



STRONGHOLD - MEDIEVAL KINGDOM MANAGEMENT DOCUMENTATION

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Overview

Stronghold is a text-based simulation game designed for player mode, where you take on the role of a medieval kingdom ruler. The game challenges you to manage resources, lead your army, engage in diplomacy with NPC kingdoms, and respond to random events. Your goal is to build a prosperous and powerful kingdom while surviving threats and maintaining stability.

Features

Core Gameplay

- Advance game years and track your kingdom's progress.
- Manage resources including gold, food, wood, and iron.
- Monitor and improve your kingdom's score based on performance.

Leadership

- Select a ruler (e.g., King) with unique attributes: charisma, intelligence, strength, and royal bloodline.
- Perform special actions tailored to your ruler's abilities.

Economy

- Oversee treasury management and trade operations.
- Utilize a banking system to stabilize finances.

Military

- Recruit and command infantry, cavalry, and archers.
- Engage in battles against NPC kingdoms.

Diplomacy

- Interact with NPC kingdoms (e.g., Northlands, Eastern Empire).
- Form alliances, declare wars, sign treaties, and negotiate trade.

Events

- Experience random events (e.g., plagues, invasions) that impact your kingdom.
- Adapt to challenges to maintain prosperity.

Save and Load

- Save your game state to a file for later resumption.

- Load previously saved games to continue progress.

Messaging

- View internal messages (limited functionality in single-player mode).

System Requirements

- **Compiler:** C++11 or later (e.g., g++, MSVC).
- **Libraries:** Standard C++ libraries (<string>, <memory>, <iostream>, <fstream>, <cstdlib>, <ctime>, <limits>).

Project Structure

- **main.cpp:** Contains the main function, game loop, and single-player mode logic.
- **Stronghold.h:** Declares all classes (Kingdom, Economy, Army, etc.) and utility functions.
- **Stronghold.cpp:** Implements game logic, including Kingdom operations and menu systems.

Key Classes

- **Kingdom:** Central class managing game state (name, year, score, resources, diplomacy, etc.).
- **Economy:** Handles gold, trade, and financial decisions.
- **Army:** Manages military units and combat mechanics.
- **Diplomacy:** Manages relations and interactions with NPC kingdoms.
- **Leader:** Abstract base class for rulers (e.g., King) with special actions.
- **MessageSystem:** Manages message storage (limited use in single-player).

Usage Instructions

Starting the Game

1. Launch the executable.
2. Select 1 for single-player mode.
3. Enter your kingdom name (default: Default Kingdom) and king's name (default: King Arthur).

Navigating the Main Menu

Choose from options 1–14:

1. Advance year.

2. Display kingdom status.
3. Manage resources.
4. Manage army.
5. Manage economy.
6. Manage diplomacy.
7. Manage bank.
8. Save game (enter filename, e.g., savegame.txt).
9. Load game (enter filename).
10. Trigger random event.
11. Hold elections.
12. Perform ruler action.
13. Exit.

Diplomacy Options

1. List other kingdoms.
2. Improve relations.
3. Declare war.
4. Sign peace treaty.
5. Form alliance.
6. Propose trade.
7. Engage in battle.
8. Return to main menu.

Game Over Conditions

- Triggered when resources or population reach zero.
- Displays final score and years ruled.

Save and Load Functionality

- Save to a file (e.g., savegame.txt) to preserve state.
- Load from the same file to resume gameplay.

Known Limitations

- NPC diplomacy is scripted, lacking dynamic AI.

- Messaging is limited to internal logging in single-player.
- Initial resources are hardcoded (e.g., 1000 gold, 500 food).

```
D:\C++\Medieval Kingdom Management Simulation\x64\Debug\OOP Project 2.exe
Welcome to Stronghold: Rule Your Medieval Kingdom!
Enter your kingdom's name: Ali Amir
Enter your king's name: King Ali
```

```
D:\C++\Medieval Kingdom Management Simulation\x64\Debug\OOP Project 2.exe

===== Stronghold: Kingdom Management =====
1. Advance Year
2. Display Status
3. Manage Resources
4. Manage Army
5. Manage Economy
6. Manage Diplomacy
7. Manage Bank
8. Hold Elections
9. Perform Ruler Action
10. Trigger Random Event
11. Save Game
12. Load Game
13. Exit
Enter choice:
```

==== Kingdom Status: Ali Amir (Year 1) ====

Ruler: Ali

Score: 0

Population:

Peasants: 100

Merchants: 20

Nobles: 5

Happiness: 50%

Army:

Infantry: 50

Cavalry: 10

Archers: 20

Morale: 70%

Training Level: 1

Status: At Peace

Economy:

Treasury: 1000 gold

Debt: 0 gold

Inflation: 2%

Market:

Food: 1000 (Value: 1)

Wood: 500 (Value: 1)

Stone: 300 (Value: 1)

Iron: 200 (Value: 1)

Press Enter to continue..._

===== Diplomacy Management =====

1. List Foreign Kingdoms
2. Improve Relations
3. Declare War
4. Sign Peace Treaty
5. Form Alliance
6. Establish Trade
7. Engage in Battle
8. Back

Enter choice:

===== Economy Management =====

1. Adjust Peasant Tax Rate
2. Adjust Merchant Tax Rate
3. Adjust Noble Tax Rate
4. Back

Enter choice:

===== ELECTIONS =====

The people demand a new ruler!
A new King is crowned!

Press Enter to continue...

===== Army Management =====

1. Train Army
2. Recruit Infantry
3. Recruit Cavalry
4. Recruit Archers
5. Back

Enter choice:

===== Resource Management =====

1. Buy Resources
2. Sell Resources
3. View Market
4. Back

Enter choice: