

LESSON 2: TWO-PLAYER PONG

What you'll learn

- ✓ How to make a two-player game
- ✓ keyboard controls

Asset List

PONG 2-PLAYER ASSETS

Sounds

(same as one-player pong)

- Ball bouncing off wall
- Ball bouncing off paddle
- Lose ball
- Background music for game (optional)

Graphics

- ball (must bounce off walls, and off paddle)
- two paddles (player 1 controls with mouse. Player 2 controls with arrow keys).
- walls (ball bounces off: two side walls, one top wall)
- background screen
- text: title, game over

Gameplay

- Two separate scores (player gets one point for each time the ball hits the paddle)
- High Score board (to store player's name and high score)
- Two separate lives objects (3 to begin: player loses life each time the ball is missed by paddle and exits screen)
- buttons for "start game", "quit" and "high scores"

Pseudocode

Writing your own pseudocode for this game should be easy after completing the last lesson!

Frame 1: Title

Open up our (Lesson 1) *Pong* game.

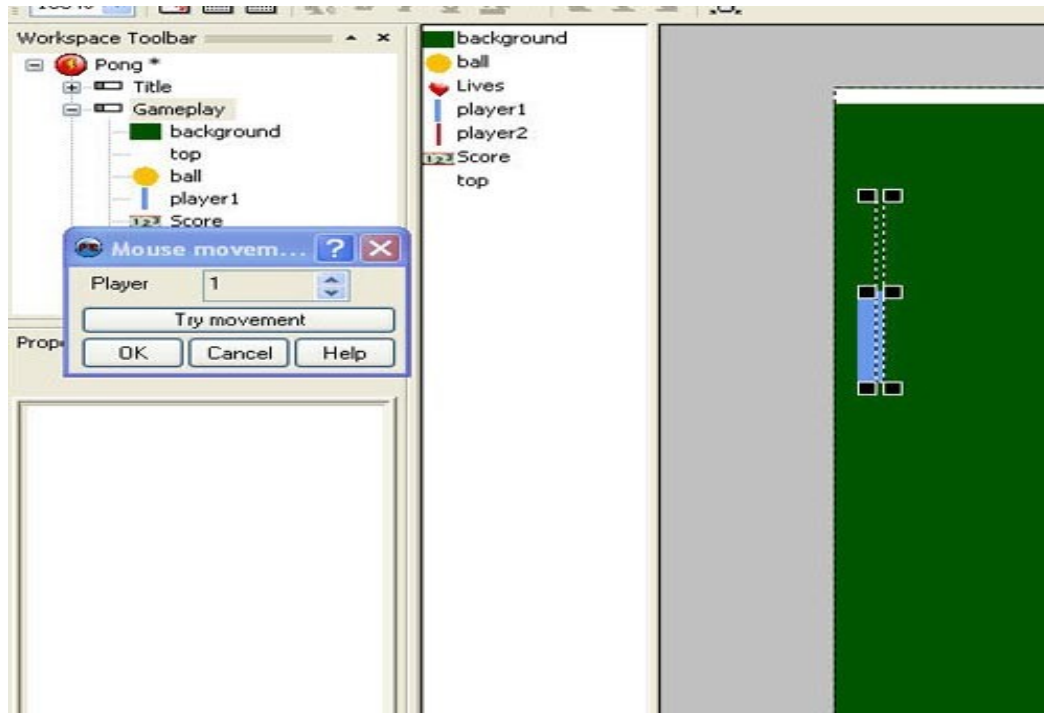
Frame 1 will stay the same.

Frame 2: Level1

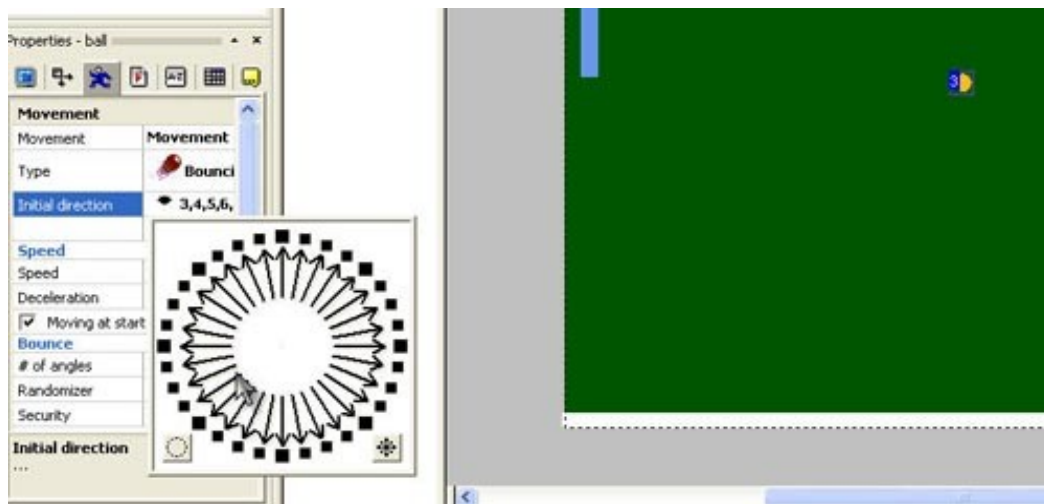
Rotate our paddle and change the name to player1. move it over to the left of our screen. Move it with the mouse object.

Delete our side walls and copy our top wall to the bottom.

Create another paddle and call it player2. Select keyboard movements up/down. Change player to # 2.



Change the initial ball direction to all directions (any direction).



Add lives for player 2. in properties, adjust the player to number 2. Do the same with the scores.

Go into the event editor. Change the “ball leaves .. bottom” to ball leaves screen on the right. In this case, subtract a life from player 2. don’t forget to copy to add a new ball and have direction set to all directions.

All the events All the objects															
1	Collision between and	✓											✓		
2	Collision between and	✓			✓								✓		
3	leaves the play area on the right	✓			✓								✓		
4	Number of lives of reaches 0		✓												
5	Upon pressing "Escape"		✓												
6	Score of = 100		✓												
7	New condition														

All the events All the objects															
1	Collision between and	✓											✓		
2	Collision between and	✓			✓								✓		
3	leaves the play area on the right	✓			✓								✓		
4	Number of lives of reaches 0		✓												
5	Upon pressing "Escape"		✓												
6	leaves the play area on the left				✓								✓		
7	Collision between and	✓			✓								✓		
8	New condition														

- Set position at (346,337)
- Set direction to

Copy that and if the ball leaves on the left, subtract a life from player 1.

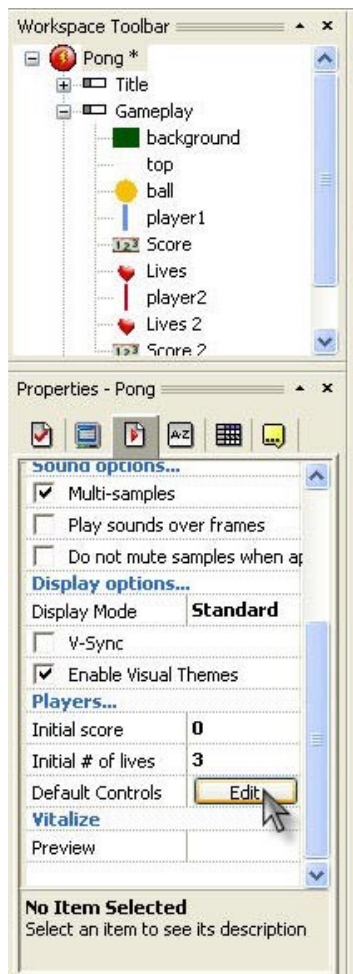
Copy our collision between ball and paddle, change to player2's paddle, and add to the score of player2 this time.

All the events All the objects															
1	Collision between and	✓											✓		
2	Collision between and	✓			✓								✓		
3	leaves the play area on the right	✓			✓								✓		
4	Number of lives of reaches 0		✓												
5	Upon pressing "Escape"		✓												
6	leaves the play area on the left				✓								✓		
7	Collision between and	✓			✓								✓		
8	New condition														

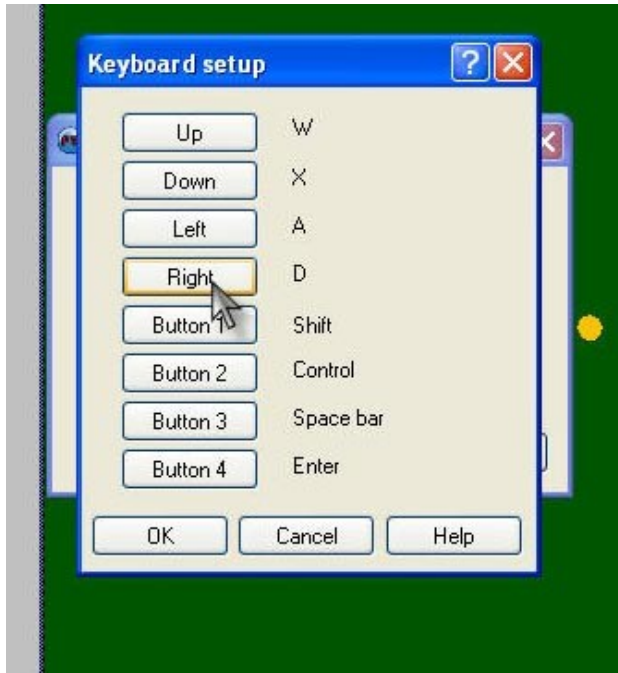
Test it out, and you'll see our keyboard player is at a bit of a disadvantage: movement is sluggish. Let's tweak our keyboard options.



First change the speed to a much faster speed. I've tried 90.



We can tweak the keycontrols by going to our workspace toolbar, clicking on our game's name (Pong), and under the properties below, click on "runtime parameters". Under "default controls" click the Edit button. This will bring up a window. Our player numbers are listed across the top. We can ignore player 3 and 4, but under player 2, click on the X under keyboard. Here we can edit which keys control what!



Frame 3: Highscores

Frame 3 will stay the same.

Additional Exercises

1. Is a three-player pong possible??