

Work with TCP/IP channels in Python - Client

The document contains TCP client program in Python. This document operates together with server document `tcp_server.mdd`. The server document should be opened and evaluated first. In order to run the Python code, the socket should be installed by using the following command in command window `pip install sockets`.

We illustrate a simple network application which is based on TCP/IP protocol stack. The network application has two parts, a client part, and a server part. In this document, a code for Python TCP client is given. The server is listening requests from clients at port 12000. The server is at the same computer, that is why we use loop back address '127.0.0.1' as server IP address. The client sends a sentence through client socket, which is received by server. The server converts the sentence into upper case letters, and sends back the capitalized sentence to client. The client receives the modified sentence through client socket. At the end, the client socket is closed, and client resources are released.

TCP Client

```
1 #py
2 from socket import *
3 serverName = '127.0.0.1'
4 serverPort = 12000
5 clientSocket = socket(AF_INET, SOCK_STREAM)
6 clientSocket.connect((serverName, serverPort))
7 sentence = 'Input lowercase sentence'
8 clientSocket.send(sentence.encode())
9 modifiedSentence = clientSocket.recv(1024)
10 print ('From Server:', modifiedSentence.decode())
11 clientSocket.close()
12 ###
```