Ascii Flix

Design & general flow

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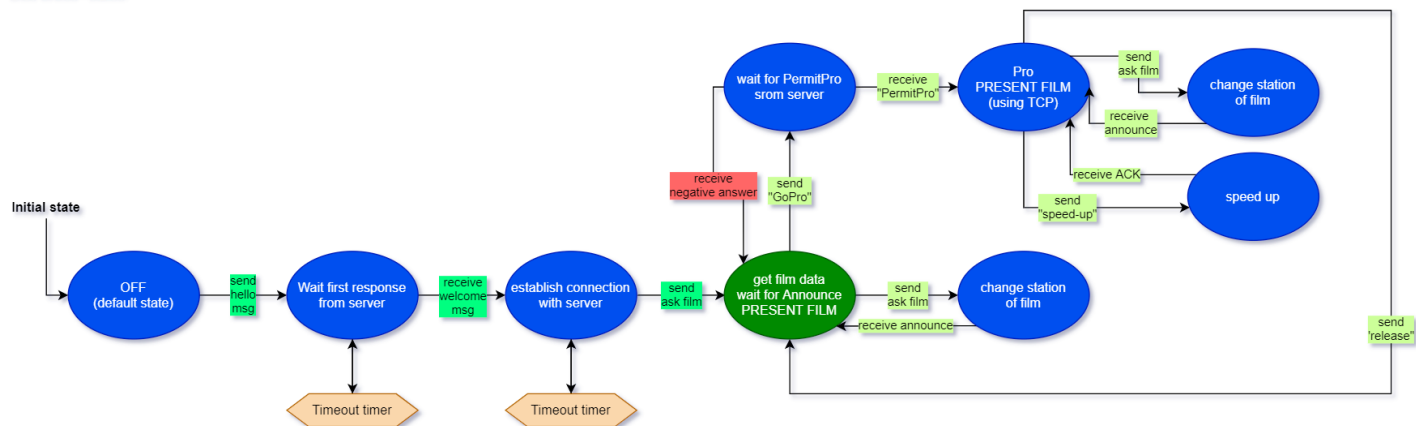
Pair number: 10

Client

flix_control <server_name> <server_port>

Client finite state machine

This is the client FSM between the client and the server.

Blue circles - states.

NOTES:

▶ Communicate with the server:

   ▶ Control mssg. -> TCP

   ▶ Movies -> UDP

   ▶ Pro Movies -> TCP

▶ Two processes/**tread**:

   ▶ Movie data: TCP OR UDP -> print to screen (change socket number)

   ▶ Server control data – TCP.

      ▶ receives and handles replays from the server. This must be implemented using select()

▶ 3 Sockets:

   ▶ A UDP socket to receive film data

   ▶ A TCP the send and receive control data.

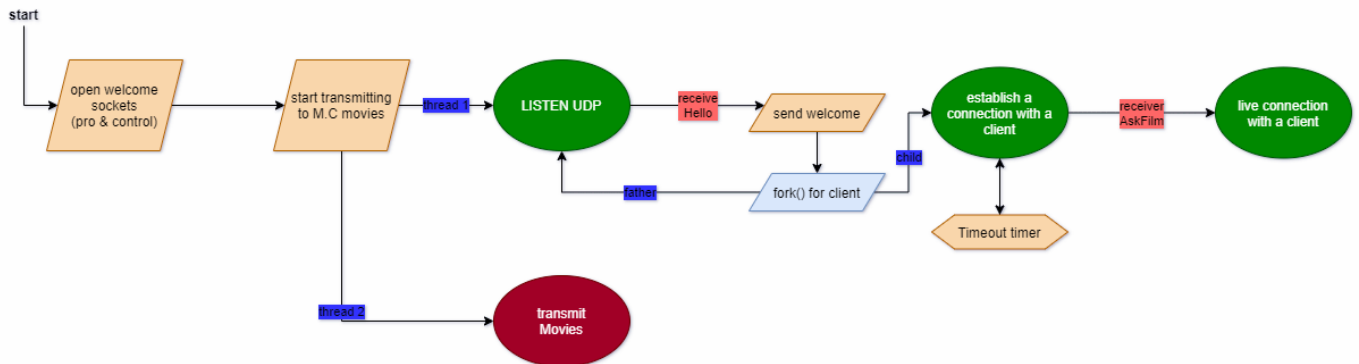   ▶ another TCP socket for film data, which might be closed and reopened.

Server

`film_server <tcp_port> <tcp_prim_port> <multicast_ip> <udp_port> <file1 > <file2 > ...`

Server flow chart + finite state machine

This is the server FSM between the server and the client.

Blue circles - states.

NOTES:

▶ Communicate with multiple clients, for EACH one:
- ▶ Control mssg. -> TCP
- ▶ Movies -> UDP
- ▶ Pro Movies -> TCP

▶ If no clients are connected, the current position of the film will still progress.

▶ Using different multicast address

▶ Strat with 2 sockets:
- ▶ TCP for pro- welcome socket
- ▶ TCP for control – welcome socket

▶ Processes

▶ Data structures:
- ▶ Array of 50 cells that mark how much clients are active, maybe fill the cells with numbers that indicate of the phase the client is in

▶ Critical parts: establishing a connection with client and returning to listen. Saving the spot in which client switch to PRO.

TDL

- Build structure in notes
- Attach from lab 5 parts
- Attach from instructions the part of printing buffer to screen
- Create all messages types
- Error messages- to all phases!!!
  - User wrong input
  - Print informative prints when error occurs
- Timeout def + what happends when its up- flag?
- When changing a station, you will not close either the thread or the UDP socket.
  - If you are receiving the film via multicast, refresh the row and col parameters, leave the current multicast group, then join the new multicast group.
  - When using the TCP socket, you will only update the row and col parameters.
- Connect to the server
- Succeed presenting movies through UDP
- Receive data from server with TCP
- Connect to premium with TCP

Unresolved questions

How many pro users are? Not 1?? -<< in define ▶