

CGH GAMES, A DIVISION OF CGH TECHNOLOGIES, INC.



Mario Flyer

A side-scrolling game starring Mario

Version #6a

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Version History

Version 0 – Mail Pilot source code to understand the workings of the vertical-scroller and how to go about changing it to scroll horizontally. Filename: sidescroller_v0.py

Version 1 – Used background element for new game to make a side-scrolling background, still using the plane graphic from mailpilot.py (it now is on the left side of the screen rather than the bottom, just a stand-in for Mario). Filename: sidescroller_v1.py

Version 2 – Added the clouds and island assets back in from mailpilot.py back into the game, making sure that they work properly scrolling horizontally. Filename: sidescroller_v2.py

Version 3 – All of the game assets have been updated with Mario-themed assets: stars replace islands, Koopas replace clouds. Added in Mario sound effects and music (thought the music doesn't play properly), a separate graphic for the instructions/start screen. Filename: sidescroller_v3.py

Version 4 – Added in coins to increase score after a certain amount of coins are collected, which helped make it easier to add lives to the game. Attempted to make a separate class to handle the music and sound effect, but that didn't turn out. Filename: sidescroller_v4.py

Version 4a – Removed the sound class and added in new Mario music to see how it would work. Made changes to what quality of sound files pygame would process. Filename: sidescroller_v4a.py

Version 5 – Replaced the custom music with music from Super Mario Bros. 3 again. Replaced the Mario image with an animated sprite sheet. Added a second enemy with the addition of Bullet Bill. Filename: sidescroller_v5.py

Version 5a – A stripped-down test environment to get the Koopa to move with an animated sprite sheet. Filename: Koopa_moveTest.py

Version 5b – Another stripped-down test environment to make Bullet Bill run on a timer so he appeared after a certain amount of time rather than when he hit the edge of the screen or hit Mario. Filename: bulletbill_Test.py

Version 6 – Added in animations for the coins, the Koopas and sound effects for the remaining assets. Added in more Bullet Bills and fixed the background so it looked proper while scrolling. Filename: sidescroller_v6.py

Version 6a – Final game, moving Bullet Bill back to a single entity. Added in a game description at the top in the comments. Filename: Mario_Flyer_Finished.py

I. Game Overview

Mario Flyer is a side-scrolling adventure starring everyone's favourite Italian plumber. Mario starts the game with 5 lives (1Ups) and has to collect Mushrooms to increase the score. There are also coins to collect which will add points to the scoreboard after 50 coins are collected. Every time Mario gains 1000 score points, he gains a life. Avoid Koopas and Bullet Bill to stay alive. Mario is controlled using the mouse. The 'escape' key will exit the game at the start menu and exit to the start menu during the game.

II. Game Play Mechanics

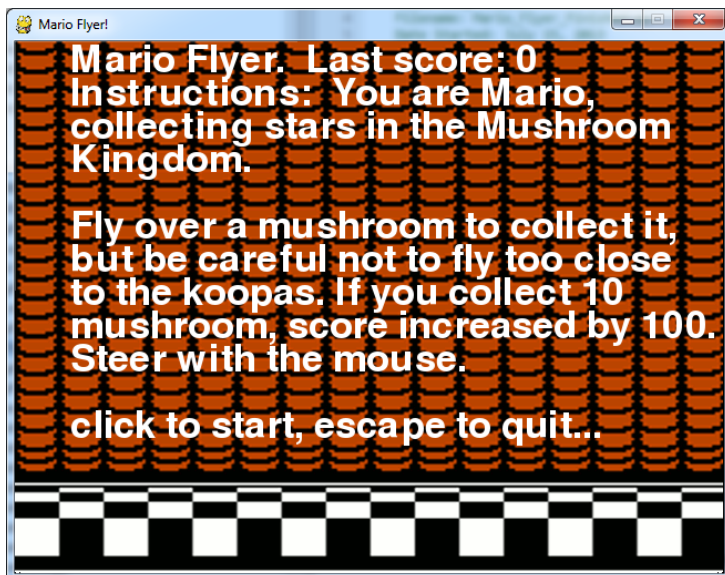
Once the game loads, the player uses the mouse to control Mario. Mario can collect Mushrooms to increase his score and coins to also help increase the score along the way. Mario can increase his lives (1Ups) for every 1000 score points achieved. Koopas and Bullet Bill will hurt Mario, taking away one life (1Up) for each enemy hit. Once all of Mario's lives are gone, the game is over and returns to the menu screen.

III. Controls

Mario is controlled using the mouse. Clicking the mouse button on the menu will start the game. Pressing the 'escape' key will exit the game at the menu and exit to the menu during gameplay.

IV. Menu and Screen Descriptions

Menu screen:



This screen shows the instructions for how to play the game. It tells the player a little bit about the scoring and how to control Mario. The "Last score" is displayed at the top of the screen.

Game screen:



This screen shows the number of lives (1Ups) Mario has remaining, the current score, and the current number of coins Mario has collected. The player-controlled Mario is on the left side of the screen in a fixed horizontal position, but able to move anywhere along the vertical axis. Mushrooms, coins, Koopas, and Bullet Bill will move from left to right to help or hurt Mario.

V. Game World

The game environment is set in the world of the Mushroom Kingdom. Mario takes to the sky, flying past clouds, platforms, warp pipes, and coins boxes, all non-interactable, in his attempt to collect coins and mushrooms.

VI. Game Progression

Mario will continue to fly until the 1ups have run out. Collect Mushrooms to increase your score, collect coins to help increase your score, and eventually gain extra 1Ups for reaching score milestones.

VII. Characters



Mario, wearing his Tanooki suit, is controlled by the player.

VIII. Enemies



Koopas are flying enemies who try and stop Mario from taking all of the Mushrooms from the Mushroom Kingdom and don't like it when Mario steals all of their coins.



Bullet Bill is a slow enemy, but a bigger target than the Koopas. It takes time for Bill to recharge so he doesn't have the same numbers as the Koopas.

IX. Items



Mushrooms increase Mario's score. For every 10 mushrooms Mario collects he gains a 1Up.



Coins are collected to help increase Mario's score (also helping to give Mario 1Ups): for every 50 coins collected, Mario gains 100 score points (or one mushroom's worth of score).

X. Scoring

Scoring in Mario Flyer is pretty simple: 50 coins give you one mushroom, a mushroom gives you 100 score points, and 10 mushrooms gives you a 1Up. Get hit by Koopas or Bullet Bill too many times and its game over.

XI. Sound/Music Index

When Mario collects a mushroom (or gains one through collecting coins):

smb3_power-up.ogg

When Mario hits a Koopa or Bullet Bill: *smb3_pipe.ogg*

When Mario gains a life: *smb3_1-up.ogg*

When Mario collects a coin: *smb3_coin.ogg*

When the game transitions from the menu screen: *smb3_new_world.ogg*

Menu screen music: *smb3_world_map.ogg*

Game music: *smb3_sky_theme.ogg*

XII. Art / Multimedia Index

Game background art: background1.gif

Bullet bill: bill.gif

Coin (still): coin.gif

Coin (animated): coin_animate.gif

Koopa (still): koopa.gif

Koopa (animated): koopa_sheet.gif

Mario (still): mario.gif

Mario (animated): mario_move.gif

Menu background art: mario_start.gif

Mushroom: mushroom.gif

Star: star.gif

XIII. Design Notes/Optional Game Features

The optional game features that have added are:

- Adding a cool soundtrack to the game
- Animating the player's avatar as they move (enemies and objects too)