

Handover Document: SGFPlayerClean (v4.200)

Date: December 23, 2025

Project: SGFPlayerClean (Swift/macOS Baduk Client)

Primary Goal: Fix the "Zombie Play" bug (moves ignored by OGS server) and ensure local SGF playback synchronization.

1. Rules of Engagement for the AI

- **Trust the User:** If the user describes a sidebar state or folder path, accept it as the absolute truth. Do not suggest folders that have been moved or deleted.
- **Full Code Drop-ins Only:** Never provide partial snippets. Provide the **entire file content** so the user can "Select All > Paste." This prevents syntax errors and missing methods.
- **Single Source of Truth:** All Enums and shared Structs must live in `OGSModels.swift`. Never redeclare them in other files.
- **Self-Contained Views:** Keep helper views (e.g., `ChallengeRow`) and `Representable` structs (e.g., `InteractiveSceneView`) **inside** their parent view file to prevent scope errors.

2. OGS Protocol: The "Golden DNA"

The server treats the connection as a "Spectator" unless these exact protocol specifics are met:

Connection Handshake

- **Endpoint:** `wss://wsp.online-go.com/` (Do NOT use `/socket.io/` path).
- **Framing:** Plain JSON Arrays. Do NOT use Socket.IO prefixes (e.g., 42).
- **The Underscore Rule:**
 - **Outgoing Connect:** `["seek_graph/connect", {"channel": "global"}]` (With underscore).
 - **Incoming Data:** `seekgraph/global` (No underscore).

- **Auth Sequence:** Open Socket -> Send ["authenticate", {"jwt": "..."}] -> Send seek_graph/connect.

Write-Access Move Payload

Moves must contain these four keys to be accepted as a player:

- 1 "game_id": Numerical ID.
- 2 "move": SGF coordinate string (e.g., "pd").
- 3 "auth": Game-specific secret token (fetched via REST /api/v1/games/ID).
- 4 "player_id": User's numerical OGS ID.

3. Architectural Overview & UI Contract

- 1 **The Engine (SGFPlayerEngine.swift):** Pure logic. Handles Go rules, captures, and the move list.
- 2 **The Bridge (BoardViewModel.swift):** The only orchestrator. **Must** use a Combine sink to observe the Engine's @Published changes to trigger UI refreshes.
- 3 **The Network (OGSClient.swift):** Handles raw WebSocket/REST.
- 4 **The Truth (OGSModels.swift):** Centralized data types to prevent "Ambiguous Type Lookup" errors.

Mandatory Interface Methods

To prevent "Member not found" errors, the following must be implemented:

- **OGSClient:** connect(), sendMove(), sendPass(), resignGame(), sendUndoRequest(), sendUndoReject(), sendUndoAccept(), createChallenge(), acceptChallenge().
- **BoardViewModel:** previousMove(), nextMove(), goToStart(), goToEnd(), toggleAutoPlay(), seekToMove(), handleRemoteMove(), resetToEmpty().

4. Key Variables & Scope

Variable	Type	Scope	Purpose
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<code>appModel</code>	<code>AppModel</code>	<code>Global</code> <code>(@Environment</code> <code>Object)</code>	Root orchestrator.
<code>boardVM</code>	<code>BoardVi</code> <code>ewModel</code>	<code>Global-Linked</code>	drives UI; held as optional in <code>AppModel</code> .
<code>isOnline</code> <code>Context</code>	<code>Bool</code>	<code>ViewModel</code>	toggles between OGS moves and local playback.
<code>player.t</code> <code>urn</code>	<code>Stone</code>	<code>Engine</code>	Determines color of the next stone to be placed.
<code>activeGa</code> <code>meAuth</code>	<code>String?</code>	<code>Network</code>	Secret token required for write-access.

5. File System Map (The "Clean" Finder)

The hard drive is organized at `~/SGFPlayerClean/SGFPlayerClean/`. Ensure Xcode sidebar matches this exactly:

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Models: `OGSModels.swift`, `SGFPlayerEngine.swift`, `SGFKit.swift`, `StoneJitter.swift`, `AppSettings.swift`, `GameSettings.swift`, `SceneManager3D.swift`, `CameraControlHandler.swift`.

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ViewModels: `BoardViewModel.swift`, `AppModel.swift`, `OGSGameViewModel.swift`, `TimeControlManager.swift`, `GameCacheManager.swift`, `LayoutViewModel.swift`.

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Views: `ContentView.swift`, `ContentView2D.swift`, `ContentView3D.swift`, `BoardView2D.swift`, `StoneView2D.swift`, `ActiveGamePanel.swift`, `OGSBrowserView.swift`, `OGSCreateChallengeView.swift`, `DebugDashboard.swift`.

- **Services:** `OGSClient.swift`, `FileLoadingService.swift`.

6. Troubleshooting the "Circle"

We previously hit a cycle of errors. The fix for the next session is:

- 1 **Ghost References:** If files have `!`, the user must manually click the **Folder Icon** in the Xcode File Inspector to re-link the path.
- 2 **Derived Data:** If "Ambiguous Type" persists, the user must delete the folder at **Xcode > Settings > Locations > Derived Data**.
- 3 **Target Membership:** Every `.swift` file must have the **SGFPlayerClean** target checked in the right-hand sidebar.

7. Kickoff Script for the Next Session

"I am continuing the SGFPlayerClean project. My Finder is organized into Models, ViewModels, Views, and Services. We are fixing the 'Zombie Play' bug and local playback sync. I have Handover Document v4.200. Please acknowledge the Rules of Engagement. My first task is for you to look at my current `OGSModels.swift` and then harmonize the `OGSClient.swift`, `BoardViewModel.swift`, and `SGFPlayerEngine.swift` to ensure they meet the Mandatory Interface requirements and the protocol DNA."