

# Team Design Document

## Right Angle Group

### Jetpac Revisited

version 1

May 2013

#### Team

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## Introduction

Jetpac Revisited is a remake of the ZX Spectrum 48k , game released in the early 1980's, using a modern take with the Unity Game engine, and using remodelled sprites, sound effects , backgrounds and music.

The game is slow moving, and easy to play, with easy to hit sprites and ease of movement, for the Jetpac player.

## Theme

The theme of the game, is in keeping with the type of game graphics and game play , synonymous with the Atari 2600 of the same era.

The resolution is set at the same as the Atari 2600, that of 192x160, and sprites are either 32x32 or 16x16 , also using the same colours available for use at the time, which dictate the complexity and colour range of the backgrounds and sprites.

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## **Product Overview**

Based on a 1980's ZX Spectrum 48k game, Jecpac Revisited is a simple game using the colours and resolution of the Atari 2600.

It uses only a few sprites, and incorporates some sprite animation, moving the gangly arms for the long armed alien sprites. It also has animation for the flames from the Jetpac

It works on a 'one hit ' and you are out, basis for both alien sprites and for the Jetpac Player.

Alien sprite movement is simple, just moving across the screen, at limited number of angles.

Sprites also die if they hit any object , such as the rest platforms (shelves) for the Jetpac.

## **Opening Sequence**

For the opening sequence there is a simple animation of the Jetpac flying across the screen, and stopping in the centre, and being met in the centre by an alien sprite, who has entered from the opposite side.

Our Jetpac hero , shoots the alien sprite, which disappears.

All the same audio and sound effects are included, and the animation should leave the viewer with no doubt about the central objective of the game.

Jetpac shoots aliens !!

## **Utility Screen**

As an easy game, there only one difficulty level with no need to select , 'easy – medium or hard ' levels at the beginning.

The utility screen just shows a quick image to show how the keyboard keys are used.

It basically shows that , gravity is at play, and when the up key is not being pressed , the player 'descends'

It also has options to PLAY or EXIT

## **Main Display**

The main display of this game consists of one simple background, that has 2 shelves/platforms situated at midway up and across the screen, that the jetpac can land on. The shelves are slightly different sizes and the same colour as the ground he is standing on at the bottom of the screen.

If more levels are developed, this theme will continue.

Behind the Shelves the the background will portray a sky with clouds.

If additional levels are developed, these backgrounds will vary with slightly different themes, such as mountains , forest or desert.

However, it should be noted, that the background colours do not in any significant way, clash or camouflage the sprites being played in that level.

If possible a basic GUI will be added that will show how many lives the player has left and score depending on how many sprites have been killed.

The main theme tune music plays at all times.

## **Sound effects**

Sound effects are added to portray action to

A) Reinforce the sound of the jetpac in use, when the up key is being pressed, and the jetpac burners are in use.

B) The sound of the laser being fired.

C) The sound of a sprite being hit.

There are no sub-menus or other menus.

## **Objects will include**

### **Sprites**

Jetpac : Player 1 . The Jetpac moves left and right using the arrow keys and , and moves up when the up key is pressed and descends with gravity when the up key is not being pressed.



Yellow Sprite A1 , Moves Left to Right , in an upward diagonal direction.



Red Sprite A2. Moves Right to Left, in a downward diagonal direction, with its arms moving using an animation.



Blue Sprite A3 Moves straight across the screen , from Left to Right , just above the upper shelf.



Red Green Sprite A4 , Moves from the top Left corner in a downward diagonal direction, hits and dies on the shelf on the opposite side



Long Red Arm A5 , Moves from the bottom Right hand corner , and dies hitting the underside of the shelf , on the left hand side



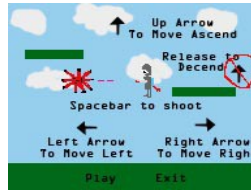
Laser (not to actual size) Moves as one '2 pixel' unit, each time the space bar is hit.

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## **Graphics**

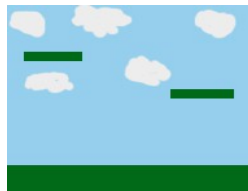
- 1) JetpacS1
- 2) YellowA1
- 3) RedA2
- 4) BlueA3
- 5) RedGreenA4
- 6) LongArmRedA5
- 7) Utility screen 1
- 8) Background Blue Sky
- 9) Background Transylvania

## Utility Screen



## Background

Main background



Possible additional background



## **Music and Sound Effects**

laser shot :	laser1.mp3
Sprite die sound :	SpriteDie.mp3
Music :	backgroundloop.mp3
Start game sound :	StartGame.mp3
End game sound :	EndGame.mp3



## **Game Mechanics**

The alien sprites fly across the screen, in a straight line, but from multiple different angles, to give more of a random effect.

They die as soon as they contact any object, namely the shelves, the ground or the jetpac or the jetpac lasers.

The jetpac moves left and right, and uses the up arrow to ascend and , when not pressing up, the jetpac descends, until it lands on a shelf or the ground.

There is no loss of life for falling from a height.

The Player uses the space bar to shoot his laser, which continues until it hits any game object, including shelves and side walls.

## **Difficulty & Play / Life**

Initial levels have relatively few alien sprites and they are moving quiet slow so the game play should be quite easy

If additional levels are created, the sprites will increase in number and speed.

The player will have 4 lives.

## **Summary**

Jetpac Revisited, is an easy to play game , suitable for all players, that should appeal in particular to fans of retro games in particular fans of both the Atari 2600 and the ZX Spectrum

# **Appendix : Text For High Concept Doc.**

## JetPac Revisited

### High Concept

Fly a jetpac around in 2d space and shoot flying aliens with your laser, to progress to the next level

### Features

Third person action shooter , using the up arrow key to power your jetpac and fly , using the space bar to shoot lasers at your enemy

Fight against different aliens, in each level , each in a different environment.

Take 10 hits from the aliens and lose one of your 3 lives .

### Player Motivation

Avoid being killed by collision with aliens, and kill all your enemies to progress to the next level.

### Genre

Arcade action shoot-em up

### Target hardware

This will be created using the Unity Game engine, and will be available on web browsers , but is also aimed at Android and iOS phones and tablets.

### Target Customer

This game is suitable for all players

### Competition

There are a great many retro games similar to this game, that are played by retro-gamers, most notably the original game itself, but also a 2007 remake of the game.

Competition is stiff !!

### Unique Selling Points

This game will have completely original characters, and environment, never before seen in the games world.

### Design Goals

The design goal of this game is to keep the game simple, using basic and bright colours, to highlight and contrast the sprites from their backgrounds.

The game play should be easy at first , so players can familiarise themselves with the jetpac motion with gravity.

Sprites will be few and slow moving in the early levels.