Anttris – CSE 326

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Overview

Why

The Game

Workflow

Demo

Q A

Motivation

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Wanted to make an interactive and competative game

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Really enjoyed the idea

Objective

- Project Considerations

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  - Size

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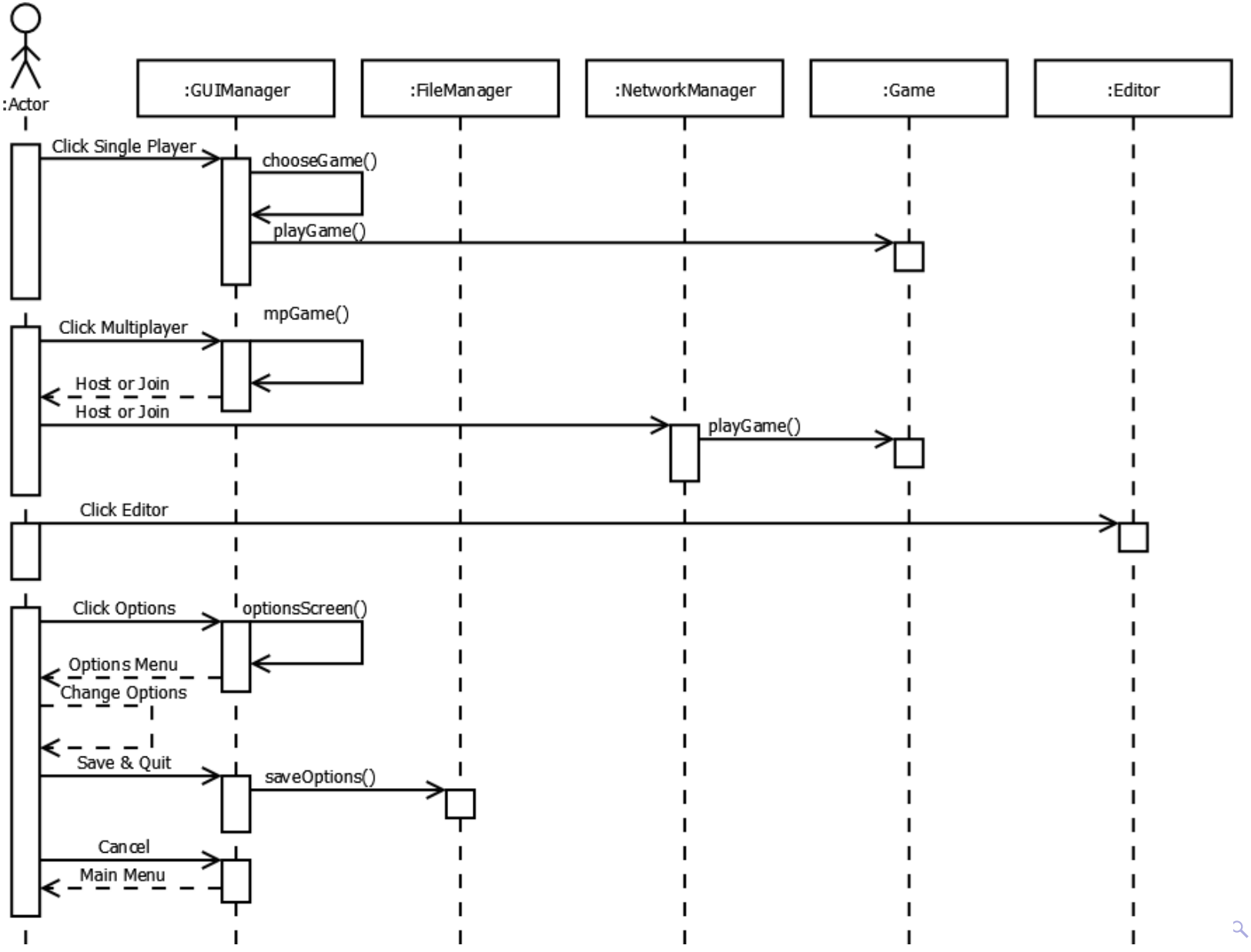
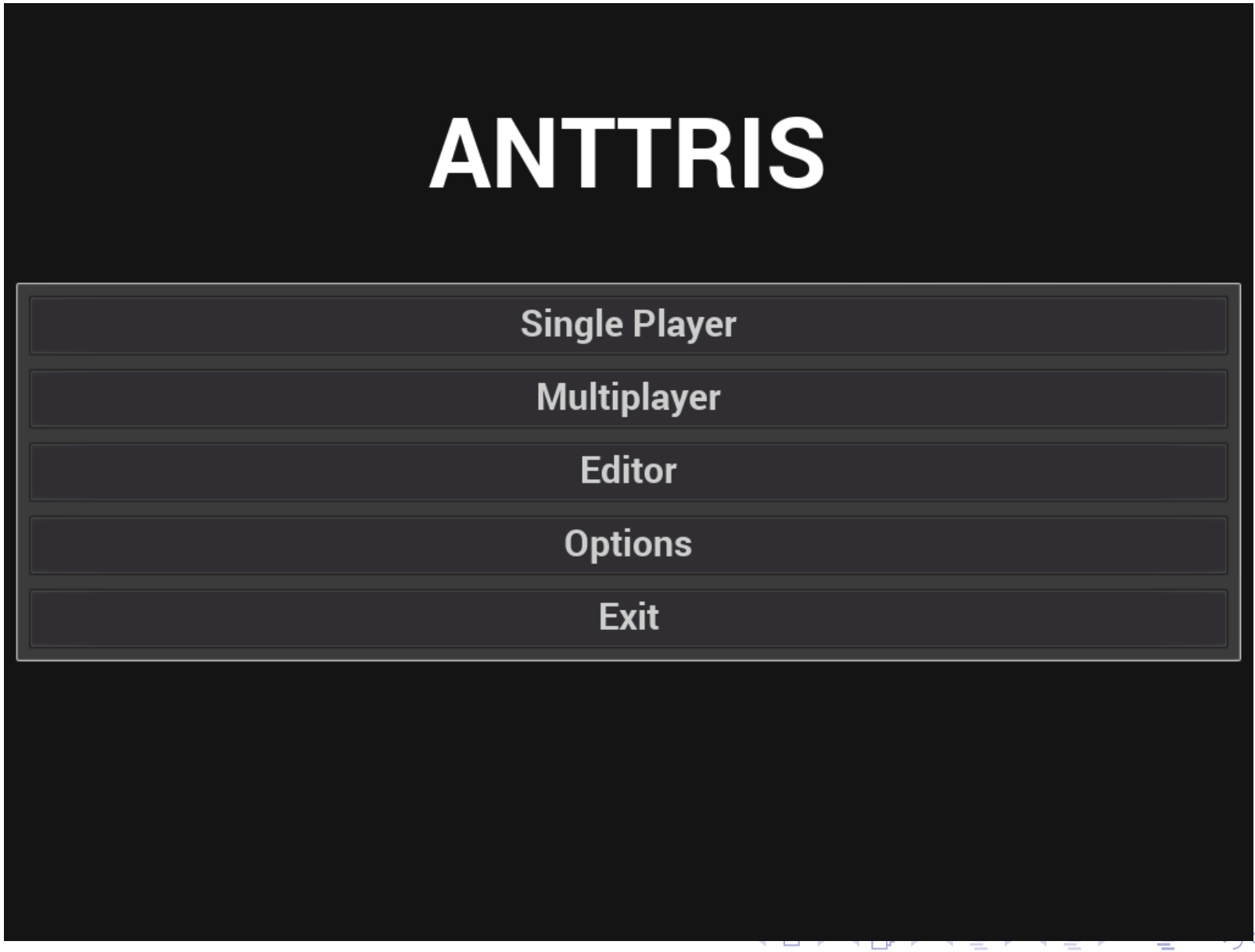
- Custom Puzzles

GUI


:Actor
:GUIManager
:FileManager
:NetworkManager
:Game
:Editor
Click Single Player
chooseGame()
playGame()
Click Multiplayer
mpGame()
Host or Join
Host or Join
playGame()
Click Editor
Click Options
optionsScreen()
Options Menu
Change Options
Save & Quit
saveOptions()
Cancel
Main Menu

GUI



Data Manager

- Serialize Data

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- Save / Load Options

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- Save / Load Puzzles

Editor

- Add/replace/remove different block types
- Load/save

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- Mobile friendly interface
- Layer management: create random, remove current (Stretch goal)

Generator

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- Randomize pairs

Solver

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The Solution:

- Pull out pair blocks
- Make sure all pair blocks have a pair
- Check if the pair is on the same layer

Networking

- Multiplayer

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- P2P

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  - Game End

Rules

- The puzzle grid

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- Pair blocks

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- Wild blocks

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- Score

Approach

Customer Requirements a fast, multiplatform block puzzle game with multiplayer and an editor.

System Design We based it heavily on Godot classes and previous work with prototypes (a Three.js and a Unity prototype)

Object Design GridMan, AbstractBlock, CameraControl

Implementation and Testing Gut.gd covered silly bugs

Godot

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- Tightly integrated with all of Godot's C++ classes. Fast where it counts.

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- Limited use of the neat GUI interface, binary files don't agree with Github

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- Continuous Integration
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  - Godot has a headless GNU/Linux server project which turned out to be perfect for this, with some scripting (more on this shortly)

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  - This project is hosted on Bitbucket at https://bitbucket.org/bitwes/gut/overview.

Project Pace

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Game Rules

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Puzzle and Blocks and Networking

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Testing

What we learned

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- Nothing.

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- Risk of Distributed Workload

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- Power of Starting Early
- Risk of Distributed Workload
- Applicability of Agile Methods

Demo