
CognitV Solutions

**VR Game
Developer Manual**

Version 1.0

CognitV Solutions VR Game	Version: 1.0
Developer Manual	Date: 04/06/2024

Revision History

Date	Version	Description	Author
05/06/2024	1.0	Putting together developer's manual from known information.	Madi Cole

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1. Introduction

CognitV's Virtual Reality Exposure Therapy Game is a form of treatment for social anxiety disorder. In this game players can explore uncomfortable social situations from a safe and controlled environment. Players will navigate through initiating conversation, listening to an HR policy speech, giving a speech of their own, and engaging in a disagreement with a coworker. The hope is that CognitV's VR game will provide a faster, easier, and more accessible form of treatment for those living with social anxiety disorder.

2. Development Environment Setup

2.1 **Unity Version:** 2022.3

2.2 **Supported VR Platforms:** Steam Index, HTC Vive, and Meta Quests

2.3 Additional Tools:

2.3.1 Visual Studio for C# development

2.3.2 Git for version control

2.4 Plugins and SDKs:

2.4.1 Convai Plugin

2.4.2 XR Device Simulator

3. Project Structure

3.1 Assets:

3.1.1 Scripts: C# scripts in 'Assets/Scripts'

3.1.2 Convai: Stored in 'Assets/Convai'

3.1.3 Materials: Stored in 'Assets/Materials'

3.1.4 Furniture: Stored in 'Assets/Furniture'

3.1.5 Mixamo: Stored in 'Assets/Mixamo'

3.1.6 Scenes: Unity scenes in 'Assets/Scenes'

4. Key Components and Systems

4.1 NPC Interaction System:

4.1.1 Script: NPCInteract.cs

4.1.2 Features: Controlling NPC's movement & order of gameplay

4.2 Game Exit Menu:

4.2.1 Script: GameExitMenu.cs

4.2.2 Features: Functionality of the buttons on the exit menu

4.3 Game Start Menu:

4.3.1 Script: GameStartMenu.cs

4.3.2 Features: Functionality of the buttons on the main menu

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4.4 SAD Info Menu:

- 4.4.1 Script: SADInfoMenu.cs
- 4.4.2 Features: Functionality of the buttons on the SAD menu

4.5 SAD Text:

- 4.5.1 Script: SADText.cs
- 4.5.2 Features: Holds the text for the SAD info screen

4.6 Scene Transition Manager:

- 4.6.1 Script: SceneTransitionManger.cs
- 4.6.2 Features: Controlling the transitions between scenes

4.7 Audio Manager:

- 4.7.1 Script: PlayAudioFromAudioManager.cs
- 4.7.2 Features: Controlling the audio for the buttons on the menus

4.8 Menu Options:

- 4.8.1 Script: SetOptionFromUI.cs
- 4.8.2 Features: Functionality of the options on the main menu

5. Version Control Guidelines

5.1 Branching:

- 5.1.1 'main' for production-ready builds

5.2 Commit Messages:

- 5.2.1 Should be clear, concise, and communicate any issues/bugs that there may be with the feature.

6. Testing Protocols

6.1 Integration Testing:

- 6.1.1 Conducted on complete game scenes.

6.2 Performance Testing:

- 6.2.1 Tested manually using test cases provided in the test case documentation.
- 6.2.2 Regular checks, especially after integrating new assets or features

7. Build and Deployment

7.1 Building:

- 7.1.1 Use Unity's build settings configured for each supported VR platform.

7.2 Deployment:

- 7.2.1 The project is exported as a .exe and everything runs locally.
- 7.2.2 The only thing the user would need is internet access for the AI to respond.

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8. Best Practices

8.1 Code Review:

8.1.1 Mandatory code reviews before merging any feature branches into main.

9. Additional Resources

9.1 Unity Documentation: [Unity Docs](#)

9.2 Convai Documentation: [Convai Docs](#)

9.3 Oculus Developer Guide: [Oculus Dev](#)