Overview

# Breakdown

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# Target Audience

The target audience is the causal gamer, generally females. The game is designed to be simple and fun to play. A hardcore gamer would find it relatively easy to complete the game and would most likely get bored after a few hours playing online unless they were passionate about their high scores and reputation.

# Storyline

The planet of the PikPiks is beautiful and full in bloom. In the centre of their greatest city is an enormous crystal containing thousands of ancient spirits. The great melody of the spirits brings life to the planet, making it the most beautiful place in the universe. One day, a meteor falls from the sky, unexpectedly, and shatters the crystal into thousands of tiny pieces which spread to all corners of the planet. The great melody stops and the planet withers. The strongest PikPiks in all the land have been gathered by the majestic PikPik King and have been given a noble mission, to save the planet by re-forming the great crystal. But the spirits are proud and will not return unless they are collected in a harmonic pattern. The most successful PikPik on this difficult mission will be honoured as the great protector of the spirits, the Spirit Maestro.

Game Breakdown

# Overview

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# Modes of Play

## Single Player

#### Overview

The game is primarily designed to be played solo as a progression throughout a variety of unique zones and levels. Single player follows the story of the PikPik quest and explains why the PikPik champions are searching for the stars. There is also an in-built tutorial mode to explain the game as it goes along. Progressing through the first zone, new items and rules will be introduced on subsequent levels allowing a gentle introduction to the game for new players.

#### Rules

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#### Modes

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## Online Multiplayer

#### Overview

As a secondary element to the game, a multiplayer game mode will be provided to try and help increase the longevity of the game. Multiplayer games are more “match” based and players compete for high scores and reputation. Certain bonuses will be available in multiplayer games if a player has successfully completed the single player game.

#### Rules

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#### Modes

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# Characters

There are five total races of PikPik available in the game. Races have a unique colour and personality and are mostly based on “cutesy” Japanese-style Anime characters. There is no functional difference between the different races and multiple players can play as characters from the same race.

# Mechanics

## Pre-Game

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## Pre-Level

Players always start around the centre crystal of the map, as evenly spaced as possible. The game will introduce the round with a screen fade and then count the players in. Three seconds after the countdown, a new star will appear of a random colour. Following this, all other star colours will appear one second after each other at random locations on the map. Players are able to collect the stars as soon as they become available.

## In-Game

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## Post-Level

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## Post-Game

Upon completing the single player game, the player is given the honour of becoming the spirit maestro. A crown appears over the player’s head and remains there permanently unless disabled in the options. This crown will carry across into online games if the option remains enabled.

# Rules

* There is a time limit for each game which is based on the level size. If no sequence is made within the time limit, which is adequate enough for a player to finish the game three times, the game ends in a draw and is replayed.

# Items

Items will appear at random locations on the level whenever a certain number of stars have been collected. They will appear as a “generic” object and the item the placer receives will only be determined after the object is collected by use of a “slots” like mechanism in the game interface.

Each item has a draw probability to ensure optimum items go to optimum players. Draw probability will be based on the player’s standing, game time and how powerful/rare the item is.

## Trojan Star

This star can be laid down anywhere on the map and will always change its colour to the next sequence star for opponent players. To the player who laid the star down, it will appear as a rainbow star allowing it to be easily identified. The star can be collected, by any player including the player who laid the star down. If collected, the player is stunned in place for three seconds and they lose a star from their melody.

## Fake Wall

The fake wall is used to block off certain passageways in the game. When placed, a wall block will appear acting exactly like a normal wall block. The wall block will disappear after eight seconds to ensure no player is blocked off permanently. A player with this power up can place up to three fake walls before the item expires.

## Oil Slick

The oil slick is used to put another player off balance. It can be placed on any blank square. When a PikPik walks into it, they are flung quickly across the map in the direction they are facing until they encounter a wall. Upon striking a wall, the player remains dazed for three seconds before regaining control. While sliding, the player will interact with any other item they may encounter. If the item changes the player’s behaviour, the oil slick effect is discarded and the new item behaviour takes over. The oil slick remains on the map for sixty seconds and has unlimited uses in that time.

## The Magpie

The magpie will fly onto the screen and steal a star from the player in first position. If there are more than one players drawing for first, the magpie will steal from the player who has been in first place for the longest time. This item will never be assigned to a player who is already in first and becomes unavailable should a player take first place.

# Zones

There are five zones that players progress through in story mode. Each zone plays the same as the previous zone but the graphics are updated. The graphical themes of the zone progressively show the planet “healing” as the spirits of the land are collected. Each zone has a hazard, unique to the zone, which players should beware of. The full list of zones, in order, is as follows:

#### Lava Zone

With all the life sucked out of the planet, the land is breaking down to its primal form, a molten ball of rock. This is the most important zone for the PikPik civilisation and where the game items are introduced, one at a time, in each level. The land is covered in red, glowing rocks with steam and heat distorting the playing field. Occasional spurts of lava will spew from the blocks injuring players lurking in the area and stunning them for a short period of time.

#### Desert Zone

After the first spirits are returned to the planet, the land begins to heal itself but it is far from bloom. The lava has ceased to pour from the cracks but the destructive power and heat have left the planet a desolate place. The land is covered in sand and rocks and heat distorts the playing field. Players should beware of quicksand pockets that can slow them down considerably whilst crossing.

#### River Zone

The first signs of life are beginning to appear with water flowing from springs around the planet. The planet is now able to support the PikPik civilisation for a while longer but they are still lacking the greenery and most importantly, food supplies are low. This land is covered thinly in greenery and sand and has the occasional fresh river flowing from place to place. The rivers can be dangerous at times with flash rapids frequently running down and sweeping players to the edge of the map.

#### Forest Zone

Life has been restored to the planet but there is no order and the greenery is beginning to grow out of control. With dense jungle shrubbery covering the planet, the land must now be harvested and the crystals must be reborn. Players need to be careful of animals in the jungle, in particular the Monkeeneys who have a great fondness for stars and will steal one whenever they get the chance.

#### Crystal Zone

The crystal zone is the final step in restoring the planet. With everything else in place, the planet needs one final push to return to its former glory. The great melody that keeps the PikPiks eternally happy is still muted. This land is refined with beautiful and sparking crystals all around. As the crystals are born, they grow rapidly out of the ground, blocking paths as they do. The crystals can only grow when they are clear of any players.

# Storyboards

## Game Intro

The game is introduced with a set of animated storyboards showing the PikPik introduction story.

## Game Outro

When the game is completed, a set of rewards are given to the player, with one being the ending story.

# Interface

## Race Meter

The race meter is a meter of varying size that shows the current progress of all players in the current level. The meter is broken up into sections with one section for each collectable star in the melody. Very small character avatars are aligned to the section corresponding to the number of stars a player has collected to show their individual progress in the game. If more than one player is trying to collect the same star, the players are shown in the order they moved up to that position.

meter.PNG

Race Meter Concept: (**I-RM-1**)

## Level Time

Each level is given a set level time to help player progression and ensure that certain games don’t just loop endlessly. The level time is easily sufficient for the player to complete the level twice over from beginning to end and is not intended as an obstacle in a single player game. Within this time, the majority of games will end with either a win from the player or AI. If the time expires, the game ends in a draw and restarts.

## Score

The player score is collected and displayed on screen but is not at all important to gameplay. It is a feature for potential future use such as leaderboards. Score comes from using items successfully against other players, collecting the correct stars and the remaining level time once a game is over.

## Melody Progression

The melody progression is the most important element in the interface. It shows how far along the current melody the player is and shows them the next note star colour they need to collect. Collected stars are opaque and uncollected stars are semi-transparent with an opaque coloured border. The next star to be collected will pulse and glow brighter than all the other stars whilst maintaining the colour of the star that is to be collected. When a star is collected, it “pops” in to the interface with a small burst effect and the next star in the sequence begins to pulse. Once all stars are collected, they all pulse and glow. Incorrectly collected stars should be decorated in an ugly, non-uniform pattern and even exhibit properties such as cracks or chips.

## Star Indicators

As the whole map will not fit on the game screen the majority of the time, indicators will present themselves on the edge of the screen pointing to stars when they are not being rendered. These will move with the edge of the screen until the star comes into view. The indicator will show the colour of the star it is pointing to.Game Modes

## Story Mode/Race Mode

Race mode is the mode used for story progression and is the default for the game. There are no special exceptions to the game-play listed elsewhere.

(There are currently no other game modes planned.)

Mechanics/Technical

# Overview

* Resolution: 800 x 600 pixels
* Bit Depth: 32 bit
* Platform: Windows
* Level Style: Orthogonal 3D in a 2D space
* Art Style: Cartoon

# Saving

## Options

With the options there is nothing to particularly hide so a standard INI will be used. This will also allow the user to modify the options outside of the game. Special care must be taken to ensure the user cannot corrupt the options to open a game glitch. If an option is corrupt or invalid, the default option should be used.

## Story Progression/Unlockables/Achievements

There are some game elements that should be saved securely to prevent basic tampering. These include the single player progression and any unlockables/achievements the player has been awarded. Story progression should be saved in the user’s personal documents where available to allow multiple logons to play independently of each other.

# Artificial Intelligence

## Path Finding (A\*)

The path finding will work on a square node matrix the same size as the game map. The path finding map will remain persistent and is updatable as the map changes. Each node will be linked in with the corresponding map tile and vice versa for simplicity of access but will both be maintained in separate lists. The path finding matrix will be generated when the map is loaded and will be linked in with the map class.

## Steering Behaviours

Evade, Chase, Wander, Path

# Screen Breakdown

## Overview

Within the game there are many different screens to navigate through. To help organise these screens so that they are quick and easy to navigate, each one has been broken down into several sections. Each section describes the purpose of the screen, the screens it can link to, the transitions on the screen (if any), the mechanics and interactions that can occur in the screen and the audio that should be heard.

## Splash Screen

#### Purpose

The splash screen is there to immediately advertise the company logo and any other logo that may be relevant to the game.

#### Links

The splash screen links directly to the warning screen if it is skipped or if the logo has faded out.

#### Transitions

The logo initially fades in from black and fades out to black on completion. Each logo fades in and out for a set number of seconds in succession. The developing company logo is the first to be shown.

#### Mechanics

There are no mechanics.

#### Interactions

Clicking or pressing any buttons on this screen will skip it.

#### Audio

The logo “splash” sound clip will play with the logo synchronised to it.

## Warning Screen

#### Purpose

The warning screen is basically there to cover the company against any potential lawsuits and to generally warn players about anything they might find surprising in the game. It should include a game rating submitted by the developing company.

#### Links

There are no links.

#### Transitions

The warning and rating should fade in, give adequate time to read the warning and fade out.

#### Mechanics

There are no mechanics.

#### Interactions

Clicking or pressing any buttons on this screen will skip it.

#### Audio

There is no audio.

## Background Screen

#### Purpose

The background screen is generally to be used as a “first layer” for other screens to be rendered over when not playing the game. It is there to provide a more interesting environment for screens where mouse clicking is prominent without needing to re-implement the same technology several times.

#### Links

There are no links.

#### Transitions

Fade-in/fade-out transitions occur when the screen is initially shown and are fairly quick compared with other fade transitions. These are to just give a little smoothness to major state changes.

#### Mechanics

The background screen has one job, to create an interesting backdrop for most if not all of the mouse-interactive screens. Several modes may be available to change what happens.

#### Interactions

There are no interactions.

#### Audio

A soothing, default audio track will play when no other track is selected. The track can be overridden by other screens using this screen. The screen is responsible for smooth audio transitions between background tracks.

## Main Menu Screen

#### Purpose

The main menu allows players to navigate to different modes of gameplay. It is the central hub where every aspect of the game branches from. There is no higher hierarchical level than the main menu after the warning screen has faded out and trying to go up a level will exit the game.

#### Links

The main menu has direct links to:

* The offline screen.
* The online screen.
* The tutorial screen.
* The options screen.
* The credits screen.

There is also the option to exit the game.

#### Transitions

All available links will transition in from opposite ends of the screen, one at a time until all are centred. When selecting options, text will highlight under the mouse and fade out quickly when the mouse is removed. If an option is selected and there is a screen pointed to, the text items will transition of the screen in the same way they transitioned in.

#### Mechanics

There are not many mechanics on the main menu screen other than transitioning to the desired mode of play or sub option within the game.

#### Interactions

The links are navigated when the user releases the mouse over the link they desire.

#### Audio

The audio track is the default background music. There are click, hover and transition sounds for the menu items.

Marketing & Sales

# Build Types

## Full Version

The full version of the game will be sold for a small price and it will come with all features fully unlocked. Protection mechanisms will be in-place to try and deter people from pirating the full version, one of which is the requirement for an “update” patch to be downloaded for the full game to run. The update patch will minimise extra downloads and protect data that is not relevant to the demo version of the game.

## Demo Version

The demo version will be released as a free but restricted version of the game. The basic game will be available but will come with many restrictions and features removed. All disabled content will be physically removed from the download where possible.

* Offline will only progress through half of the first zone.
* Online will be unavailable.
* Marketing
  + Build Types
    - Demo Version
      * Pricing
      * Restrictions
    - Full Version
  + Distribution Methods
  + Advertising

Templates

#### Purpose

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#### Links

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#### Transitions

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#### Mechanics

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#### Interactions

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#### Audio

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