

## **Comp 2005 Iteration 4 - Accounts for possible future networking**

*Explain and justify in no more than one page (can be pure text or a mixture of text and diagram - whatever communicates the concepts best).*

This project contains an implementation of a computerized version of the King Domino Game. This presents a potential networking opportunity as there are currently no available online versions of this game. The current iteration of the King Domino Game could be future expanded to include more intricate features and has a potential networking benefit.

To do so, we can create a server based on a personal computer using Java by creating a class to represent the server with the main method acting as the constructor. This constructor method would create a server socket using the host computer's IP and a port and set a number of threads for up to 4 potential players. Moreover, the emitting computer would act as a receiver supervising each player's thread for updates to the game and joining them before sending them to all players. The other computers would connect to the computer-as-server using the IP and port information given to each player wishing to connect.

The way we would transfer our game data between computers would be by using a modified version of our GameSetting class to implement the option to save the current state of the game and also to load a previously played game. We would then save the current status of the game after each player's turn. This could be sent to the connected computers on the network. The connected computers could then use the load option of the modified GameSettings class to upload the string containing the most recent saved State.

By loading a new version of the game after each player's turn, all users would have the most recent state of the game when their turn comes around. We would not attempt to show the screen as "live" as in displaying each motion of other players since there's a possibility that sending live updates would cause a significant performance decrease. The update after each piece placement would also allow players to plan their move without being observed by their opponents.