Test Plan

# 1 Introduction

## Test Objectives

The purpose of this testing phase of the Mixed reality system should meet the requirements so that:

* The user can move around the stage.
* All music is fully functional and played correctly.
* Animations are running properly.
* The system is easy to use by the end-user.
* All points of interaction are functional.

## System Overview

The Mixed Reality system is a virtual concert hall which has Hatsune Miku, a virtual singer, on stage and performing songs. Within the concert hall, the user can listen to her music as well as move around and participate as a member of the audience.

# Approach

## Assumptions and Constraints

### 2.1.1 Assumptions

* The build will be ready for testing by April 24th, 2025.

### 2.1.2 Constraints

* 9 weeks might not be enough time to fully test the system and then retest to find new bugs due to the implemented fixes.

## Resources

### 2.2.1 Testing Tools

* Playback/Capture device

### 2.2.2 Test Environment

* Hardware
  + Asus
  + Intel Core i7-7700
  + 16GB RAM DDR3
  + RTX2080 Super
* Network
  + LAN
    - Internet connection required
* Software
  + Mixed Reality Build
  + Firefox
  + MS Windows 10 operating system

# 3 Features to be Tested

## 3.1 System Ease of Use

* Camera Control
* Spatial Audio

## 3.2 System Performance

* Time to load assets
* Average FPS during a song
* Time to move between camera positions

## 3.3 Non-player characters

* Miku’s animations
* NPC movement

# Features Not to be Tested

* Lighting
* Audio Controls

# Testing Procedures

# Risks and Contingencies

This part of the document describes contingency plans, if the project experiences problems.

* Loading assets (or time) – Risk level moderate to high. Should a problem occur, code should be reviewed and number of assets used should be adjusted. Could have a large effect on user experience.
* Spatial Audio – Risk level low. Should a problem occur, push mono audio untill the problem can be fixed. Could impact user experience.
* NPCs movement – Risk level moderate to high. Should a problem occur, user experience could be affected. Fixing the issue could consume a large amount of time.