
System.Net.WebProxy.Address	A new System.Uri constructed from "http:// <i>Host</i> : <i>Port</i> ".
System.Net.WebProxy.BypassArrayList	A new empty System.Collections.ArrayList .
System.Net.WebProxy.BypassList	A new empty System.String array.
System.Net.WebProxy.BypassProxyOnLocal	false
System.Net.WebProxy.Credentials	null

Exceptions

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2
3

Exception	Condition
System.UriFormatException	The URI formed by combining <i>Host</i> and <i>Port</i> is not in a valid URI format.

WebProxy(System.String) Constructor

```
[ILASM]
public rtspecialname specialname instance void .ctor(string
Address)

[C#]
public WebProxy(string Address)
```

Summary

Constructs and initializes a new instance of the **System.Net.WebProxy** class with the specified URI.

Parameters

Parameter	Description
<i>Address</i>	A System.String containing the URI of the proxy server.

Description

This constructor initializes the properties of the new instance as follows.

Property	Value
System.Net.WebProxy.Address	A new System.Uri constructed from <i>Address</i> or, if <i>Address</i> does not contain "://", constructed from "http:// <i>Address</i> ". If <i>Address</i> is null , this property is set to null .
System.Net.WebProxy.BypassArrayList	A new empty System.Collections.ArrayList .
System.Net.WebProxy.BypassList	A new empty System.String array.
System.Net.WebProxy.BypassProxyOnLocal	false
System.Net.WebProxy.Credentials	null

Exceptions

Exception	Condition
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System.UriFormatException	<i>Address</i> is not null and not in a valid URI format.
----------------------------------	--

WebProxy(System.String, System.Boolean) Constructor

```
[ILASM]
public rtspecialname specialname instance void .ctor(string
Address, bool BypassOnLocal)

[C#]
public WebProxy(string Address, bool BypassOnLocal)
```

Summary

Constructs and initializes a new instance of the **System.Net.WebProxy** class with the specified URI and bypass setting.

Parameters

Parameter	Description
<i>Address</i>	A System.String that represents the URI of the proxy server.
<i>BypassOnLocal</i>	A System.Boolean that indicates whether or not to bypass the proxy for local connections. Specify true to bypass the proxy for local connections; otherwise, false .

Description

This constructor initializes the properties of the new instance as follows.

Property	Value
System.Net.WebProxy.Address	A new System.Uri constructed from <i>Address</i> or, if <i>Address</i> does not contain "://", constructed from "http:// <i>Address</i> ". If <i>Address</i> is null , this property is set to null .
System.Net.WebProxy.BypassArrayList	A new empty System.Collections.ArrayList .
System.Net.WebProxy.BypassList	A new empty System.String array.
System.Net.WebProxy.BypassProxyOnLocal	<i>BypassOnLocal</i>
System.Net.WebProxy.Credentials	null

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2 **Exceptions**

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4

Exception	Condition
System.UriFormatException	<i>Address is not in a valid URI format.</i>

5

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WebProxy(System.String, System.Boolean, System.String[]) Constructor

```
[ILASM]
public rtspecialname specialname instance void .ctor(string
Address, bool BypassOnLocal, class System.String[]
BypassList)

[C#]
public WebProxy(string Address, bool BypassOnLocal,
string[] BypassList)
```

Summary

Constructs and initializes a new instance of the **System.Net.WebProxy** class with the specified URI, bypass setting, and list of URIs to bypass.

Parameters

Parameter	Description
<i>Address</i>	A System.String that represents the URI of the proxy server.
<i>BypassOnLocal</i>	A System.Boolean that indicates whether or not to bypass the proxy for local connections. Specify true to bypass the proxy for local connections; otherwise, false .
<i>BypassList</i>	A System.String array of regular expressions that describe the URIs that will not be accessed using the current instance. [Note: For more information on the format of these regular expressions, see IETF RFC 2396, Appendix B.]

Description

This constructor initializes the properties of the new instance as follows.

Property	Value
System.Net.WebProxy.Address	A new System.Uri constructed from <i>Address</i> or, if <i>Address</i> does not contain "://", constructed from "http:// <i>Address</i> ". If <i>Address</i> is null , this property is set to null .
System.Net.WebProxy.BypassArrayList	A new System.Collections.ArrayList

	constructed from <i>BypassList</i> or, if <i>BypassList</i> is null , a new empty System.Collections.ArrayList .
System.Net.WebProxy.BypassList	<i>BypassList</i> or, if <i>BypassList</i> is null , a new empty System.String array.
System.Net.WebProxy.BypassProxyOnLocal	<i>BypassOnLocal</i>
System.Net.WebProxy.Credentials	null

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2 Exceptions

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Exception	Condition
System.UriFormatException	<i>Address</i> is not in a valid URI format.

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WebProxy(System.String, System.Boolean, System.String[], System.Net.ICredentials) Constructor

```
[ILASM]
public rtspecialname specialname instance void .ctor(string
Address, bool BypassOnLocal, class System.String[]
BypassList, class System.Net.ICredentials Credentials)

[C#]
public WebProxy(string Address, bool BypassOnLocal,
string[] BypassList, ICredentials Credentials)
```

Summary

Constructs and initializes a new instance of the **System.Net.WebProxy** class with the specified URI, bypass setting, list of URIs to bypass, and credentials.

Parameters

Parameter	Description
<i>Address</i>	A System.String that represents the URI of the proxy server.
<i>BypassOnLocal</i>	A System.Boolean that indicates whether or not to bypass the proxy for local connections. Specify true to bypass the proxy for local connections; otherwise, false .
<i>BypassList</i>	A System.String array of regular expressions that describe the URIs that will not be accessed using the current instance. [Note: For more information on the format of these regular expressions, see IETF RFC 2396, Appendix B.]
<i>Credentials</i>	A System.Net.ICredentials object to submit to the proxy server for client authentication.

Description

This constructor initializes the properties of the new instance as follows.

Property	Value
System.Net.WebProxy.Address	A new System.Uri constructed from <i>Address</i> or, if <i>Address</i> does not contain "://", constructed from "http:// <i>Address</i> ". If <i>Address</i> is null , this property is set to null .

System.Net.WebProxy.BypassArrayList	A new System.Collections.ArrayList constructed from <i>BypassList</i> or, if <i>BypassList</i> is null , a new empty System.Collections.ArrayList .
System.Net.WebProxy.BypassList	<i>BypassList</i> or, if <i>BypassList</i> is null , a new empty System.String array.
System.Net.WebProxy.BypassProxyOnLocal	<i>BypassOnLocal</i>
System.Net.WebProxy.Credentials	<i>Credentials</i>

1

2 Exceptions

3

4

Exception	Condition
System.UriFormatException	<i>Address</i> is not in a valid URI format.

5

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1 WebProxy.GetDefaultProxy() Method

```
2 [ILASM]  
3 .method public hidebysig static class System.Net.WebProxy  
4 GetDefaultProxy()  
  
5 [C#]  
6 public static WebProxy GetDefaultProxy()
```

7 Summary

8 Returns a new **System.Net.WebProxy** instance that contains the
9 default proxy settings of the system.

10 Return Value 11

12 A new **System.Net.WebProxy** instance that contains the default
13 proxy settings of the system.

14 Description

15 The default proxy settings of the system are implementation-defined.
16

WebProxy.GetProxy(System.Uri) Method

```
[ILASM]
.method public final hidebysig virtual class System.Uri
GetProxy(class System.Uri destination)

[C#]
public Uri GetProxy(Uri destination)
```

Summary

Returns the URI of the server that is contacted for the specified resource.

Parameters

Parameter	Description
<i>destination</i>	The System.Uri of the requested resource.

Return Value

If *destination* is on the bypass list of the current instance, returns *destination*; otherwise, returns the **System.Net.WebProxy.Address** of the current instance.

Description

This method returns the URI that the **System.Net.WebRequest** uses to access the resource. **System.Net.WebProxy.GetProxy** compares *destination* with the contents of **System.Net.WebProxy.BypassList** using the **System.Net.WebProxy.IsBypassed** method.

WebProxy.IsBypassed(System.Uri)

Method

```
[ILASM]
.method public final hidebysig virtual bool
IsBypassed(class System.Uri host)

[C#]
public bool IsBypassed(Uri host)
```

Summary

Indicates whether a request will bypass the proxy server when accessing the resource represented by the specified URI.

Parameters

Parameter	Description
<i>host</i>	A System.Uri containing the URI of the server to check.

Return Value

Returns **true** under any of the following conditions:

- The **System.Net.WebProxy.BypassProxyOnLocal** property of the current instance is **true** and *host* is a local URI.
- host* matches a regular expression in **System.Net.WebProxy.BypassList**.
- The **System.Net.WebProxy.Address** of the current instance is **null**.

All other conditions return **false**.

Exceptions

Exception	Condition
System.ArgumentException	The System.Net.WebProxy.BypassList of the current instance contains an invalid regular expression.

1 WebProxy.Address Property

```
2 [ILASM]
3 .property class System.Uri Address { public hidebysig
4 specialname instance class System.Uri get_Address() public
5 hidebysig specialname instance void set_Address(class
6 System.Uri value) }

7 [C#]
8 public Uri Address { get; set; }
```

9 Summary

10 Gets or sets the address of the proxy server represented by the
11 current instance.

12 Property Value

13

14 A **System.Uri** containing the address of the proxy server represented
15 by the current instance.

16 Description

17 [Note: When **System.Net.WebProxy.Address** is **null**, all requests
18 that reference the current instance bypass the proxy and connect
19 directly to the destination host.

20
21 For additional information, see **System.Net.WebRequest.Proxy.**]

22

1 WebProxy.BypassArrayList Property

```
2 [ILASM]
3 .property class System.Collections.ArrayList
4 BypassArrayList { public hidebysig specialname instance
5 class System.Collections.ArrayList get_BypassArrayList() }

6 [C#]
7 public ArrayList BypassArrayList { get; }
```

8 Summary

9 Gets a list of the URIs that do not use the proxy server.

10 Property Value

11

12 A **System.Collections.ArrayList** of **System.String** instances. The
13 elements of the list represent the URIs that a
14 **System.Net.WebRequest** instance accesses directly instead of
15 through the proxy server.

16 Description

17 This property is read-only.

18

WebProxy.BypassList Property

```
[ILASM]
.property class System.String[] BypassList { public
hidebysig specialname instance class System.String[]
get_BypassList() public hidebysig specialname instance void
set_BypassList(class System.String[] value) }

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

Summary

Gets or sets an array of the URIs that do not use the proxy server.

Property Value

A **System.Array** of **System.String** instances. The elements of the array represent URIs that a **System.Net.WebRequest** instance accesses directly instead of through the proxy server.

Description

This property is equivalent to **System.Net.WebProxy.BypassArrayList.ToArray(typeof(System.String))**.

WebProxy.BypassProxyOnLocal Property

```
[ILASM]
.property bool BypassProxyOnLocal { public hidebysig
specialname instance bool get_BypassProxyOnLocal() public
hidebysig specialname instance void
set_BypassProxyOnLocal(bool value) }

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

Summary

Gets or sets a **System.Boolean** value indicating whether requests for local resources bypass the proxy server.

Property Value

true to bypass the proxy server for local resources; otherwise, **false**. The default value is **false**.

Description

The setting of this property determines whether **System.Net.WebRequest** instances use the proxy server when accessing local resources. If **System.Net.WebProxy.BypassProxyOnLocal** is **true**, requests to local resources do not use the proxy server. Local resources are identified by the lack of a period (.) in the URI, as in "http://webserver/". When **System.Net.WebProxy.BypassProxyOnLocal** is **false**, all requests for resources are made through the proxy server.

[Note: If a request for a resource residing on a local machine is made using a URI that contains a period, the proxy is used to send the request. Create an entity in the **System.Net.WebProxy.BypassList** to access local resources directly.]

WebProxy.Credentials Property

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

[C#]
public ICredentials Credentials { get; set; }
```

Summary

Gets or sets the credentials to submit to the proxy server for authentication.

Property Value

A **System.Net.ICredentials** object containing the credentials to submit to the proxy server for authentication.

Description

This property contains the authentication credentials to send to the proxy server in response to an HTTP 407 (proxy authorization) status code.

[*Note:* For more information regarding HTTP status code 407, see **System.Net.HttpStatusCode.ProxyAuthenticationRequired.**]