

CS2031 – Telecommunications II

Assignment 1.1 Report

ReceiverProcess

The process of running the two given example programs began with running the *ReceiverProcess* class. This begins with extracting the local host address and the receiver port from the arguments. Following this it creates a buffer to store the data in, as well as a packet and a socket.

The program then attempts to receive incoming packets by invoking the *receive* method on the socket created earlier. It continues with this attempt until data is received.

SenderProcess

The *SenderProcess* class is then run following the above steps in order to transmit/send data to the receiver. Similarly, this begins by extracting the local host address and the destination port from the arguments. The string 'Hello World' is then converted into an *ObjectOutputStream* object which is then flushed and further converted to an array of byte's i.e a buffer.

From this a *DatagramPacket* object is created containing the above buffer. This packet is then sent to the destination port at the local address extracted earlier via a *DatagramSocket*.

Receiving and handling of Data

If the process is successful the *DatagramPacket* created in the *ReceiverProcess*'s buffer is filled with the transmitted data ("Hello World"). The data is then extracted from the *DatagramPacket*'s buffer and into the buffer created earlier as an array of bytes in the. This data is then converted into a *ByteArrayInputStream* object, and then further converted into an *ObjectInputStream* object named '*ostream*'. The data is then finally printed to the console by invoking the *readUTF* method on '*ostream*'. The *ReceiverProcess* is then terminated.

-Brandon Dooley (16327446)