Term Project, Phase 2

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Task Analysis

1. Tasks:
   1. Starting the application
   2. Start a new game
   3. Adjust the settings
      1. Turn on / off music
      2. Turn on / off sound effects
      3. Turn on / off tutorial
      4. Change controls scheme
      5. Clear saved sata
   4. Load a saved game
   5. View High Scores
      1. Scroll the list
      2. Find yourself in high score list
   6. Return to main menu
   7. Quit game
   8. Restart the level
   9. Collect points
      1. Collect orbs
         1. Move the character
            1. Move left
            2. Move right
            3. Move forward
            4. Move back
            5. Jump
         2. Rotate the camera
   10. Win / Beat the level
       1. Make it to the top platform
       2. Don’t jump in the lava
   11. Pause the game
       1. Return to game
   12. Have fun!
       1. Interesting graphics
       2. Interesting level
       3. Challenging but not too frustrating
       4. Not annoying music / SFX
2. All user groups for the following tasks are for the player User Group
   1. Task: Start a New Game
      1. Subtask / Action: Click on “New Game” button
      2. Possible Errors:
         1. User cannot find the “New Game” button
         2. “New Game” does not look like a button
   2. Task: View High Scores
      1. Subtask: Scroll through the high scores
         1. Action: Drag a scroll bar to the left of the high scores list
      2. Possible Errors:
         1. No High Scores yet
         2. User has no high score (scored less than all other players)
   3. Task: Play Game
      1. Subtask: Move Right / Left / Back / Forward
         1. Action: Press the appropriate arrow key or AWSD key
      2. Subtask: Look around
         1. Action: Move the mouse
      3. Subtask: Jump
         1. Action: Press the spacebar
      4. Possible Errors:
         1. User does not know the currently set key configuration
         2. User confuses the movement and camera keys
   4. Task: Adjust Settings
      1. Subtask: Turn on / off music
         1. Action: Slide the volume on the slider bar to the left or right
         2. Action: Check the “Mute Music” checkbox
      2. Subtask: Turn on / off SFX
         1. Action: Slide the volume on the slider bar to the left or right
         2. Action: Check the “Mute SFX” checkbox
      3. Subtask: Choose Controls:
         1. Action: Click on left or right button representing desired config.
      4. Subtask: Turn on / off tutorial
         1. Action: Check / uncheck “Tutorial” checkbox
      5. Possible Errors:
         1. Descriptions are not next to checkboxes
         2. User doesn’t understand slider bars are interactive
         3. User doesn’t realize key config types are buttons
   5. Task: Pause Game while Playing
      1. Action: Press “P” on keyboard or “| |” symbol in game window
      2. Subtask: Return to Main Menu
         1. Action: Click on “Return to Main Menu” in Pause menu popup
         2. Action: Confirm action (game progress will be lost)
      3. Subtask: Adjust Settings
         1. Action: Click on “Adjust Game Settings” button in Pause menu popup
         2. Action: (see Task: Adjust Settings)
3. Decisions:
   1. Eliminate need for user to find themselves in High score list by automatically jumping to their name and score in the list
   2. Eliminate saved games (user only has one game running – no saving for later)
   3. To make things more compact, add the Quit and Restart options to the Pause dialog popup.



Conceptual Model Description

1. The conceptual model will be largely graphically based, without windows, but with popup windows that prompt for input (Settings dialog, Pause dialog, confirmation dialogs). There will be 3 main screens – the Main Menu (that acts as a splash screen as well as a menu displaying the New Game, Settings, and High Scores buttons), the High Scores screen, and the Active Gameplay screen. A windowed system will not be used, so users can only see one backdrop screen at a time. Overlaid on the Main Menu or Active Gameplay screens will be the Adjust Settings dialog popup that disables the underlying screen’s functionality. In the Active Gameplay screen, there will also be a Pause dialog popup, which can in turn popup the Adjust settings dialog popup.

The most important existing metaphors are the use of mouse as pointer to enable buttons. Also, we will use the concept of a slider bar, checkboxes, and the common keyboard shortcut found in games, “P” to pause the game. Furthermore, players who are used to FPS (First Person Shooters) will likely be used to the Keyboard / Mouse combination to control camera and movement.

Likely, the most important metaphors are the use of layers of screens. In this metaphor, only one screen is visible at a time, allowing the user to forget about the other screens, thus freeing up memory load and distractions.

1. Users may not be used to the mouse – keyboard combination for controlling a character in a 3-Dimensional world. Furthermore, users might not try using the “P” key to pause the game. Users may not understand the concept of using the ASWD keys to control the character. Users may be expecting a WIMP format for the game. Users may not recognize or understand the use of slider bars, or checkboxes.
2. Users unfamiliar with the mouse-keyboard combo will likely need to read / watch the tutorial first to grasp the idea. The tutorial will also cover the methods of pausing the game, movement, and jumping. Users will not need to be concerned with WIMP, as screen switching is handled with readily visible and apparent buttons on screen. In addition to having slider bars and check boxes, there will be a short bit of text to explain that they are interactive and how to use them (such as “click on the box to disable sound” or “click and slide arrow to adjust volume”).