



**UNIVERSITY OF THE WEST OF SCOTLAND**

**PRISONER 99**

**TECHNICAL DESIGN DOCUMENT**

**THE GAME DESIGN DOCUMENT BY JAW & LAJ PRODUCTIONS**

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# 1. Introduction

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This document focuses on the reality of making Prisoner 99. In this document we will provide information on the requirements of making the game. This report shows the man power that will be required in order to get a game like Prisoner 99 off the ground. Since this is our first game we realistically realise that the equipment and software shown in this document would not be available to us at first, but gradually as productions progresses, piece by piece the game will be built and with that we can bring our crazy fantasies and lecture daydreams to life. Our staff will enjoy a relaxed and fun working environment. We expect that after development that Prisoner 99 will be sold for a reasonable price at the end of production. From this we will be able to update our studio, staff and equipment in order to prepare for our next big release. This report shows the items and requirements involved in making even a small platform style game and how it is important to take these variables into consideration when managing this project. Our team would definitely need to start small, using the resources from UWS and doing most of the work for free but once the games start to gain recognition with gamers we hope that our big break will come and our studio can be acquired.

## 2. Development Hardware

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### Target Hardware

When deciding upon the target hardware there were various aspects to take into consideration market shares, growth trends, consumer spending habits all of which should be considered with regard to the target regions .

Regarding the specific platform, we aim to produce a working unity web player game for use in Mini clip and an android/i-phone version to acquire appropriate licensing to publish to the web available for purchase.

- Game Name: **Prisoner 99**
- Platform: **Unity**
- Game Genre: **Single player 1st Person Shooter**
- Target Audience: **People who like futuristic platform games**
- Game Play / Game Mechanics: **Objective based Platform game**
- Levels: **1 good level (option to then aim for more)**
- Basic scoring: **Power-ups (Health pack)**
- Influences : **Shadow Complex, Escape from Butchers Bay**



Shadow Complex: Escape style Game play



Escape from Butchers Bay: Futuristic Robots

## Development Tools/Engine

We will be using Unity 3D to create our game.

## File Formats

File Type	File Extension
Maya – 3D models	.ma
Unity 3D – Game Engine	.unity
Images – Mapping/textures	.photoshop / .png
Music - Sound	.mp3

# 3. Software/Hardware Demands

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## Free Software

- Paint.NET
- Microsoft and Macs default software uses.
- Communication and Team Viewing Software

## Potential Software to License

- Unity 3D  
By using Unity to develop this game, the team will benefit because it allows the use of JavaScript. The following is the base pseudo code for Prisoner 99.

## PSEUDO CODE

*/\*\**

*\* The movement class handles the player movement operations. It sets up the initial player speed and boundary values*

*\* and processes input via the keyboard*

*\* @Author Jamie Cater*

*\* @version | 1.3*

*/\*\*Initialise variables which \* control player movement \* attributes*

*Set speed to 9.261576*

*Set jumpSpeed to 13.45543*

*Set the gravity to 23.95791*

*Set moveDirection to zero*

*Set grounded to false*

*Set dead to false*

*/\*\*OnControllerColliderHit*

*\**

*1. If the player collides with the dead-zone*

*Set dead to true*

*/\*\*Update function (Frequent actions which are needed to be processed once per frame)*

*\*/*

*2. if grounded is true*

*Set moveDirection to horizontal axis via keyboard input (axis assigned as a unity global variable)*

*Move the player in the moveDirection*

*Move the player in the Direction \* speed*

*3. if input is equal to the left control key*

*Set speed to 102*

*else*

*Set speed to 9.261576*

*end if*

*4. if input is equal to the 'w' key*

*moveDirection in the y axis equals jumpSpeed*

*end if*

*5. if input is equal to the 's' key*

*print "Crouch key"*

*end if*

*6. if player position in the z axis is < -10 & y axis is < 1*

Set player Position to start position

end if

Set moveDirection y axis -= gravity \* deltaTime

Set up CharacterController Object

Set flags to equal Character Controller

Set grounded to equal collision with Solid Objects and flags

end if

*/\*\*LateUpdate function (Called after Update for processes to be checked after 1 frame sequence)*

*\*/*

7. if dead is true

Set player Position to start position

Set dead to false

end if

*\* The DoorOpen Class uses raycasting to determine whether the door should play its animation*

*\* @Author Jamie Cater*

*\* @version | 1.0*

*/\*\*Update function*

*\* Set direction of raycast*

*\* Set up racast*

*\* 1. If the raycast hits at vector position*

Play animation("Door")

end if

*\* ScanFollow Class Sets an object to follow another object*

*\* @Author Adam Kale*

*\* @version | 1.0*

Set myTransform Object

set transform to LookAt myTransform

*\* The PlatformMove Class set a platform to play its animation path when a player collides with the object*

*\* @version | 1.0*

*\* OnTriggerEnter function*

*\* If collider object is a parent of the platform*

*\* OnTriggerExit function*

*\* Set collider object to null*

*\*/*

## PSEUDO CODE

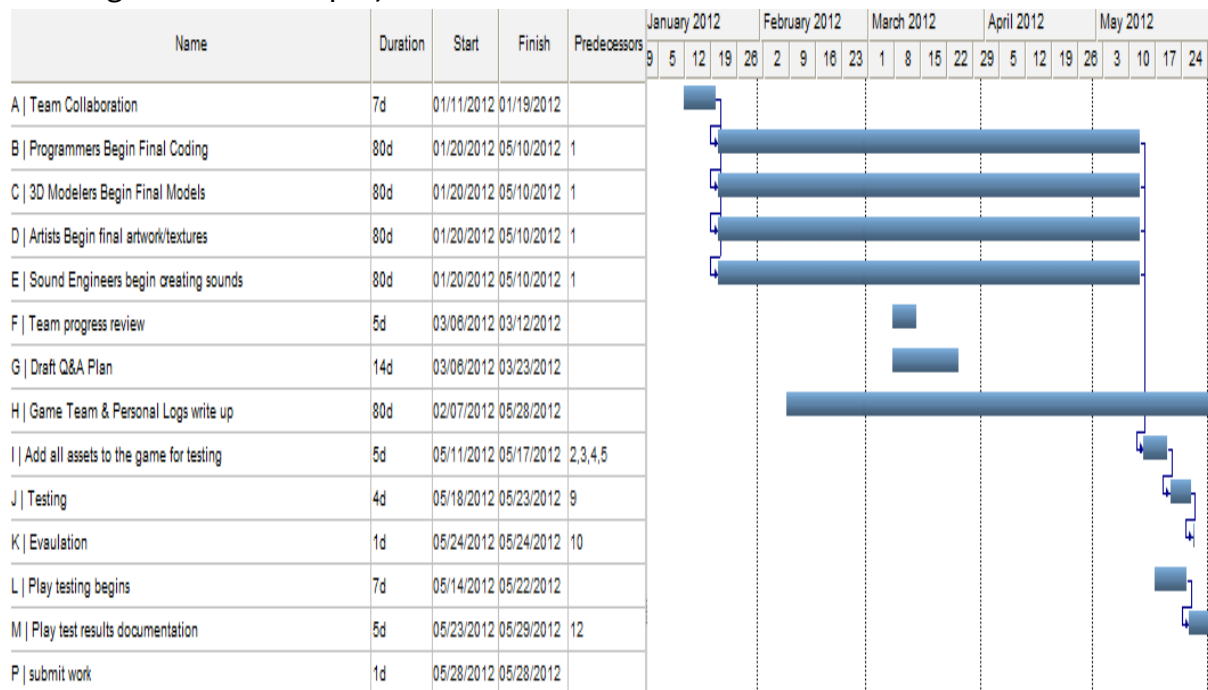
- Android

### Free Hardware

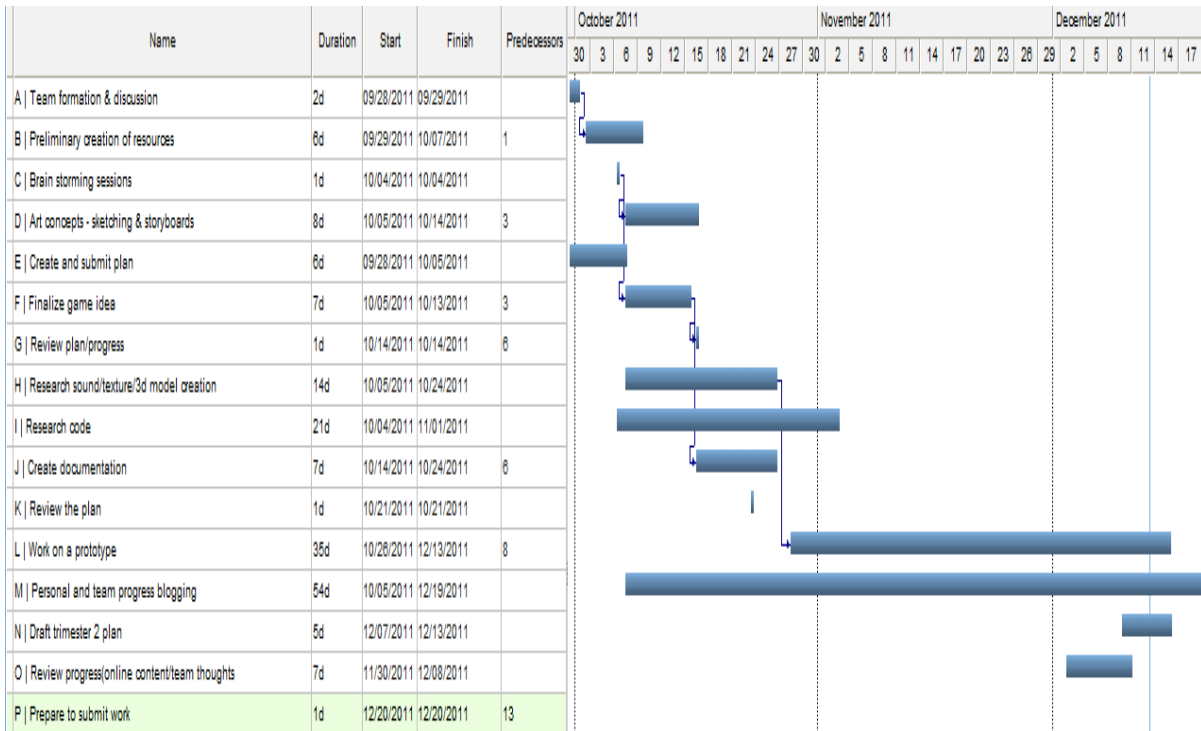
- University lab computers
- Home Computers
- Personal Handsets
- USB Flash drive(s) / External HD
- A4 Paper Sheets

## 4. Task Breakdown - Gantt

Below is a series of Gantt charts which our team are using to prioritise workloads and meet deadlines as they arise. These are also used to predict and terminate any problems that might arise for the project.







## 5. Personnel






Our team consists of a mixture of talents, from scripting, sound engineering and art to animators and 3d modellers.

### The key roles in Productions are:

- Scripting - Sean & Jamie
- Artists - Adam & Lewis
- Animator - Adam & Lewis
- Sound Effects - Adam & Alan
- Level Designer - Alan & Jack
- Web Designer - Adam
- Marketing - All Team Members
- Unity - All Team Members
- Story - Sean & Jamie
- Environments - Jack & Alan
- Characters - Adam & Lewis
- Maya - Adam & Lewis

## Drop Box

As a development team it is important to store all of our work on a server so that all team members can have access and can update code etc. This is where Drop Box comes in handy, instead of an SVN server, the Jaw and Laj production teams are using Drop Box to keep all work including older copies in case disaster strikes.

 3d Models	12/10/2011 16:20	File folder	
 Concept Art	25/10/2011 23:19	File folder	
 Design Doc Assests	12/12/2011 11:18	File folder	
 Ideas	30/11/2011 18:04	File folder	
 Planning Gantt Charts	11/12/2011 18:35	File folder	
 Scripts	29/10/2011 21:33	File folder	
 Story boards	11/10/2011 10:21	File folder	
 Tech Doc Assets	11/12/2011 19:53	File folder	
 .dropbox	03/10/2011 18:20	DROPBOX File	1 KB

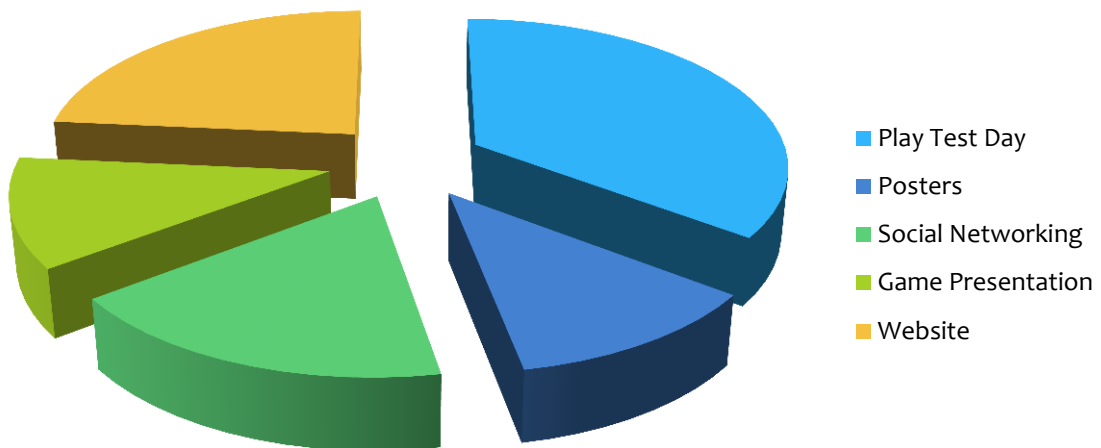
## 6. Marketing

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Marketing will come later in the games development process, there are many ways in which we would be able to market our game and these include:

1. Play testing Day: We plan to host a game testing day in university, available to all those who are willing to participate in testing our game and providing feedback on aspects of their experience.
2. Posters: Advertising on the walls of Paisley University to encourage people to attend our play testing day, make them aware of Blood of the dead being a tribute to zombie shooters and hopefully get people talking about our game.
3. Social Networking Promotion: Websites like Facebook, MySpace and Twitter allow a quick and detailed form of communicating to a vast number of people. Information on the game itself may intrigue some users and may opt to attend the play test day and answer one of many important questions “would you buy our game? If so what would you be willing to pay?”
4. Game Presentation: If we got enough positive feedback that people would purchase the game, we could do game presentations and sell the game to a wider audience using a more structured formal approach to communicating our game.
5. Website: Creation of our own web space would allow us to post updates to the game and other information about our progress that could be of interest to potential customers. This could lead to e-commerce or even hosting competitions or online market research.

## Marketing: Estimated Success rate



## 7. Business Plan

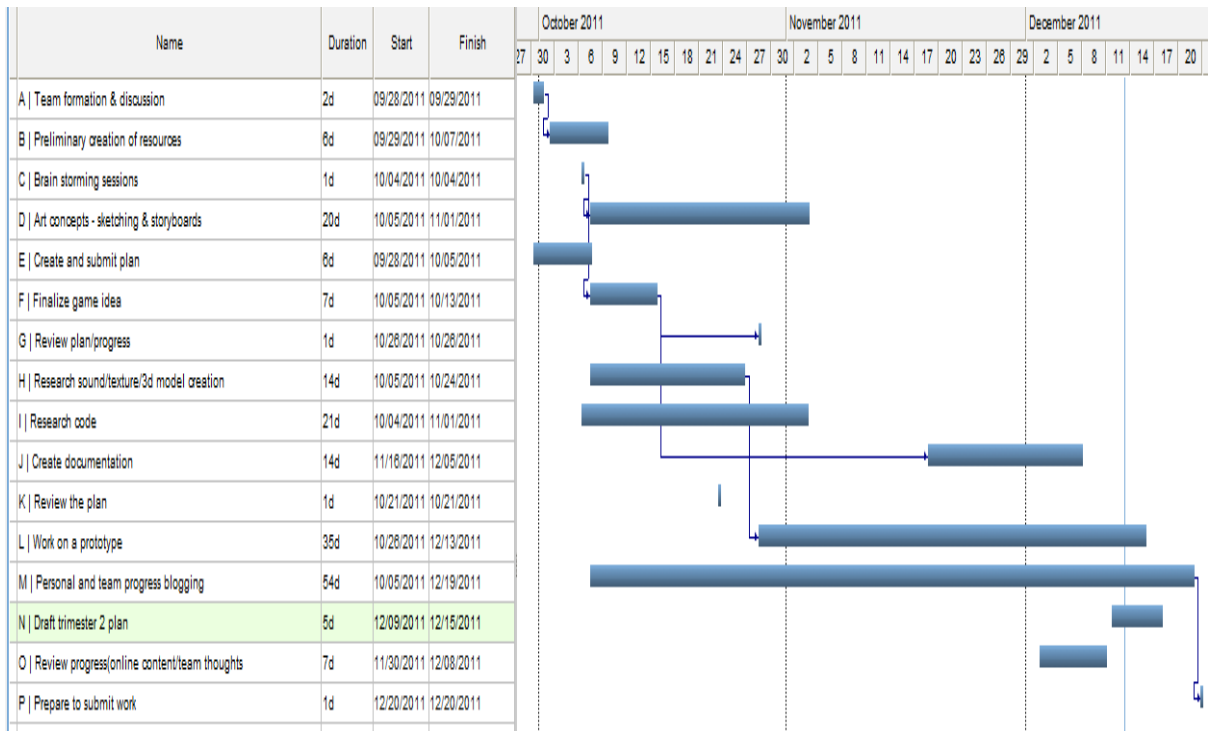
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### Background

- Costs
- Audience
- Projected Sales
- Audience
- Projected Sales

# 8. Second Trimester Plan

By the time the second trimester begins, our team will have working models imported into a working environment within Unity 3D. This will give us the head start needed to meet the deadline of deployment.



# 9. Acknowledgements

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## INTERESTING MOVIES / TV

### 🔗 TOTAL RECALL

<http://www.imdb.com/title/tt0100802/>

### 🔗 GREAT ESCAPE

<http://www.imdb.com/title/tt0057115/>

### 🔗 MAX PAYNE THE MOVIE

<http://www.imdb.com/title/tt0467197/>

### 🔗 ALIEN 3

<http://www.imdb.com/title/tt0103644/>

### 🔗 PRISON BREAK

<http://www.imdb.com/title/tt0455275>

## INTERESTING BOOKS

### 🔗 BATTLE ROYALE

Author: Koushun Takami

### 🔗 V FOR VENDETTA

Author: Alan Moore

## USEFUL LINKS

### 🔗 UNITY3D (UNITY IS AN INTEGRATED AUTHORIZING TOOL FOR CREATING 3D GAMES)

<http://unity3d.com/>

### 🔗 PRISONER 99 DEVELOPMENT WEBSITE

<http://www.wix.com/adamkale/games-dev>

### 🔗 DEVIANT ART (AN ONLINE COMMUNITY SHOWCASING VARIOUS FORMS OF USER MADE ART WORK)

<http://www.deviantart.com/>

### 🔗 UNITY 3D TUTORIALS (DETAILED TUTORIALS ON HOW TO MASTER UNITY3D)

<http://unity3d.com/support/resources/tutorials/>

### 🔗 GOOGLE IMAGES (SEARCH SERVICE THAT ALLOWS YOU TO SEARCH THE WEB FOR IMAGE CONTENT)

<http://images.google.co.uk/>

### 🔗 WIKIPEDIA (THIS IS A FREE ONLINE COLLABORATIVE MULTILINGUAL ENCYCLOPEDIA)

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

### 🔗 GAMESPOT (A VIDEO GAME WEBSITE OFFERING REVIEWS, PREVIEWS, NEWS AND DOWNLOADS)

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

## INTERESTING GAMES

### ☐ SHADOW COMPLEX

[http://en.wikipedia.org/wiki/Shadow\\_Complex](http://en.wikipedia.org/wiki/Shadow_Complex)

### ☐ CHRONICLES OF RIDDICK ESCAPE FROM BUTCHERS BAY

[http://en.wikipedia.org/wiki/The\\_Chronicles\\_of\\_Riddick:\\_Escape\\_from\\_Butcher\\_Bay](http://en.wikipedia.org/wiki/The_Chronicles_of_Riddick:_Escape_from_Butcher_Bay)

### ☐ TRANSFORMERS

<http://www.transformersgame.com/>

### ☐ DUKE NUKEM

<http://www.3drealms.com/games.html>

### ☐ LEFT 4 DEAD

<http://www.l4d.com/blog/>

### ☐ BIOSHOCK

<http://www.2kgames.com/bioshock/>