

## PROJECT SPECIFICATION - Project (Technical Computing) 2020/21

<b>Student:</b>	Korneliusz Bedynski
<b>Date:</b>	28/10/2020
<b>Supervisor:</b>	Christopher Roast
<b>Degree Course:</b>	Computer Science for Games
<b>Title of Project:</b>	2D DirectX Support Framework

### Elaboration

Creating a 2D project with C++ is extremely tedious right now as C++ programming language does not possess a visual library of its own and the only way to do it, is to find and learn different visual libraries that are less known and not as desirable to learn.

This project explores the 2D aspect of DirectX to create an easier approach to creating 2D projects and games in C++ programming language.

Using DirectX to code with C++ presents a much more appealing approach, to both novice programmers and experienced ones that are looking to expand their skills set. This is particularly relevant as knowing how to code in C++ is highly sought after by many companies and 2D is usually the starting point for many programmers to learn new things.

### Project Aims

- Gain a better understanding of DirectX
- Produce classes/code that simplifies complicated parts of DirectX.
- Learn how to code basic physics.
- Produce an application that is focused on ease of accessibility.
- Learn how to create a level editing software.
- Gain a better understanding of programmers and how they perceive terms such as: "simple, easier, more accessible"
- Evaluate how the product supports intended end users in starting to develop DirectX skills.
- Evaluate how the project could have been better and improved with the knowledge gained during the project creation.

### Project deliverable(s)

- I will deliver an application that allows the user to create 2D projects in a level editor.

- I will deliver a C++ library that provides 2D support for DirectX.
- I will deliver a desktop computer application that will be run on the windows operation system.
- I will deliver an application that allows creation of 2D projects and games.

### Action plan

Tasks	Milestone
Research Information regarding the project	06/10/2020
Set up project version control	06/11/2020
Set up a basic DirectX 12 window	20/11/2020
Start working on a 2D library for DirectX 12	27/11/2020
Finish creating a 2D game object class	11/12/2020
Finish working on all child classes from game object class	25/12/2020
Create a basic Level editor (Intractable Window)	08/01/2021
Create a Scene Class	15/01/2021
Create draggable objects in the level editor	29/01/2021
Create a collision system for 2D	12/02/2021
Add Saving and Loading system	26/02/2021
Carry out the test with first-Second year participants.	5/03/2021
Implement changes based on feed back from the online test.	26/03/2021
Hand in all the work.	15/04/2021

### BCS Code of Conduct

I confirm that I have successfully completed the BCS code of conduct on-line test with a mark of 70% or above.

**Signature: Korneliusz Bedynski**

### Publication of Work

I confirm that I understand the "Guidance on Publication Procedures" as described on the Bb site for the module.

**Signature: Korneliusz Bedynski**

### GDPR

I confirm that I will use the "Participant Information Sheet" as a basis for any survey, questionnaire or participant testing materials. **Signature: Korneliusz Bedynski**

