MMI541 – Physics for Computer Games

Project Notes

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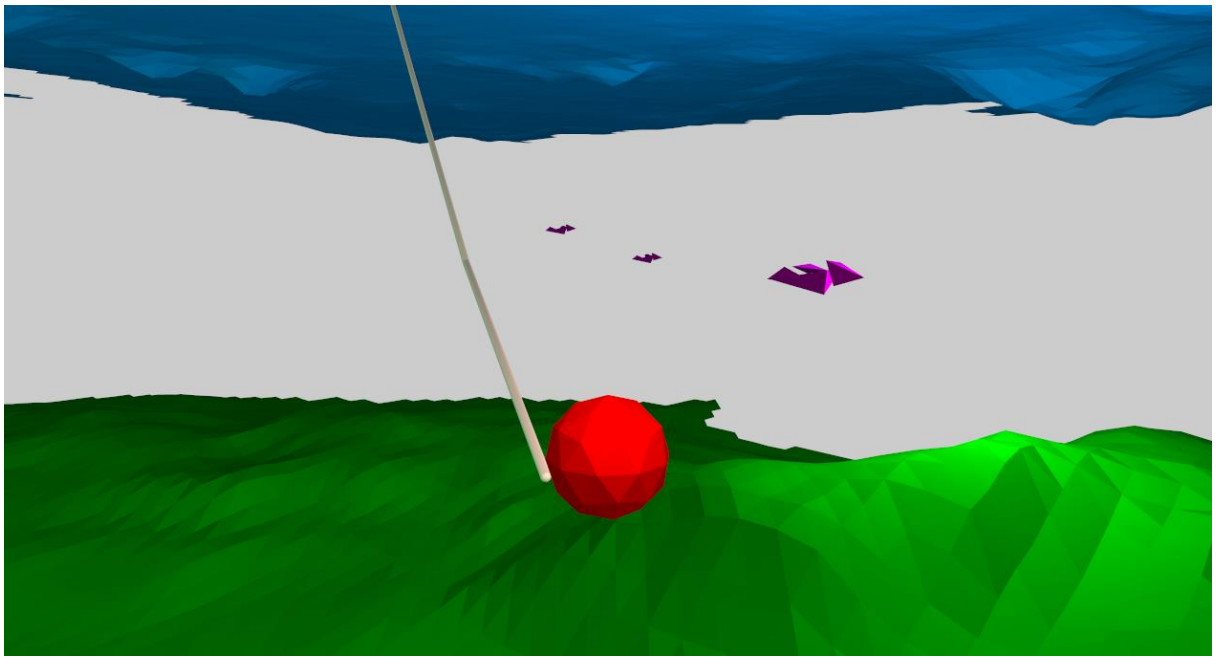

Figure 1. An ingame screenshot

How to Play

Use “run.bat” to start the game. The submit folder contains a build for the project. Note that it may take few seconds to launch it since terrain (i.e. ceiling and floor) meshes are slightly large in terms of vertex and triangle count. Also, do not forget to press B when the game is launched as it starts in pause mode.

If you want to compile it yourself, use “build.bat”. Note that you should use x64 Native Tools Command Prompt or run Visual Studio’s “vcvarsall.bat x64” before building the project. Otherwise, Windows Command Prompt will not recognize cl(i.e. the compiler).

Keys

Camera rotation: Hold right mouse button or shift key and drag the mouse

Fire spring: Left mouse button

Release spring: Middle mouse button

Swing: Up/down arrow keys

Pause/Resume: B

Third-Party Libraries Used

stb_image.h and stb_image_write.h, written by Sean Barrett (@nothings). They are available on: https://github.com/nothings/stb

Notes

The project is compiled with Visual Studio 2015 on x64 mode. Compiling on x86 mode will generate warnings and warnings are treated as errors in build.bat).

The project is tested on Windows 8, 64-bit.

Description of Folders & Files

assets: This folder contains meshes, shaders and textures required for the project.

bin: This folder contains the executable.

include: This folder contains the headers of third-party libraries used in the project.

lib: This folder contains .lib files of third-party libraries. For this project, there are none.

src: This folder contains the source files. Most of them are irrelevant to the project. *Check kdb_physics(.h/.cpp) and kdb_scene(.h/.cpp) for physics and game logic related code.*

build.bat: Use this batch script to build the project.

run.bat: Use this batch script to run the project.