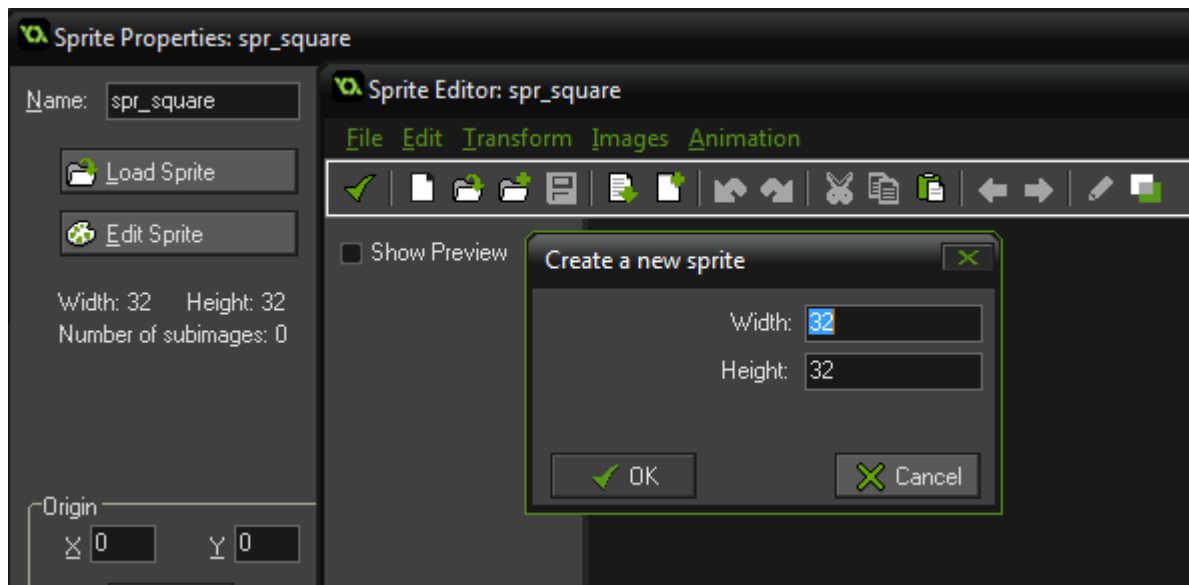
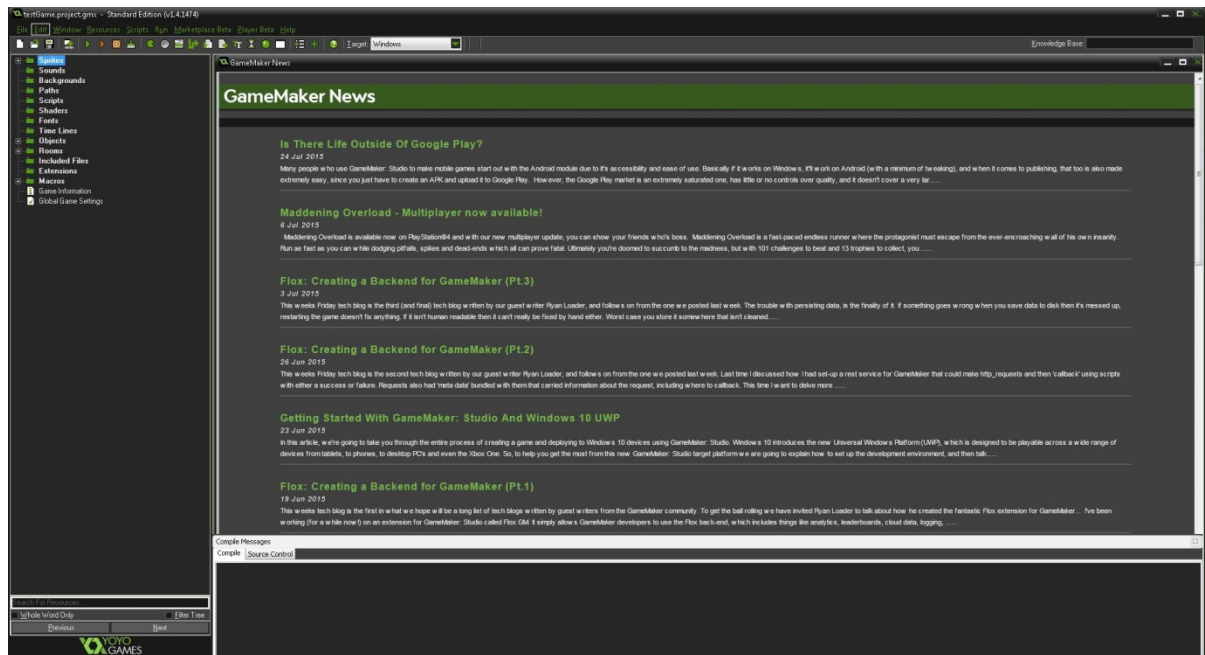
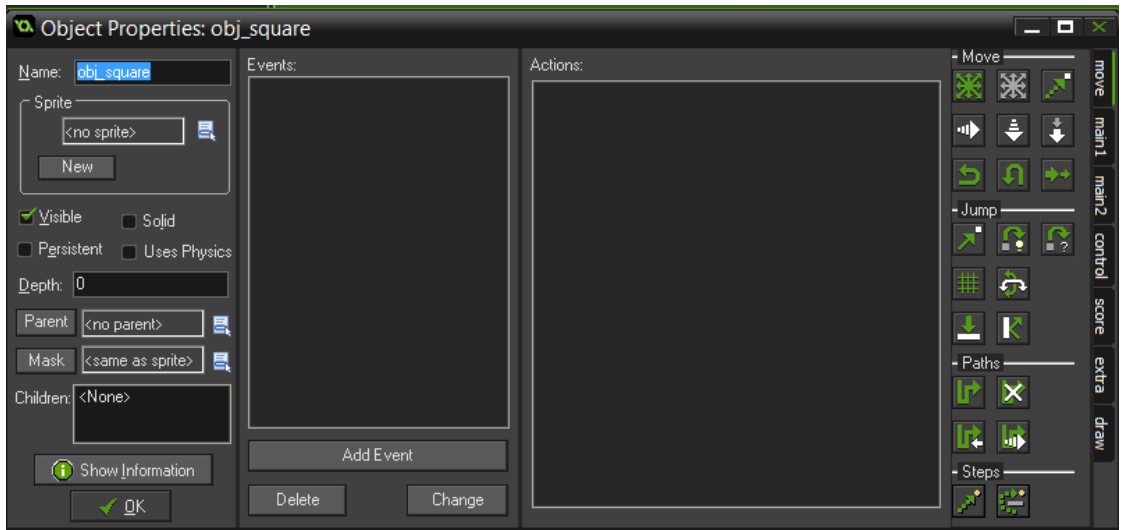
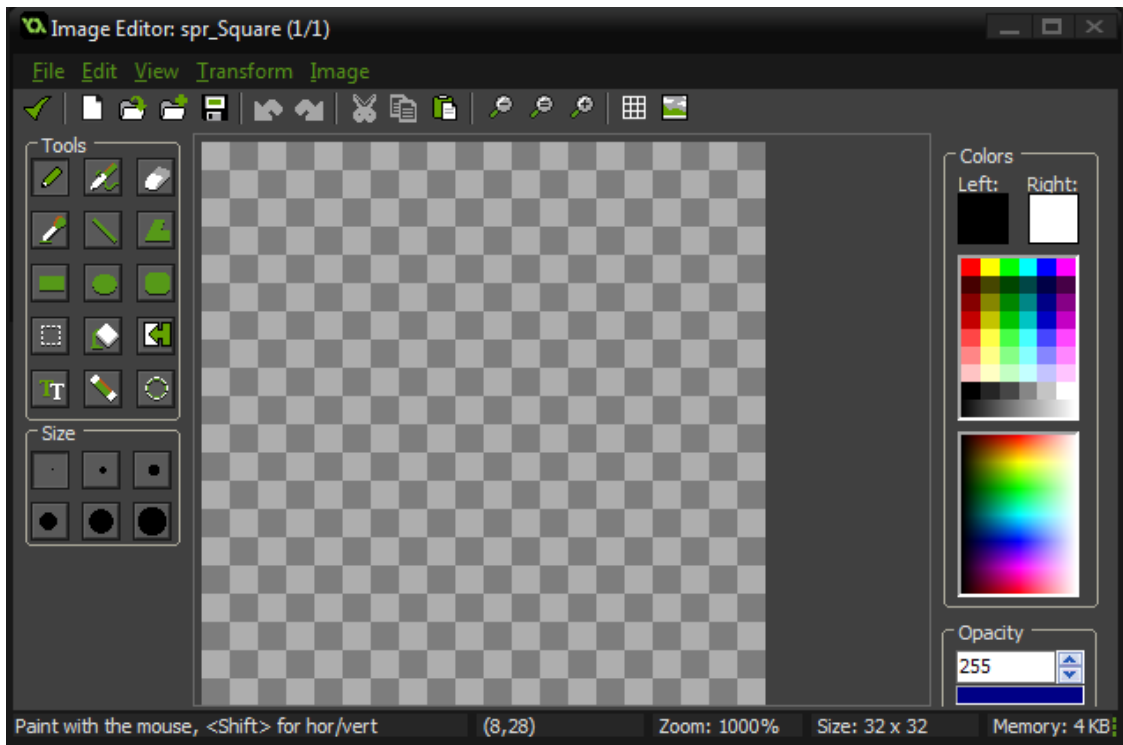
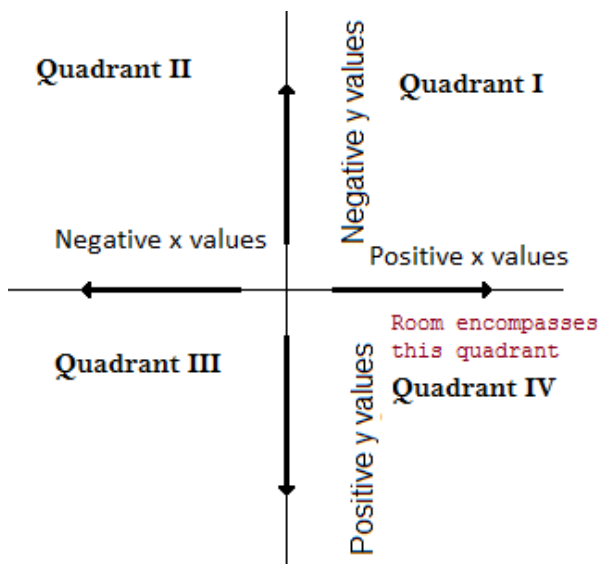


Chapter 1: Introduction to GameMaker: Studio







backgrounds views physics
objects settings tiles

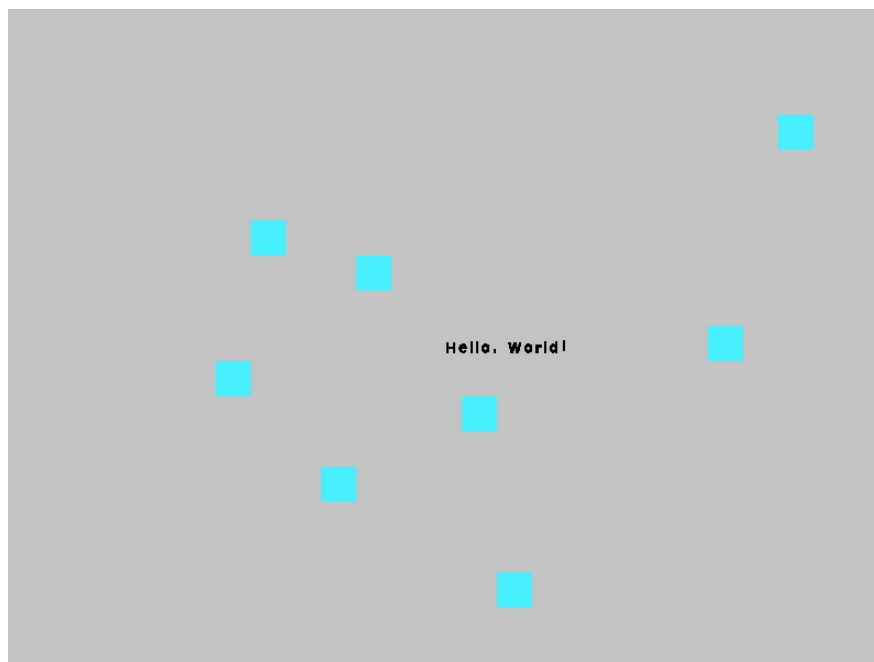
Name:

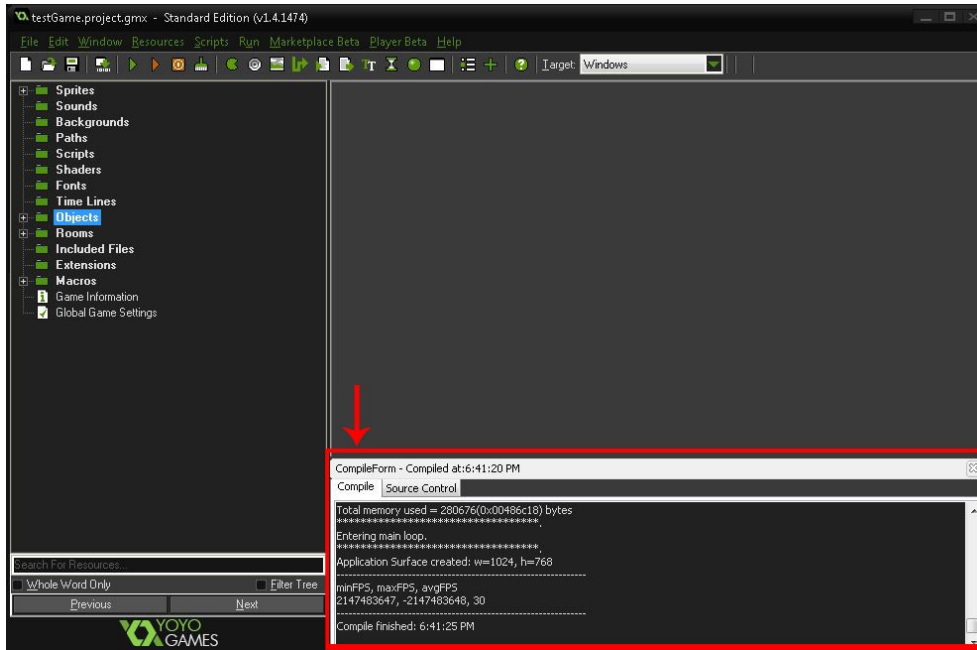
Width:

Height:

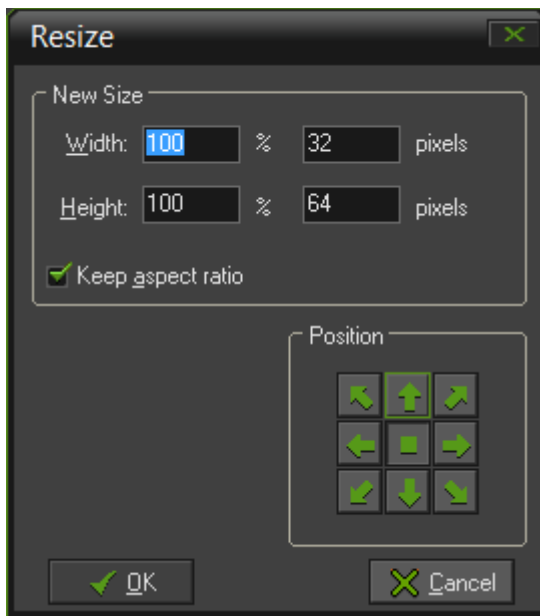
Speed:

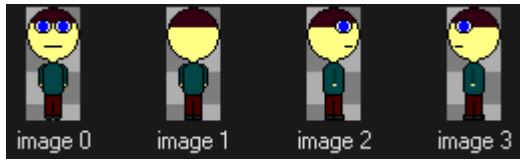
Persistent





Chapter 2: Your First Game – Escape the Dungeon





Choose the Event to Add

Create	Mouse
Destroy	Other
Alarm	Draw
Step	Key Press
Collision	Key Release
Keyboard	Asynchronous

Cancel

Change Sprite

Applies to:

- Self
- Other
- Object:

sprite:

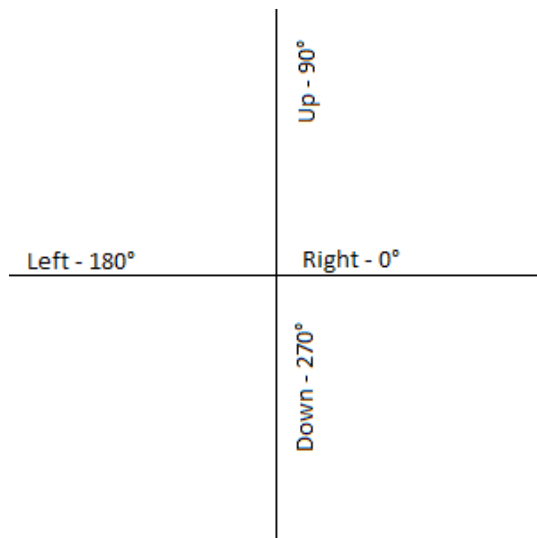
subimage:

speed:

OK Cancel

Actions:

- 1 Change sprite into spr_PC
- 2 Start moving in a direction



Actions:

- 1 Reverse horizontal direction
- 2 **VAR** If direction is equal to 0
- 3 Start of a block
- 4 Change sprite into spr_enemy
- 5 End of a block
- 6 **ELSE** Else
- 7 Start of a block
- 8 Change sprite into spr_enemy
- 9 End of a block

Events:	Actions:
Create	1 Set the health relative to -25
obj_wall	2 Play sound snd_playerDeath
obj_EnergyVert	3 Jump to the start position
obj_enemy_Hor	

Name: obj_healthControl

Sprite: <no sprite> [New]

Visible Solid

Persistent Uses Physics

Depth: 0

Parent: <no parent> [New]

Mask: <same as sprite> [New]

Children: <None>

Events:

- No More Health

Actions:

- 1 ? If the user answers yes to a question
- 2 Start of a block
- 3 Restart the game
- 4 End of a block
- 5 else Else
- 6 Start of a block
- 7 End the game
- 8 End of a block


Events:

- No More Health
- Draw

Actions:

- 1 Draw the health bar

Draw Health



x1: 10

y1: 10

x2: 60

y2: 30

back color: gray

bar color: green to red

Relative

OK Cancel

Create

- obj_wall
- obj_EnemyVert
- obj_enemy_Hor

Actions:

- 1 Change sprite into spr_PC
- 2 Set the health to 100
- 3 **VAR** Set variable can_shoot to 1

Actions:

- 1 **VAR** If can_shoot is equal to 1
- 2 Start of a block
- 3 Create moving instance of obj_playerBullet
- 4 **VAR** Set variable can_shoot to 0
- 5 Set Alarm 0 to 30
- 6 End of a block

Set Alarm

Applies to:

- Self
- Other
- Object:

number of steps:

in alarm no:

Events:

- Create
- Step
- obj_wall
- obj_EnemyVert
- obj_enemy_Hor

Actions:

- 1 With chance 1 out of 20 perform next
- 2 Start of a block
- 3 Create moving instance of obj_enemyBullet
- 4 End of a block

backgrounds | views | physics

Draw background color

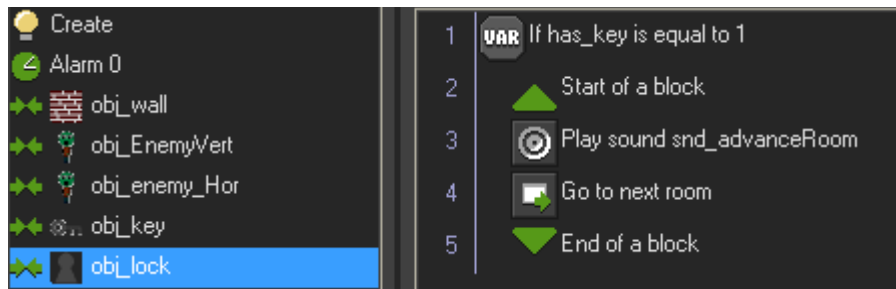
Color:

Background 0

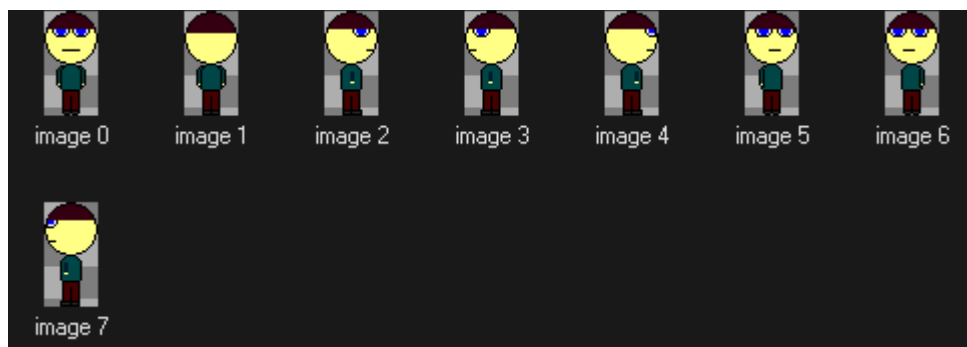
- Background 1
- Background 2
- Background 3
- Background 4
- Background 5
- Background 6
- Background 7

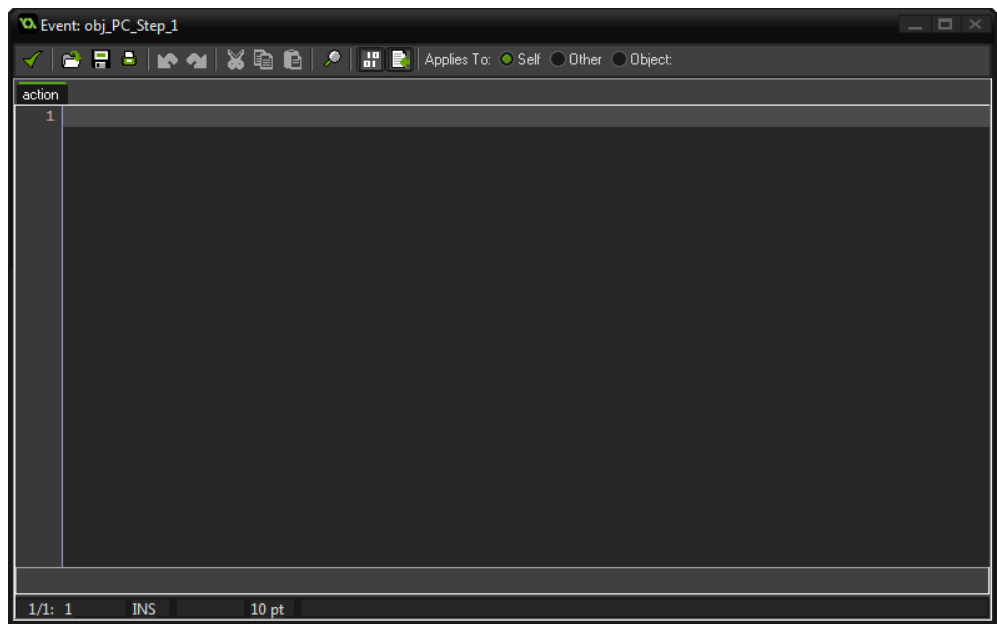
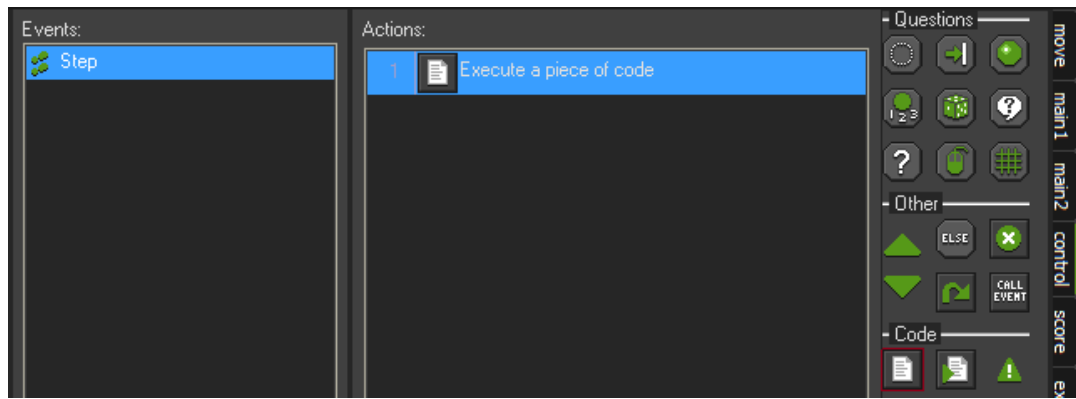
Visible when room starts

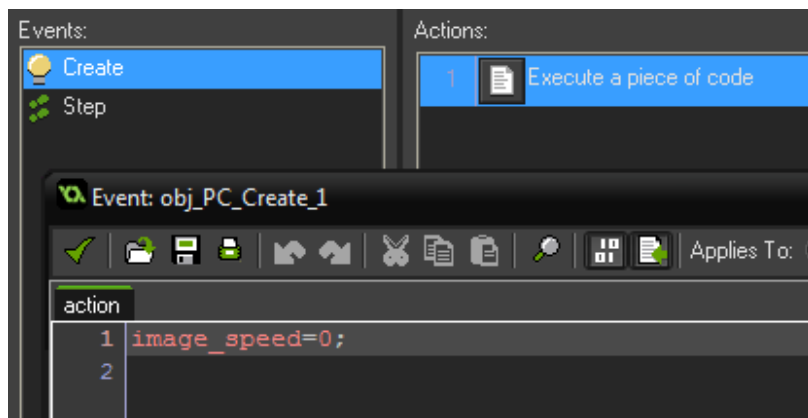
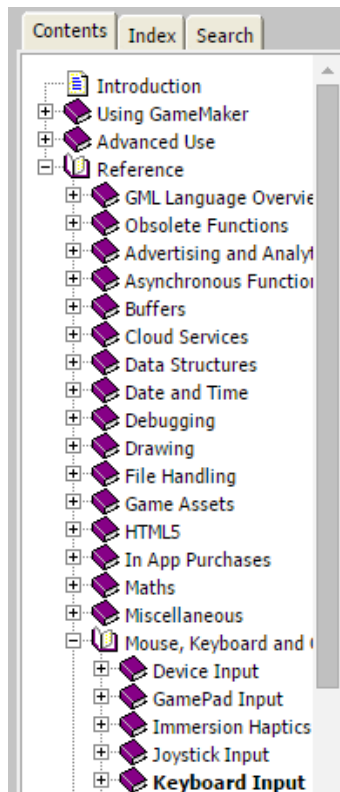
Foreground image

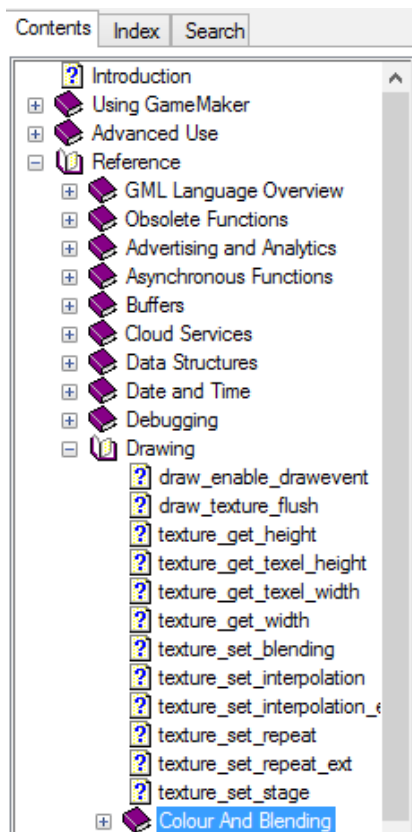
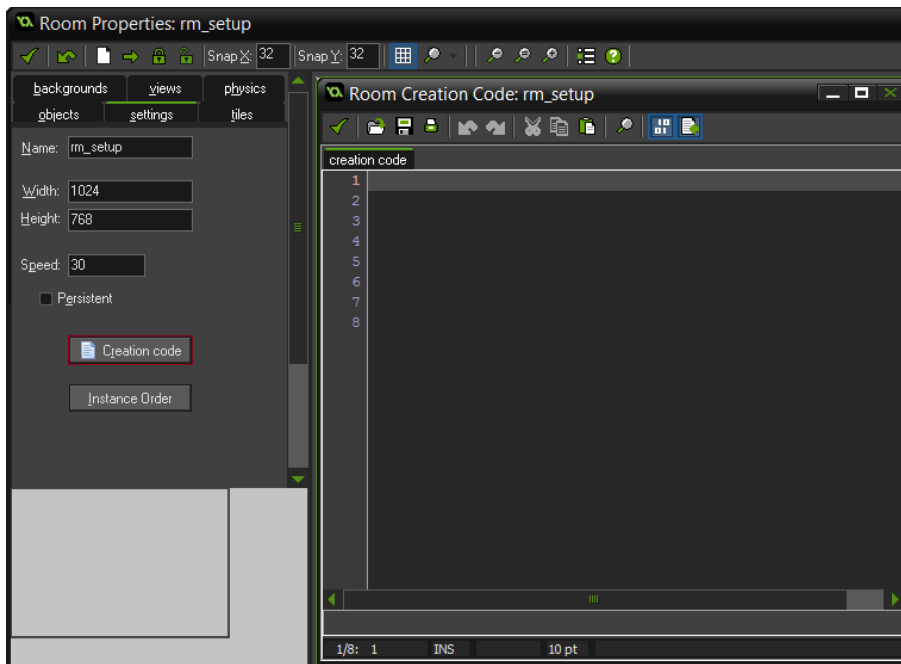


Chapter 3: Introducing the GameMaker Language

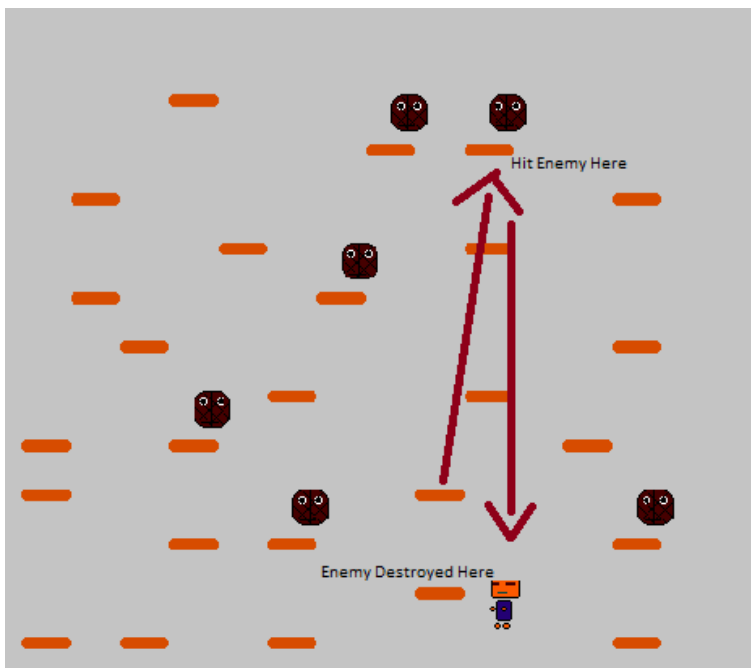
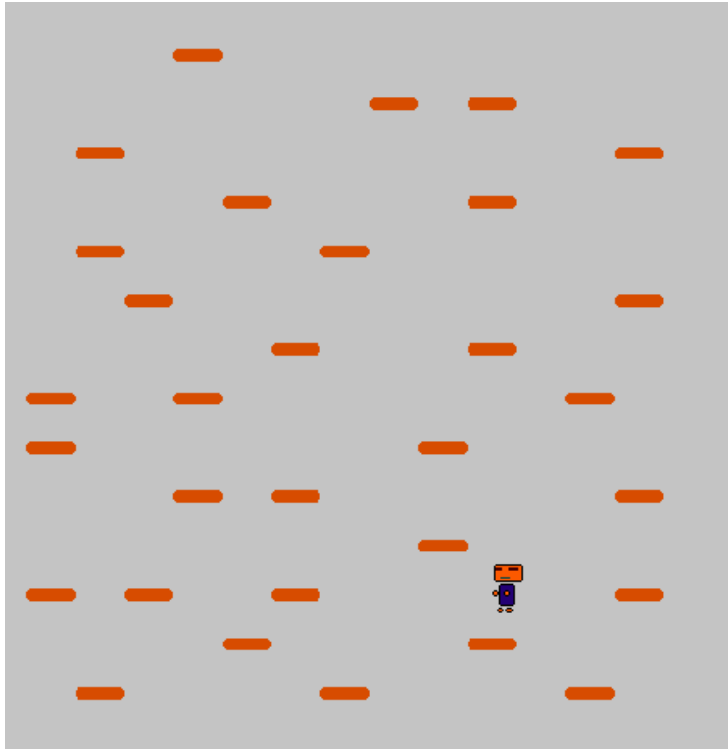


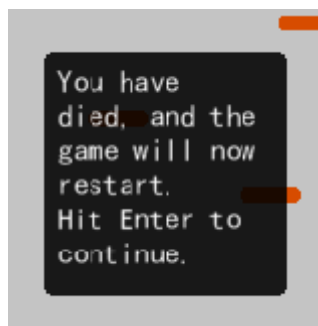
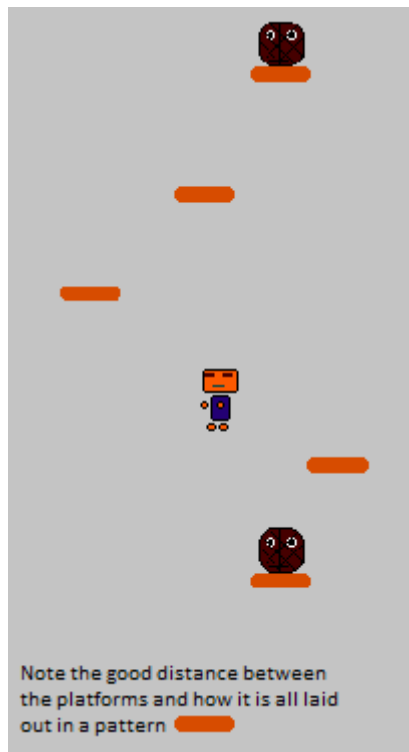






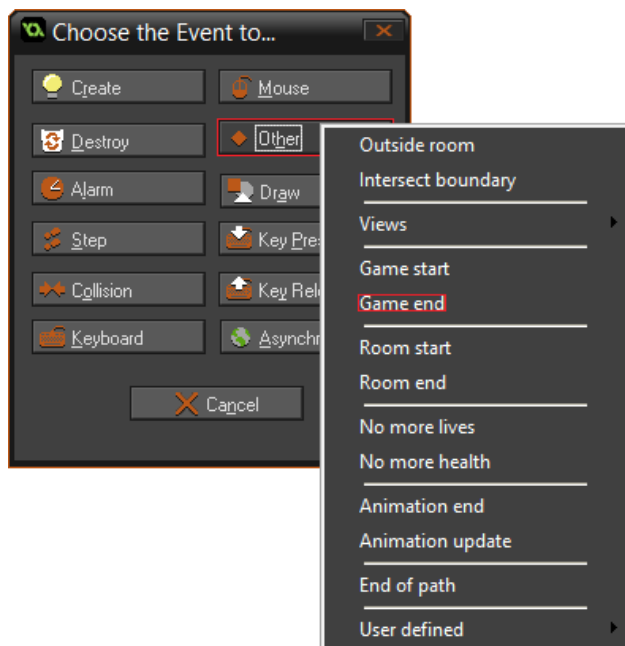
Chapter 4: Fun with Infinity and Gravity – An Endless Platformer



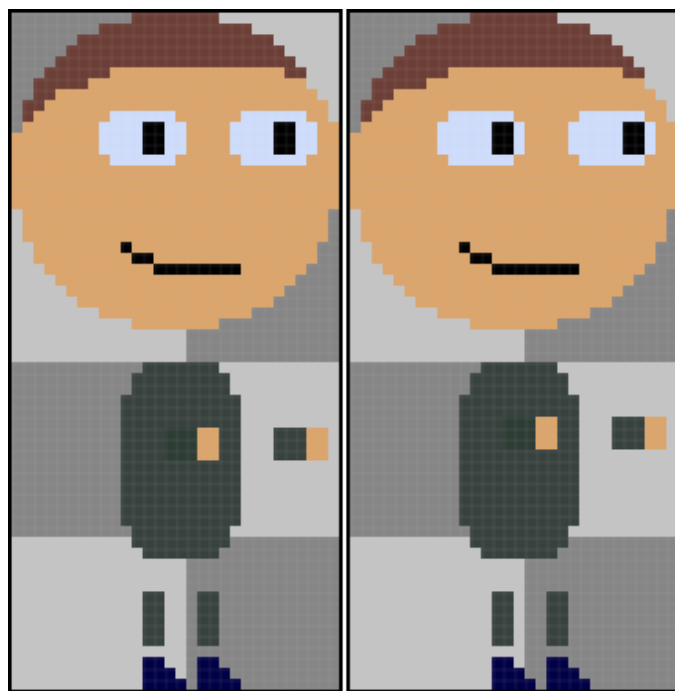
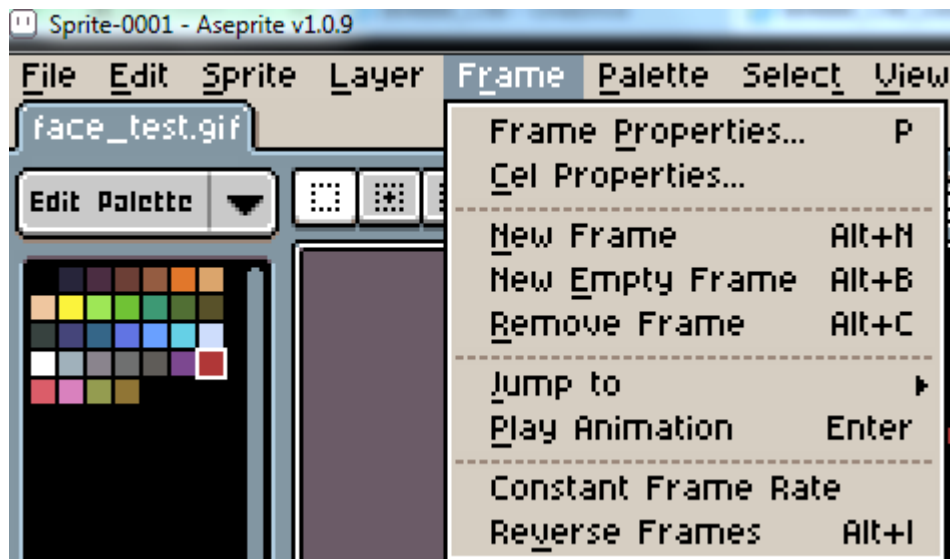


Chapter 5: Saving and Loading Data

32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
	!	"	#	\$	%	&	'	()	*	+	,	-	.	/	0	1	2	3
52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
4	5	6	7	8	9	:	;	<	=	>	?	@	A	B	C	D	E	F	G
72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91
H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	[
92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111
\]	^	_	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131
p	q	r	s	t	u	v	w	x	y	z	{		}	~		□	□	□	□



Chapter 6: A Multiplayer Sidescrolling Platformer



number of images:

images per row:

image width:

image height:

horizontal cell offset:

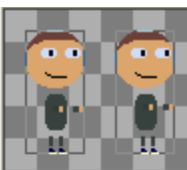
vertical cell offset:

horizontal pixel offset:

vertical pixel offset:

horizontal separation:


vertical separation:



Background 2
Background 3
Background 4
Background 5
Background 6
Background 7

Visible when room starts

Foreground image



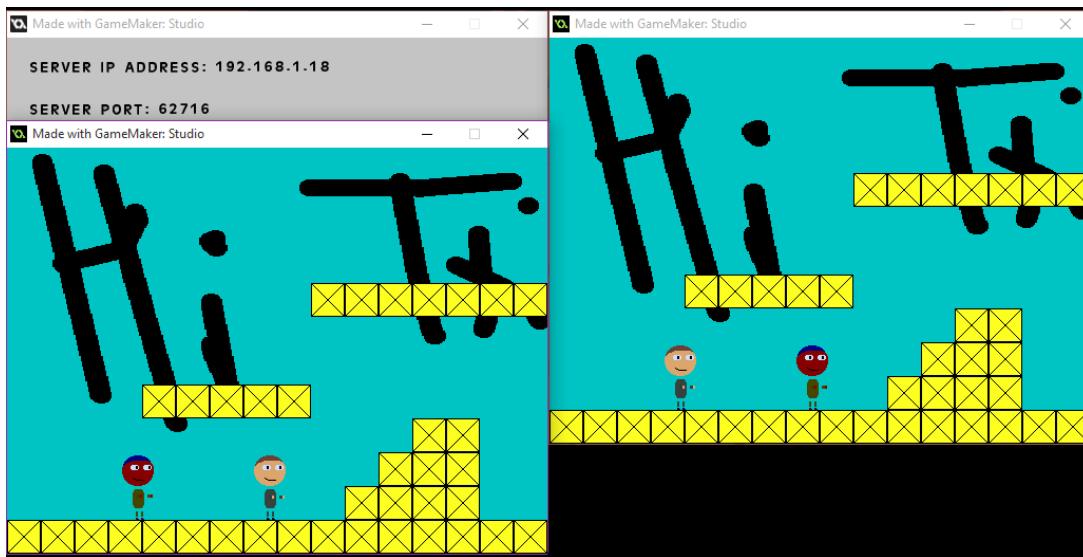
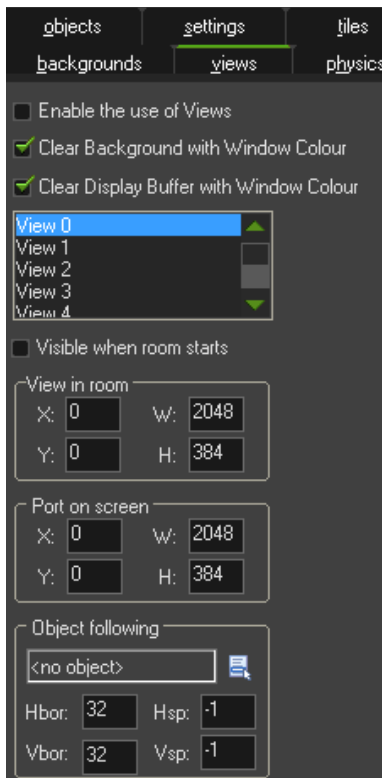
Tile Hor.

Tile Vert.

Stretch

Hor. Speed:

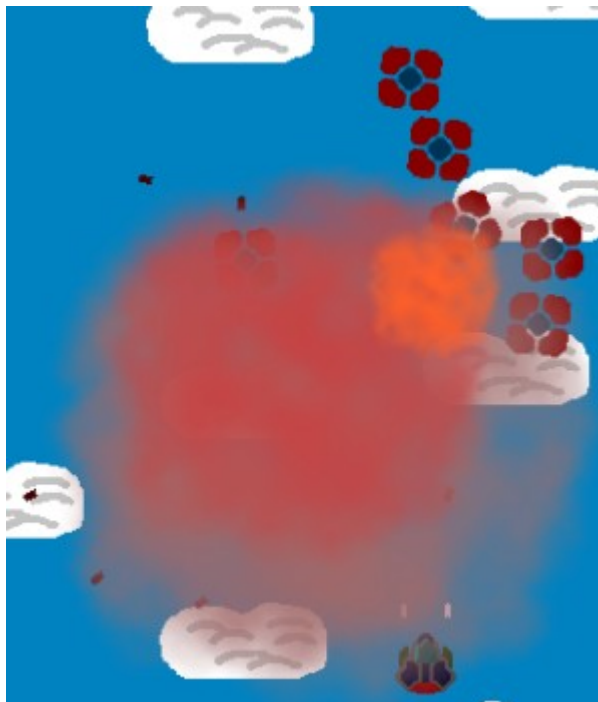
Vert. Speed:

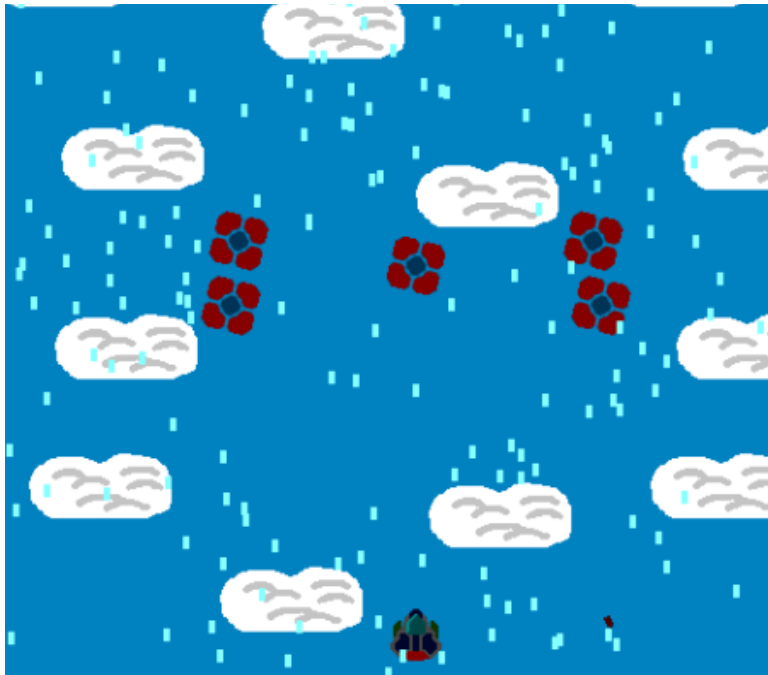


Chapter 7: Programming a Scrolling Shooter

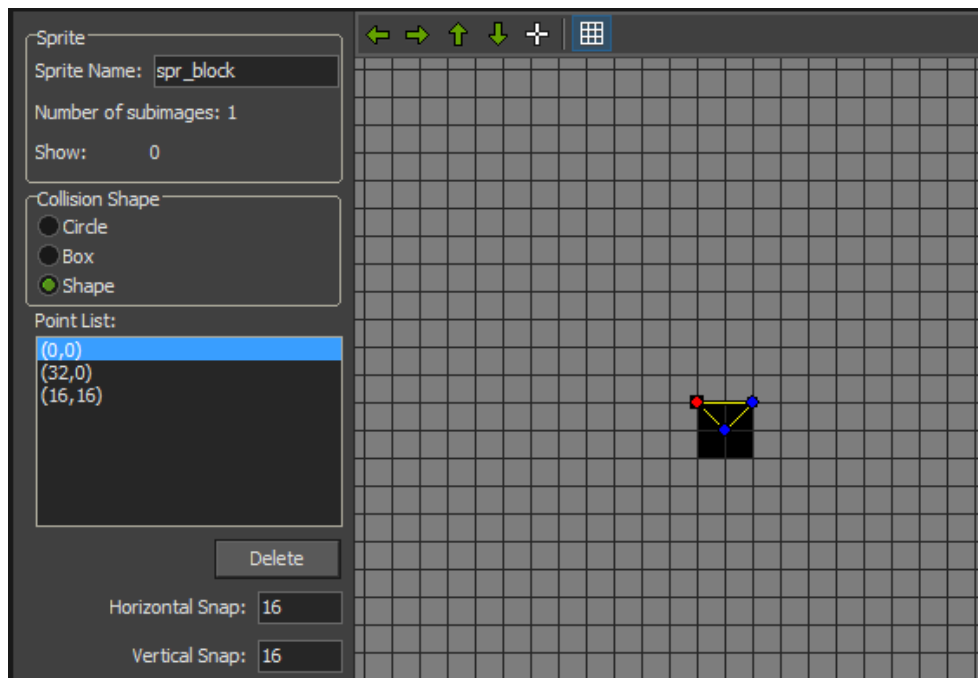


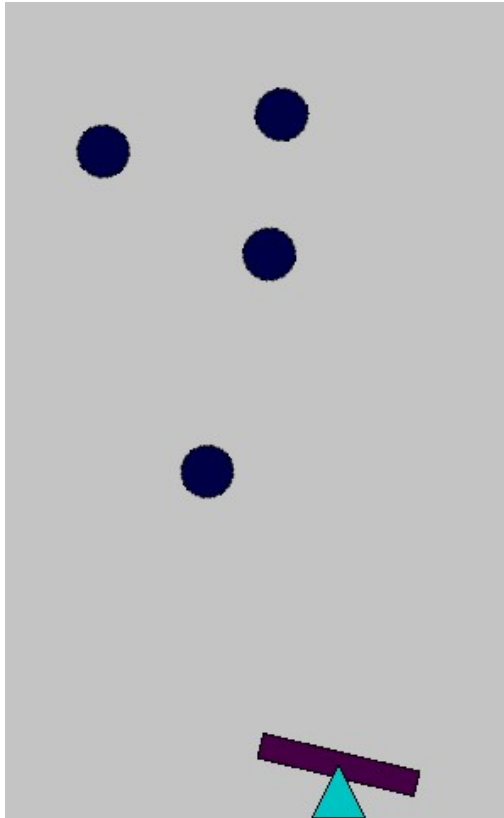
Visible Solid
 Persistent Uses Physics
Depth: 0
Parent: obj_enemy_paren
Mask: <same as sprite>
Children: <None>



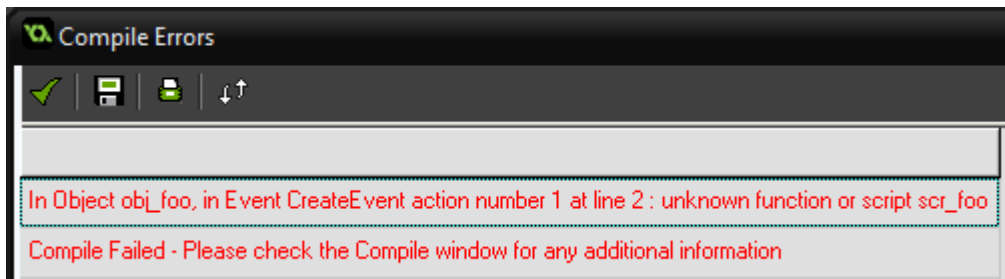


Chapter 8: Introducing the GameMaker: Studio Physics Engine





Chapter 9: Wrapping Up



Code Error

```
#####  
FATAL ERROR in  
action number 1  
of Create Event  
for object obj_foo:  
  
Push :: Execution Error -Variable Index[0,3] out of range [1,3] --1.foo(100001,3)  
at gml_Object_obj_foo_CreateEvent_1 (line 2) - var a = foo[3];  
#####
```

Abort Copy Clear

GameMaker: Studio Debugger

File Window Debug Help

Scripts
Time Lines
Objects
Creation Code

name	value
.ScriptName	"obj_foo.Step"
.PC	00000060
.Self	100000 (Instance obj_foo)
Built-In Vars	
foo	2A39008 <array>
[0]	0
[1]	1
[2]	2
a	2
.Other	100000 (Instance obj_foo)
i	3

```
obj_foo.Step  
0 {  
1 #line gml_Object_obj_foo_StepNormalEvent_1 1  
2 for (var i = 0; i < 3; ++i) foo[i] = i;  
3 a = foo[2];  
4  
5 /* */  
6 /* */ }  
7  
8  
9  
10
```

Compile Source Control

963fps (2)(4)

```
Finished PrepareGame()  
Run_Start  
StartGame()  
StartGame() - DONE  
Total memory used = 378843(0x00492140) by  
*****  
Entering main loop.  
*****  
...Waiting for debugger to connect...  
Client(-1) Connected: 127.0.0.1  
Debugger connected  
Debug_SendGameStructure: packet size 53709  
DEBUG MESSAGE
```