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:* 1.0.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.

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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.