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 00]
- *Version:* 2.0.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.

```
   [C#]

using System;
using System.Net;

public class WebProxyExample {

  public static void Main() {

    WebProxy proxyObject =
      new WebProxy("http://proxyserver:80/",true);
    WebRequest req =
      WebRequest.Create("http://www.contoso.com");
    req.Proxy = proxyObject;
  }
}
```

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

```
[ILAsm]
public rtspecialname specialname instance void .ctor(string Address,
bool BypassOnLocal, 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
Address	A `System.String` that represents the URI of the proxy server.
BypassOnLocal	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`.
BypassList	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.]
Credentials	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 *Address* or, if *Address* does not contain "://", constructed from "http://*Address*". If *Address* is `null`, this property is set to `null`.

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

Exceptions

Exception	Condition
System.UriFormatException	*Address* is not in a valid URI format.

WebProxy() Constructor

```
[ILAsm]
public rtspecialname specialname instance void .ctor()


[C#]
public WebProxy()
```

Summary

Constructs and initializes a new instance of the `System.Net.WebProxy` class.

Description

This constructor initializes the properties of the new instance as 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`

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
Address	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`	*Address*
`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
Address	A `System.Uri` containing the address of the proxy server.
BypassOnLocal	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`	*Address*
`System.Net.WebProxy.BypassArrayList`	A new empty `System.Collections.ArrayList`.
`System.Net.WebProxy.BypassList`	A new empty `System.String` array.
`System.Net.WebProxy.BypassProxyOnLocal`	*BypassOnLocal*
`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, 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
Address	A `System.Uri` containing the address of the proxy server.
BypassOnLocal	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`.
BypassList	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`	*Address*
`System.Net.WebProxy.BypassArrayList`	A new `System.Collections.ArrayList` constructed from *BypassList* or, if *BypassList* is `null`, a new empty `System.Collections.ArrayList`.
`System.Net.WebProxy.BypassList`	*BypassList* or, if *BypassList* is `null`, a new empty `System.String` array.
`System.Net.WebProxy.BypassProxyOnLocal`	*BypassOnLocal*

System.Net.WebProxy.Credentials	null

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

```
[ILAsm]
public rtspecialname specialname instance void .ctor(class
System.Uri Address, bool BypassOnLocal, 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
Address	A `System.Uri` containing the address of the proxy server.
BypassOnLocal	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`.
BypassList	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.]
Credentials	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`	*Address*
`System.Net.WebProxy.BypassArrayList`	A new `System.Collections.ArrayList` constructed from *BypassList* or, if *BypassList* is `null`, a new empty `System.Collections.ArrayList`.

System.Net.WebProxy.BypassList	*BypassList* or, if *BypassList* is `null`, a new empty `System.String` array.
System.Net.WebProxy.BypassProxyOnLocal	*BypassOnLocal*
System.Net.WebProxy.Credentials	*Credentials*

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
Host	A `System.String` containing the name of the proxy server.
Port	A `System.Int32` that contains the port number to use when accessing *Host*.

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://*Host*:*Port*".
`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
System.UriFormatException	The URI formed by combining *Host* and *Port* 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
Address	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 *Address* or, if *Address* does not contain "://", constructed from "http://*Address*". If *Address* 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
System.UriFormatException	*Address* 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
Address	A `System.String` that represents the URI of the proxy server.
BypassOnLocal	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 *Address* or, if *Address* does not contain "://", constructed from "http://*Address*". If *Address* 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`	*BypassOnLocal*
`System.Net.WebProxy.Credentials`	`null`

Exceptions

Exception	Condition
System.UriFormatException	*Address* is not in a valid URI format.

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

```
[ILAsm]
public rtspecialname specialname instance void .ctor(string Address,
bool BypassOnLocal, 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
Address	A `System.String` that represents the URI of the proxy server.
BypassOnLocal	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`.
BypassList	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 *Address* or, if *Address* does not contain "://", constructed from "http://*Address*". If *Address* is `null`, this property is set to `null`.
`System.Net.WebProxy.BypassArrayList`	A new `System.Collections.ArrayList` constructed from *BypassList* or, if *BypassList* is `null`, a new empty

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

Exceptions

Exception	Condition
System.UriFormatException	*Address* is not in a valid URI format.

WebProxy.GetDefaultProxy() Method

```
[ILAsm]
.method public hidebysig static class System.Net.WebProxy
GetDefaultProxy()


[C#]
public static WebProxy GetDefaultProxy()
```

Summary

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

Return Value

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

Description

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

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
destination	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
host	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.

WebProxy.Address Property

```
[ILAsm]
.property class System.Uri Address { public hidebysig specialname
instance class System.Uri get_Address() public hidebysig specialname
instance void set_Address(class System.Uri value) }


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

Summary

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

Property Value

A `System.Uri` containing the address of the proxy server represented by the current instance.

Description

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

For additional information, see `System.Net.WebRequest.Proxy`.

]

WebProxy.BypassArrayList Property

```
[ILAsm]
.property class System.Collections.ArrayList BypassArrayList {
public hidebysig specialname instance class
System.Collections.ArrayList get_BypassArrayList() }


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

Summary

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

Property Value

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

Description

This property is read-only.

WebProxy.BypassList Property

```
[ILAsm]
.property string[] BypassList { public hidebysig specialname
instance string[] get_BypassList() public hidebysig specialname
instance void set_BypassList(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`.]