

AETD - Arch-Enemy Tower Defense

Group 6

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5. Design Details

5.1 Class Responsibility Collaborator (CRC) Cards

Class: AETD	
Handle main menus	Game
Configure player settings	Server
Start server	Graphics
Join specific server	Chat
Launch game	

Class: Game	
Initialize game board	Socket
Intializes towers and monsters.	Server
Count gold	Entity
Countdown to next wave	Tower
Lives	Monster
Towers	Chat
Monsters	

Class: Tower	
Constructs projectiles Block monster path Upgrades Rate of fire Type of projectile Is implemented as 8 different tower types	Entity Graphics Projectile

Class: Server	
Synchronize information with clients Number of players Number of towers Lives left	Socket Game Chat

Class: Socket	
Handle connections between Server and Game.	Server Game Chat

Class: Graphics	
Draw entities	Entity Graphics

Class: InputParser	
Listens for user input through keyboard and mouse. Parse commands and send to the designated class.	AETD Game Chat

Class: Chat	
Display messages Send new messages to other players	Graphics Socket Server

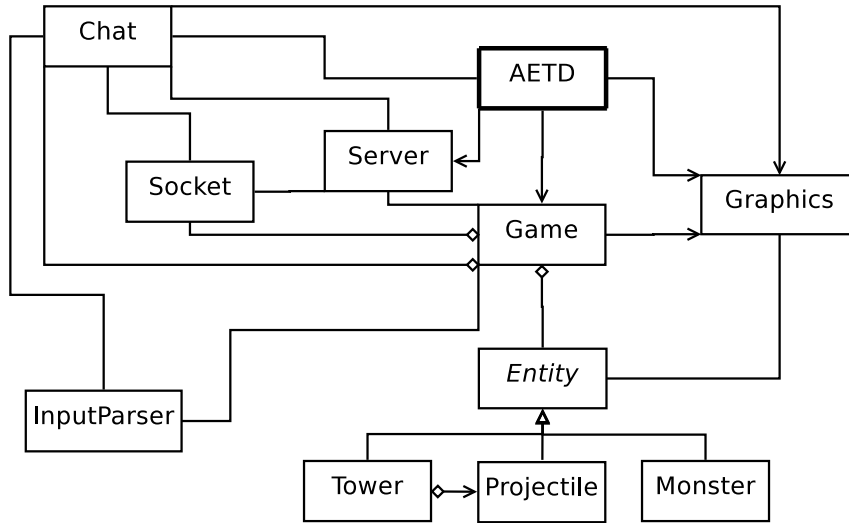
Class: Projectile	
Calculates path to monster Ask for drawing Speed Damage Special ability Is implemented as 8 different projectile types	Entity Graphics

Class: Monster	
Caclulates path to exit Ask for drawing Speed Hitpoints Special ability Is implented as 5 different monster types	Entity Graphics

Class: Entity	
Defines functions for towers, monsters and other visible objects. Draw entity Remove entity	Graphics

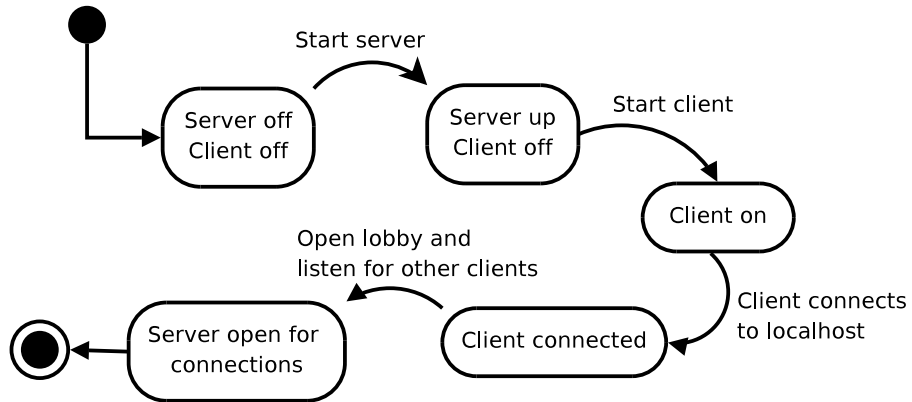
5.2 Class Diagram

Class Diagram for AETD

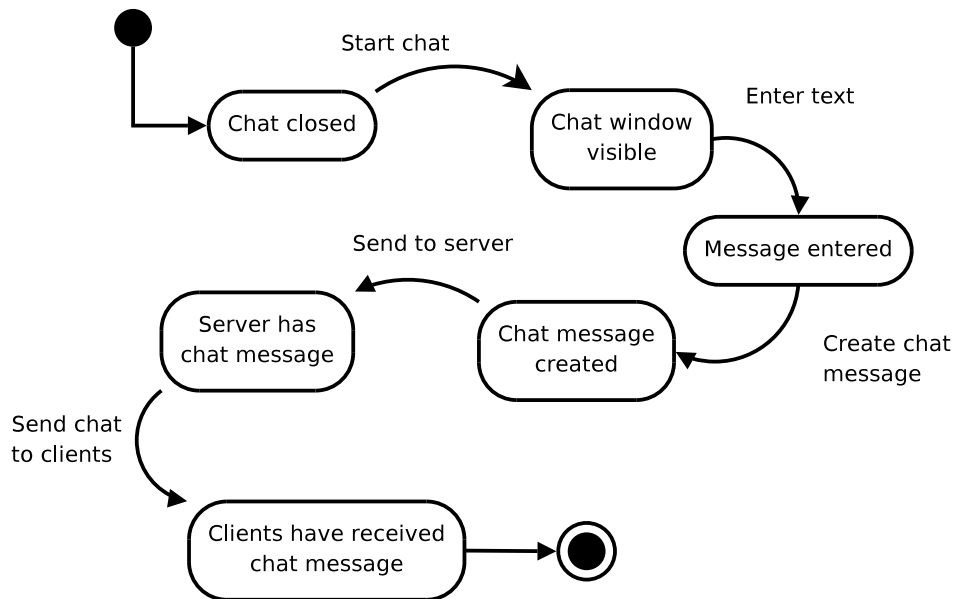


5.3 State Charts

Host a new multiplayer game

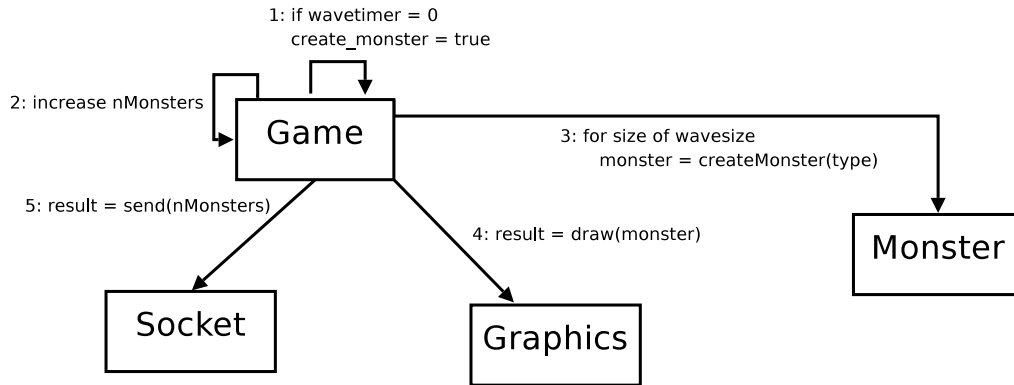


Send chat message

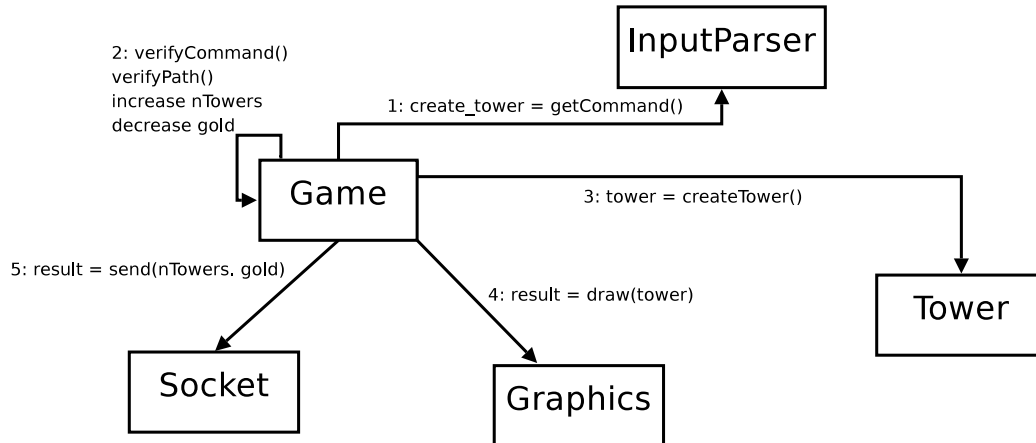


5.4 Interaction Diagrams

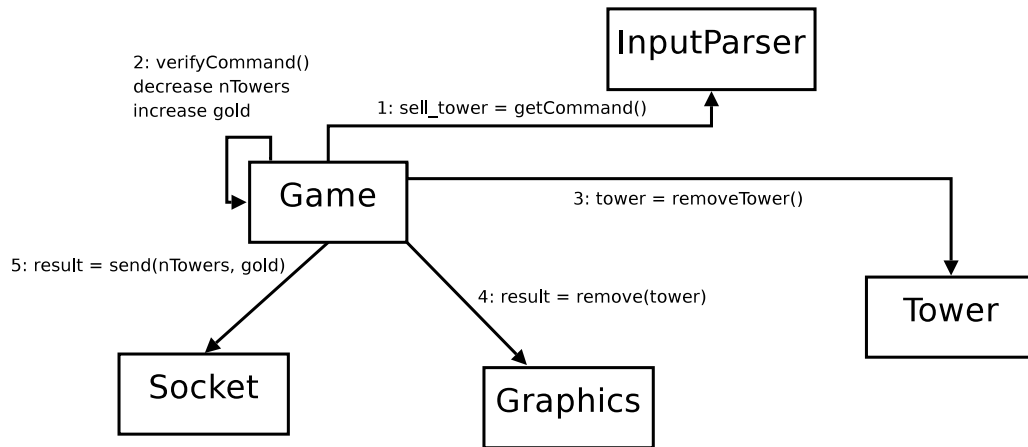
Create monster collaboration



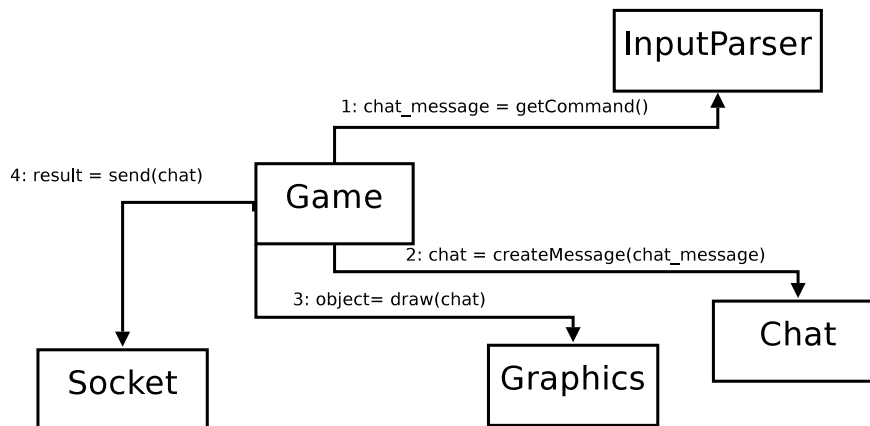
Create tower collaboration



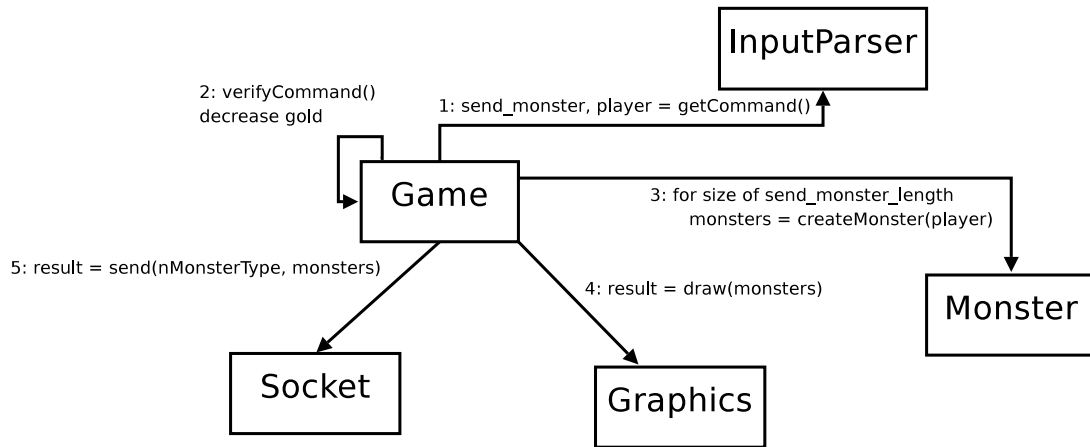
Sell tower collaboration



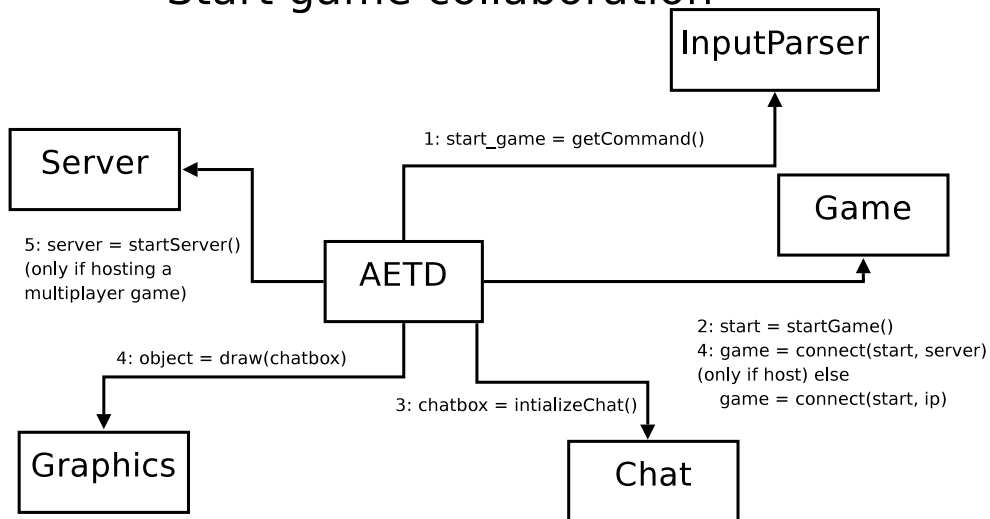
Send chat message collaboration



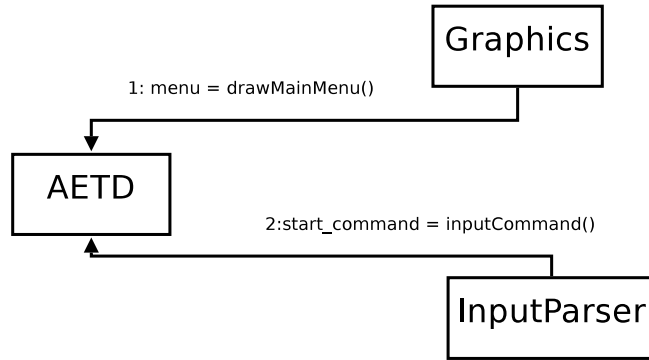
Send monsters collaboration



Start game collaboration



Startup collaboration



Upgrade tower collaboration

