

Wacky Pong Requirements Specification

Wacky Pong works a lot like regular Pong, where letting a ball go by scores a point for the other player. The game, however, also spawns a new ball every few seconds, so there are regularly multiple balls in play at the same time.

In addition, there are several different ball types:

1. Standard. Behaves in the normal way
2. Bonus. Counts for double hits when hit by paddle. Scores double points when missed
3. Freezer. Makes the opponent paddle unmovable for a short period of time. This is an effect ball, so it's destroyed when a paddle hits it
4. Speedup. Makes all balls in play move at twice their current speed for a short period of time. This is an effect ball, so it's destroyed when a paddle hits it

Each ball (including effect balls) only stays alive for a certain period of time. When the time expires, the ball is destroyed.

The game keeps track of and displays each player's score and the number of times each player has hit a ball with their paddle.

The game ends when the first player scores a certain number of points. At that point, the game displays a message indicating which player won. When one of the players chooses to close the message, the game returns to the main menu.

The game supports both one and two player gameplay. If the player chooses one player mode, the game lets them select a difficulty level (Easy, Medium, or Hard), then starts a game with a computer playing at the selected difficulty level.

The game has the following menus:

1. Main Menu: Lets player pick one player, two player, help, or quit
2. Difficulty Menu: Lets player pick Easy, Medium, or Hard for one player game
3. Help Menu: A single page that displays brief game instructions
4. Pause Menu: A menu displayed if a player pauses a game in progress. Provides options to resume the game or quit to the main menu

The game stores important game configuration information in a file it reads in at runtime. This approach supports tuning patches later as necessary.

During gameplay, sound effects are used to indicate when a ball has been spawned and when a ball has collided with the paddle or another ball. Gameplay sound effects also indicate when the freezer and speedup effects have been activated and deactivated. Finally, appropriate sounds are played when a ball is lost and the game is lost. The only menu sound effect is a click when a menu button is clicked.