

SOLAR SYSTEM EXPLORER - AN INCREMENTAL GAME

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Abstract

Solar System Explorer - An Incremental Game

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This report details the design and implementation of a software engineering project to create a space exploration themed incremental game. The challenge was to introduce a degree of realism to the representation of space beyond that in similar products from the incremental games market.

The game was created using languages that made it suitable for delivery via a Web browser, using an incremental software development lifecycle and focusing on prototyping for testing during development.

A game named Solar System Explorer was produced, successfully incorporating several planned features including those required to meet the definition of an incremental game.

Suggestions are also provided herein as to the further development of the product beyond the timescale of this particular project.

Acknowledgments

0.1 Introduction

0.2 Further background material

0.3 Analysis and specification

0.3.1 Example Requirements

0.3.2 Game specific requirements

0.4 Design

0.4.1 Language selection

HTML

CSS

JavaScript

0.5 Implementation and testing

0.5.1 Data structures

0.5.2 Rotation in 3D space

0.5.3 Unit testing

0.5.4 Prototype model

0.6 User interface

0.6.1 Incremental game conventions

0.6.2 General UI conventions

0.6.3 Aesthetic

0.7 Project management

Tools, time management, meetings.

0.8 Results and evaluation

0.9 Discussion

0.10 Conclusion

0.11 References

Declaration

The material contained within this thesis has not previously been submitted for a degree at the University of Birmingham or any other university. The research reported within this thesis has been conducted by the author unless indicated otherwise.

Signed