A Breakout Game Created in Scratch

http://cs.oregonstate.edu/~mjb/scratch

Mike Bailey
mjb@cs.oregonstate.edu

Events

when green clicked

when space key pressed

when this sprite clicked

when backdrop switches to backdrop1

broadcast message1

when I receive message1
Sensing

- `touching mouse-pointer`?
- `touching edge`?
- `touching color`?
- `distance to mouse-pointer`?
- `key space pressed`?
- `mouse down`?
- `mouse x` `mouse y`?
- `x position of Sprite1`?
- `y position of Sprite1`?
- `direction of Sprite1`?
- `size of Sprite1`?

Operators

- `+`, `-`, `*`, `/`
- `pick random 1 to 10`?
- `<`, `=`, `>`?
- `and`, `or`, `not`?
- `sin of 9`?
- `cos of 9`?
Motion

- move 10 steps
- turn (15 degrees)
- turn (15 degrees)
- point in direction 90°
- point towards mouse-pointer
- go to mouse-pointer
- go to random position
- change x by 10
- change y by 10
- set x to 0
- set y to 0
- if on edge, bounce

when clicked
when space key pressed
broadcast message1
when I receive message1

Make a Variable

- Speed
- set Speed to 0
- change Speed by 1

when I start as a clone
create clone of myself
delete this clone

move 10 steps
turn (15 degrees)
point in direction 90°
if on edge, bounce

pick random 1 to 10
< | = | >

Oregon State University
Computer Graphics
Scratch Handles the Directions you are Going Like a Compass Does

Three Actors

Displaying Data Variables

Three Actors
Paddle: change the ball speed, number of balls, and number of bricks

When the program starts, set some good values into the variables; get everyone else going, then have the Paddle continuously follow the mouse pointer.

The 'q' key can end the game.

Bricks: change where the bricks are located (you can also change their size)

Create the bricks to start with.

Test to see if you've won.

Position each brick in a random location. Then, wait for the Ball to hit the brick. When it does, decrease the brick count, bounce the Ball (which will result in a pop sound), and delete this brick.
Ball: change where the ball launches from and what happens when you win

Ball: change how fast or slow the ball can move and what happens when you lose