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PROTOTYPING IN LITTLEBIGPLANET

PROJECT PLAN

Abstract

A game design project about prototypes and exploring the possibility of building one in LittleBigPlanet.

Public

For anyone interested in game production and especially prototyping.

Version history

Version	Date	Author	Comments
0.01	090129	Isak Anklew	An early sketch
0.02	090204	Isak Anklew	Almost done
1.0	090206	Isak Anklew	Final

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1 BASIC INFORMATION

1.1 PURPOSE

The thesis is about testing [LittleBigPlanet](#) and its relevance as a software prototyping model. By using the game's built-in *Create* mode, could a designer build up a functional prototype to better express his vision?

*LBP*¹ could build a new way of creating an iterative process that takes use of the in-game physics, rules and serves as a testing ground for new ideas. It has already been proven that the community can create games inside the game.

What I want to explore is the possibilities of creating a basic prototype for a new concept/design inside of *LBP*.

To put it short, could *LBP* be used as a viable prototyping platform?

Our early courses brought up prototyping as one crucial feature in any modern game design process, this is why I wanted to try out the importance of prototyping. I will focus on the software based prototyping, but that is not to say I will discard pen & paper prototyping or any other low-fidelity models.

In my research I will use both to figure out advantages and disadvantages and then apply the findings to my prototyping sessions.

The end goal is to highlight the importance of prototyping and how a good prototype can change the outcome of a whole game production.

1.2 BACKGROUND

Prototyping has been around since the dawn of game design so why bother bringing it up again?

First of all, prototyping has evolved along with games themselves. There are a lot of new methods for prototyping and defining an idea through prototypes is one of the best ways to get your vision through to other people.

Universities and schools that focus on game design and other sections of the production are growing and a lot of hobbyists are creating their own games on their spare time.

With this new outlook, we need a new method for easy and useable prototyping. Why not use an easy and user friendly platform to build it on?

This is why I set my stage in *LBP* and also why this project is about prototyping in its user friendly environment.

¹ *LBP*, *LittleBigPlanet the game*. See 9.1 *Abbreviations for more*.

2 GOALS

2.1 PROJECT GOALS

- A pre-research on the subject
- Blog post at least every third day concerning the progress of the project
- Three weeks of prototyping process
- Documentation of the prototyping through both videos and writing
- A presentation on the project
- Final report

2.2 PROJECT OBJECTIVES

I want to make the overall industry and every aspiring game designer even more aware of the benefits of prototyping. It's important to test out a game mechanic or concept before starting to build it, otherwise how will you know what fits in your game and not?

Testing out the prototype and playing with it is part of the job both as a designer and other team member of a creative process. This is why I want to raise the awareness and get more people to do prototypes.

By testing out a new method for easy software prototyping inside of *LBP* I hope more will find the benefits of the process and take use of my method.

2.3 STRATEGY

LBP will be used as a main platform for this project, with its help I'm going to test out the possibility of creating a simple software prototypes for different concepts and mechanics.

I also want to try out a paper to prototype thesis, how to make your low-fidelity prototypes more viable in a software environment.

I'll start by doing some research on the subject to get a grasp of what it's all about. After the research phase I'll start to learn the software I'm using (in this case the game's Create mode), after that the real challenge of creating a working prototype begins.

After a working (don't have to be a complete) prototype is made I consider myself done. I'll document all the way through this project and when sitting down with the game I might record and share some of my experience with it in video form.

The end product should either be a working prototype or a nonworking prototype, in the latter with useful data on why it didn't work.

2.4 REQUIREMENTS

Documents that requires delivery:

- Project proposal
- Project plan
- Project final report
- Mentor proposal (if needed)

I need to:

- Update my progress at my project blog
- Make up a middle milestone by myself
- Present my findings on presentation day 17th and 18th of March 2009
- Deliver the final report before the course end on the 25th of March 2009

2.5 ASSUMPTIONS

What I have:

- PlayStation 3
- LittleBigPlanet
- PlayStation EYE

What I could need:

Money for buying extra DLC for further development in the prototyping phase.

2.6 INCLUDED/ EXCLUDED

2.6.1 INCLUDED

- Blog posting
- Research
- Learning the software
- Prototyping
- Documentation
- Presentation
- Delivery of project documentation

2.6.2 EXCLUDED

- Creating a playable level that needs to be uploaded to the public
- Finish all prototypes that I start
- Making an "easy on the eye" prototype

3 CONNECTIONS TO OTHER PROJECTS

3.1 FEEDBACK FROM PREVIOUS PROJECTS

<http://joshg.wordpress.com/2008/02/07/prototype-post-mortem-quadrix/>
February 7th, 2008 by [joshg](#)

<http://fieaucf.blogspot.com/2008/11/rapid-prototype-post-mortem-round-4.html>
November 13, 2008 by Reid Bond

3.2 LITERATURE / OTHER REFERENCES

I've got some books from school that touch on the subject which will be the main resources for this project, but I'll also take advantage of internet sources.

Literature:

Game Design Workshop, [Tracy Fullerton; Christopher Swain; Steven Hoffman](#),

Publisher: CMP Books (February 2004)

ISBN-10: 1578202221

ISBN-13: 978-1578202225

All of chapter 7

Game Production Handbook 2/E, [Heather Maxwell Chandler](#)

Publisher: Jones & Bartlett Publishers; 2 edition (August 29, 2008)

ISBN-10: 1934015407

ISBN-13: 978-1934015407

Parts of Chapter 14, more specific 14.4 Prototyping

Game Space Final Report Jussi Kuittinen, Frans Mäyrä, Janne Paavilainen, Annakaisa Kultima, Johannes Niemelä, Hannamari Saarenpää

Published 2009-02-06

Chapter 3.4, pages 56-68

Web sources:

Note: More details on the sources in 9.2 reference list.

http://www.gamasutra.com/features/20051026/gabler_01.shtml

http://www.gamasutra.com/features/20060329/waugh_01.shtml

<http://lostgarden.com/2005/08/common-game-prototyping-pitfalls.html>

<http://en.wikipedia.org/wiki/Prototype>

<http://csweb.cs.bgsu.edu/maner/domains/Proto.htm#0>

<http://www.prototypezone.com/prototype/prototyping-history-and-prototype-development-information>

<http://www.gamesindustry.biz/articles/prototyping-the-sims-3>

<http://www.igda.org/leadership/?p=111>

http://www.gamasutra.com/features/20050913/sigman_01.shtml

<http://lostgarden.com/2005/10/space-crack-gift-prototype.html>

4 PLANS

4.1 MILESTONE PLAN

The milestone dates assume that project can be started no later than 20/1 2009. The following Milestones (MS) are defined:

MS/TG	Date	Scope	Exit criteria	Responsible
MS1	23/1 2009	Overview of the topic and research questions	Project proposal delivered and research initiated	Isak
MS2	6/2 2009	Complete the project plan	Project plan delivered	Isak
MS3	17/2 2009	Create and discuss a LBP prototype	A LBP prototype created	Isak
MS4	17-18/3 2009	Prepare presentation and write a closing document	Presentation and end doc. delivered	Isak
MS5	25/3 2009	Hand in before this date!	Last day for documentation to be delivered	Isak

4.2 TIME SCHEDULE

Note: Go and click on "Project schedule" on my [blog](#) for weekly updated schedules.

Week	4	5	6	7	8
Topic	First week	Research	Research	Learning the software	Prototyping
Scheduled (h)	10	10	15	20	20

Week	9	10	11	12
Topic	Prototyping	Prototyping	Documentation	Presentation
Scheduled (h)	20	20	20	15

Total project time: **150 h**

4.1 RESOURCE PLAN

I'm the sole author on this project, but I will exchange some questions and advices from Victor Ågren, level designer at Media Molecule.

4.2 PROJECT BUDGET

Note: These numbers are for reference only, I'm not getting paid for this project.

Additional DLC and equipment costs: **1000 SEK**

Salary: **2000 SEK/Day**

Total time spent: **19 days**

Budget: **40 000 SEK**

5 PROJECT ORGANIZATION

5.1 ROLES, RESPONSIBILITY AND AUTHORITY

Roles, responsibility and authority are described in the following section.

Isak Anklew, author and main contributor of the project.

Annakaisa Kultima, project leader/teacher.

Victor Ågren, advisor, level designer at Media Molecule.

5.2 REPORTING AND COMMUNICATION PRINCIPLES

5.2.1 Project Communication

The project uses a blog for tracking progress and uploading documents.

E-mail and blog comments will be used as the primary project communication tool.

5.2.2 Project Meetings

A project meeting with LTU staff can be requested by the student if there are functional and design changes or other change requests that can not be regarded as minor in the project.

Agreements and decisions are documented in the minutes of meeting (of project meetings and technical meetings). Minutes on meetings must be available on the blog site no later than two working days after the meeting.

5.2.3 Project Reporting

Reports and results will be delivered with every milestone using the blog and via email.

The Milestone presentation material must be available on the blog at least four working days before the presentation date.

5.2.4 Document plan

The following documents will be prepared within the scope of this project. These documents will also reference documentation not listed in the plan.

Title	Description	Resp.
Project Plan	Project goals and objectives, organization, responsibilities, communication.	Isak
Concept/Proposal	A brief proposal of the thesis.	Isak
Post Mortem/Final Report	Project conclusion.	Isak
Prototypes	LBP prototype level, pen & paper prototypes (battleships), Warcraft III world editor map	Isak

6 QUALITY PLAN

6.1 QUALITY OBJECTIVES

The quality objectives of this project are:

Providing a clean new look at prototypes from an aspiring game design student's perspective.

Explore a new way to software prototype inside of LBP.

6.2 QUALITY FRAMEWORK

6.2.1 Reviews

Milestone deliveries are performed according to in chapter 4.1

Review of the Milestone deliveries are made prior to the presentation. Changes or additional work might be needed for approval. This will be notified through mail two working days after presentation at the latest. The additional work must be completed and uploaded before the presentation is scheduled.

The presentation itself is reviewed and approval/failure will be notified by mail two working days after the presentation is made.

6.3 SUPPORTING ACTIVITIES

6.3.1 Document Management

All project-related documents shall be written in English.

Documents and material must be version managed. Each revision of project related documentation shall be uploaded.

Project correspondence (e-mails, faxes, and letters) with important information for the project will be treated as project documentation.

6.3.2 Change Management

Changed requirements or exemptions can be addressed at project meetings or by e-mail

6.4 VERIFICATION

6.4.1 Reviews, inspections and tests

The author of a document has the responsibility to initiate a review of a document. This is planned to be for each milestone delivery. Additional reviews can be made if it considered to be needed by LTU.

The student can also ask for additional reviews which will be performed if available time and resources are available at LTU.

7 RISKS AND OPPORTUNITIES

Risks:

- Learning the creating tools might take up more time than scheduled.
- Software prototyping might be harder than it seems.
- I might have planned in too little time on the schedule.

Opportunities:

- The prototyping could lead to further digging into other areas of the production.

Plan B's:

- If the creating tools turns out harder to master than expected I can use the first half of my first prototyping week to learn more about them.
- If the prototyping proves to be a harder task than I thought I just do as good as I can. Even if I don't succeed with creating a working one, an incomplete prototype might prove to be just as valuable.
- If I've planned too few hours into the project I just add in some hours, I got more to put in.

8 PROJECT CONCLUSION

When I've found viable results from my prototype in *LBP* and shared those in a blog post and in my final document the practical phase is over. Documentation starts right after the last week of prototyping and when that is done the presentations begins.

After the presentation and my final report on the subject is handed in, the project is concluded.

The days for presentation is 17th and 18th of March 2009.

The last day for handing in the postmortem is the 25th of March 2009.

9 REFERENCES

9.1 ABBREVIATIONS

LBP [LittleBigPlanet](#), by [Media Molecule](#) 2008

9.2 REFERENCE LIST

Literature:

- | | | |
|------|-------------------------------------|---|
| 2004 | Game Design Workshop | Tracy Fullerton; Christopher Swain; Steven Hoffman |
| 2008 | Game Production Handbook 2/E | Heather Maxwell Chandler |
| 2008 | Game Space Final Report | Jussi Kuittinen, Frans Mäyrä, Janne Paavilainen, Annakaisa Kultima, Johannes Niemelä, Hannamari Saarenpää |

Web sources:

Added 2009-01-20

http://www.gamasutra.com/features/20051026/gabler_01.shtml

By Kyle Gabler, Kyle Gray, Matt Kucic and Shalin Shodhan

Gamasutra

October 26, 2005

http://www.gamasutra.com/features/20060329/waugh_01.shtml

By Eric-Jon Waugh

Gamasutra

March 29, 2006

<http://lostgarden.com/2005/08/common-game-prototyping-pitfalls.html>

By Daniel Cook

Lostgarden

August 21, 2005

<http://en.wikipedia.org/wiki/Prototype>

Wikipedia

<http://csweb.cs.bgsu.edu/maner/domains/Proto.htm#0>

By Walter Maner

Revised March 15, 1997

<http://www.prototypezone.com/prototype/prototyping-history-and-prototype-development-information>

By ?

Added 2009-02-05

<http://www.gamesindustry.biz/articles/prototyping-the-sims-3>

By Rob Fahey

07/04/2008

<http://www.igda.org/leadership/?p=111>

Posted by BenHoyt

November 13th, 2008

http://www.gamasutra.com/features/20050913/sigman_01.shtml

By Tyler Sigman

Gamasutra

September 13, 2005

<http://lostgarden.com/2005/10/space-crack-gift-prototype.html>

By Daniel Cook

Lostgarden

October 02, 2005

10 APPENDICES

CHARACTERISTICS OF A PROTOTYPE by [Walter Maner](#) 1997

A. TYPES OF PROTOTYPE

1. *LOW-FIDELITY versus HIGH-FIDELITY*

a. LOW-FIDELITY

A set of drawings (e.g., storyboard) that provide a static, non-computerized, non-working mock-up of user interface for the planned system

b. HIGH-FIDELITY

A set of screens that provide a dynamic, computerized, working model of the planned system

2. *EXPLORATORY versus EXPERIMENTAL versus OPERATIONAL*

a. EXPLORATORY

A throw-away prototype used to clarify project goals, to identify requirements, to examine alternative designs, or to investigate a large and complex system

b. EXPERIMENTAL

A prototype used to validate system specifications

c. OPERATIONAL

An iterative prototype that is progressively refined until it becomes the final system

3. *HORIZONTAL versus VERTICAL*

a. HORIZONTAL

A prototype that models many features but with little detail

- a horizontal slice of a system's structure chart from the top down to a specific depth
- most useful in the early stages of design
- purpose is to test the overall interaction metaphor, so includes common functions that the user is expected to perform frequently

b. VERTICAL

A prototype that models few features but with much detail

- a vertical slice of a system's structure chart from top to bottom
- most useful in the later stages of design
- purpose is to test details of the design

c. **DIAGONAL**

A prototype that is horizontal down to a particular level, then vertical below that point

4. *GLOBAL versus LOCAL*a. **GLOBAL**

A prototype of the entire system

- an expanded horizontal prototype that models a greater number of features and covers multiple levels of the system's structure chart
- useful throughout the design process

b. **LOCAL**

A prototype of a single usability-critical system component

- a vertical prototype that is focused on one feature
- useful at some specific stage of the design process

B. DIMENSIONS OF PROTOTYPING1. *EXECUTABILITY*

Will the prototype be runnable and, if so, what does that mean?

a. **CHAUFFEURED PROTOTYPE**

"runnable" in the **VERY LOOSE SENSE** that the prototype allows a walkthrough to be performed

b. **ANIMATION PROTOTYPE**

runnable in the **LOOSE SENSE** that it executes frame by frame in "slide show" mode on a computer

c. **TURING PROTOTYPE**

"runnable" in the sense that it executes in "slide show" mode **BUT** allows a third party, hidden from view, to pick the next slide based on user input (also called "Wizard of Oz" prototyping)

d. **INTERACTIVE PROTOTYPE**

runnable in the **STRICT SENSE** that it executes on the computer **AND** responds to user input in real time

e. **FUNCTIONAL PROTOTYPE**

runnable in the **VERY STRICT SENSE** that it executes on the computer, responds to live input, and performs some of the expected computations

2. *MATURATION*

Will the prototype be improved by stages and, if so, will it eventually grow into the final product?

3. *REPRESENTATION*

What level of fidelity will the prototype achieve?

4. *SCOPE*

Will the prototype be limited to specific areas of functionality?

C. CHARACTERISTICS OF A GOOD NON-DISPOSABLE PROTOTYPE

1. *EXECUTABILITY*

Works sufficiently well with live user input to permit usability testing

2. *MATURATION*

Can evolve, given sufficient refinement, into the final product

3. *REPRESENTATION*

Has the "look and feel" and performance characteristics of the planned system

4. *SCOPE*

As a minimum, simulates the 20% of the functions that customers will use 80% of the time