

Distributed Physics in Unity using SpatialOS

User Manual

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Team Name: Group 13

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Modification history:

Version	Date	Who	Comment
v0.0	11/13/17	Michael Thompson	Basic building structure in Unity
V0.1	11/21/17	Kyle Turner	Adding SpatialOS backend
V0.2	11/23/17	Michael Thompson Kyle Turner	Worked more on SpatialOS backend Added basic movement mechanics
V1.0	11/26/17	Michael Thompson Kyle Turner Kristin Knotts William Terry	Finished SpatialOS backend Finished building structure Added office building objects from clara.io

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System Description

The software that has been created is a simulation of an office building environment that can be used in part of a larger program to emulate combat simulation. Our system takes advantage SpatialOS to distribute physics across multiple servers to enhance the capabilities of our system. All objects used in the software are intractable and can be destructible and accounted for by SpatialOS.

System States

The SpatialOS backend will keep track of the user in the software. The navigation and physics will be tracked in the backend and updated in the interface provided by SpatialOS.

When running the client side software, the user will be able to navigate and look around in the world provided. The user will also be able to destroy the building by a triggered event.

System Functions

Movement of the system is mapped to the 'W,' 'S,' 'A,' and 'D' keys on the keyboard. Player movement for forward and backward motions are on the 'W' and 'S' keys. 'A' and 'D' keys are for player movements to the left and right respectively.

For destruction of the building structure, the player will press the shift key on the keyboard and look at the building. The building will begin to destruct itself.

Appendix – Acronyms and Abbreviations

N/A