**两个线程客户端 服务器连接简单示例**

Posted on 2013年04月30日 by U3d / [Unity3D脚本/插件](http://www.unitymanual.com/category/script)/被围观 155 次

|  |  |  |
| --- | --- | --- |
|  |  |  |

|  |  |
| --- | --- |
| 001 | *//分别创建了两个线程客户端 服务器连接的简单示例* |
| 002 |  |
| 003 | **using** UnityEngine; |
| 004 |  |
| 005 | **using** System; |
| 006 |  |
| 007 | **using** System.Collections; |
| 008 |  |
| 009 | **using** System.Threading; |
| 010 |  |
| 011 | **using** System.Net.Sockets; |
| 012 |  |
| 013 | **using** System.Net; |
| 014 |  |
| 015 | **using** System.Text; |
| 016 |  |
| 017 | **public** **class** TCPIPClientServer : MonoBehaviour |
| 018 |  |
| 019 | { |
| 020 |  |
| 021 | **void** Start() |
| 022 |  |
| 023 | { |
| 024 |  |
| 025 | Debug.Log(GetIP().ToString()); |
| 026 |  |
| 027 | } |
| 028 |  |
| 029 | **public** **static** Socket ClientSocket; |
| 030 |  |
| 031 | **private** **void** InitConnect() |
| 032 |  |
| 033 | { |
| 034 |  |
| 035 | ClientSocket = new Socket(AddressFamily.InterNetwork, SocketType.Stream, ProtocolType.Tcp); |
| 036 |  |
| 037 | **string** ip = GetIP().ToString();*//服务器ip* |
| 038 |  |
| 039 | IPAddress ipa = IPAddress.Parse(ip); |
| 040 |  |
| 041 | IPEndPoint iep = new IPEndPoint(ipa, 8000); |
| 042 |  |
| 043 | **try** |
| 044 |  |
| 045 | { |
| 046 |  |
| 047 | ClientSocket.Connect(iep);*//连接到服务器* |
| 048 |  |
| 049 | Thread thread = new Thread(new ThreadStart(ClientReceive)); |
| 050 |  |
| 051 | thread.Start(); |
| 052 |  |
| 053 | } |
| 054 |  |
| 055 | **catch** (Exception ex) |
| 056 |  |
| 057 | { |
| 058 |  |
| 059 | Debug.Log(ex.Message); |
| 060 |  |
| 061 | clientReceiveValue = ex.Message; |
| 062 |  |
| 063 | } |
| 064 |  |
| 065 | } |
| 066 |  |
| 067 |  |
| 068 |  |
| 069 | */\*接收来自服务器上的信息\*/* |
| 070 |  |
| 071 | **public** **void** ClientReceive() |
| 072 |  |
| 073 | { |
| 074 |  |
| 075 | clientReceiveValue = "已经建立连接准备接受数据"; |
| 076 |  |
| 077 | **while** (**true**) |
| 078 |  |
| 079 | { |
| 080 |  |
| 081 | **byte**[] bytes = new **byte**[100]; |
| 082 |  |
| 083 | **int** rev = ClientSocket.Receive(bytes, bytes.Length, 0);*//将数据从连接的 Socket 接收到接收缓冲区的特定位置。* |
| 084 |  |
| 085 | **if** (rev <= 0) |
| 086 |  |
| 087 | { |
| 088 |  |
| 089 | **break**; |
| 090 |  |
| 091 | } |
| 092 |  |
| 093 | **string** strev = System.Text.Encoding.**Default**.GetString(bytes); |
| 094 |  |
| 095 | clientReceiveValue = ("服务器对客户端说:" + strev + "**\r\n**"); |
| 096 |  |
| 097 | } |
| 098 |  |
| 099 | } |
| 100 |  |
| 101 |  |
| 102 |  |
| 103 |  |
| 104 |  |
| 105 | **private** **void** ClientSend() |
| 106 |  |
| 107 | { |
| 108 |  |
| 109 | **if** (ClientSocket.Connected)*//判断Socket是否已连接* |
| 110 |  |
| 111 | { |
| 112 |  |
| 113 |  |
| 114 |  |
| 115 | **byte**[] SendMessage = new **byte**[100]; |
| 116 |  |
| 117 | SendMessage = Encoding.ASCII.GetBytes(clientSendValue); |
| 118 |  |
| 119 | ClientSocket.Send(SendMessage);*//从数据中的指示位置开始将数据发送到连接的Socket。* |
| 120 |  |
| 121 |  |
| 122 |  |
| 123 | } |
| 124 |  |
| 125 | **else** |
| 126 |  |
| 127 | { |
| 128 |  |
| 129 | Debug.Log("未建立连接！"); |
| 130 |  |
| 131 | clientSendValue = "未建立连接！"; |
| 132 |  |
| 133 | } |
| 134 |  |
| 135 | } |
| 136 |  |
| 137 |  |
| 138 |  |
| 139 | **private** **string** clientReceiveValue = ""; |
| 140 |  |
| 141 | **private** **string** clientSendValue = ""; |
| 142 |  |
| 143 | **private** **string** serverReceiveValue = ""; |
| 144 |  |
| 145 | **private** **string** serverSendValue = ""; |
| 146 |  |
| 147 | **void** OnGUI() |
| 148 |  |
| 149 | { |
| 150 |  |
| 151 | *//服务器* |
| 152 |  |
| 153 | GUI.TextField(new Rect(100, 100, 200, 50), serverReceiveValue); |
| 154 |  |
| 155 | **if** (GUI.Button(new Rect(310, 100, 100, 20), "开始监听")) |
| 156 |  |
| 157 | { |
| 158 |  |
| 159 | Listen(); |
| 160 |  |
| 161 | } |
| 162 |  |
| 163 | serverSendValue = GUI.TextField(new Rect(100, 150, 200, 40), serverSendValue); |
| 164 |  |
| 165 | **if** (GUI.Button(new Rect(310, 150, 100, 20), "服务器发送")) |
| 166 |  |
| 167 | { |
| 168 |  |
| 169 | SeverSend(); |
| 170 |  |
| 171 | } |
| 172 |  |
| 173 |  |
| 174 |  |
| 175 | *///客户端* |
| 176 |  |
| 177 | GUI.TextField(new Rect(100, 350, 200, 40), clientReceiveValue); |
| 178 |  |
| 179 | **if** (GUI.Button(new Rect(310, 350, 100, 20), "连接服务器")) |
| 180 |  |
| 181 | { |
| 182 |  |
| 183 | InitConnect(); |
| 184 |  |
| 185 |  |
| 186 |  |
| 187 | } |
| 188 |  |
| 189 |  |
| 190 |  |
| 191 | clientSendValue = GUI.TextField(new Rect(100, 400, 200, 40), clientSendValue); |
| 192 |  |
| 193 | **if** (GUI.Button(new Rect(310, 400, 100, 20), "客户端发送")) |
| 194 |  |
| 195 | { |
| 196 |  |
| 197 | ClientSend(); |
| 198 |  |
| 199 | } |
| 200 |  |
| 201 | } |
| 202 |  |
| 203 |  |
| 204 |  |
| 205 |  |
| 206 |  |
| 207 | Thread LisThread; |
| 208 |  |
| 209 | Socket LisSocket; |
| 210 |  |
| 211 | Socket newSocket; |
| 212 |  |
| 213 | EndPoint point; |
| 214 |  |
| 215 | **string** strmes = **String**.Empty; |
| 216 |  |
| 217 | **int** port = 8000;*//定义侦听端口号* |
| 218 |  |
| 219 | **private** **void** Listen() |
| 220 |  |
| 221 | { |
| 222 |  |
| 223 | LisThread = new Thread(new ThreadStart(BeginListern));*//开线程执行BeginListern方法* |
| 224 |  |
| 225 | LisThread.Start();*//线程开始执行* |
| 226 |  |
| 227 | serverReceiveValue = GetIP().ToString() + "正在监听 "; |
| 228 |  |
| 229 | } |
| 230 |  |
| 231 |  |
| 232 |  |
| 233 | **private** **void** BeginListern() |
| 234 |  |
| 235 | { |
| 236 |  |
| 237 | LisSocket = new Socket(AddressFamily.InterNetwork, SocketType.Stream, ProtocolType.Tcp);*//实例化Socket* |
| 238 |  |
| 239 | IPAddress ServerIp = GetIP();*/\*获取本地服务器的ip地址 \*/* |
| 240 |  |
| 241 | IPEndPoint iep = new IPEndPoint(ServerIp, port); |
| 242 |  |
| 243 |  |
| 244 |  |
| 245 | LisSocket.Bind(iep); */\*将Socket绑定ip \*/* |
| 246 |  |
| 247 | LisSocket.Listen(50); *//Socket开始监听* |
| 248 |  |
| 249 | newSocket = LisSocket.Accept();*//获取连接请求的Socket* |
| 250 |  |
| 251 | */\*接收客户端Socket所发的信息 \*/* |
| 252 |  |
| 253 | **while** (**true**) |
| 254 |  |
| 255 | { |
| 256 |  |
| 257 | **try** |
| 258 |  |
| 259 | { |
| 260 |  |
| 261 |  |
| 262 |  |
| 263 | **byte**[] byteMessage = new **byte**[100]; |
| 264 |  |
| 265 | newSocket.Receive(byteMessage);*//接收信息* |
| 266 |  |
| 267 | point = newSocket.RemoteEndPoint;*//获取客户端的Socket的相关信息* |
| 268 |  |
| 269 | IPEndPoint IPpoint = (IPEndPoint)point; |
| 270 |  |
| 271 | strmes += IPpoint.Address.ToString() + "说" + Encoding.**Default**.GetString(byteMessage).Trim(new **char**[] { '' }) + "**\r\n**"; |
| 272 |  |
| 273 | serverReceiveValue = strmes; |
| 274 |  |
| 275 | } |
| 276 |  |
| 277 |  |
| 278 |  |
| 279 | **catch** (SocketException ex) |
| 280 |  |
| 281 | { |
| 282 |  |
| 283 | Debug.Log(ex.ToString()); |
| 284 |  |
| 285 | serverReceiveValue = ex.ToString(); |
| 286 |  |
| 287 | } |
| 288 |  |
| 289 | } |
| 290 |  |
| 291 | } |
| 292 |  |
| 293 |  |
| 294 |  |
| 295 | **private** IPAddress GetIP() |
| 296 |  |
| 297 | { */\*获取本地服务器的ip地址 \*/* |
| 298 |  |
| 299 | IPHostEntry iep = Dns.GetHostEntry(Dns.GetHostName()); |
| 300 |  |
| 301 | IPAddress ip = iep.AddressList[0]; |
| 302 |  |
| 303 | **return** ip; |
| 304 |  |
| 305 | } |
| 306 |  |
| 307 |  |
| 308 |  |
| 309 | **private** **void** SeverSend() |
| 310 |  |
| 311 | { |
| 312 |  |
| 313 | **byte**[] byteData = Encoding.**Default**.GetBytes(serverSendValue); |
| 314 |  |
| 315 | newSocket.Send(byteData);*//发送信息即由服务器往客户端上发信息* |
| 316 |  |
| 317 | } |
| 318 |  |
| 319 |  |
| 320 |  |
| 321 | } |
| 322 |  |