Rain Proposal

*The objective of the project is to create a convincing and optimised rain system that replicates the character effect in the 2013 game “rain”. The effect is to be accomplished entirely with particle systems, dynamic real-time rain, and in either the in-house game engine or alternatives if they provide a better result.*

# Aims:

* Create a playable character without a transparent model
* Have the rain react realistically to the environment and lighting
* The rain must splash off the character
* Animation skeleton system that simulates a human without a model
* Must run on the in-house game engine e.g. PhyreEngine
* Be optimised for PC & console

# Research Questions:

* Is it possible to create the effect with the in-house engine?
* How does rain react in the real world?
* How many game engines or alternatives can be used?
* What level of complex gameplay can be achieved with this method?
* What is the best solution for to create a convincing effect?
* Is there any way to generate a better effect with a lower resource cost?
* What are the limitations of the effect?
* How does it compare to the effect in the original game?
* Are there other areas this effect can be used for?
* Will it work on the majority on modern systems?

# Research Methods

Reading research papers available on the UWE (University of the West of England) library search, to find the best methods for creating a convincing rain with a character running around with a solid form. Using the resources of PhyreEngine’s Documentation, with the owner’s contact, and other middleware game engines or graphic software. Various online resources for graphics and other game tech such as GDC (Game Developers Conference), and working with other game systems such as the PlayStation.

# Significance of Research

The intent of the research is to create a high-end visual effect with off the shelf tools and academic level implementation to demonstration that you can create expensive film level visual effects without the need to go over the resource budget or use a more mundane implementation to create a similar effect.

# Bibliography