Unreal Code Lab

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# 1. Revision History

|  |  |
| --- | --- |
| **Version** | **Description** |
| 1.0 | Initial document |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

# 2. Development Environment

## 2.1 Game Engine

Unreal Engine 4.26

## 2.2 IDE

Visual Studio 2019

## 2.3 Source Control

System: Git

Client: GitHub Desktop

## 2.4 Third Party Libraries

N/A

## 2.5 External Software

N/A

# 4. Controls

|  |  |
| --- | --- |
| **MOUSE & KEYBOARD** | |
| **Action** | **Input** |
| Enter / Confirm / Accept | Left mouse click / Enter |
| Cancel / Return | Right mouse click / Escape |

# 5. Mechanics

# 6. Systems

## 6.1 Classes

Character Base: Ability system interface, Attribute set, dialogue interface (custom)

* Player Character: Controls, UI widgets,
* Enemy Character: AI

Item Base:

* Gear: Ability system interface, Attribute set
* Consumable

## 6.2 Quest

A quest consists of:

1. Quest prerequisite check
2. Quest start dialogue
3. Accept condition check
4. Mid quest dialogue
5. Quest completion check
6. Quest completion dialogue
7. Quest rewards
8. Post quest changes
9. Quest ID

Things to consider

* What happens when the player un-completes an objective? Can the system un-mark an objective as being complete?
* How does the quest system communicate with other systems? If a quest checks for a certain item(s) to be in the player’s inventory, then how often does the system run the check? Will it be able to detect if the player loses the item(s) from the inventory?
  + The inventory or other systems should have an event dispatcher that notifies the quest system

Class: Quest

* Name: ID
* Name: Display Name
* String: Description
* Quest Objective[]: Objectives
* Quest Reward: Reward

Struct: Quest Objective

* Quest Objective Type: Objective Type

Enum: Quest Objective Type

* Default
* Travel
* Interact
* Collect
* Slay
* Other

Struct: Quest Reward

* float: EXP
* Item[] items

# 7. Graphics

TBD – currently working without artists

# 8. Artificial Intelligence

# 9. Physics

TBD

# 11. Items

## 11.1 Weapons

|  |  |  |
| --- | --- | --- |
| **Name** | **Stats** | **Description** |
|  |  |  |
|  |  |  |
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|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## 11.2 Gears

## 11.3 Consumables

# 12. Interface

## 12.1 Start Menu

# 13. File and Programming Standards

## 13.1 File Guidelines

DO:

1. Name files and folders appropriately and use prefixes and suffixes when necessary.

DO NOT:

1. Delete a file that you have not created or added yourself without consulting the owner.

## 13.2 Programming Guidelines

DO:

1. Refer to the following standards set by Unreal Engine: <https://docs.unrealengine.com/en-US/ProductionPipelines/DevelopmentSetup/CodingStandard/index.html>

DO NOT:

1. Change the code of another programmer without consulting them

# 14. Asset List

|  |  |  |
| --- | --- | --- |
| **File Name** | **File Type** | **Description** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |