

Var Tcp Client

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/*
C# Network Programming
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*/
using System;
using System.Net;
using System.Net.Sockets;
using System.Text;

public class VarTcpClient
{
private static int SendVarData(Socket s, byte[] data)
{
int total = 0;
int size = data.Length;
int dataleft = size;
int sent;

byte[] datasize = new byte[4];
datasize = BitConverter.GetBytes(size);
sent = s.Send(datasize);

while (total < size) { sent = s.Send(data, total, dataleft,
SocketFlags.None); total += sent; dataleft -= sent; } return
total; } private static byte[] ReceiveVarData(Socket s) { int
total = 0; int rcv; byte[] datasize = new byte[4]; rcv =
s.Receive(datasize, 0, 4, 0); int size =
BitConverter.ToInt32(datasize, 0); int dataleft = size; byte[]
data = new byte[size]; while(total < size) { rcv =
s.Receive(data, total, dataleft, 0); if (rcv == 0) { data =
Encoding.ASCII.GetBytes("exit "); break; } total += rcv;
dataleft -= rcv; } return data; } public static void Main() {
```

```
byte[] data = new byte[1024]; int sent; IPEndPoint ipep = new
IPEndPoint(IPAddress.Parse("127.0.0.1"), 9050); Socket server
= new Socket(AddressFamily.InterNetwork, SocketType.Stream,
ProtocolType.Tcp); try { server.Connect(ipep); } catch
(SocketException e) { Console.WriteLine("Unable to connect to
server."); Console.WriteLine(e.ToString()); return; } data =
ReceiveVarData(server); string stringData =
Encoding.ASCII.GetString(data); Console.WriteLine(stringData);
string message1 = "This is the first test"; string message2 =
"A short test"; string message3 = "This string is an even
longer test. The quick brown fox jumps over the lazy dog.";
string message4 = "a"; string message5 = "The last test"; sent
= SendVarData(server, Encoding.ASCII.GetBytes(message1)); sent
= SendVarData(server, Encoding.ASCII.GetBytes(message2)); sent
= SendVarData(server, Encoding.ASCII.GetBytes(message3)); sent
= SendVarData(server, Encoding.ASCII.GetBytes(message4)); sent
= SendVarData(server, Encoding.ASCII.GetBytes(message5));
Console.WriteLine("Disconnecting from server...");
server.Shutdown(SocketShutdown.Both); server.Close(); } }
[/csharp]
```