

Video Game Design

Clickteam 2.5 - Using Counters and Coordinates

Purpose:

Demonstrate how math and logic concepts are integrated into the design and development of video games.

Materials:

Clickteam 2.5 software



Directions:

For this assignment you are going to create a game scene, that utilizes counters, random spawn points for powerups, and multi-variable conditions. Use the following steps to complete your game:

Frame Setup

- Open a new project in Clickteam
- Find a character use from the Clickteam 2.5 library and place it on the first frame
 - Name the character "player1"
- Click on insert on the toolbar to insert a new object > insert counter; then place the counter on the frame
- Create an active object and name it: "ammo"
 - Small circle (approximately 20x20 pixels) on the frame and name it "ammo"
- Create an active object and name it "ammo spawn"
 - Place multiple "ammo spawn" points on the frame
- Select a character from the Clickteam library and name it "enemy"
- Select "player1" by clicking on the object in the frame
 - In the properties window select the movement option and give the "player1" object eight direction movement
- Select the counter by clicking on it in the frame
 - In the properties for the counter, give the counter an initial value of 10
 - The minimum counter value can be set to "0" and the maximum counter value can be set to 100.
- Select the spawn points on the frame and uncheck the visible at start option in the properties window

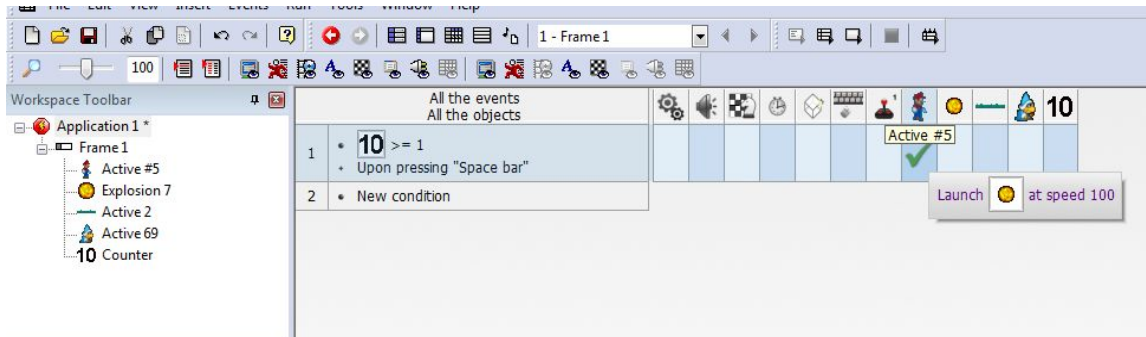
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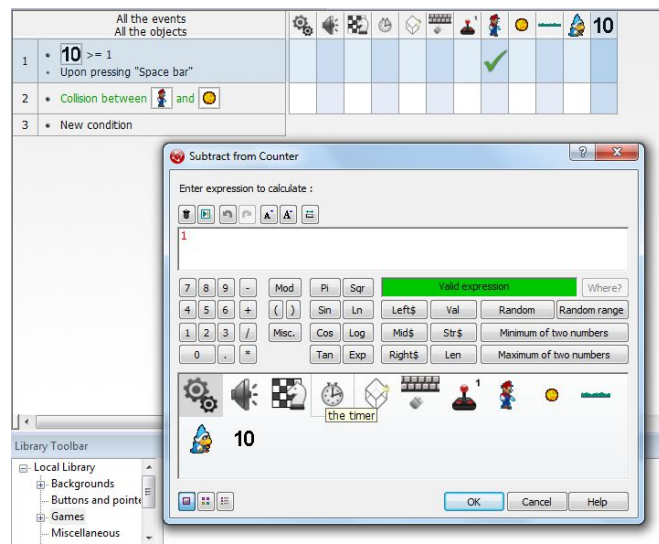
Game Mechanics

- In the event editor, create an event that enables “player1” to launch an object upon pressing the spacebar and when the value of “ammo” is greater than zero.

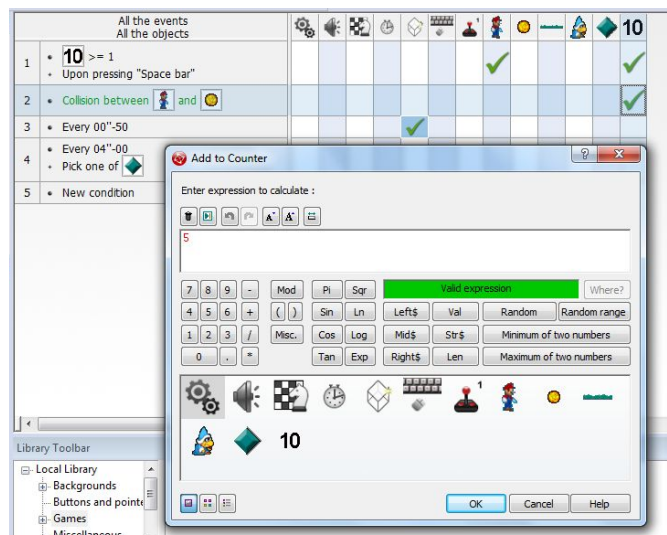
See Line 1 below



- In line 1 right click in the “ammo” counter column > select subtract from counter > subtract 1



- Now let's create a condition for adding “ammo” back to the counter
 - Create a collision event in line 2 between “player1” and “ammo”
 - Right click in the “ammo” counter column > add to counter > add 5



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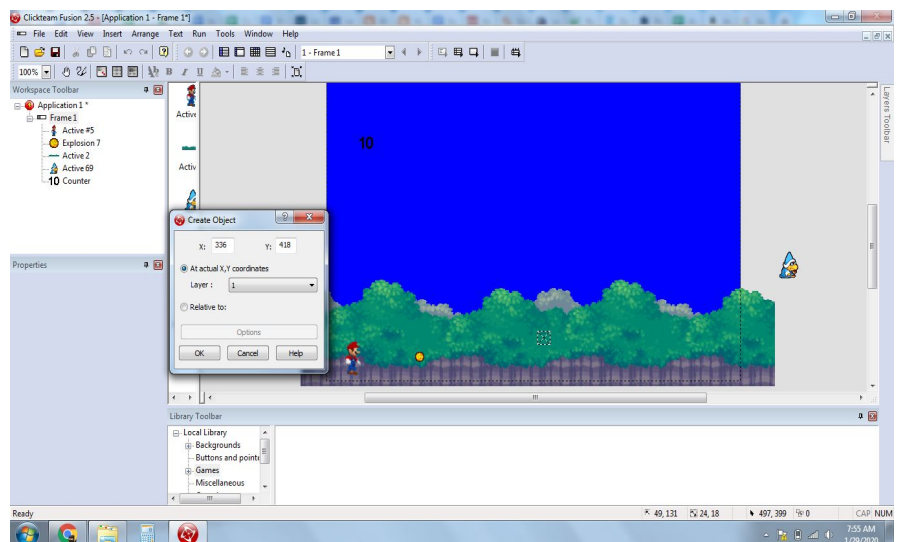
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- Now it is time to create some randomly placed “ammo” power ups
 - Create an every statement and set it to 4 seconds
 - Insert a second part to the condition by right clicking the line and selecting insert
 - Select the “ammo spawn” object > pick or count > pick at random
 - In the same line right click the create column > create object > “ammo”
 - Change the position from At actual X, Y coordinate to relative to and select the “ammo spawn”



- Now test the game to see if works so far
 - Ammo should spawn into the game every 4 seconds
 - When “player1” collides with “ammo” it should add 5 ammo to the counter
 - When “player1” presses the spacebar it should launch ammo

- Next it is time set up our enemy
 - Create an every statement and set it to .5 seconds.
 - Insert a second part to the condition by right clicking the create new objects button.
 - Select the enemy and choose at actual X,Y coordinates. Move your cursor to wherever you want your enemy to spawn. You will see the X,Y coordinates get entered automatically

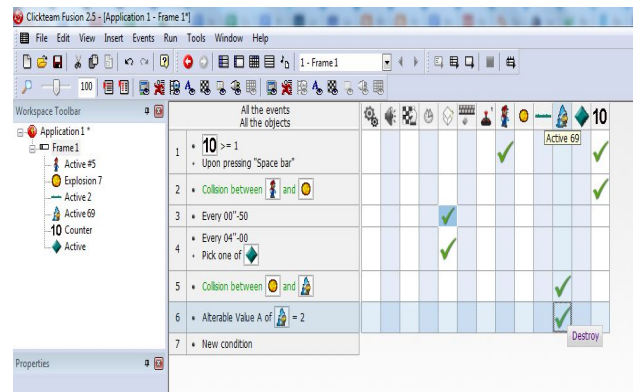
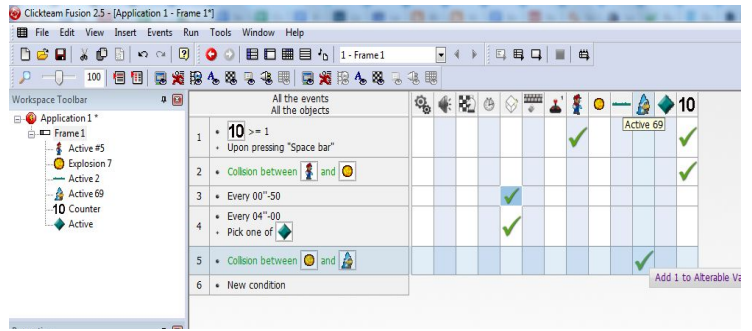


- Now it is time to allow the character to destroy the enemy. We want the enemy to take 2 hits before being destroyed

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- Create a new condition by choosing the projectile -collides with another object and choose the enemy.
- Insert a second part of the condition by choosing the enemy - alterable value - add to - and type in 1. This will add one its alterable value each time the projectile collides with it
- Create a new condition by choosing the enemy - alterable value - compare to one of alterable values. Enter 2
- Finally create the second part of the condition by choosing the enemy and destroy. The enemy will be destroyed after it has been hit twice.



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Rubric:

	Below Basic	Basic	Proficient	Advanced
	4	5-6	7-8	9-10
Game Completion	Game is incomplete and does not work correctly at all.	Game is incomplete and/or missing major elements. Parts of the game do not work correctly.	Game is complete. Game maybe missing a couple minor elements but game works correctly.	Game is complete. All required elements included. All parts work correctly
	4	5-6	7-8	9-10
Required Changes	Game has no modifications.	Game is missing modifications and/or the modifications detract from the design and playability of the game.	Student made some significant modifications to the game. Included modifications add the design and playability of the game.	Student created or significantly modified 5 elements of the game. Elements add to the over design and playability of the game.
Total				