Travelling Blind

Production Plan Document

Version 3
1 June 2016

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0 Purpose of document

Produce a production plan that:
- Assesses the known risks of the project.
- Identifies priorities.
- Includes a schedule with a timeline for development, dates for client feedback and signoff meetings (detailed schedule in separate example).
- Lists assets and resources required for the prototype.
- Determines the tools to be used, and why they were chosen.
- Reflects the changes based on client feedback (shown in version control).

To be read in conjunction with GDD and TDD.
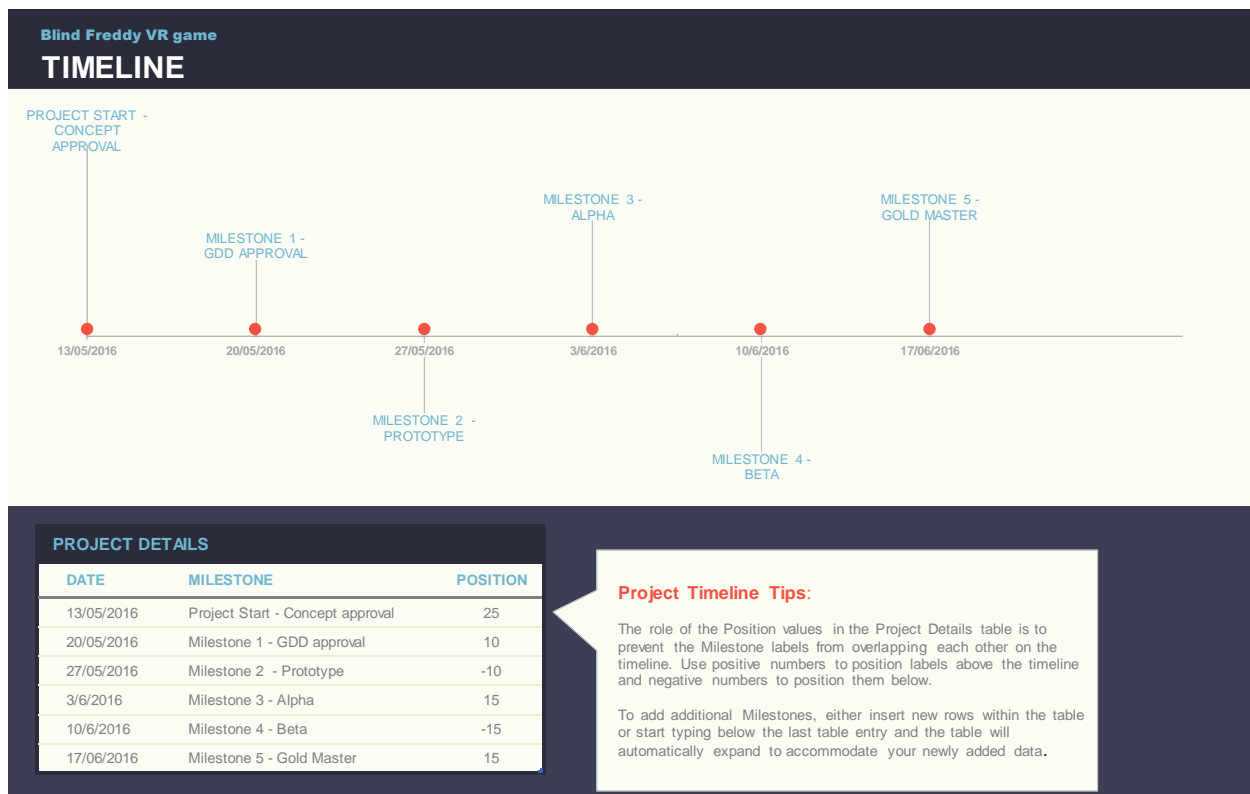
1 Risk assessments and contingencies

	Description of Risk	Probability	Impact	Risk Assessment	Mitigation Actions	Responsibility	Mitigated?	Contingency Plan
Staffing	Death of team member or family of.	Highly unlikely	Major	Medium	Look both ways before crossing road	Kathy and family	No	Funeral insurance
	Illness/Injury of team member	Unlikely	Major	Medium	No skydiving	Kathy	Yes	Health insurance
	Team issues (poor performance, lateness, missing meetings etc.)	Likely	Minor	Medium	Motivate team member	Kathy	No	Chocolate
	Workplace issues (conflicts, religious issues)	Highly unlikely	Major	Medium	Early intervention - discuss with AIE teachers	Kathy	Yes	
Building	School closes	Highly unlikely	Major	Medium	Find new school	Kathy	No	Meet outside school
	Fire in school	Unlikely	Major	Medium	Back up everything	Kathy	Yes	
	Equipment breakdown	Likely	Minor	Medium	Back up everything	Kathy	Yes	
	Electrical cut outs	Likely	Minor	Medium	Back up off site	Kathy	Yes	
	Lack of computers	Likely	Minor	Medium	Share computers	Kathy	Yes	
	Lack of sound recording devices	Likely	Major	High	Buy own microphone	Kathy	Yes	
IP	License issues	Unlikely	Major	Medium	Clarify with licensors	Kathy	Yes	
Game creation	Design shift	Likely	Major	High	Discuss with AIE teachers	Kathy	Yes	
	Unclear design path	Likely	Major	High	Get act together	Kathy	Yes	
	Loss of game data	Likely	Minor	Medium	Don't use Perforce or GitHub	Kathy	Yes	
	Data corruption	Likely	Minor	Medium	Back up everything	Kathy	Yes	
	Scope too large	Likely	Major	High	Monitor, reduce scope	Kathy	Yes	
	Deadline gets pushed forward	Unlikely	Major	Medium	Say no to stakeholders	Kathy	Yes	
	Implementation slow affecting launch	Likely	Major	High	Communicate problems early	Kathy	No	Implement smaller game
Game	Game breaking bug	Likely	Major	High	Test early	Kathy	Yes	
	Incompatibilities	Unlikely	Major	Medium	Test early	Kathy	Yes	
	Players dislike game	Unlikely	Major	Medium	Design change	Kathy	Yes	
	A competitive game comes out that everyone can't resist	Unlikely	Minor	Medium	Market on similarities	Kathy	Yes	

2 Priority list

PC movement
Collisions
Sound FX
Game controller
Tutorial level
Dialogue
Music
Centre
End game
_____
STRETCH CALLS
Other play areas
Costume choices
Costume choice areas
Start music
Credits
Gear VR GUI

3 Timeline

Blind Freddy VR game
TIMELINE

PROJECT START -
CONCEPT
APPROVAL

MILESTONE 3 -
ALPHA

MILESTONE 5 -
GOLD MASTER

MILESTONE 1 -
GDD APPROVAL

13/05/2016   20/05/2016   27/05/2016   3/6/2016   10/6/2016   17/06/2016

MILESTONE 2 -
PROTOTYPE

MILESTONE 4 -
BETA

PROJECT DETAILS

DATE	MILESTONE	POSITION
13/05/2016	Project Start - Concept approval	25
20/05/2016	Milestone 1 - GDD approval	10
27/05/2016	Milestone 2 - Prototype	-10
3/6/2016	Milestone 3 - Alpha	15
10/6/2016	Milestone 4 - Beta	-15
17/06/2016	Milestone 5 - Gold Master	15

Project Timeline Tips:

The role of the Position values in the Project Details table is to prevent the Milestone labels from overlapping each other on the timeline. Use positive numbers to position labels above the timeline and negative numbers to position them below.

To add additional Milestones, either insert new rows within the table or start typing below the last table entry and the table will automatically expand to accommodate your newly added data.

3.1 Milestones

MILESTONE		Planning	Modelling	Level design	Sound	UI	Scripts	Testing
START	11 May 2016	New course						
		Plan						
		Concept document						
PLAN	13 May 2016	**Concept approved**						
		GDD						
		PPD						
STAGE 1	20 May 2016	**GDD and PPD approved**						
			PC	Tutorial area	Sound FX tutorial		PC movement	
			PC costume		Dialogue tutorial		Collisions	
			NPC		Music tutorial			
			Tutorial area structure					
			Costume choice area					
			Boundary					
STAGE 2	27 May 2016	Prototype working						
			Centre mirror	Mirror area	Sound FX mirror		Game controller	
			End area stables	End area	Sound FX end		Sound in	
ALPHA	3 June 2016	Alpha approved by client						
					Dialogue mirror		Sound in	Testing
					Music mirror			
					Dialogue end			
					Music end			
BETA	10 June 2016	**Beta approved by client**						
							Implement client requests	Testing
GOLD	15 June 2016	Gold complete						
								Polishing
GOLD	17 June 2016	**Final accepted by client**						

4 Assets

Note: there is no schedule for when each asset will be made.
For an example of a schedule, see the schedule for VR Medieval Mysteries.

4.1 **Art assets**

4.1.1 **3D models**

4.1.1.1 **Characters**

- PC with 5 costume objects with 4 variations each, and rainbow coat
- 6 NPCs

4.1.1.2 **Levels**

- play objects all with individual sounds
- play areas with individual sounds complementing play objects
- costume choice area for each play area
- ground, walls, playground structures all with individual sounds

4.1.2 **Props**

- balls
- cones
- cylinders
- diamonds or stars
- dominoes
- maze objects
- mirrors

4.1.3 **Scale**

Character proportions – human sized.
Environment scale – horse is 2.5 metres tall, area is hexagon with 150 m sides.
Architectural proportions – stable is 4 metres high and 7 metres wide.
Play areas are 50 metre diameter areas on average.

4.1.4 **Level of detail (L.O.D.)**

Visual level of detail does not change.

4.1.5 **Camera**

First person camera, no special effects

4.1.6 **Lighting**

Due to VR constraints, only one ambient light.

Always day time.

4.1.7 **Colour palette**

Bright, bold, high contrast colours of the rainbow.
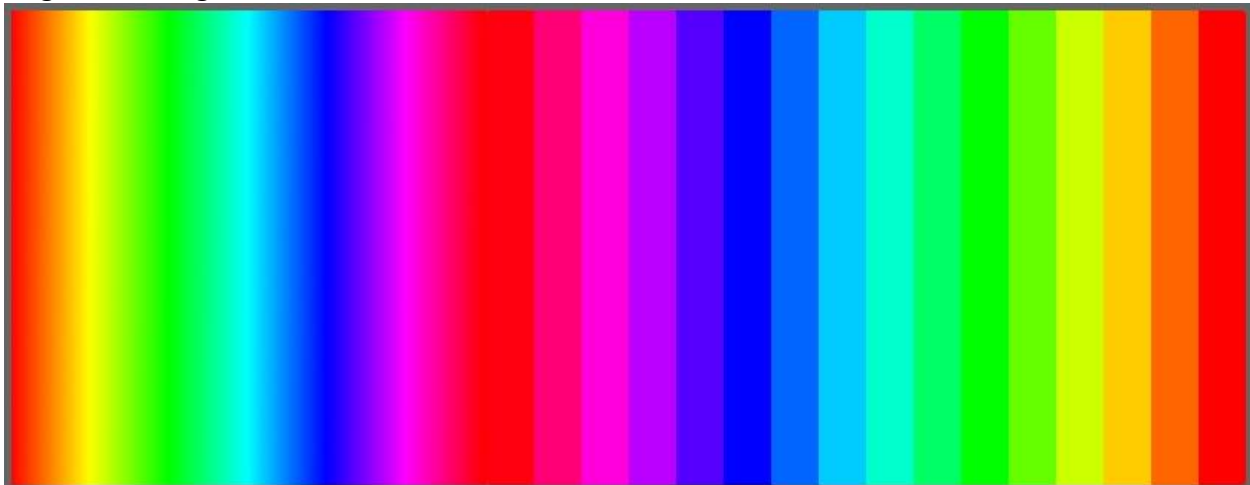
4.1.8 Atmosphere / environment and Texture and surface

Fine day
Open arena except inside Centre mirrors and maze at end
Flat textures, hard surfaces

Pink skybox
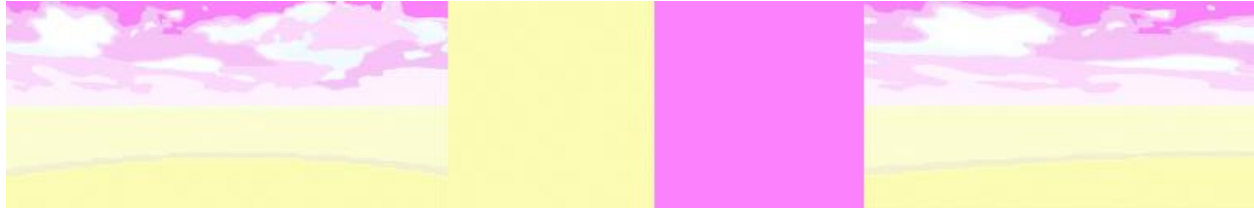
4.2 Sound assets

- Voice recording
    - o dialogue for 7 characters
    - o dialogue for Oculus tutorial
- Sound effects
    - o Dialogue tutorial
    - o Bells ring at the end of every mini-game
    - o Ambient
    - o Footsteps
    - o Sounds for every art asset in game
- Music
    - o 11 songs
        - ▪ Prelude in C
        - ▪ London Bridge
        - ▪ When the Saints Go Marching In
        - ▪ Incey-Wincey Spider
        - ▪ Row Row Row Your Boat
        - ▪ Muffin Man
        - ▪ Twinkle Twinkle Little Star
        - ▪ Lavender's Blue
        - ▪ Ode to Joy
        - ▪ Yankee Doodle
        - ▪ Here We Go Louby Lou/Skip to my Lou

4.3 Story

Dialogue script

4.4 Programming

4.4.1 Game code

- Movement
- Scoring
- Game over
- UI
- Audio
- Save states

4.4.2 PC movement

- point nose at scenery game object to move towards it
- point nose at ground or sky to stop
- nudge head to push or hit interactable objects
- nod to respond to dialogue [stretch call]
- shake head to respond to dialogue [stretch call]

4.4.3 In menu

4.4.3.1 VR housekeeping
- how to use back button, long and short presses
- how to miss rest of VR housekeeping
- how to stop
- how to share
- how to use tap button (reward this)
- how to swipe (reward this)
- player is seated
- player has headphones or headset for better audio experience
- player is ready to play, game will take 5 – 15 minutes
- start game

4.4.3.2 Main menu
- resume
- go to options
    - display
        - graphics [increase contrast for low-vision players]
        - resolution
    - sound
        - master volume
        - sound FX
        - music
    - guidance
        - controls

- how to stop
- how to share
- how to tap
- how to swipe
- how to pause
- how to speak
  - state of game - player's progress so far
  - hints - what still needs to be done
- go to credits
- new game
- go to Oculus home
- exit

4.4.3.3 Start menu
- start game
- go to options
- go to Oculus home

4.4.3.4 Pause menu
- continue game
- go to options
- go to main menu

4.4.3.5 End menu
- play again
- go to main menu

4.4.4 In non-play level

- splash screen
  - start game
- credits
  - return to main menu

4.4.5 In gameplay

- domino tutorial
  - game start
    - PC starts in playground area, Cube Person explains where he is and what is happening.
      - where am I? – Cube Person explains and describes area
      - how to pause – different for every game so in tutorial
      - how to speak
      - what am I doing? Cube Person asks and player has option of responding and explaining he is on way to new girl's house to take her to dance
        - (will not want to do this on repeat games)

- Cube Person asks for help knocking over dominoes
  - PC chooses to agree or go on
  - Either way, Cube Person tells PC how to move around
    - movement is by focusing on main playground structures
  - If PC agrees to help, Cube Person explains where domino is and domino sounds. Cube Person asks PC to knock it dow
  - Cube Person encourages PC until he knocks domino down or leaves
- If PC knocks down dominoes
  - splendid musical win event
  - Cube Person explains how he has been helped
  - Cube Person asks to reward PC
  - PC chooses to accept for self or new girl
  - If PC asks for something for new girl, Cube Person refuses
  - If PC accepts for self, PC gains 4 new horseshoes
  - Cube Person directs PC to horseshoe choice area showing the 4 types of horseshoes he can have
  - Cube Person thanks PC for his kindness
  - Cube Person advises PC he can check his altered appearance in the Centre
- If PC tries but can't knock down dominoes
  - Cube Person thanks PC for his kindness in trying to help
- when PC is leaving, Cube Person asks if PC wants to check he knows what he needs to know before he moves on
  - Cube Person reminds PC how to get to main menu
  - Cube Person tells PC he can come back anytime to play again for different horseshoes
  - Cube Person wishes PC a good time at the dance
- domino revisit
  - Cube Person asks PC if he wishes to knock over dominoes again
  - repeat play
- centre
  - The Centre reflects PC in 6 mirrors and echo-panels
  - The Central Power exclaims about PC's changed appearance
  - The Centre asks PC if he would like to pause or go through the main menu
  - The Centre tells PC he can visit anytime
- diamond area
  - Diamond Person explains problem
  - Diamond Person describes area and task
  - PC negotiates sharp diamond tunnel
    - Win event
      - Win dialogue
      - Win sound FX
      - Diamond person directs PC to diamond choice area

- o Diamond mane shows and sounds
- o Goodbye dialogue
  - • Try again dialogue
- • sphere area
  - ▪ Sphere Person explains problem
  - ▪ Sphere Person describes area and task
  - ▪ PC stands as Maypole as NPCs plait around him
    - • Win event
      - o Win dialogue for tail beads
      - o Win sound FX
      - o Sphere person directs PC to bead choice area
      - o Tail beads show
      - o Goodbye dialogue
    - • Try again dialogue
- • cylinder area
  - ▪ Cylinder Person explains problem
  - ▪ Cylinder Person describes area and task
  - ▪ PC supports Cylinder Person to reach high
    - • Win event
      - o Win dialogue for saddle
      - o Win sound FX
      - o Cylinder Person directs PC to saddle choice area
      - o Saddle shows and sounds
      - o Goodbye dialogue
    - • Try again dialogue
- • cone area
  - ▪ Cone Person explains problem
  - ▪ Cone Person describes area and task
  - ▪ PC plays tune with hanging icicles
    - • Win event
      - o Win dialogue for unicorn horn
      - o Win sound FX
      - o Cone Person directs PC to unicorn horn choice area
      - o Unicorn horn shows and sounds
      - o Goodbye dialogue
    - • Try again dialogue
- • maze area
  - ▪ only shows and sounds when all other areas completed
  - ▪ Filly calls from stable, explaining problem
  - ▪ Filly describes area and task
  - ▪ PC negotiates maze
    - • Win event
      - o Win dialogue for rainbow horse hide
      - o Win sound FX

- - - o Filly describes rainbow
    - o Rainbow horse hide shows and sounds
  - • stable   Filly describes last problem
    - ▪ PC unlocks stable door
      - • Win event
        - o Win dialogue for end of game
        - o Win sound FX
        - o Credits begin
- • Maze at end - symbol for each sound

4.4.6   Inputs and outputs

- o Oculus main menu using large button short and long press
  - ▪ pause game -stretch call
  - ▪ back to main menu - stretch call
- o Oculus main menu using tap button and swipe pad
  - ▪ start game - stretch call
- o point nose at scenery game object to move towards it
- o point nose at ground or sky to stop
- o nudge head to push or hit interactable objects
- o during dialogue [*stretch call]
  - *shake head to disagree
  - *nod to agree
- o VR vibrates when player hits scenery object - stretch call
- o phone volume control must be done manually before game or by pausing game and taking off headset

4.4.7   **VR special needs**

- • Remind player to take off headphones or earphones before taking off headset.

5 Tools

5.1 **Editor/Engine**

The choice of engine was between Unity and Unreal as both engines feature
- native support for Photoshop and Maya to create game assets
- community made assets
- strong documentation and forum support

5.1.1 **Unity not chosen**

- support for Oculus Gear VR
- existing compatibility for multiple platforms, allowing portability without a massive rewrite for each platform
- bloated buggy VR code
- VR movement using clumsy reticle

5.1.2 **Unreal Engine chosen**

- native support for the Oculus Gear VR
- Unreal Engine code for moving character could not possibly be worse than Unity code
- more familiar to AIE artists
- uses C++ which is more familiar to AIE programmers

5.2 **Model maker**

5.2.1 **Maya and Photoshop**

- excellent for creation and texturing of simple shapes

5.3 Peripherals

Android Samsung Note 5 phone and cable
Gear VR headset

6 Version control

Version 1	PPD for review – incomplete mechanics chart, UI wireframe, technical guidelines, choice of game engine	19 May 2016	Kathy
Version 2	PPD after Milestones reviewed	19 May 2016	Kathy
Version 3	Simplified UI wireframe, technical guidelines, choice of game engine, deleted mechanics chart in favour of list	1 June 2016	Kathy