

1 System.Net.Sockets.SocketOptionLevel Enum

```
2 [ILAsm]  
3 .class public sealed serializable SocketOptionLevel extends System.Enum  
4 [C#]  
5 public enum SocketOptionLevel
```

6 Assembly Info:

- 7 • *Name:* System
- 8 • *Public Key:* [00 00 00 00 00 00 00 00 04 00 00 00 00 00 00 00]
- 9 • *Version:* 2.0.x.x
- 10 • *Attributes:*
 - 11 ○ CLSCompliantAttribute(true)

12 Summary

13 Specifies the option level associated with the System.Net.Sockets.SocketOptionName
14 used in the System.Net.Sockets.Socket.SetSocketOption and
15 System.Net.Sockets.Socket.GetSocketOption methods of the
16 System.Net.Sockets.Socket class.

17 Inherits From: System.Enum

18

19 **Library:** Networking

20

21 Description

22 Some socket options apply only to specific protocols while others apply to all types.
23 Members of this enumeration specify which protocol applies to a specific socket option.

24

1 SocketOptionLevel.IP Field

```
2 [ILAsm]  
3 .field public static literal valuetype  
4 System.Net.Sockets.SocketOptionLevel IP = 0  
  
5 [C#]  
6 IP = 0
```

7 Summary

8 Specifies that members of the `System.Net.Sockets.SocketOptionName` enumeration
9 apply to Internet Protocol (IP).

10
11 The following table lists the members of the `System.Net.Sockets.SocketOptionName`
12 enumeration used with this level.

SocketOptionName	Description of Socket Option Data
HeaderIncluded	A <code>System.Boolean</code> where <code>true</code> indicates the application is providing the IP header for outgoing datagrams.
IPOptions	A <code>System.Byte</code> array that specifies IP options to be inserted into outgoing datagrams.
IpTimeToLive	A <code>System.Int32</code> that specifies the time-to-live for datagrams. The time-to-live designates the number of networks on which the datagram is allowed to travel before being discarded by a router.
MulticastInterface	A <code>System.Byte</code> array that specifies the interface for outgoing multicast packets.
MulticastLoopback	A <code>System.Boolean</code> where <code>true</code> enables multicast loopback.
MulticastTimeToLive	A <code>System.Int32</code> that specifies the time-to-live for multicast datagrams.
TypeOfService	A <code>System.Int32</code> that specifies the type of service field in the IP header.
UseLoopback	A <code>System.Boolean</code> where <code>true</code> indicates Bypass hardware when possible.

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1 SocketOptionLevel.Socket Field

```
2 [ILAsm]  
3 .field public static literal valuetype  
4 System.Net.Sockets.SocketOptionLevel Socket = 65535  
  
5 [C#]  
6 Socket = 65535
```

7 Summary

8 Specifies that members of the `System.Net.Sockets.SocketOptionName` enumeration
9 are not specific to a particular protocol.

10
11 The following table lists the members of the `System.Net.Sockets.SocketOptionName`
12 enumeration used with this level.

SocketOptionName	Description
Broadcast	A <code>System.Boolean</code> where <code>true</code> indicates broadcast messages are allowed to be sent to the socket.
Debug	A <code>System.Boolean</code> where <code>true</code> indicates to record debugging information.
DontLinger	A <code>System.Boolean</code> where <code>true</code> indicates to close the socket without lingering.
DontRoute	A <code>System.Boolean</code> where <code>true</code> indicates not to route data; <code>false</code> indicates to send data directly to interface addresses.
Error	A <code>System.Int32</code> that contains the error code associated with the last socket error. The error code is cleared by this option. This option is read-only.
KeepAlive	A <code>System.Boolean</code> where <code>true</code> (the default) indicates to enable keep-alives, which allows a connection to remain open after a request.
OutOfBandInline	A <code>System.Boolean</code> where <code>true</code> indicates to receive out-of-band data in the normal data stream.
ReceiveBuffer	A <code>System.Int32</code> that specifies the total per-socket buffer space reserved for receives. This is unrelated to the maximum message size or the size of a TCP window.
ReceiveTimeout	A <code>System.Int32</code> that specifies the maximum time, in milliseconds, the <code>System.Net.Sockets.Socket.Receive</code> and

	<p><code>System.Net.Sockets.Socket.ReceiveFrom</code> methods will block when attempting to receive data. If data is not received within this time, a <code>System.Net.Sockets.SocketException</code> exception is thrown.</p>
ReuseAddress	<p>A <code>System.Boolean</code> where <code>true</code> allows the socket to be bound to an address that is already in use.</p>
SendBuffer	<p>A <code>System.Int32</code> that specifies the total per-socket buffer space reserved for sends. This is unrelated to the maximum message size or the size of a TCP window.</p>
SendTimeout	<p>A <code>System.Int32</code> that specifies the maximum time, in milliseconds, the <code>System.Net.Sockets.Socket.Send</code> and <code>System.Net.Sockets.Socket.SendTo</code> methods will block when attempting to send data. If data is not sent within this time, a <code>System.Net.Sockets.SocketException</code> exception is thrown.</p>
Type	<p>One of the values defined in the <code>System.Net.Sockets.SocketType</code> enumeration. This option is read-only.</p>

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1 SocketOptionLevel.Tcp Field

```
2 [ILAsm]  
3 .field public static literal valuetype  
4 System.Net.Sockets.SocketOptionLevel Tcp = 6  
  
5 [C#]  
6 Tcp = 6
```

7 Summary

8 Specifies that members of the `System.Net.Sockets.SocketOptionName` enumeration
9 apply to Transmission Control Protocol (TCP).

10
11 The following table lists the members of the `System.Net.Sockets.SocketOptionName`
12 enumeration used with this level.

SocketOptionName	Description of Socket Option Data
BsdUrgent	A <code>System.Boolean</code> where <code>true</code> indicates to use urgent data as defined by IETF RFC 1222. Once set, this option cannot be turned off.
Expedited	A <code>System.Boolean</code> where <code>true</code> indicates to use expedited data as defined by IETF RFC 1222. Once set, this option cannot be turned off.
NoDelay	A <code>System.Boolean</code> where <code>true</code> indicates to disable the Nagle algorithm for send coalescing.

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1 SocketOptionLevel.Udp Field

```
2 [ILAsm]  
3 .field public static literal valuetype  
4 System.Net.Sockets.SocketOptionLevel Udp = 17  
  
5 [C#]  
6 Udp = 17
```

7 Summary

8 Specifies that members of the `System.Net.Sockets.SocketOptionName` enumeration
9 apply to User Datagram Protocol (UDP).

10
11 The following table lists the members of the `System.Net.Sockets.SocketOptionName`
12 enumeration used with this level.

SocketOptionName	Description of Socket Option Data
ChecksumCoverage	A <code>System.Boolean</code> that specifies UDP checksum coverage.
NoChecksum	A <code>System.Boolean</code> where true indicates to send UDP datagrams with the checksum set to zero.

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