

Use Cases

for

MNPUL8R, Release 1.0

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Revision History

Name	Date	Reason For Changes	Version
Patrick Lee	10/19/16	Creating document format	1.0 draft 1
Fernando Flores	10/21/16	Inserting Information	1.0 draft 2
Keana Mowery	10/22/16	Inserting Information Document Formatting	1.0 draft 3
Ali Heston	10/23/16	Editing Information	1.0 draft 4
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Vincent Orłowski	10/25/16	Editing Information	1.0 draft 7
Keana Mowery	10/25/16	Final Edits	1.0 approved

The various user classes identified the following use cases and primary actors for the game MNPUL8R:

Primary Actors	Use Cases
New Player	Start New Game
	Configure Controls before beginning game
	Configure Settings before beginning game
Returning Player	Pause Game
	View Controls after beginning game
	View Settings after beginning game
	View Progress
	Resume Game
	Move Player Character
	Pick Up Interactive Object
	Hit Interactive Object
	Morph Interactive Object
	Flex Fingers to Change Environment Settings
	Flex Fingers to Change Music
	Enter/Exit Portal Door
	Exit Game

Use Case ID:	1		
Use Case Name:	Start New Game		
Created By:	Vincent Orlowski	Last Updated By:	Vincent Orlowski
Date Created:	10/23/2016	Date Last Updated:	10/25/2016

Actors:	New Player
Description:	A player creates a fresh game from the main menu, entering them into the game environment and beginning gameplay.
Trigger:	Selecting "New Game" option from main menu (MM)
Preconditions:	<ol style="list-style-type: none"> 1. Player has launched game 2. Game has loaded all necessary menu assets
Postconditions:	<ol style="list-style-type: none"> 1. Player is placed within game environment at start 2. Game save has been established for this new game 3. Player save file now available for loading under set name 4. Game is loaded and playable
Normal Flow:	<ol style="list-style-type: none"> 1A.1 User selects "New Game" option via button on MM 1A.2 New screen displaying save name (generated) 1A.3 Loading screen displays while game assets warm-up 1A.4 Game is loaded from starting point 1A.5 Player may now look around, move, access menus
Alternative Flows:	<ol style="list-style-type: none"> 1B.1 User selects "Load Game" option via button on MM 1B.2 New screen displaying previous save names

	<p>1B.3 Loading screen displays while game assets warm-up</p> <p>1B.4 Game is loaded from last save point</p> <p>1B.5 Player may now look around, move, access menus, and interact with world in full</p>
Exceptions:	Not Applicable in Videogame instance.
Includes:	Not Applicable in Videogame instance.
Priority:	High
Frequency of Use:	<p>A: Rarely</p> <p>B: Common</p>
Business Rules:	Not Applicable in Videogame instance.
Special Requirements:	Loading times and interactions must be proportionate to the content, don't leave player wondering if it's frozen.
Assumptions:	<ol style="list-style-type: none"> 1. Game executes and runs in the VR environment. 2. Save states are ideal for game lineage. 3. Game should have a main menu upon loading
Notes and Issues:	<p>Menu configuration has not been solidified</p> <p>Save state configurations may change</p> <p>Sequencing for loads may change for efficiency</p>

Use Case ID:	2		
Use Case Name:	Morph Interactive Object		
Created By:	Yeong-U Lee	Last Updated By:	Fernando Flores
Date Created:	10/19/2016	Date Last Updated:	10/24/2016

Actors:	New Player
Description:	Player can flex fingers on both hands simultaneously to create gestures that manipulate the physical characteristics of an object.
Trigger:	Player flexes fingers in specific gesture on both hands.
Preconditions:	<ol style="list-style-type: none"> 1. Player has loaded the game. 2. Player knows how to control objects and change the physical shapes of objects.
Postconditions:	<ol style="list-style-type: none"> 1. A player will see new route for successfully accomplishing puzzle on level.
Normal Flow:	<ol style="list-style-type: none"> 1. User will utilize Gesture #1 from the Intro tutorial. 2. User will see a slider pop-up beside gesture. 3. While holding the gesture, moving the hand across the x-axis will change the slider value. 4. This value corresponds to physical properties that belong to the object. Thus, changing the appearance of the object in real time.
Alternative Flows:	Not Applicable in Videogame instance.

Exceptions:	If the gesture the user made is not recognizable or programmed in game, no interaction will occur.
Includes:	Changing the size, position, and/or color of the objects being changed.
Priority:	High
Frequency of Use:	High: Constantly available in levels.
Business Rules:	Not Applicable in Videogame instance.
Special Requirements:	Do intro walk-through for controls and their usefulness in changing the game settings.
Assumptions:	The user understands the different types of finger gestures and is able to use appropriately within the game.
Notes and Issues:	Not Applicable in Videogame instance.

Use Case ID:	3		
Use Case Name:	Flex Fingers to Change Environment Settings		
Created By:	Alexandria Heston	Last Updated By:	Keana Mowery
Date Created:	10/23/2016	Date Last Updated:	10/25/2016

Actors:	New Player
Description:	Player alters the environment's initial appearance using hands as controllers to change environment object variables, i.e. (object size, color, motion, rate, etc.)
Trigger:	Fingers are arranged in specific positions.
Preconditions:	<ol style="list-style-type: none"> 1. Game is loaded and rendered. 2. Player is in a level.
Postconditions:	<ol style="list-style-type: none"> 1. Environment is visually altered by changing object and environment variables specific to the control used.
Normal Flow:	<ol style="list-style-type: none"> 1. Player flexes action hand. 2. Each of four non-thumb fingers controls an environmental element. Examples: sky color, cloud height, land color, land height.
Alternative Flows:	Not Applicable in Videogame instance.
Exceptions:	If the user is unaware of the ability of the object, they may not change the settings within the environment

Includes:	Changing brightness, changing contrast, changing speed of movement, changing saturation of color/color etc.
Priority:	High
Frequency of Use:	Common: About three times per level.
Business Rules:	Not Applicable in Videogame instance.
Special Requirements:	Do intro walk-through for controls and their usefulness in changing the game settings.
Assumptions:	The user understands the different types of finger flexes and is able to use appropriately within the game.
Notes and Issues:	Not Applicable in Videogame instance.

Use Case ID:	4		
Use Case Name:	Hit Interactive Object		
Created By:	Keana Mowery	Last Updated By:	Keana Mowery
Date Created:	10/22/2016	Date Last Updated:	10/25/2016

Actors:	New Player
Description:	Player uses active hand as the controller, shaped into a fist, to bash an interactive object.
Trigger:	Player moves hand vertically downward while in a fist. End of player's movement sits within hitbox for interactive object.
Preconditions:	<ol style="list-style-type: none"> 1. Game is loaded and rendered. 2. Player is in Level 1 environment.
Postconditions:	<ol style="list-style-type: none"> 1. Interactive object glows to indicate that it is now activated. 2. 3 minute timer is initiated.
Normal Flow:	<ol style="list-style-type: none"> 1. Player forms fist with hand. 2. Player performs bash motion with fist. 3. Player's bash motion ends inside hitbox.
Alternative Flows:	<ol style="list-style-type: none"> 1. Player forms fist with hand. 2. Player performs bash motion with fist. 3. Player's bash motion ends outside of hitbox. 4. Nothing happens. 5. Player reattempts.

Exceptions:	Not Applicable to Videogame Flows.
Includes:	Bashed Interactive Object Activated
Priority:	High
Frequency of Use:	Common: Main plot-forwarding feature of first level.
Business Rules:	Not Applicable to Videogame Flows.
Special Requirements:	Not Applicable to Videogame Flows.
Assumptions:	Player has viewed tutorial and understands the existence of the bash function.
Notes and Issues:	No current issues.

Use Case ID:	5		
Use Case Name:	Enter Portal/Transition Levels		
Created By:	Vincent Orlowski	Last Updated By:	Vincent Orlowski
Date Created:	10/25/2016	Date Last Updated:	10/26/2016

Actors:	Resuming Player
Description:	Player moves from one location to another by entering a portal that will take them to the corresponding end portal. In special cases, the portal may take them to a different level.
Trigger:	Player moves into the location of the portal, most likely an area slightly larger than its animation
Preconditions:	<ol style="list-style-type: none"> 1. Game is loaded and rendered. 2. Player is in Level 1 environment. 3. Player must complete all the requirements before advancing to the next level
Postconditions:	<ol style="list-style-type: none"> 1. Player has been moved on the map from the coordinates of the initial portal to those of its end portal, or from the current map to the map of another level
Normal Flow:	<ol style="list-style-type: none"> 1. Player moves into the space of the portal model. 2. Portal recognizes player entry 3. Player is transferred from the coordinates of the initial portal, to the coordinates of the corresponding end portal

Alternative Flows:	<ol style="list-style-type: none"> 1. Player moves into the space of the <i>level</i> portal model. 2. Portal recognizes player entry 3. Loading screen displays while the new level map loads 4. Player is placed in new level at the location of the level's entry portal.
Exceptions:	If the user tries to enter the portal without completing the requirements, a message will appear to indicate what requirements the user must accomplish first.
Includes:	<ol style="list-style-type: none"> 1. Entering the portal 2. Entering to the next level
Priority:	Medium
Frequency of Use:	Uncommon to Common
Business Rules:	Not Applicable to Videogame Flows.
Special Requirements:	Different functional code depending upon portal destination. (i.e. New Level, or New Location)
Assumptions:	Player has completed interactions required to unlock the portal's functionality
Notes and Issues:	Portals will be color-coded to distinguish one set from another.