

Bye - Plane GDD/Proposal

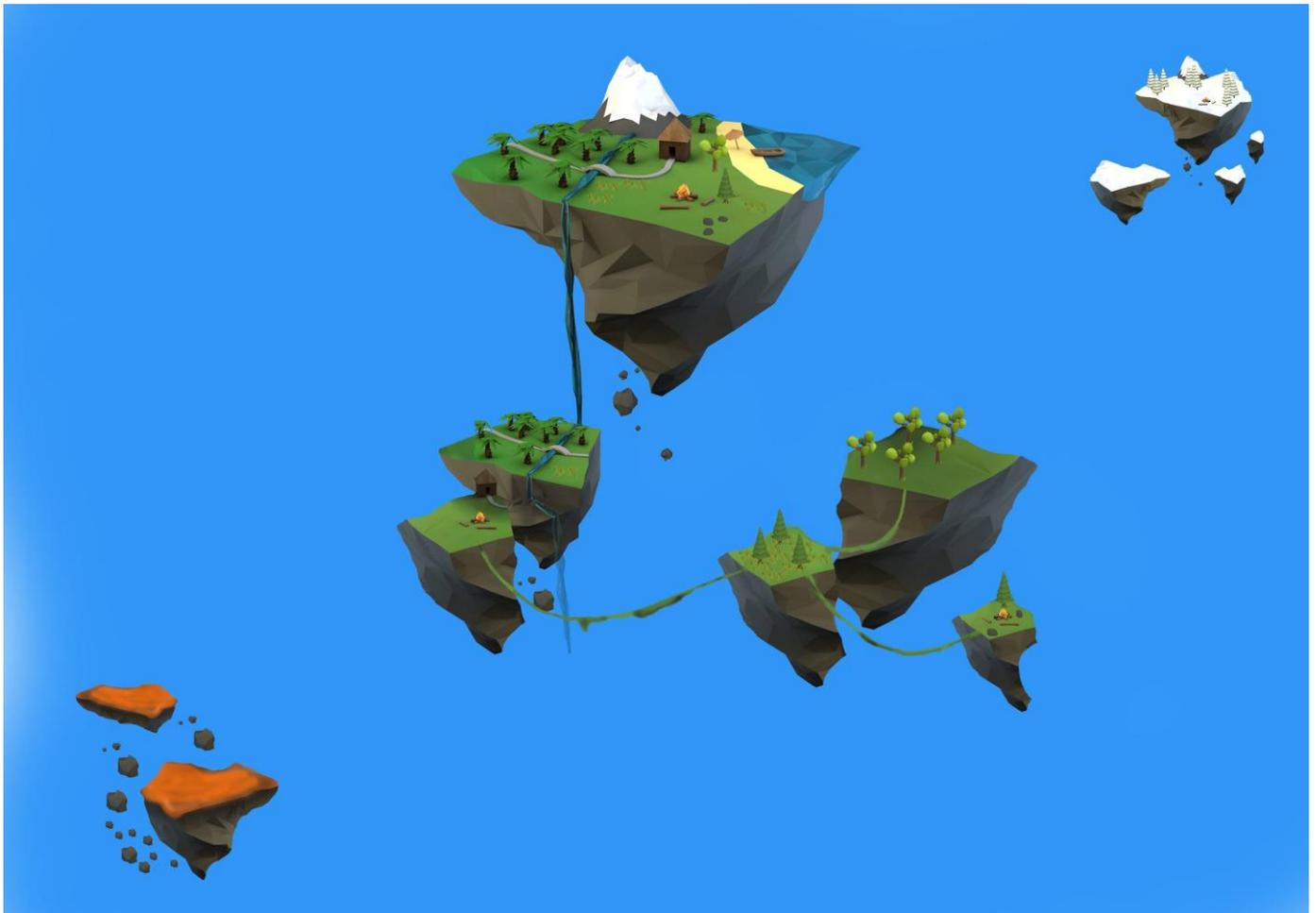


Figure 1 island system concept

1.1 Game Goals:

What we're testing:

'Bi- Plane' is going to be used to test blissful productivity and whether or not resources and upgrades can help with making a player feel productive.

Our Question:

Does exploration, resource management and the spending of resources create a sense of 'Blissful Productivity' and does this create fulfilling gameplay?

How we will approach this

We will try to answer this question by having several test groups. These groups will be given different instructions and parameters. For example one group will be informed about the upgrade system and one group won't. We will measure the productivity by calculating the resources that the player collects compared to how much they spend and how they go about rebuilding their village. To measure bliss we plan on making the participant fill out Self-Assessment Manikins (SAM) both before and after they play and also asking them how long they think they've played and by providing them the option to continue playing.

Why we want to address this

We believe there is a stigma around games and a belief that they are a waste of time and no good for your mental and physical health. We believe the opposite of this and think that games can lead to a healthy mind which in turn can lead to a healthy body. That is why we want to try and prove that 'Blissful Productivity' creates fulfilling gameplay. 'Blissful productivity' has been known to produce good and helpful chemicals in the brain which can assist in making a healthy mind, we want to help prove that 'blissful productivity' exists and therefore cement results found by other researchers.

Gameplay:

In 'Bye - Plane' the player will be tasked with flying their Plane between procedurally generated islands to collect money and other resources. With this money and resources they will be able to upgrade their Plane.

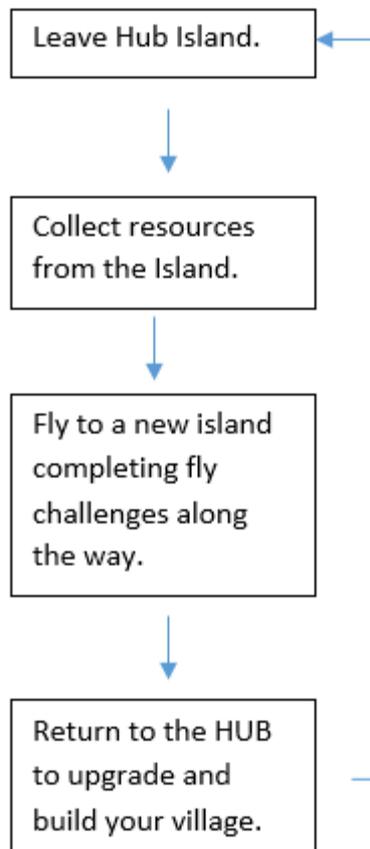
The player's main objective is to explore the islands, gather resources to help rebuild a village on the main Hub Island and collect the magic rocks to give to the trader. This will tie in with them upgrading their plane and trading materials.

The game will end once the player has collected all of the Magic Rocks and returned them to either Simon or Frogwell. The player must also build all five of the village houses.

Islands:

The islands will be areas of different biomes and will have enemies placed on them along with resources. These islands will be procedurally generated to make the experiences on them unique every time.

1.2 Core Game Loop:



1.3 The Narrative:

The player takes on the role of an adventurer, Oswald, who has stumbled into the Bermuda Triangle and travelled through a portal into an alternative dimension filled with floating sky islands. When he goes through the portal his Plane takes catastrophic damage and he crashes into a small remote island village. Feeling guilty about the destruction of the village and seeking fame and fortune, Oswald is determined to help the villagers rebuild, to right his wrongs.

This will be demonstrated to the player via a cut scene.

Characters:

Bye – Plane will feature several characters that the player can interact with. The table below names these characters and explains their purpose.

| CHARACTER | PURPOSE |
|---|---|
| Simon (Person in a hut) | Operates the village trader and gives the player their main objective. |
| Frogwell (Frog in a well) | Asks the player to return the Magic Rocks to him. Creates an alternative ending to the game. |
| Lord Bigglesworth of Carington (Rabbit) | Asks the player to go on a quest to collect three carrots for him. Once completed he gives the player a new Plane Skin. |

1.4 Resources:

| RESOURCE TYPE | USE |
|------------------|---|
| Money | Buy new upgrades or buy items from traders. Will also provide a score at the end. (Found in chests) |
| Fuel | Will give the player more fuel for their plane. (Found in chests) |
| Plane Parts | Will allow the player to get upgrades. (Found in chests) |
| Wood (trees) | Let's the player build more huts. |
| Stone (rocks) | Let's the player build more huts. |
| Berries (bushes) | Let's the player build more huts. |

Management:

The system will keep a note of what the player has collected and this will be displayed on an in game UI.

| ITEM | STATS |
|------------|--|
| Money | 1 Coin = + 10 to total |
| Fuel | 1 fuel = + 5 to total |
| Plane Part | 1 part = can be used to buy upgrades for the plane |
| Wood | 1 wood = +1 to total (each tree gives 2) |

| | |
|---------|--|
| Stone | 1 stone = +1 to total (each stone gives 3) |
| Berries | 1 Berry = +5 total (each bush gives 5 berries) |

1.4 Upgrades:

| UPGRADE | COST | EFFECT | INCREMENTS |
|---------------------|--------------------------|--|------------|
| Plane Fuel Increase | 20 plane parts, 50 money | Increases plane speed. | 3 |
| Plane aesthetics | 50 money | Adds speed flames to the wings and a different paint job | 1 |

Some of the upgrades will make an aesthetical difference to the plane. For example upgrading the fuel amount will add an extra fuel barrel to the plane.

1.5 Village Construction:

The player's main objective is to re-build the village they previously destroyed. The table below highlights how much it costs to build a hut for the village. Each time they build a hut the next one will be more expensive by a certain amount. For example now the village is growing they will need to gather more food and materials to maintain it.

| | |
|---------------------|---|
| Hut cost: | 10 wood, 5 stone, 20 berries |
| Incremental amount: | Each hut after the first multiplies the amount needed by 2. |

1.6 Island Level Design:

All Info Plan

There will be a total of three Islands for the completed prototype. Each of these Islands will be accompanied by three types of plan. The plan shown in Figure 2 includes all of the information for the level. This information covers the height gradients, height measurements of cliffs and hills, points of interest and the colour coded areas which point out what can be found in certain places of the level.

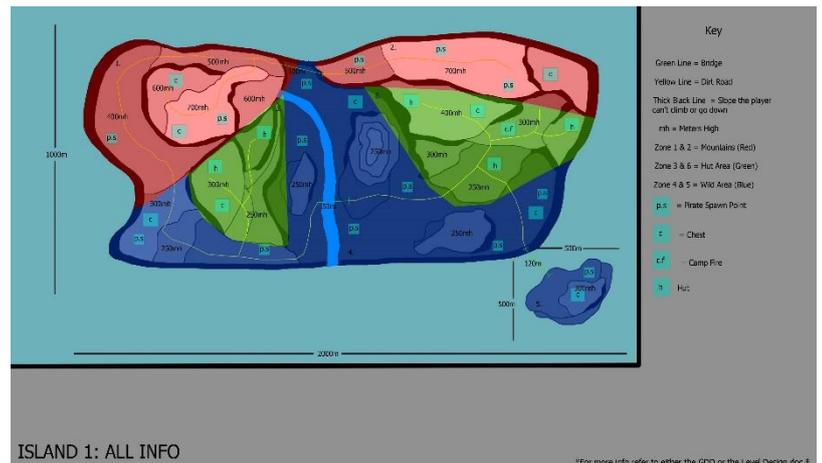


Figure 2 Example plan with code areas

Colour Codes

| COLOUR | TRAITS |
|--------|--|
| RED | Mountains: low amount of chests but rare items. |
| BLUE | Wilds: medium amount of chests with common – rare items. |
| GREEN | Huts: common resources, traders found in these areas. |

There will be a spread of resources found in each area from common to rare. However it will be easier for the player to find certain resources in different areas of the map. For example Plane Parts in the Mountains, Money in the Wilds and Fuel in the Huts.

The Gradient Plan

The gradient plan for each Island level will provide a more clear view of the gradients in the level and helps to give a better sense of height. This can be seen in Figure 3

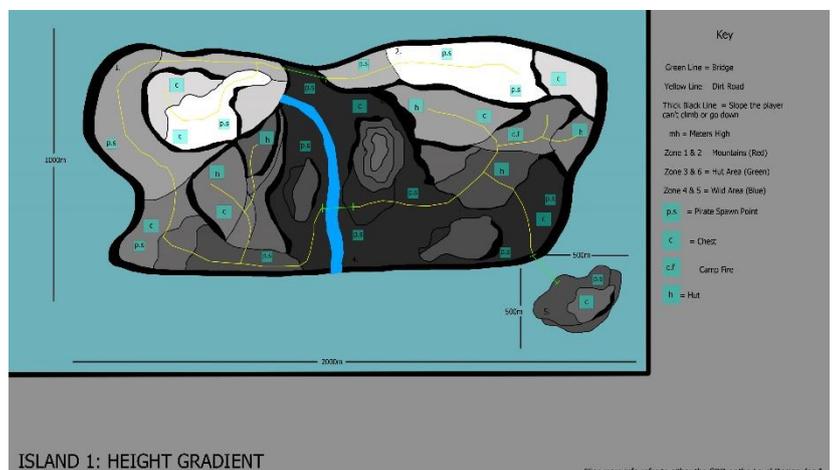


Figure 3 Example Plan with height gradient only

Height Measurements Plan

The final plan that will go with each level is the height measurement plan. This plan is the same as the gradient plan but provides more information regarding the height of cliffs and hills, this can be seen in Figure 4.



Figure 4 Example plan with height measurements

Guiding the Player

The player will be led around the islands by use of footpath materials and coins that will reward them for going the correct way.

Moving the player between Islands

When the player gets into the plane they will be able to see the floating hoops that connect each Island. The hoops sections end at the camp fires on the Islands, this will help guide the player to the islands and the new spawn points on the islands. Also one of the player's main objectives is to go between each island and collect the magic rocks to return to the trader. This means that to complete the game the player will need to go to each island.

Points of Interest

| POINT | PURPOSE |
|----------------|--|
| Chest (c) | Full of random resources for the player to collect. |
| Trader(t) | Area where traders can be found. |
| Hut (h) | A building that will house villagers. |
| Camp Fire (cf) | The player will be able to mark a camp fire on an island as a check point. There will be 1 camp fire per Island. |

1.7 Trading:

In 'Bye-Plane' we shall be implementing a simple trading system. Traders will be located in the Huts areas of the Islands and the player will be able to purchase rare items from them such as upgrades for the Plane and a change of texture for the Plane. The player will buy these using the money that they find in chests around the Islands.

1.8 Player Stats:

| STAT NAME | STATISTICS |
|--------------------------|------------|
| Player Health | TBD |
| Player Move Speed | Static |
| Plane Health (starting) | TBD |
| Plane Speed (starting) | TBD |
| Weapon Damage (starting) | TBD |
| Reload Speed (starting) | TBD |

1.9 Flying Activities:

There are several activities that the player can do between the islands while flying. These activities are a chance for the player to earn some extra money so they can buy more upgrades and resources from the trader. These activities mean that the player could just do the flying challenges and still upgrade their plane and build the village.

| ACTIVITY | REWARD ON COMPLETION | EXPLANATION |
|-----------------|----------------------|--|
| Hoop flying | 100 money | The player has to fly through a specific course of hoops |
| Target shooting | 50 money | The player has to shoot target blimps positioned around the world. |

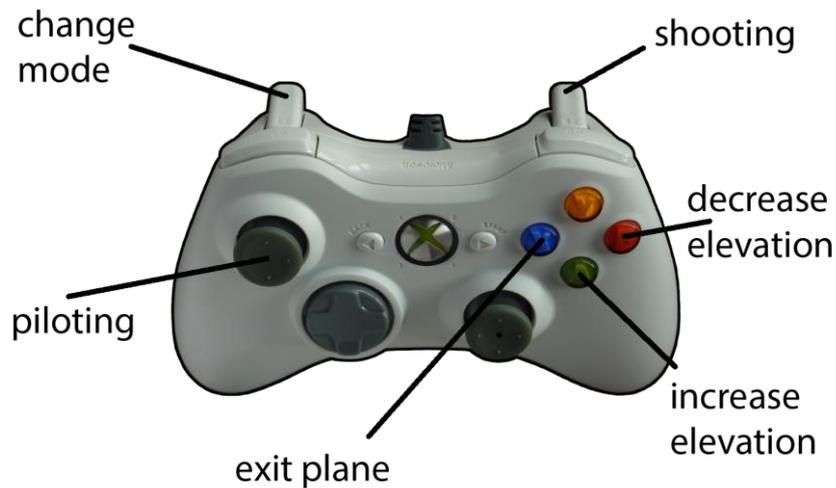
2.0 Control System:

Land:



Figure 5 Control scheme when playing as the character

Air:



2.1: Tutorial:

Figure 6 Control scheme when playing as the Plane

The steps

below

outline how we plan on teaching the player to play the game.

- 1) Trader Hut tells the player their main objective. (Rebuild the village)
- 2) Player will need to find the tool in the chest at the top of the hill.
- 3) Gather some resources.
- 4) Build a hut at the trader station. Player is then rewarded with the plane keys
- 5) Player told they need to find the rocks on the other islands and given a hint of where they might be.
- 6) Player then has to find the plane.
- 7) Instructions on how to fly the plane and the hoops.

2.2 UI:

The UI will be unobtrusive and will allow the player to focus on gameplay. This will involve the UI only appearing when the player takes damage or collects a resource, it will also display where their plane is in the world so they don't lose it. The UI will then fade away over time.

UI Examples:



Figure 7 Example of UI from Nintendo's Windwaker

2.4 Target Audience:

Bye – Plane is intended to appeal to young children and casual gamers particularly those who enjoy exploration and resource games such as Minecraft. We believe there is a big market already in place and the players of these types of games are always looking for their next big adventure, therefore there is always a demand for exploration games.

2.5 End States:

'Bye – Plane' will end once the player has built a successful village, gathered all the stones and returned them to either Simon or Frogwell. Who they return the rocks to will affect the type of ending the player will receive.