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\usepackage[english]{babel}

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\usepackage{amsmath}

\usepackage{graphicx}

\usepackage{hyperref}

\usepackage{todonotes}

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\usepackage{multirow}

\usepackage{pdflscape}

\usepackage{subcaption}

\usepackage{listings}

\usepackage[parfill]{parskip}

\usepackage{amsmath}

\usepackage{amsfonts}

\usepackage{amssymb}

\usepackage{multicol}

\usepackage{mathrsfs,amsmath} %Kees: voor fancy fourier transform F

\usepackage{pdflscape}

\usepackage{pstricks, pst-node, pst-plot, pst-circ}

\usepackage{moredefs}

\usepackage{pdfpages}

\usepackage{float}

\usepackage{titlesec}

\setcounter{secnumdepth}{4}

%\usepackage{mcode}

\title{%Module 7

{\huge {\bf GameDesign Document Surreal GRavity}}\\[1.5cm]}

\author{{\Large Kees Kroep}\\[0.2cm]\\}

\date{\today}

\begin{document}

\maketitle

\section{Introduction}

This document is a description of the game from a consumer point of view. It provides a detailed description of what we aim our game to become, without covering technical details. All elements mentioned are subject to change.

\section{Target Audience}

The target audience are PC Gamers who like fast paced FPS games like Quake, Unreal Tournament, Shootmania Storm, and Tribes Ascend. We also try to make it fun for casual people but we definetly want the game to be hard to master.

\section{Platform & Controls}

The platform is PC (keyboard and mouse). As of now the controls involve standard fps control: ASWD, space and the mouse. The game will be online (LAN) multiplayer.

\section{Story, characters and setting of the game}

We did not establish a background story yet. The background story will not be a core component of the game. Dependent on how much time we have we can implement a tutorial level with extra background, and maybe build a sci-fi arena setting around our game. The characters in the game are the players and as of now just competitors.

\section{Artificial Intelligence}

During a game there will be little robots deployed. These "employees" fly around the map and destroy the blocks that make the level. A selection algoritm is used to choose the next block. A pathfinding algoritm (e.g. Dijkstra) is used for navigation. The robot can be killed by player bullets. They will respawn after some time when killed. They will also feature custom animations.

\section{Level and environment design}

The levels are made of procedurally generated blocks. Currently there is no variation in the blocks but we plan on doing so. We currently have custom skysphere. We also plan on adding elements in the theme of the robots. For example spawn locations. The ideas of this subject are still in early development.

\section{Gameplay and mechanics}

The ASWD keys handle the standard forward, backward, left and right movement. Space handles jumping. Currenly one can jump when in collision with a building block. This means you can wall jump! We like this feature because it gives a bigger feeling of freedom when navigating through the level. \\

\\

The big feature of this game is the ability to change your own gravity. This is done with the right mouse button. This produces a rail that can hit a building block. The normal of the collision surface determines the direction of the gravity. \\

\\

We think that bthis feature has great potential to make for some fresh new gameplay experiences. Beacuse every player controls his own gravity, the wall of the first player can be the floor of the second player. \\

\\

Finally there is the left mouse button. This fires a projectile in forward direction. The player has to use the projectile to hit opposing players. The bullet has no gravity component. The bullet can also be used to destroy "employees", but we currently do not plan on that being a goal.

\section{Art}

The art of the game involves multiple aspects. We mainly focus on blender models with skeletal animations. We use these primarily for the players and the "employee" robots.

\section{Sound and Music}

We use sounds for feedback in the game like any FPS would. We aim for sci-fi sounds that are not too mechanic. One of our main inspiration sources is "On the run" by Pink Floyd. We aim for making a soundtrack as well but this is of less importance than ingame sounds as of now.

\section{User Interface, Game Controls}

We will provide the user with a variety of options in the menu section. The player will be able to modify its character and store it on a webserver. The host will have some additional options for the game settings (e.g. gravity strength). We have the possibility to make controls customizable, but this is no priority whatsoever.

\end{document}