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WSOA2006 Assignment 5

Written Reflection

The African puzzle game I created requires a player to piece together a simplified artwork by using the arrow keys to move a small square around the artwork, which affects one piece at a time and causes each piece to move either horizontally or vertically if it is not blocked by other pieces. There is a label which indicates how many pieces are out of place, and updates each time control is passed to a different piece. The game ends when the artwork is complete, but does not move to a different screen.

To move the small square, all 4 arrow keys are used. Only specific movement options are available at each accessible point. A piece is selected when the block collides with it, and automatically starts moving along a set path if it is not blocked. To be able to access the center piece, the small square can be 'pushed' by the movement of specific pieces.

My initial plan was to create multiple levels and introduce new challenges. Elements such as triangles would rotate around a point instead of moving horizontally or vertically. The border could potentially be used to move around the outside of the artwork to access some elements. During the implementation of the single level created, I found that this was a much more challenging task than I had anticipated. Each piece has multiple positions it can move to, but those positions also depend on all of the pieces around it. Some of the pieces also have multiple places that influence their movement. The vertical movement of the pink pieces was extremely challenging, as the players square had to move with it while also ensuring that it lined up with all of the possible exit locations. Due to the large amount of code that went into this assignment, it was also extremely difficult to figure out exactly where the problems were. Since some of the bigger problems took so long to fix and made smaller problems less noticeable, the game submitted does still have some bugs.

The puzzle is solvable, and the fastest strategy for solving this puzzle is at the bottom of the page. Due to some of the bugs, some steps may need to be reversed to allow certain pieces to move. Some of the pieces move almost immediately once active, but some are slower.

Overall I am relieved to have submitted a working game. I am disappointed that I could not incorporate all of the elements I planned on implementing, but I'm also happy about the challenges I overcame while coding.

Strategy: Leave the left pink piece in the center. Move both yellow pieces as far left as possible. Use the right pink piece to access the blue and green pieces on the right and position them correctly before moving the red piece into place. Leave the right pink piece in the center. Move both yellow pieces as far right as possible. Use the left pink piece to access the blue and green pieces on the left and position them correctly. Position the left pink piece correctly. Finally, position the two yellow pieces correctly.