

Lesson 6: Hidden Object -style Game

What You'll Learn

- ✓ Resizing the gameplay area
- ✓ Visibility
- ✓ Strings
- ✓ Countdown timer
- ✓ Image-maps for buttons

I'll no longer be providing asset lists or pseudocode--try to work these out on your own and check the MFA files for assets.

Title and End Frames

Make two end frames; one for win and one for lose.

The lose frame will display the high scores.

The win frame will display the time in which the player finished the game.

Make a title page with instructions.

We've inserted buttons and used keys to click to start a game, but what if we want to have a special menu system, or round buttons?

We can import a graphic as an active object--import menu.gif for this example. (yes, I know mine is a very ugly menu!) We want to make an image-map using X and Y coordinates so the user can click on an area of the frame.

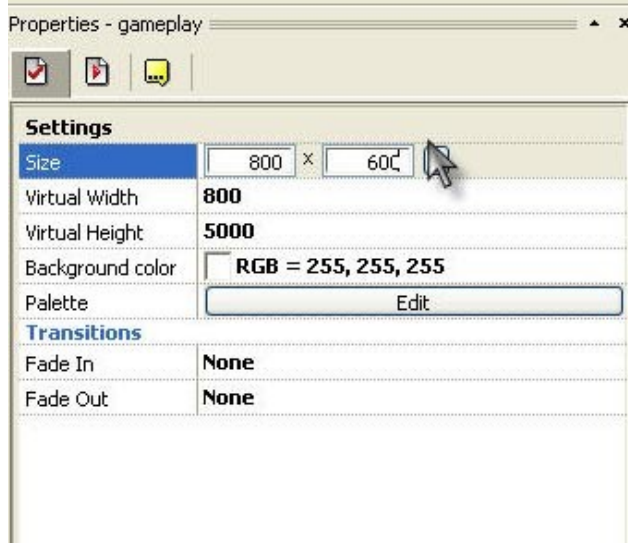
Under events, set a condition for the mouse> User Clicks Within a Zone. This will bring up a zone-box that we can drag over our word "start".

Do the same for the "high scores" part of the menu.

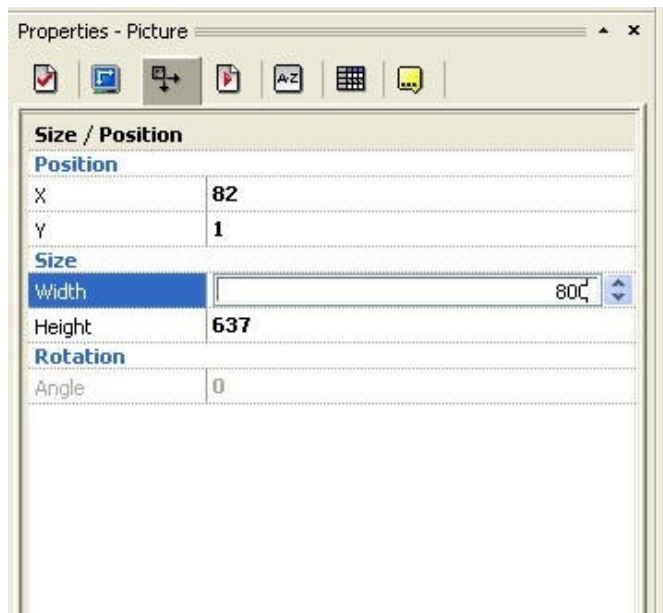
And select "next frame" as the action for start, and "jump to 3" for the high scores!

Gameplay Frame

Let's first change the size of our game. Under our Workspace Toolbar, click on the frame for our gameplay and the properties will display: we can adjust size here. Let's change to 800x600. Change the size of the whole game, as well as the frame (depending on which word you've clicked on above--our game title, "Hidden", or our level, "gameplay").



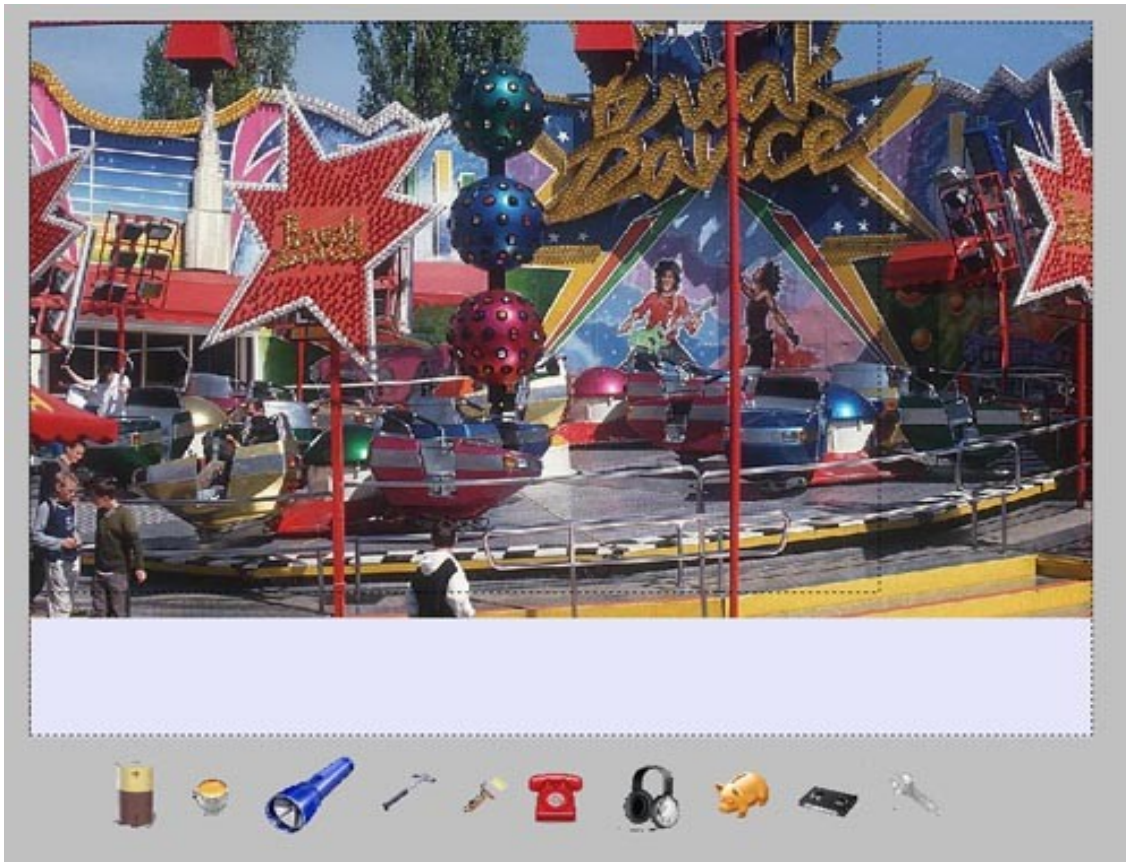
Choose a photo for the background by inserting an object > background > *active Picture*. I've grabbed one off bigfoto.com. We can adjust the size just like we did with the frame size. Lock it in place and name it background.



Drop a quickbackdrop and drag it across the bottom of the screen for our list of objects (mine is the large grey space below the photo).

Insert a score counter. Write beside it with a formatted text object that says "Score"

Now import the ten images as active objects that will be "hidden" in our game. Give them all appropriate names and then hide them in the screen image. I haven't hidden them yet in the image below:



A string is a series of characters that could represent numbers, words, and so on. We'll insert 10 string objects in our space along the bottom. Under their properties enter a name for each. I've used "txtname" as my string object names. For each one, deselect the "display as background" box. This is to combat a "bug" in the program whereby text objects go funny if they are displayed as background!

battery	bucket	hammer	phone	tape
paintbrush	flashlight	headphones	wrench	piggy bank

Now we want to be able to say, "when the user clicks on an object, if the text for that object exists (is visible) in the game, and the user clicks that object, make the text invisible, delete the object, and add 10 to the score.

Condition: User clicks on an object with the left button of the mouse. And the text for that object is visible.



Action: destroy the object, make the string invisible, add 10 to score.

Do this for every object.



Now we want an action for what happens if a user clicks an object and that object is *not* visible, or if they randomly click the background, what will happen. We will penalize their timer. First, however, we need to make a timer.

There is no clock countdown object for us to display but we can make one quite easily:










Make a counter object. In the event editor, when the frame loads, set the counter to 60. Write next to it “time” so the player knows what it is!

Now use the condition of the timer: every 1 second, subtract one from the counter.

Now, when the counter reaches 0, go to the game over frame, but because we may be subtracting five from our counter (see below), we need to have this condition read (equal or lower than 0).

Okay, now for when the player makes wrong clicks: if the player clicks the background (active object), then 1 should be subtracted from the counter.

If the player clicks an object and the text for that object is INVISIBLE, then 1 should be subtracted from the counter. Just like the conditions for the visible text, set a condition for each object where if the object is left-click and the text for the object is not visible, then... subtract 1 from timer counter

15	Wrong clicks	
16	<ul style="list-style-type: none"> User clicks with left button on  	
17	<ul style="list-style-type: none"> User clicks with left button on  *  is invisible 	
18	<ul style="list-style-type: none"> User clicks with left button on  *  is invisible 	
19	<ul style="list-style-type: none"> User clicks with left button on  *  is invisible 	
20	<ul style="list-style-type: none"> User clicks with left button on  *  is invisible 	

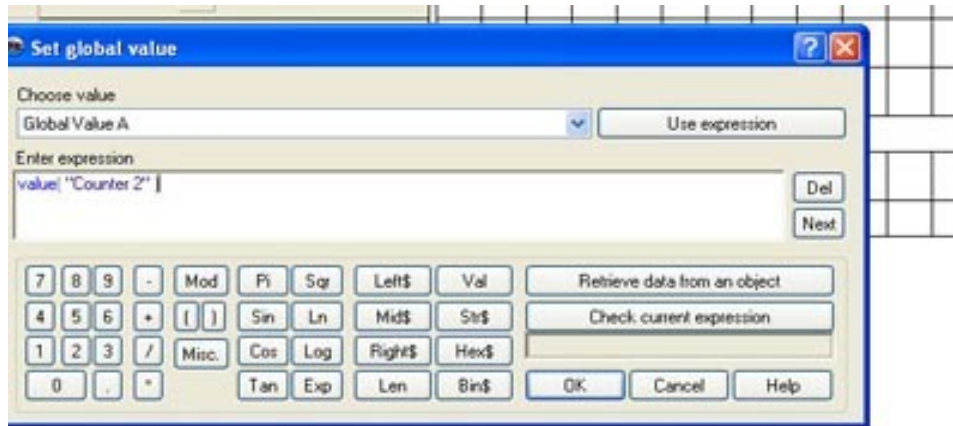
Test that out and you'll see it works fine. The trouble is, however, that all the text is always visible (unless we've already destroyed the object)... so we need to randomly choose five string objects to make visible, and five to make invisible at the load of the frame. First, align the string objects to the top in two rows. My top row of five strings all have a Y co-ordinate of 509. My bottom row aligns at 547.



Now we're going to set the strings to randomly display in the top or bottom row. So, just like with our *Arkanoid* bricks, select the event editor's special icon, and choose repeat 5 times. Swap the objects with each other (under the string object, position> swap).

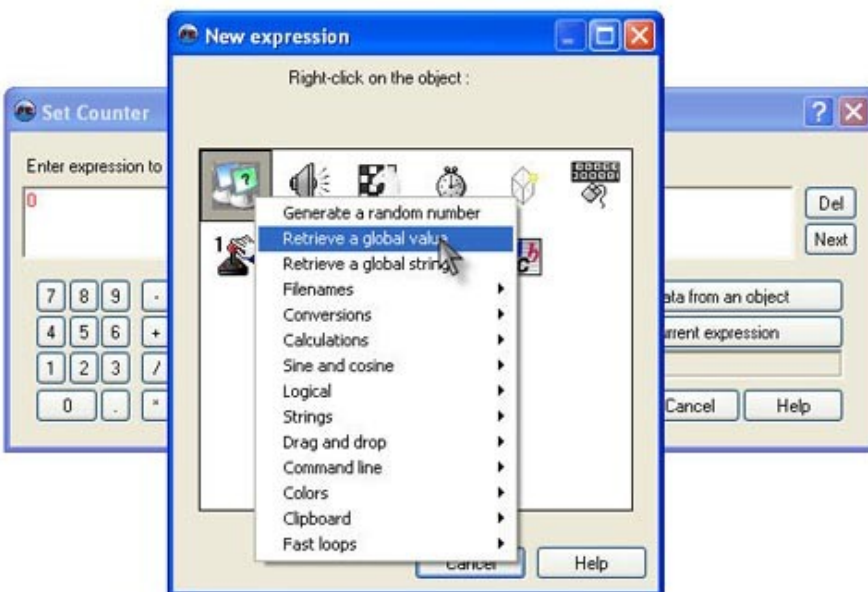
Now all we need to do is test to see if the object's Y co-ordinate is 509, and if it is not, make it invisible. I've made this into a separate event group just for clarity's sake.

Condition: string object: Compare Y position : if Y position is greater than or equal to 545 (just to give us a little grace if we've missed an exact placement), then make it invisible. If Y position is less than or equal to 544, make the object reappear.



In the final frame, drop in a counter and write some text that says “Congratulations, you finished in” and then insert the counter, then another text that says “seconds”, so it should read, “Congratulations, you finished in [counter] seconds”.

Now we need to retrieve the value for the counter. At the Start of Frame, counter set> global value> retrieve global value A.



Additional Exercises

1. Add sounds for interesting events.
2. Play a brief “bling” animation when the player clicks on the right object.
3. See if you can discover other ways to program the random aspect, instead of the way I’ve set it up here.
4. Make some more levels.