

HanabiController
+ gameStateModel: GameStateModel + clientStateModel: ClientStateModel + socket: Socket + BufferedReader: BufferedReader + InputStream: DataInputStream + outputStream: PrintStream + event: Map + eventStack: LinkedList<Map> - currentState: String + jsonObject: event
+ Controller(String newCurrentState) + setGameStateModel(GameStateModel gameStateModel): void + setClientStateModel(ClientStateModel clientStateModel): void + receiveServerData(): void + parseJSON(JSONObject jsonObject): void + sendMove(JSONObject jsonObject): void + packStream(Map move): void + evalEvent(Map event): void + initialModel(Map event): void + initialGame(Map event): void + handlePressed(MouseEvent mouseEvent): void + handleDrag(MouseEvent mouseEvent): void + handleRelease(MouseEvent mouseEvent): void + readMessage(): String + computeHash(String msg): String + playerJoined(): void + playerLeft(): void + yourMove(): void + gameCancelled(): void + gameStarts(): void + discardedNotice(int pos, Card drawnCard): void + acceptReply(Card discardedCard): void + playedNotice(int pos, Card drawnCard): void + builtReply(Card playedCard): void + burnReply(Card playedCard): void + informReceivingPlayer(boolean[] hintArray, String hint): void + informOtherPlayer(boolean[] hintArray, String hint, int playerPos)

<<Interface>> ButtonListener
+ selected(): boolean + hovering(): boolean

<<Interface>> GameStateModelListener
+ modelChange(): void

HanabiView
+ height: double + width: double + gameStateModel: GameStateModel + clientStateModel: ClientStateModel + controller: Controller + canvas: Canvas + graphicsContext: GraphicsContext
+ View(double newHight, double newWidth) + setGameState(GameState gameState): void + setClientState(ClientState clientState): void + setController(Controller controller): void + setLayoutChildren(): void + modelChanged(): void + drawStartMenu(): StartMenu + drawCreateGame(): CreateGame + drawJoinGame(): JoinGame + drawGameTable(): void

StartMenu
+ StartMenu(double width, double height)

CreateGame
+ CreateGame(double width, double height)

JoinGame
+ JoinGame(double width, double height)

Player
«get/set» + hands: ArrayList<Card> «get/set» + isTurn: boolean
+ Player(ArrayList<Card> hands, boolean newTurn) + updateHand(int index, Card card): void + startTurn(): void + endTurn(): void + receiveHint(boolean[] hintArray, String type): void + observeDrawPlayer(Card card): void + clone(): Player

GameStateModel
<pre> «get/set» - hintsRemain: int «get/set» - fusesRemain: int «get/set» - cardsRemain: int «get/set» - timeRemain: int «get/set» - score: int «get/set» - cardsOnTable: ArrayList<Card> «get/set» - discardPile: LinkedList<Card> «get/set» - players: ArrayList<Player> «get/set» - turn: int «get/set» - subscribers: ArrayList<GameStateListener> «get/set» - mode: String «get/set» - timePerTurn: Integer «get/set» - cardsInHand: Integer «get/set» - playersInGame: Integer «get/set» - position: Integer «get/set» + topCard: CPS «get/set» - myValidityMatrix: ValidityMatrix «get/set» - myDisardGradient: GradientMatrix «get/set» - myPlayGradient: GradientMatrix «get/set» - discardVector: double[] «get/set» - playVector: double[] «get/set» + allCards: ArrayList<Card> «get/set» + selectedCard: Card «get/set» + isDragging: boolean «get/set» + playBox: PlayDiscardBox «get/set» + discardBox: PlayDiscardBox «get/set» + turnBox: PlayDiscardBox «get/set» + hint: boolean «get/set» + hintX: double «get/set» + hintY: double </pre>
<pre> + GameStateModel(ArrayList<Player> newPlayers) + appendDiscard (Card card): void + updateCardsOnTable(Card card): void + updatePlayerHand(Player player, Card card): void + incrementHints(): void + decrementHints(): void + decrementFuses(): void + decrementCards(): void + decrementTime(): void + addSubscriber(GameStateModelListener Sub): void + notifySubscribers(): void + appendDiscard(Card Card): void + updateCardsOnTable(Card card): void + updatePlayerHand(Player player, Card card, Integer pos): void + updatePlayerHand(Player player, String myColor, Integer myNumber, Integer pos): void + clone(): GameState + handContain(Card[] hand, Card card): boolean + setTurnBox(double canvasWidth, double canvasHeight): void + setPlayDiscardBox(double canvasWidth, double canvasHeight): void + setCoordinates(double canvasWidth, double canvasHeight): void + addToAllCard(): void + checkHit(double clickX, double clickY): void + witchCard(double x, double y): Card + moveCard(Card card, double dX, double dY): void + setCardXY(Card card, double newX, double newY): void + addSubscriber(GameStateListener sub): void </pre>

ClientStateModel
<pre> «get/set» - playerSelected: int «get/set» - cardsSelected: ArrayList<int> «get/set» - menusOpen: Map<String, boolean> «get/set» - actionSelected: String «get/set» - notes: ArrayList<int> «get/set» - buttons: ArrayList<Button> «get/set» - players: ArrayList<Player> </pre>
<pre> + ClientStateModel(Player newPlayerSelected, Map<String, boolean> newMenusOpen, String newActionSelected, ArrayList<int> notes, ArrayList<Button> newButtons) + toggleMenu(String name): void + selectAction(String action): void + getSelectedPlayer(): void + getSelectedCards(): void + getAction(): void - seletePlayer(Integer index): void - deseletePlayer(): void - addCardSelected(Integer index): void - deselectedCard(Integer cardIndex): void - clearCardsSelected(): void + selectCard(Integer playerIndex, Integer cardIndex): void + clone(): Card </pre>

Card
<pre> «get/set» + color: String «get/set» + number: String «get/set» + clickable: boolean «get/set» + selected: boolean «get/set» + hovering: boolean «get/set» + x: double «get/set» + y: double «get/set» + width: double «get/set» + height: double «get/set» - myCPS: CPS «get/set» - myGameTyle: String «get/set» - myDiscardEv: double «get/set» - myPlayEv: double </pre>
<pre> + Card(String newColor, String newNumber) + cardToIndex(): int[] + getString(): String + checkHit(double clickX, double clickY): Boolean + moveCard(double dx, double dy): void + getCardAsString(): String + receiveHint(boolean isPositive, String hint): void + calculateMyEVs(GradientMatrix discardGradient, GradientMatrix playGradient): void </pre>