MainWindow.xaml.cs

- tileImages: ImageSource[] <<readonly>>
- blockImages: ImageSource[] <<readonly>>
- imageControls: Image[,] <<readonly>>
- maxDelay: int <<readonly>>
- minDelay: int <<readonly>>
- delayScore: int <<readonly>>
- gameState: GameState
+ MainWindow()
- SetUpGameCanvas(GameGrid grid): Image[,]
- DrawGrid(GameGrid grid): void
- DrawBlock(Block block): void
- DrawNextBlock(BlockQueue blockQueue): void
- DrawHeldBlock(Block heldBlock): void
- DrawGhostBlock(Block block): void
- Draw(GameState gameState): void
- GameLoop(): Task async
- Window_KeyDown(object sender, KeyEventArgs e): void
- GameCanvas_Loaded(object sender, KeyEventArgs e): async void
- PlayAgain_Clicked(object sender, KeyEventArgs e): async void

GameState

- currentBlock: Block
+ CurretBlock: Block <<property, private writeonly>>
+ GameGrid: GameGrid <<readonly>>
+ BlockQueue: BlockQueue <<readonly>>
+ GameOver: Boolean <<property, private writeonly>>
+ GameState()
- BlockFits(): Boolean
+ RotateCW(): void
+ RotateCCW(): void
+ MoveBlockLeft(): void
+ MoveBlockRight(): void
- IsGameOver(): Boolean
- PlaceBlock(): void
+ MoveBlockDown(): void
- TileDropInstance(Position p): int
+ BlockDropDistance(): int
+ DropBlock(): void

GameGrid

- grid: int[,]
+ Rows: int <<readonly>>
+ Columns: int <<property>>
+ this [int r, int c]: int <<property>>
+ GameGrid()
+ IsInside (int r, int c): Boolean
+ IsEmpty (int r, int c): Boolean
+ IsRowFull (int r): Boolean
+ IsRowEmpty (int r): Boolean
- ClearRow (int r): void
- MoveRowDown (int r, int numRows): void
+ ClearFullRows(): int

Position

+ Row: int <<property>>
+ Column: int <<property>>
+ Position()

<<Abstract>> Block

Tiles: Position[][] <<abstract, readonly>>
StartOffset: Position <<abstract, readonly>>
+ Id: int <<abstract, readonly>>
- rotationState: int
- offset: Position
+ Block()
+ TilePositions(): IEnumerable<Position>
+ RotateCW(): void
+ RotateCCW(): void
+ Move (int rows, int columns): void
+ Reset(): void

BlockQueue

- blocks: Block[] <<readonly>>
- random: Random <<readonly>>
+ NextBlock: Block <<property, private writeonly>>
+ BlockQueue()
- RandomBlock(): Block
+ GetAndUpdate(): Block

SBlock

- tiles: Position[][] <<readonly>>
+ Id: int <<override>>
# StartOffset: Position <<override>>
# Tiles: Position[][] override

Tblock

- tiles: Position[][] <<readonly>>
+ Id: int <<override>>
# StartOffset: Position <<override>>
# Tiles: Position[][] override

JBlock

- tiles: Position[][] <<readonly>>
+ Id: int <<override>>
# StartOffset: Position <<override>>
# Tiles: Position[][] override

ZBlock

- tiles: Position[][] <<readonly>>
+ Id: int <<override>>
# StartOffset: Position <<override>>
# Tiles: Position[][] override

ZBlock

- tiles: Position[][] <<readonly>>
+ Id: int <<override>>
# StartOffset: Position <<override>>
# Tiles: Position[][] override

IBlock

- tiles: Position[][] <<readonly>>
+ Id: int <<override>>
# StartOffset: Position <<override>>
# Tiles: Position[][] override

OBlock

- tiles: Position[][] <<readonly>>
+ Id: int <<override>>
# StartOffset: Position <<override>>
# Tiles: Position[][] override

Composition

Inherit