Rainbow Reef

Using the Super Rainbow Reef; tutorial from *Mark Overmars* from his book *Game Maker Apprentice*. *Copyright 2006,*

The important lessons is something called the - 'standardized'- Front End interface 'Splash Screen' that you will want to start using in design video games. Plus, create a 'Cheese Screen' at the end of the game.

This lesson is a creation of another type of arcade game where you can practice a bit more with Parent Objects and gravity, plus play around a bit with angles and degrees.

Super Rainbow Reef is a game in the tradition of *Breakout*
Here's the design:

> *Monstrous Biglegs have driven Rainbow Reef's peace-loving creatures from their ancestral homes. While new in the ways of war, Pop and Katch have developed a way of using their skills to fight back against the Biglegs. To do this, Pop must bounce off Katch's shell to attack the evil invaders. Katch must then quickly move to save Pop from falling into deep water below.*

Pay particular attention to the **beginning of this tutorial** –a Front End Splash Page and a Cheese Screen are requirements for you to use in Course Project games!

Game Framework::

1. Front/end-title page
2. Make selections
    a. Music
    b. Sprites
4. Actual game
5. High Score
6. Cheese Screen/End Page

Designing the game:

1. New control of the player:
2. Background image
3. Title sprite
4. Several button sprites
5. Some background music

Game feature list of the different enemies and blocks to create each level:

- Enemies:
  - Large and small stationary Biglegs
  - Large and small Biglegs that move horizontally
- Blocks:
  - Multicolored blocks to be destroyed for points
  - Visible and invisible solid blocks that cannot be destroyed
  - Blocks that must be hit twice to be destroyed
  - Blocks that create two new copies of Pop when destroyed
  - Blocks that give the player an extra life

I. The Front End (or 'Title Screen')

In our *Game Maker* games, a Title Screen *is* the game's 'Front End' user interface. It has a nice display with the game's name on it plus several buttons.
These buttons include:

1. **start a new game, Start**
2. **load a saved game, Load**
3. **how help, Help**
4. **display the high score table, Scores**
5. **quit the game Quit**

(you could also include a separate screen to display the game credits –great to see your name)

This screen is also the right place for starting the game's background music and initializing any other game settings, such as the player's score.

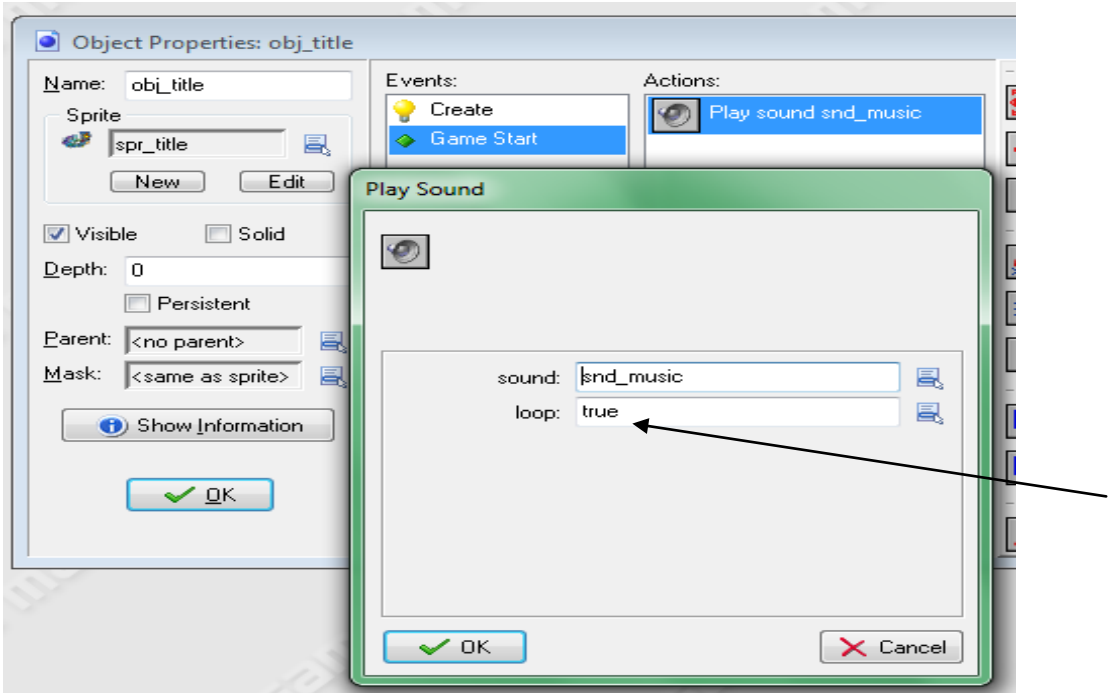
A. Asset creation is first – something you should know how to do very well by now. Please make all of the following assets, using their correspondingly named elements, so that we can build the game's Front End:
(remember to use your initials on all sprites – objects - rooms – backgrounds - sounds)

1. Create **spr_title**

2. Create **spr_button_start**, **spr_button_load**, **spr_button_help**, **spr_button_scores**, and **spr_button_quit** –

3. Add a background and dub it **background1**. All the default settings are fine.

4. And finally add a new sound resource called **snd_music** using all of the default settings.



B. Those are the assets, now let's build the Objects.

1. Create a new Object called **obj_title** and assign it **spr_title**, give it a **Depth** of '**10**,' but otherwise use all of the default settings.

   Add a **Create Event** for which the only Action (right now) is to **Set the score** to '**0**.'

   Then add an **Other: Game Start Event** for which the only Action at the moment is to **Play a sound** for **snd_music** and set the looping to '**true**.'

   Great! Now to make all of those 'button' Objects.

3. Let's start by creating **obj_butstart** and assign it **spr_button_start** and using all of the default settings.

   Add a **Mouse: Left Pressed Event** with the only Action to **Go to next room**. *You really don't need a transition effect, but you can experiment with one if you like.*

   That's it for the Start Button – it just takes you to the next Room it starts the game.

4. Then create **obj_butload** and use **spr_button_load**. *A buttload of what!?Do not laugh*

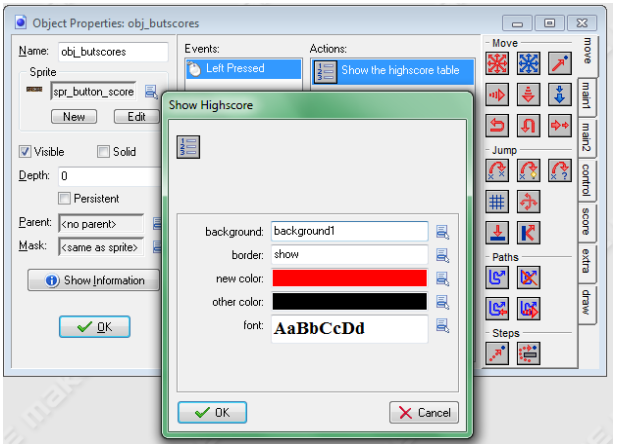
Add a **Mouse: Left Pressed Event** with the only Action on the **main2 tab** which is to **Load the game** and use the default listing, '**savegame**.' *That's it! Reef1_initials*

4. Then create **obj_buthelp** and use **spr_button_help**.

 Add a **Mouse: Left Pressed Event** with the only Action on the **main2 tab** which is to **Show the game info.**

5. Then create **obj_butscores** and use **spr_button_scores**.

 Add a **Mouse: Left Pressed Event** with the only Action on the **score tab** which is to **Show the highscore table**. Select **background1** to show the scores against and pump up the font to something like Times New Roman 14pt. bold as shown here.

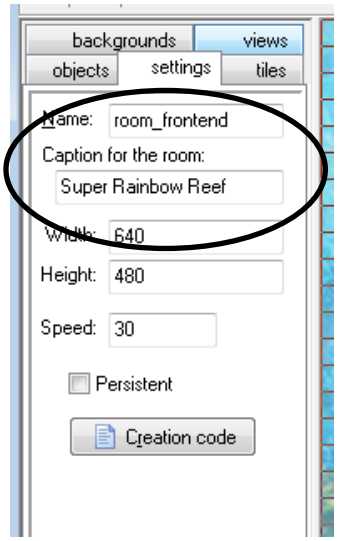


6. For the last button, create **obj_butquit** and use **spr_button_quit**.

 Add a **Mouse: Left Pressed Event** with the only Action on the **main2 tab** which is to **End the game.**

And *bam!* so let's do it!

C. Creating the Front End Room resource for a game



1. Create a new Room and call it **room_frontend** in the **settings tab**. For its caption, type in '**Super Rainbow Reef**' as shown here.

2. Select the **backgrounds tab** and set the background image from <**no background**> to **background1** as illustrated.

3. Go to the **objects tab** and place on instance of each of the buttons along the bottom of the screen. A logical order for them would be: START, LOAD, HELP, SCORES, and QUIT.

4. Finally, select **obj_title** and position it in the center of the Room. *Remember, you can use the <Ctrl> key to move it around into position.*

Your room should now look something like this:

For Instance

When you add an instance of an Object on top of one already placed in the Room, the existing instance is automatically deleted. You can disable this feature by un-checking the Delete underlying box at the bottom-left corner of the Room screen. Object tab n the background option.

5. You know, you should write a short help file for this game (you'll want (YOU WILL) to edit it after the game is done and you know more about it).

   Some basic information that you might want to include is:

   Company Name
   Your name (as the creator)
   The game's title

   A brief description of the story / object
   How to use the controls

   Date and Copyrights symbol

   The full version of the Game Information is on the next page.

Super Rainbow Reef

The monstrous Biglegs have driven the peace-loving creatures of Rainbow Reef from their ancestral homes. Despite their inexperience in the ways of war, Pop and Katch have invented a way of combining their skills to fight back against the Biglegs. For this incredible feat, Pop must bounce from Katch's shell to poke the evil invaders in the eyes. Katch must then move quickly to save Pop from plummeting into the deep waters below. The cowardly Biglegs often retreat behind coral defenses, so our heroes must be prepared to smash their way through if they are to finally drive the Biglegs from Rainbow Reef!

Controls:

While you are on the opening screen:
Use the left mouse button to click on any of the buttons

While playing the game:
<Left> moves Katch to the left
<Right> moves Katch to the right

Press <F4> to switch full-screen mode
Press <Esc> to return to the opening screen

Press S to save the game

Credits:

Programming:
YOUR NAME HERE

Graphics:
Kevin Crossley

Music and Sound:
Jacob Habgood

Crazy Storyline:
Jacob Habgood

Level Design:
YOUR NAME HERE

Original Concept:
Mark Overmars

II. The 'Cheese Screen'

Why it's called the "Cheese Screen"

Back in the 1980s, when you finished a computer game, all you saw on the screen afterward was this:

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Play again?  (Y/N)
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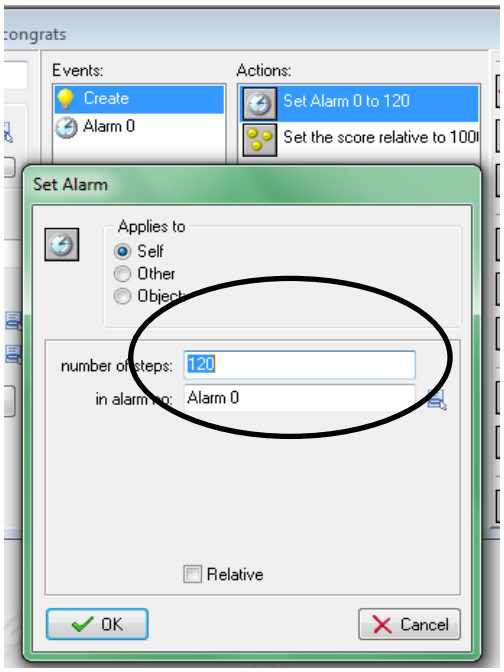
Boring? After players did all that work, this was all they had to show for it. Game designers wanted more, they discussed this and agreed that more rewarding end-game visual experience should take place.

"They've been good little mice and have completed the maze; they deserve a piece of cheese," one designer commented. Looking at articles can be learning experience and interesting as well There was the name 'Cheese Screen' was born. Cheesy You should look at gaming articles on line or in magazine for more interesting facts. It is cool.



The Completion Screen

That's all there is to making a Front End to a game using *Game Maker*.

Remember these basics when designing a game. (**standard feature**s).

The end-game or 'cheese' screen is even easier. There's one Object that displays some congratulatory text, "WOW" some bonus points are awarded, then a pause before the high score table is displayed. Following that, we return a player to the Front End where they can select the 'Quit' button if they want to leave the game.

A. Asset creation: Please make the following asset so that we can build the game's Cheese Screen:

1. Create **spr_congrats**

B. Create its Object

1. Create **obj_congrats** and assign it **spr_congrats** using all of the default settings.

   Add a **Create Event** and for the first Action, **Set the score** '**Relative**' to '**1000**' (i.e., awarding the player 1000 bonus points for reaching the end of the game). For the second and final Action, **Set an alarm** for **Alarm0** to '**120**' steps (i.e., 4 seconds at 30 steps / second).

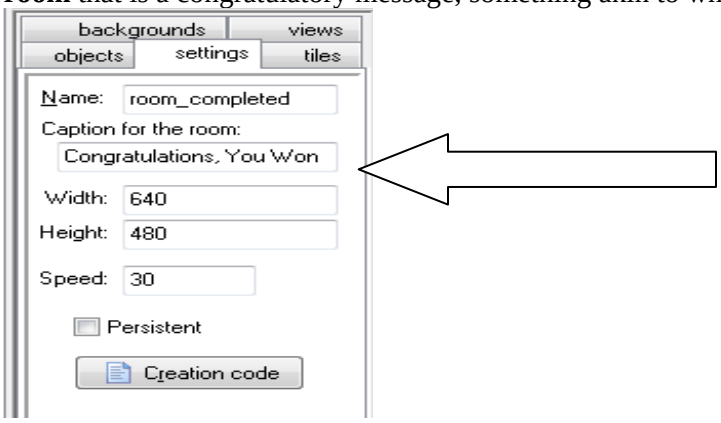
Then add an **Alarm: Alarm0 Event** where the first Action is to

Show the highscore table (use the same settings as you did above), and the second and final Action is on the **main1 tab**, to

 **Go to a different room** (meaning one not in order forward one or backward one): the new room is **room_frontend** and no transition is necessary (but you can experiment here if you like).

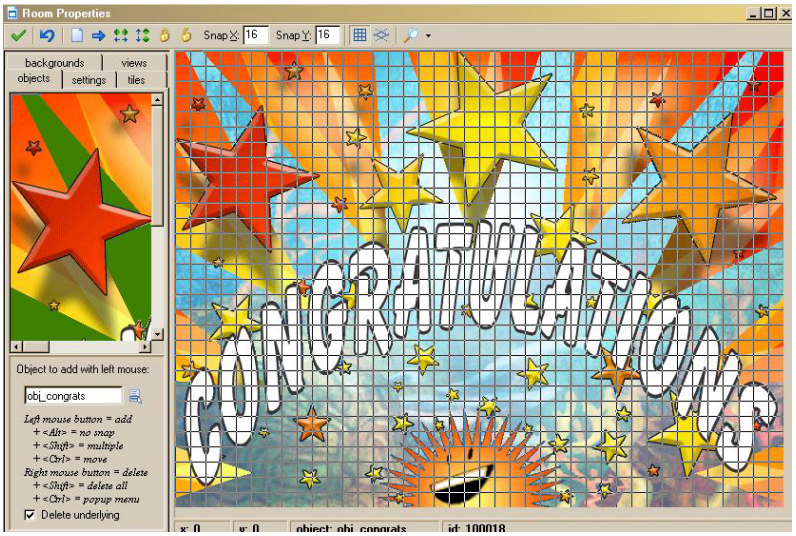
C. Creating the Room

1. Create a new Room called **room_completed** (in the **settings tab**). Add a **Caption for the room** that is a congratulatory message, something akin to what you see in this illustration.



2. Go to the **backgrounds** tab and where it says <**no background**>, change it to **background1**.

3. The go to the **objects** tab and put in an instance of **obj_congrats** in the upper-left corner. It will look something like the illustration here.



Now is a good time to test what you have. The LOAD button won't work, but the START button will take you right to the Cheese Screen (as you have no levels built yet), and the other buttons should all work.

Save file in your Rainbow_reef_lastname rainbow1_intials