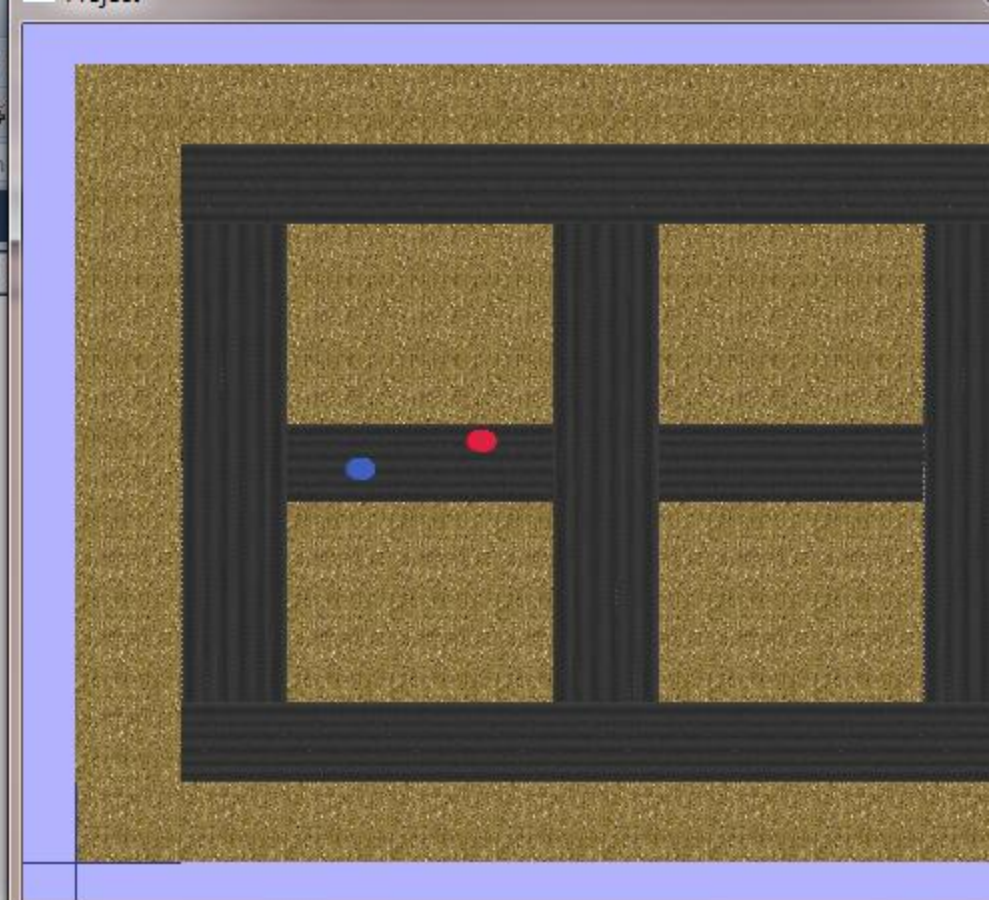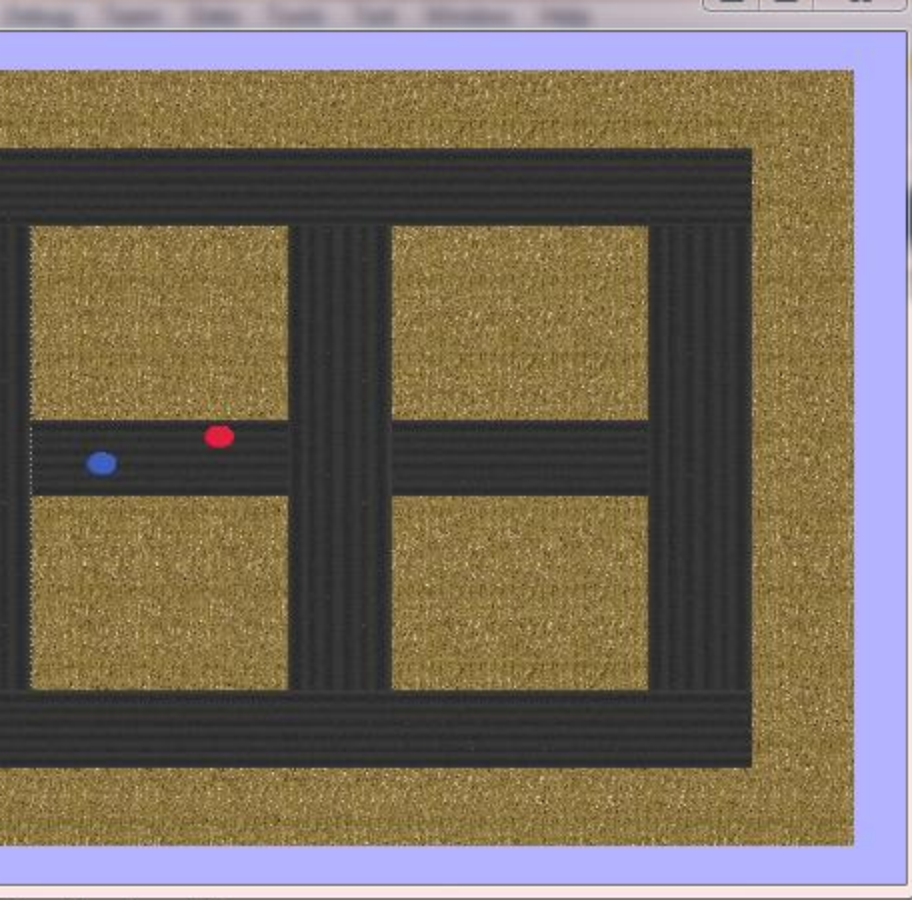# Networked Car Race Game

CSE 704 Spring 2011

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Introduction

- OpenScene Graph to render graphics on the screen.

- Internet Socket programming for communication

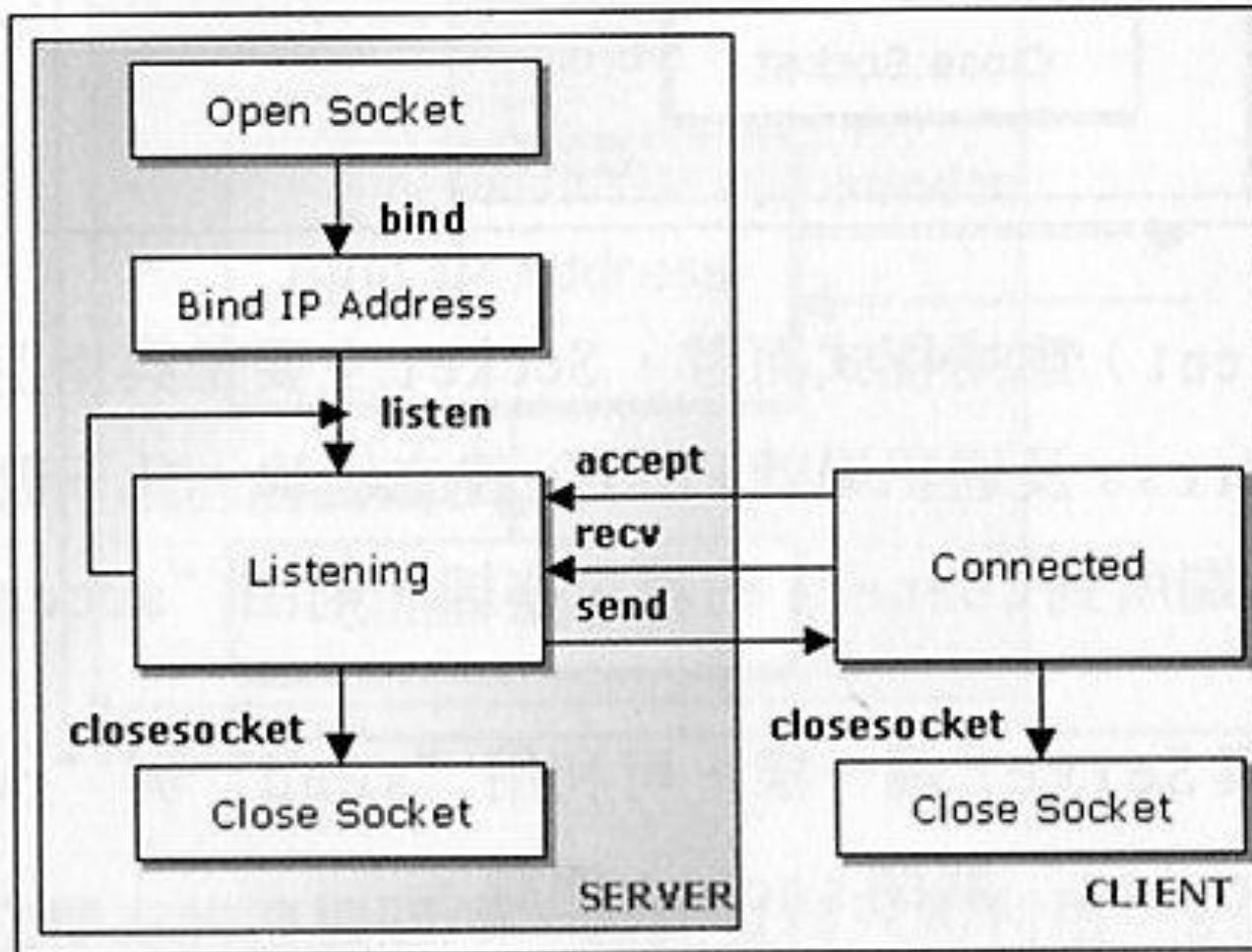- Parallelizing by using Openmp for the position updates of different cars.

Show output from: Debug

'main.exe': Loaded 'C:\Windows\System32\cryptbase.dll', Cannot find or open the
'main.exe': Loaded 'C:\Windows\System32\clbcatq.dll', Cannot find or open the PD
'main.exe': Loaded 'C:\Program Files\Elantech\ETDApix.dll', Cannot find or open
'main.exe': Loaded 'C:\Windows\System32\winspool.drv', Cannot find or open the P
'main.exe': Loaded 'C:\Windows\System32\shell32.dll', Cannot find or open the PD
'main.exe': Loaded 'C:\Windows\System32\shlwapi.dll', Cannot find or open the PD

Output

Type

Call Stack   Breakpoints   Command Window   Immediate Window   Output   Error L

Ln 41   Col 1
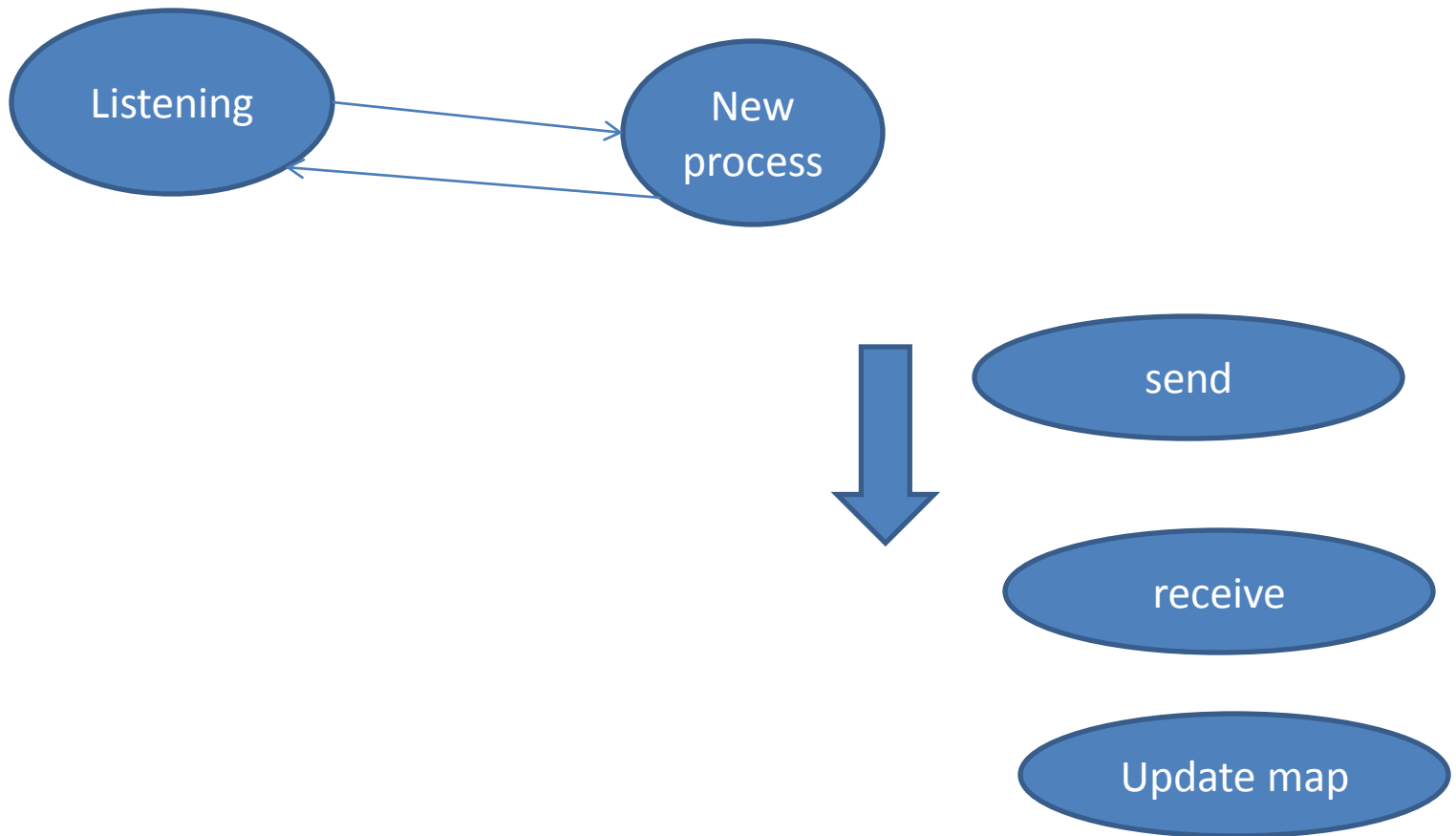
Network protocol(TCP/IP)

Server functions

1. Listen to new connections
2. Determine and send unique ID to each Car.
3. Maintain Map with Unique ID of each car and its Location
4. Serve all nodes in cyclic order, and send positions of all other cars to each car.
5. Upon disconnection, remove entry of node from map and communicate to all cars.

States for server

- The server

The Race Process

- The player with server program can start the game
- Then the player would give out his IP address and Port number
- The other players can join by running client programs and connecting to that ip and port
- The server updates every client of the location of each car on racetrack

Extension to UDP

- No connection is established.
- Maintain map of IP addresses and position.
- Faster communication as Overheads avoided, by compromising quality.
- All major commercial games use UDP for communication as the flow and continuity is more important than the accuracy .
- TCP has mechanism for resending lost packets that creates a problem as past packets are received and have to be discarded.