Game Design Document

Project-Antresola

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Versions of the document

Version	Description
Alpha 0.8	First versions of uncompleted document. Some of the basic mechanics and tasks.
Version 1.0	Finished document with basic things.

Content

1. Basic Information

Project-Antresola is an isometric Game made in Unity 2D based on Pixel art Sprite. The gameplay is based on moving NPC to provide tasks and build mode where player will choose type of tile (House, Fields, Walls, Irrigation, Pull out Trees). After choosing tile settler who is the nearest start doing the task.

The player will play as the hand of God who helps the villagers to protect themselves from enemies.

General

Game Engine	Unity 2D Isometric
Platform	PC
Graphic Style	Pixel art.
Progression	Protecting Village by Helping NPC
Time and Place	2077 b.c.

2. Game Mechanics

2.1 Player Control (Hand)

2.1.1 Selection Control
Script should have control user input and fire "Unity Event" what turn on Animations, script should have moving recourses and settlers.
Also (if tag selectable) after clicking on an object, the script should be able to find the clicked object in the "Grid Manager" and send the data it contains to the script displaying it on the screen.

2.1.2 Animation Controller
Cursor should have Animation Controller with method with animation and basic sounds what can be fired by another script.

2.2 Camera Controller
Player should be able to move Camera by clicking assigned keys, and mouse by moving close to screen border. Camera Controller should have included zooming in and zooming out limited by numbers.

2.3 Grid
2.3.1 Grid Menager
Grid Menager should be a storage for variables and dictionaries what contains tile type in Dictionary< Vector2, TileType> and in same way Selectable Object.

2.3.2 Selectable Object class

Selectable object class should be class containing Selectable object type Durability and capacity and all of the additional statistics what structures or object can add.

2.4 Build mode

Building mode should be a mode where player can select tile type and draw it on isometric map after that task for villagers should be added to task manager. Build mode should have structure type:

Building house (Increase villagers' capacity. Square selecting)

Fields (Create food that keeps villagers alive. Square selecting)

Irrigation System (Keeps Fiels in good condition, Selecting with Line)

Village Walls (Give your villager time for prepare defense. Connected Line + Gate)

Granary (Give capacity for your food. Square selecting)

2.5 Resource Menager

Resource Menager should be a script where all of the variable for resource and calculations of the using resource can take a place.

2.6 Settlers

2.6.1 Movement

Settlers' movement script should be a code where villager get position from task and find path in grid to it if can find path or path is too long player should be informed.

2.6.3 Task Controller

Task Controller is a script where settler after receiving task from Task Menager make specific task.

2.6.4 Animation Controller

Animation controller should be a script with methods containing animations.

Settlers should have animation of the:

- Wallking
- Cutting trees
- Building
- Gathering
- Being Grabbed
- Attack

2.7 Tasks Menager

Task Menager is a script where all of the villagers are assigned, and script find nearest task to do for settler.

2.8 Enemy

2.8.1 Movement

Movement should be the same script from villagers, but position should be received from Combat Controller.

2.8.2 Combat Controller

Combat Controller should be a script where code find nearest mini task villagers or burring and stealing food from Granary.

2.9 Save / Load Game

Save and Load script should be script where all of the player changes are saved and compressed to file.

3. User Interface

3.1 Main Menu

Main menu should have pixel art background with panel on left with title name and four buttons : New Game, Load, Options, Quit, (Credits if we have time for that).

Building System

Build UI will be a small icon with hammer when clicked five icons with building types will slide from down. After clicking build type slot should be highlighted and build type should be changed.

Structure properties

Structure properties should be a small tab in down left corner after selectable object being hovered all information about it should be displayed in tab.
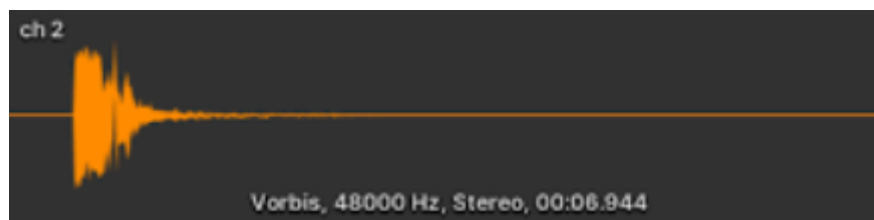
Resource UI

Resource tab should be a panel with four icons and actual number of resources number updated each time while resource is added.

Camera UI

In left upper corner should be camera icon with two buttons and number of current zoom.

4. Audio

All of the buttons in game should have click and hover sound.
All player actions like irrigation build mining same as settlers should have the same sounds.
Main theme should be simple and peaceful music.

5. Level Design

Map should be created and set by default. Map should have included few rivers lakes ponds lot of trees and stones.

6. Workflow

6.1 Folder Structure

```
Assets
├── Art
│   ├── Materials
│   ├── Models
│   ├── Textures
│   └── VFX
├── AudioS
│   ├── Music
│   └── SFX
├── Code
│   ├── Scripts
│   │   ├── Resource
│   │   ├── Grid
│   │   ├── AI
│   │   └── etc.
│   └── Shaders
├── Documentaion
├── Level Design
│   ├── Prefabs
│   └── Scenes
└── UI
    ├── Textures
    └── Scripts
```

6.2 Tasks

Player Selection Control script - KB

Player Animation Controller script - PB

~~Player Hand textures - KB~~

~~- Cursor regular texture~~
~~- Cursor hover selectable object~~
~~- Grab texture~~
~~- Grab Trees texture~~
~~- Building hand texture~~
~~- Irrigation system building texture~~

Player Camera Controller script - PB

Camera UI - KB

Grid script - PB

Grid Menager script - PB

Selectable Object class - PB

Selectable Object UI - KB

Build mode script - KB

Build mode UI - PB

Resource Menager script - PB

Resource UI - KB

Settlers Movement script - PB

Settlers Task Controller script - KB

Settlers Animation Controller script - PB

Settlers Animations - KB
        - Wallking
        - Cutting trees
        - Building
        - Gathering
        - Being Grabbed
        - Attack

Settlers Tasks Menager script - KB

Enemy Movement - PB

Enemy Combat Controller script - KB

Enemy Animations - KB
        - Wallking
        - Gathering
        - Attack

Save / Load Game script

Save / Load Menu UI

Main Menu UI – PB

Mian Menu textures - KB

Main Menu Scripts PB

Ground texture - KB

Water texture KB

Trees 5 variants textures – KB

Create 3 variants bush texure - KB

Rocks 5 variants textures - KB

Empty ground hole textures - KB

House Texture - KB

Fields Texture - KB

Village Walls + Gate Texture - KB

Granary Texture - KB