RAIInet UML Diagram

By: Evelina Zheng, Christina Li, Daniel Su

ServerPort — 4

EdgeCoords — 20

Subject
- observers: Vector<Observer *>

+ notifyObservers(): Void
+ attach(Observer *): Void
+ detach(Observer *): Void

Observer
+ notify(Link &):Void
+ notify(GameBoard &): Void

SpecialCoord
- coords: Coords

+ getCoords(): Coords

GamePiece
- owner: Player *
- displayName: String
- appliedAbilities: Vector<Abilities>

+ getDisplayName(): String

GraphicDisplay
- theDisplay: Xwindow *
- gameBoard: GameBoard *

TextDisplay
- theDisplay: Vector<Vector<char>>
- gameBoard: GameBoard *

Coords — 1
- x: Integer
- y: Integer

+ getX(): Integer
+ getY(): Integer

BoardPiece
- stepSize: Integer
- prevCoords: Coords
- currCoords: Coords
- usedAbilities: Vector<AbilityCard *>

+ setStepSize(Integer): Integer
+ movePiece(Direction): Void
+ getPrevCoords(): Coords
+ getCurCoords(): Coords

<enumeration> Direction
Left
Right
Up
Down

GameBoard
- players: Vector<Player>
- graphicDisplay: GraphicDisplay *
- textDisplay: TextDisplay *
- allBoardPieces: Vector<Link>
- **allAbilityCards: Vector<AbilityCard>**
- currentPlayer: Player *
- winner: Player *
- boardBoundaries: Vector<Point>
- edgeCoords: Vector<EdgeCoords *>
- serverPorts: Vector<ServerPort *>
- activeFirewalls: Vector<Firewall *>

+ init(): Void
- applyAbility(AbilityCard&, Player&, Link* = nullptr): Void
- movePiece(Link&, Direction): Void
- battlePieces(Link&, Link&): Void
+ startNewTurn(): Void
+ downloadPiece(Link &, Player &): Void
+ updateIdentity(Link &): Void
+ getWinner(): Player *
+ getAbilities(Player &): String
+ getPlayers(): Vector<Player>

AbilityCard — 10
- abilityType: AbilityType
- usedAbility: Boolean
- abilityID: Integer

+ getAbilityType(): AbilityType
+ isUsed(): Boolean
+ getAbilityId(): Integer
+ activate(): Void
+ attachPlayer(Player &): Void

Link — 16
- strength: Integer
- type: LinkType
- identityRevealed: Boolean

+ getStrength(): Integer
+ getType(): LinkType
+ isIdentityRevealed(): Boolean

<enumeration> LinkType
Data
Virus

LinkBoost

Firewall
- coords: Coords

+ getCoords(): Coords

0..activeFirewalls.size()

Download

Polarize

Scan

Data

Virus

Player — 2
- playerName: String
- numVirusDownloaded: Integer
- numDataDownloaded: Integer
- abilityCount: Integer
- won: Boolean

+ isWon(): Boolean