Subject: [SOLVED] A problem with TcpSocket::GetLine()
Posted by Oblivion on Tue, 03 Dec 2013 15:33:05 GMT

View Forum Message <> Reply to Message

Hello,

I am trying to use the TcpSocket::GetLine() method, and I have encountered a problem.

When I try to connect to a server and read the input (here, a single line, server "hello" message, ending with \n") with the GetLine() method, below code always encounter a timeount error and returns immediately. But when I use, say, Get(512), it works as expected. Why is GetLine() method not working here, and what am I doing wrong, any ideas?

Thanks in advance.

```
#include <Core/Core.h>

using namespace Upp;

CONSOLE_APP_MAIN
{
 TcpSocket socket;

 if(!socket.Connect("pop.gmail.com", 995)) {
  Cout() << "Socket error encountered: " << socket.GetErrorDesc() << "\r\n";
  Exit(1);
 }
 if(!socket.StartSSL()) {
  if(socket.IsOpen()) socket.Close();
  Cout() << "Couldn't start SSL session.\r\n";
  Exit(1);
 }

 // 5 secs.
 socket.Timeout(5000);

 // Get() method is working as expected
 // String server_hello = socket.Get(512);

 // GetLine() method always fails with a timeout error.
 // No matter if timeout value witle the GlobalTimeout() or the Timeout() method is set.
 String server_hello = socket.GetLine();
 if(IsNull(server_hello))
  Cout()  << "An error occured: " << socket.GetErrorDesc() << "\r\n";
 else
   Cout()  << server_hello << "\r\n";
```

```
 if(socket.IsOpen())
  socket.Close();
}
```

Regards.

Subject: Re: A problem with TcpSocket::GetLine()
Posted by nlneilson on Tue, 03 Dec 2013 16:03:18 GMT
View Forum Message <> Reply to Message

First: I suggest you create a server on your own machine.
There is an example of a server and client in the SDK.

Second: End your String with \0

Then post with what you are getting.

I use a socket as client in C/C++ to communicate with a java server. Trying to jump on the web until you get the bugs out with the client and server on your own machine is like trying to run before learning to walk.

Subject: Re: A problem with TcpSocket::GetLine()
Posted by Oblivion on Tue, 03 Dec 2013 17:12:18 GMT
View Forum Message <> Reply to Message

nlneilson wrote on Tue, 03 December 2013 18:03First: I suggest you create a server on your own machine.
There is an example of a server and client in the SDK.

Second: End your String with \0

Then post with what you are getting.

I use a socket as client in C/C++ to communicate with a java server. Trying to jump on the web until you get the bugs out with the client and server on your own machine is like trying to run before learning to walk.

Hello nineilson, thank you for your reply.

I already examined server & client example, I am afraid it was not very helpful for my case.

The code snippet I posted above was actually the simplest test case I could come up with, to show the actual behaviour.
(by the way, this is tested under Linux)

Just to clarify the situation in detail: I wrote a POP3 class, which actually works as expected and my intention was to upload it to the Upp bazaar. But then I decided to simplfy the code a bit. Because;

1) A standard POP3 server produces two types of well defined and predictable responses which can be read by a client. A single line respone (terminates with a "\r\n") and a multi-line response (terminates with a "\r\n.\r\n").

3) So, to increase the code clarity I decided to use the TcpSocket::GetLine() method to read single-line server responses (such as the pop3 server "hello" messages).

In theory, this should work (or I am getting something wrong?). But in practice, as with the above test case, it simply and immediately fails with a timeout error and increasing the timeout value with GlobalTimeout() or Timeout() does not help at all -- It does not read anything. Now, the thing is, as I've mentioned on my previous post, TcpSocket::Get() method works where TcpSocket::GetLine() reads nothing.

Any other ideas?

Regards.

Subject: Re: A problem with TcpSocket::GetLine()
Posted by nlneilson on Sun, 08 Dec 2013 21:16:32 GMT
View Forum Message <> Reply to Message

I have not worked with POP3 so cannot give any suggestions there.

The client - server examples that comes with U++ are very basic.
Unless you understand them and can debug through them if you have problems I don't know what to suggest.

Your 'error' seems to be the web address server is not accepting your client.

Subject: Re: A problem with TcpSocket::GetLine()
Posted by mirek on Sun, 15 Dec 2013 19:08:04 GMT
View Forum Message <> Reply to Message

Bug identified & fixed. Should work now.

Mirek

P.S.: POP3 package would be handy..

Subject: Re: A problem with TcpSocket::GetLine()
Posted by Oblivion on Mon, 16 Dec 2013 00:26:34 GMT

Quote:
Bug identified & fixed. Should work now.

Mirek

P.S.: POP3 package would be handy..

Thanks Mirek! I've updated the U++ source, and now it works.

I will upload the POP3 class before the new year. But before that, I will clean up the code and write the api documentation. It is a straightforward POP3 implementation meant to accompany SMTP.

However, I have another question and problem regarding TcpSocket::GetLine():

GetLine() also fails if there are any multibyte characters in the socket buffer. In SocketClient and

intended, or a bug?

Quote:
```
#include <Core/Core.h>

using namespace Upp;

String Request(const String& r)
{
 TcpSocket s;
 if(!s.Connect(CommandLine().GetCount() ? CommandLine()[0] : "127.0.0.1", 3214)) {
  Cout() << "Unable to connect to server!\n";
  SetExitCode(1);
  return Null;
 }
 // s.Put(r + '\n');
// The following line cannot be read by SocketServer.



 s.Timeout(5000);
 return s.GetLine();
}

// Start reference/SocketServer before starting this program

CONSOLE_APP_MAIN
```

```
{
 Cout() << Request("time") << '\n';
 Cout() << Request("33") << '\n';
}
```

Regards.

Subject: Re: A problem with TcpSocket::GetLine()
Posted by mirek on Mon, 16 Dec 2013 13:07:10 GMT
View Forum Message <> Reply to Message

Those characters got a kind of scrambled, could you please zip it and post the whole package?

Subject: Re: A problem with TcpSocket::GetLine()
Posted by Oblivion on Mon, 16 Dec 2013 14:26:59 GMT
View Forum Message <> Reply to Message

Hello Mirek, I am uploading a modified version of the SocketClient example. It contains Turkish letters, which the GetLine() in SocketServer refuses to read.

By the way, changing   "if(c < 0)" to "if(c == -1)" (in Sockep.cpp, line 837) seem to fix this problem, since Peek() returns -1 on both error and timeout. But I haven't examined the internals of TcpSocket class in detail, so I am not sure if it counts as a fix or a workaround.

Regards.

```
File Attachments
1) SocketClient.zip, downloaded 331 times
```

Subject: Re: A problem with TcpSocket::GetLine()
Posted by mirek on Tue, 17 Dec 2013 13:06:19 GMT
View Forum Message <> Reply to Message

Oblivion wrote on Mon, 16 December 2013 09:26
By the way, changing   "if(c < 0)" to "if(c == -1)" (in Sockep.cpp, line 837) seem to fix this problem

Ah! Damn stupid classical problem (char is signed). Please try now, should be fixed.

Subject: Re: A problem with TcpSocket::GetLine()

Posted by Oblivion on Tue, 17 Dec 2013 14:37:43 GMT

Thanks Mirek!
The bug is fixed. Everything works as expected.

Regards.