



Stronghold Kingdom Game Documentation

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• Introduction:

Stronghold is a turn-based kingdom management simulation game where players take on the role of a ruler managing various aspects of their kingdom, including population, economy, military, politics, and diplomacy. The game features random events, resource management, and strategic decision-making.

• Game Features:

- **Population Management:** Control peasants, merchants, nobility, and military.
- **Economy System:** Collect taxes, manage gold, and handle loans.
- **Military System:** Train soldiers, pay them, and upgrade equipment.
- **Politics & Diplomacy:** Elect kings, make treaties, and manage stability.
- **Resource Trading:** Buy and sell wood, stone, iron, and food.
- **Random Events:** Plagues, wars, natural disasters, and more.
- **Communication System:** Send and view messages.
- **Save/Load System:** Save progress and load previous games

• Classes and Their Functions:

1. King Class

- Manages the king's attributes and actions.
 - `applyPolicy()` – Increases popularity.
 - `faceAssassinationAttempt()` – Handles assassination attempts.

2. Population Class

- Manages kingdom population and social classes.
 - `updatePeople(int change)` – Updates total population.
 - `checkSocialClasses()` – Checks for social unrest.
 - `handlePlague()` – Simulates plague effects.
 - `updateFoodSupply(int amount)` – Manages food supply.
 - `calculateGrowth()` – Calculates population growth.

3. Economy Class

- Manages kingdom finances.
 - `collectTaxes(const Population& pop)` – Collects taxes.
 - `spendGold(double amount)` – Spends gold.
 - `fundPublicServices(int amount)` – Funds public services.
 - `increaseGold(double amount) / decreaseGold(double amount)` – Adjusts gold.

4. Army Class

- Manages military forces.
 - `train(int cycles)` – Trains soldiers.
 - `paySoldiers(Economy& economy)` – Pays soldiers.
 - `updateEquipment(int quality)` – Upgrades equipment.
 - `increaseSize(int amount) / decreaseSize(int amount)` – Adjusts army size.

5. Bank Class

- Handles loans and financial management.
 - `takeLoan(double amount, Economy& economy)` – Takes a loan.
 - `repayLoan(double amount, Economy& economy)` – Repays a loan.

6. Market Class

- Manages resource trading.
 - `tradeResource(string resource, int amount, Economy& economy)` – Trades resources.
 - `updateFoodStockpile(int population, const Weather& weather)` – Updates food supply.
 - `consumeFood(int population)` – Simulates food consumption.

7. Politics Class

- Manages kingdom stability and leadership.
 - `holdElection()` – Conducts elections.
 - `decreaseStability(int amount)` – Reduces stability.

8. Diplomacy Class

- Handles treaties and foreign relations.
 - `makeTreaty(string t)` – Establishes treaties.
 - `breakTreaty()` – Ends treaties.

9. Communication Class

- Manages in-game messages.
 - `sendMessage(const string& msg)` – Sends a message.
 - `showMessages()` – Displays all messages.

10. Kingdom Class (Main Game Controller)

- `saveGame()` – Saves game state.
- `loadGame()` – Loads saved game.
- `updateWeather()` – Updates weather conditions.

• Key Functions in `main.cpp`:

1. `displayMenu()` – Displays the game menu.
2. `viewStatus(Kingdom& kingdom)` – Shows kingdom statistics.
3. `handleLoanRepayment(Kingdom& kingdom)` – Manages loan repayment.
4. `handleRandomEvent(Kingdom& kingdom)` – Triggers random events.
5. `sendMessage(Kingdom& kingdom) / viewMessages(Kingdom& kingdom)` – Manages messages.
6. **Game Loop:** Displays menu, processes input, updates state, triggers events.

- **Game Mechanics:**

- **Turn-Based System:** Each selection advances game, random events every few turns.
- **Resource Management:**
 - Food: Affects population growth.
 - Gold: Used for army, loans, public services.
 - Wood/Stone/Iron: Market trades.
- **Random Events:**
 - Plague: Reduces population.
 - War: Decreases army and gold.
 - Natural Disaster: Reduces resources.
 - Assassination Attempt: Affects stability.
- **Win/Lose Conditions:**
 - Lose: King assassinated, population zero.
 - Win: Maintain stability and prosperity.

- **How to Play:**

1. **Start the Game:** Run the executable.
2. **Manage the Kingdom:**
 - Collect taxes, train/pay army, trade resources, handle diplomacy.
3. **Respond to Events:** Tackle random crises.
4. **Save Progress:** Use save/load features.

- **Conclusion:**

Stronghold is a strategic kingdom management game. Players balance resources, military, and diplomacy to survive. Random events and dynamic choices offer high replayability.