Lucid Reverie VR QA Test Plan

OBJECT INTERACTION

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| TEST DESCRIPTION/STEPS: | * Choose a clutter object and pick it up * **If using attach ease-in,** is the speed at which the object attaches to your hand appropriate? * Rotate your hand around and note the way the object pivots – Does it seem natural? * Note the location the object is attaching to your hand – Does it seem like a logical point to grab the object? * Note the pose of the hand when holding the object – Is the hand’s pose relatively natural for the object? * Try to pass the object through some others – Does it properly move objects out of the way? Do the colliders seem logical? * Throw the object – Does it behave how you would expect? (ie heavy objects should move little after hitting the floor while light objects would bounce more, etc) |
| TEST COMMENTS: | * Note that 3rd party clutter objects are too numerous to realistically fix all their pivots, so they will likely rotate around either the centre or the bottom of the object – This is intentional |
| EXPECTED RESULT: | * The object should rotate around a logical position and attach to the hand at a logical location * The pose of the hand should be (relatively) natural for grabbing the object * Object should move other objects out of the way when pushed through them, and the colliders should match the object’s size and shape. * Throwing the object should reset its physics material values to what they were before you picked it up, and it should behave realistically upon colliding with other objects – Heavy objects should scatter lighter ones when thrown into them, and bounce little when hitting the floor, while light objects should do the opposite. |
| TESTER RESULT: |  |
| TESTER COMMENTS: |  |

PUZZLE OBJECT RETURNING TO ORIGIN

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| TEST DESCRIPTION/STEPS: | * Pick up a puzzle object such as the teacup * Throw it far enough away to reset its position – Does it properly return to its origin or does it find a new location nearby? Repeat this multiple times. * Fill the origin location of the object with other clutter or a significantly larger object then repeat above test. – Observe the results. |
| TEST COMMENTS: | * The console will contain debug messages about what happened to an object when it returns – Note these. * If nothing happens, make sure to add the ReturnToOrigin.cs script! The values for tether range and Circle Search Area can be adjusted per object, but good results were found with 4 and 0.2 respectively. |
| EXPECTED RESULT: | * When no other objects are in the spawn zone, the chosen object successfully returns to its spawn. * When the spawn zone is occupied, the chosen object spawns in a new location nearby. |
| TESTER RESULT: |  |
| TESTER COMMENTS: |  |

LIGHT / OBJECT INTERACTION

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| TEST DESCRIPTION/STEPS: | * Pick up the pink cat lamp * Move the lamp around the area, rotate it, and check for frame drops * Turn towards the cup/dog bone area and throw the lamp – Note any frame drops * Take the lamp to the shelving near the dog bone desk, wave it around near the books and note any frame drops |
| TEST COMMENTS: | * This test should be run in tandem with the test below – Just ensure the FPS canvas is in the scene and the profiler is open |
| EXPECTED RESULT: | * No noticeable frame drops * No shadow clipping |
| TESTER RESULT: |  |
| TESTER COMMENTS: |  |

TRICOUNT / FPS / PROFILER OBSERVATIONS

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| TEST DESCRIPTION/STEPS: | * Make sure the FPS canvas is in the scene and working * Look around the room and monitor the tri count – Does it ever get close to 1.3 million? * Teleport to the dog bone desk and look toward the bunny clock, stand relatively still and observe the frame count * Teleport next to the couch and look toward the shelves near the dog bone desk, stand relatively still and observe the frame count * Teleport between the dog bone desk and the card shelves rapidly – observe frame count * After stopping, observe the profiler for where the spikes are occurring |
| TEST COMMENTS: | * If someone else is available, have them observe the profiler during tests to see spikes in real time * Frames will spike-drop down to ~50 when looking from one side of the room to the other - observe the average not the minimum. This occurs because of lighting recalculations. |
| EXPECTED RESULT: | * Highest expected tri-count should be below 1.3 million Tris * Tricount should be relatively high when looking at one side of the room from another * Framerate throughout the test should be as close to 90fps as possible – With the exception of light recalculation and rapid teleporting * Profiler spikes should also coincide with light recalculation and rapid teleporting |
| TESTER RESULT: |  |
| TESTER COMMENTS: |  |

**PUZZLE TESTS**

DOG BONE PUZZLE

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| TEST DESCRIPTION/STEPS: | * From the starting position, look around – Can you see the Dog Bone? * Check if the ‘Chew Me’ text on the Dog Bone is readable from at or near the starting area. * Try to teleport – Are there any locations available? * Pick up the Dog Bone and throw it away – Does it return? * Pick up the Dog Bone and lift it to your head and note the following:   + Does the bone activate at an appropriate distance to your head or is it too far or too close?   + After activating, does it begin to make you grow?   + After activating, do the appropriate effects play? (ie do the bite marks appear / does the sound effect play?) * Once you are growing, note how the growth feels. Is it too slow? Too fast? * While growing, try teleporting or interacting with nearby objects – This should be disabled. |
| TEST COMMENTS: | * Consider setting the bone’s tether distance to be much smaller than other puzzle objects – Since you start small, your throwing strength is reduced, so it is possible that it may be thrown out of reach without returning if the usual value of 4 is used. |
| EXPECTED RESULT: | * You should be able to see the dog bone from your spawn location, and the Chew Me text should be visible. * There should be NO teleport points available other than the initial one, until you have eaten the bone and grown. * Throwing the bone should cause it to return. * The bone should activate at a distance appropriate to touching your face, should start you growing, and the bite marks should appear on the bone. * While growing, you should not be able to teleport or interact with objects. |
| TESTER RESULT: |  |
| TESTER COMMENTS: |  |

TEACUP PUZZLE

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| TEST DESCRIPTION/STEPS: | * Teleport to the Teacup Puzzle. Are the cups all within reach? A little leaning over to reach the farther cups are okay, but not if you must walk forward into the table * Attempt to pick up the Tea Pot – Nothing should happen. * Pick up a teacup and examine the base to see the symbol, and place it on the appropriate slot – Does it lock into place? Does the success sound play? * Pick up a different teacup and place it on an incorrect space. Nothing should happen. Ensure you can still pick it up. * Place all four cups on the correct spaces – Do they all lock into place correctly? * Once the puzzle is completed, do the appropriate effects play? (ie sparkles/spinning/success audio) |
| TEST COMMENTS: |  |
| EXPECTED RESULT: | * Placing a teacup on its appropriate location should lock it from being interacted and play a success sign. * Placing a teacup on an incorrect location should do nothing. * Placing all four teacups on their correct location should play a success sound and they should no longer be interactable. |
| TESTER RESULT: |  |
| TESTER COMMENTS: |  |

CARD PUZZLE

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| TEST DESCRIPTION/STEPS: | * Teleport to the Card Puzzle zone and look at the bookshelf. With all the clutter there, are the cards visible? Are there enough hints to the objective? * Pick up an incorrect card – Does the appropriate effect play? (Off With Their Head, failure sound, etc.) * **If card cutting is implemented –** Pick up the already cut card. The failure effects should not play a second time. * Pick up the Queen of Hearts – Do the success effects play? * After succeeding the puzzle, pick up the Queen again – Do the success effects play again? |
| TEST COMMENTS: | * Whether or not there are enough hints is hard to tell, best found by letting people who haven’t played before test. However, you should be able to see if the cards are visible. |
| EXPECTED RESULT: | * You should be able to see all of the cards, even if only slightly. * Picking up an incorrect card should do nothing, or play a failure effect. * If card cutting is implemented, the incorrect cards should be cut in half when interacted with. * Picking up the correct card should play a victory effect. |
| TESTER RESULT: |  |
| TESTER COMMENTS: |  |

CUSHION PUZZLE

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| TEST DESCRIPTION/STEPS: | * Teleport to the area near the couch. Are both the poster and the cushions reachable? Teleporting around the area to reach them is fine. * Throw the cushion away, does it return? * Pick up other objects nearby and place them on the cat’s mouth – Does anything happen? * Take the cushion to the poster and hold it to the cat’s face – Does it disappear and play the cat smile? * Restart the scene and repeat step 1, then try throwing the cushion into the cat’s face instead – Does it disappear and play the cat smile? |
| TEST COMMENTS: |  |
| EXPECTED RESULT: | * Objects other than the smile cushion should not do anything when placed against the poster. * Placing the cushion against the poster or throwing it should both result in the puzzle’s success. |
| TESTER RESULT: |  |
| TESTER COMMENTS: |  |

END GAME TESTING

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| TEST DESCRIPTION/STEPS: | * Complete all four puzzles correctly – After completing the fourth puzzle, do the reward throwable objects appear? Do the victory effects play? * After the time runs out, do the alarms and red lights begin to activate? * Wait for some time, do the alarms eventually fail and stop? * After a few seconds, does the wall explosion occur? * Observe the explosion – Does it happen correctly? All furniture objects and clutter should be blown away – Do any remain? * After a moment, does the screen fade away, ending the game? * Restart the scene, and do not complete the puzzles. Instead, wait out the duration of the timer and see if the above events still occur. |
| TEST COMMENTS: | * Consider setting the time limit to a shorter duration than normal to allow for quicker and easier testing. |
| EXPECTED RESULT: | * Victory effects should play after completing all 4 puzzles, and the room should be populated with many throwable objects for the player to chuck around. * After time runs out, the alarms and red flashing lights should begin, then the room should explode. * When the room explodes, everything in the room (except the reward throwables?) should be blown away. Ensure that the walls fracture properly and that all clutter AND furniture properly flies away. |
| TESTER RESULT: |  |
| TESTER COMMENTS: |  |

AUDIO

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| TEST DESCRIPTION/STEPS: | * Load the scene. Is the subtle background music playing from the radio? Does it properly seem positioned? * Pick up the radio and move it around, does the music seem to move with it? * Throw the radio across the room. Does the music seem to move with it? * Pick up a clutter object and drop it against a surface – Does it make a sound? * Pick up the same object and throw it with force against a surface – Does it make the same sound or a different one? * Do the 2 former sounds appear to be coming from the correct location spacially? * Does the volume of all sounds in the scene seem appropriate or is it too loud/quiet? |
| TEST COMMENTS: |  |
| EXPECTED RESULT: | * The music should appropriately be emanating from the radio, and thus should ‘move’ with it when the radio is moved. * Clutter objects should make sounds when impacting surfaces or other objects. |
| TESTER RESULT: |  |
| TESTER COMMENTS: |  |

TELEPORTING

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| TEST DESCRIPTION/STEPS: | * Load into the scene, and complete the dog bone puzzle to unlock teleporting. * Press the track pad on the controller – Do you see the teleport reticule and the teleport points? * Aim the reticule at an area that is not a teleport point then release the trackpad – Nothing should happen. * Aim the reticule at a teleport point and release the trackpad – Do you teleport? * How does the teleport feel? Is the blink too fast or too slow? * After teleporting, look down at your feet and attempt to teleport to the same point. Can you? * Aim at a different teleport point and try to teleport to it. Teleport multiple times to various points in various orders and ensure it works. * Look towards the couch and press the trackpad – Do you see the teleport area? * Move the reticule around the couch teleport area – Does it feel large enough? Can you successfully aim at varying spots on it without being blocked by other objects? * Teleport to the couch teleport area, and teleport around it. Does it feel too big? Too small? * Can you reach the cushion and poster correctly? * Pick up an object and try to teleport while holding it. Does it work? |
| TEST COMMENTS: |  |
| EXPECTED RESULT: | * Teleporting should be locked until the dog bone puzzle is complete. * Teleport points should appear when the trackpad is pressed. * You should not be able to teleport anywhere except the teleport points and teleport area. * You should not be able to teleport to the teleport point you are currently at. * Attempting to teleport while holding an object should do nothing. |
| TESTER RESULT: |  |
| TESTER COMMENTS: |  |

TITLE

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| TEST DESCRIPTION/STEPS: |  |
| TEST COMMENTS: |  |
| EXPECTED RESULT: |  |
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