
Subject: How to obtain IP/port information out of a socket

Posted by [cbpporter](#) on Thu, 24 Jan 2008 11:07:52 GMT

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Hi!

I have a server program which can accept multiple clients. I need to extract the IP information from the client socket (the one returned by accept), and then to send a message to the client so that it can become a server on another port. I couldn't find anything in sources/docs that gives this information.

Subject: Re: How to obtain IP/port information out of a socket

Posted by [zaurus](#) on Thu, 24 Jan 2008 16:55:19 GMT

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Hi!

You can get the IP from the Accept method. I do it like this.

```
Socket m_Socket, m_Connection;  
dword m_ipaddr;  
String sIP;
```

```
m_Socket.Accept(m_Connection, &m_ipaddr, true, 100);  
sIP = FormatIP(m_ipaddr);
```

Hope this helps.

Happy coding.

Zaurus

Subject: Re: How to obtain IP/port information out of a socket

Posted by [captainc](#) on Fri, 25 Jan 2008 19:16:47 GMT

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Thanks zaurus.

Although, when I call FormatIP(), I get
168.192.2.5
when it should be
192.168.5.2

What is going on?

Subject: Re: How to obtain IP/port information out of a socket

Posted by [zaurus](#) on Sat, 26 Jan 2008 04:22:30 GMT

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I think this is a 'bug' in FormatIP on Windows platform.

After having a look at the FormatIP function, I think it doesn't take care of the different order of 'Low Byte' & 'High Byte' on Windows compared to Linux. On Linux the function returns the correct IP address.

Maybe one of the developers can have look and fix this.

Zaurus

Subject: Re: How to obtain IP/port information out of a socket

Posted by [mirek](#) on Tue, 29 Jan 2008 13:22:42 GMT

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Are you sure about FormatIP being wrong ?

```
String FormatIP(dword _ip)
{
    byte ip[4];
    Poke32be(ip, _ip);
    return Format("%d.%d.%d.%d", ip[0], ip[1], ip[2], ip[3]);
}
```

I guess there is a little room for error there...

Mirek

Subject: Re: How to obtain IP/port information out of a socket

Posted by [captainc](#) on Tue, 29 Jan 2008 13:43:28 GMT

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Yes, I am using this on Windows Server 2003 running in VirtualBox virtual machine (as development platform). I'm not sure if that could be the issues as I have yet to test it with 32-bit Windows running directly on hardware.

Would the virtual machine be the issue?
Can someone else please test this?

For the time being, I am using:

```
String FormatIPStr(dword _ip)
{
    byte ip[4];
    Poke32be(ip, _ip);
#ifdef PLATFORM_WIN32
    return Format("%d.%d.%d.%d", ip[1], ip[0], ip[3], ip[2]);
#else
    return Format("%d.%d.%d.%d", ip[0], ip[1], ip[2], ip[3]);
#endif
}
```

Subject: Re: How to obtain IP/port information out of a socket

Posted by [cbpporter](#) on Tue, 29 Jan 2008 15:31:33 GMT

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I can also confirm. The result from Accept, after being passed through FormatIP from a localhost connection is: 0.127.1.0. (Windows, 2008.1beta)

captainc's fix works.

Subject: Re: How to obtain IP/port information out of a socket

Posted by [mirek](#) on Tue, 29 Jan 2008 21:41:09 GMT

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Confirmed as bug. Thanks.

Please check this fix:

```
SOCKET Socket::Data::AcceptRaw(dword *ipaddr, int timeout_msec)
{
    ASSERT(IsOpen());
    if(!Peek(timeout_msec, false))
        return INVALID_SOCKET;
    sockaddr_in addr;
    Zero(addr);
    socklen_t addr_len = sizeof(addr);
    // puts("Socket::Accept: accepting socket...");
    SOCKET connection = accept(socket, (sockaddr *)&addr, &addr_len);
    if(connection == INVALID_SOCKET) {
        SetSockError("accept");
    }
}
```

```
    return INVALID_SOCKET;
}
// puts("Socket::Accept: socket accepted...");
dword ip = ntohl(addr.sin_addr.s_addr);
if(ipaddr)
    *ipaddr = ip;
SLOG("Socket::Accept() -> " << (int)connection << " &" << FormatIP(ip));
return connection;
}
```

Mirek

Subject: Re: How to obtain IP/port information out of a socket
Posted by [captainc](#) on Wed, 30 Jan 2008 16:42:46 GMT
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I confirm this is now working for me on Windows. I replaced the Socket::Data::AcceptRaw function in socket.cpp, recompiled, and tested.

Can someone test on Linux? I am not set up for it at the moment.

Good stuff Mirek, thanks for the quick fix to this.
