

UDP-QUESTION

1. How to write a chat program (two clients chat with each other) with UDP?

Answer: We can use 4 threads to build the chat program. We can describe the chat program in the following way. First Host1 listens on port [Port-1] with [Thread1-1]. Host2 connects to Host1 on [Port-1] with [Thread2-1]. Then Host2 creates a new thread named [Thread2-2] and starts to listen on port [Port2]. Host1 creates a new thread named [Thread1-2] and connect to Host2 on [Port2]. Host1 receives messages with [Thread1-1] and sends messages with [Thread1-2]. Host2 receives messages with [Thread2-2] and send messages with [Thread2-1].

2. Can we use the UDP to transfer a file? If so, how?

Answer: We can use the UDP to transfer a file as the following way. We can divide a file into a sequence of packages and assign a number to each package and set the package together with the number to clients. When client receives packages, they check whether there is a missing number. If so, they can ask the server for that part again. If not, the clients save the packages in the order of the package number.