System.Net.Sockets.SocketOptionLevel Enum

```
[ILAsm]
.class public sealed serializable SocketOptionLevel extends
System.Enum

[C#]
public enum SocketOptionLevel
```

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)

Summary

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

Inherits From: System.Enum

Library: Networking

Description

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

SocketOptionLevel.IP Field

```
[ILAsm]
.field public static literal valuetype
System.Net.Sockets.SocketOptionLevel IP = 0


[C#]
IP = 0
```

Summary

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

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

SocketOptionName	Description of Socket Option Data
HeaderIncluded	A `System.Boolean` where `true` indicates the application is providing the IP header for outgoing datagrams.
IPOptions	A `System.Byte` array that specifies IP options to be inserted into outgoing datagrams.
IpTimeToLive	A `System.Int32` 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 `System.Byte` array that specifies the interface for outgoing multicast packets.
MulticastLoopback	A `System.Boolean` where `true` enables multicast loopback.
MulticastTimeToLive	A `System.Int32` that specifies the time-to-live for multicast datagrams.
TypeOfService	A `System.Int32` that specifies the type of service field in the IP header.
UseLoopback	A `System.Boolean` where `true` indicates Bypass hardware when possible.

SocketOptionLevel.Socket Field

```
[ILAsm]
.field public static literal valuetype
System.Net.Sockets.SocketOptionLevel Socket = 65535


[C#]
Socket = 65535
```

Summary

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

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

SocketOptionName	Description
Broadcast	A `System.Boolean` where `true` indicates broadcast messages are allowed to be sent to the socket.
Debug	A `System.Boolean` where `true` indicates to record debugging information.
DontLinger	A `System.Boolean` where `true` indicates to close the socket without lingering.
DontRoute	A `System.Boolean` where `true` indicates not to route data; `false` indicates to send data directly to interface addresses.
Error	A `System.Int32` 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 `System.Boolean` where `true` (the default) indicates to enable keep-alives, which allows a connection to remain open after a request.
OutOfBandInline	A `System.Boolean` where `true` indicates to receive out-of-band data in the normal data stream.
ReceiveBuffer	A `System.Int32` 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 `System.Int32` that specifies the maximum time, in milliseconds, the `System.Net.Sockets.Socket.Receive` and `System.Net.Sockets.Socket.ReceiveFrom` methods will block when attempting to receive data. If data is not received within this time, a `System.Net.Sockets.SocketException` exception is thrown.
ReuseAddress	A `System.Boolean` where `true` allows the socket to be bound to an address that is already in use.
SendBuffer	A `System.Int32` 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.
SendTimeout	A `System.Int32` that specifies the maximum time, in milliseconds, the `System.Net.Sockets.Socket.Send` and `System.Net.Sockets.Socket.SendTo` methods will block when attempting to send data. If data is not sent within this time, a `System.Net.Sockets.SocketException` exception is thrown.
Type	One of the values defined in the `System.Net.Sockets.SocketType` enumeration. This option is read-only.

SocketOptionLevel.Tcp Field

```
[ILAsm]
.field public static literal valuetype
System.Net.Sockets.SocketOptionLevel Tcp = 6


[C#]
Tcp = 6
```

Summary

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

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

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

SocketOptionLevel.Udp Field

```
[ILAsm]
.field public static literal valuetype
System.Net.Sockets.SocketOptionLevel Udp = 17


[C#]
Udp = 17
```

Summary

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

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

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