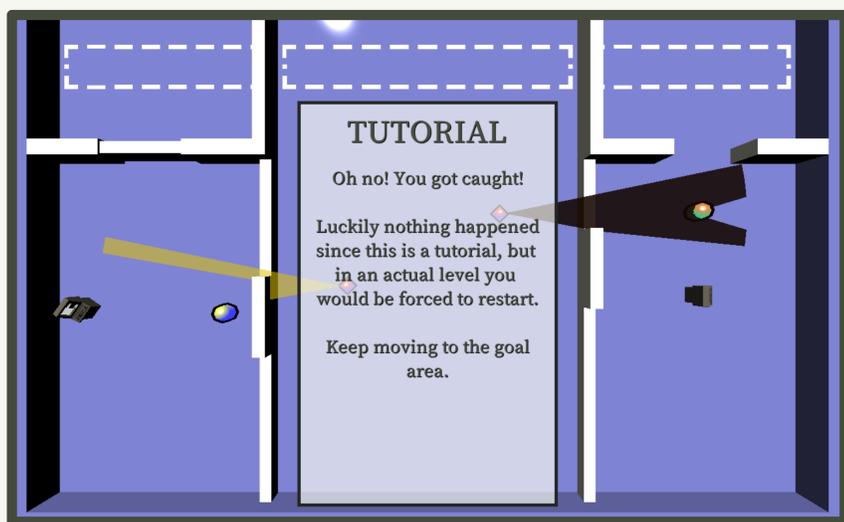


SIGINT

Introduction

The Computer Graphics and Virtual Reality Laboratory at the University of Tartu uses a Raspberry Pi 4 and a video projector to show a demo reel on vertical smart glass wall panels. The goal of this project was to develop a video game which runs on the same hardware and uses the wall panels in its game design. SIGINT is the video game that was developed as a result.



Implementation

The game was developed using the Godot game engine. One challenge was getting the project running on a Raspberry Pi, since Godot is not yet officially supported on it. Additionally, because SIGINT needs to run on resource-limited hardware, performance optimization was necessary to achieve a smooth frame rate. This was done by creating custom shaders to calculate the lighting effects.



Features

SIGINT is a top down local co-op puzzle game, playable by 2-4 people at the same time. The main goal for players is to solve puzzles, which is done by cooperating and communicating with other players.

A total of five levels were created for SIGINT. First, there is a tutorial level, which teaches players how to play the game. After that, there are four other levels, where each level has a different puzzle to solve. Once players finish the final level, they can enter their team's name into a leaderboard. This leaderboard tracks how fast different teams finished the game.

Team name	Time elapsed	Finished
FASTER	01 min 23 sec 126 ms	06.05.2021 01:07
DYN DUO	05 min 10 sec 471 ms	06.05.2021 01:03

Scroll up/down + Back ⌂

Conclusion

The created game was playtested by potential players and they found it enjoyable to play. The game can be developed further in the future to improve the performance, and to create additional levels. More information about SIGINT is available at the link below.

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