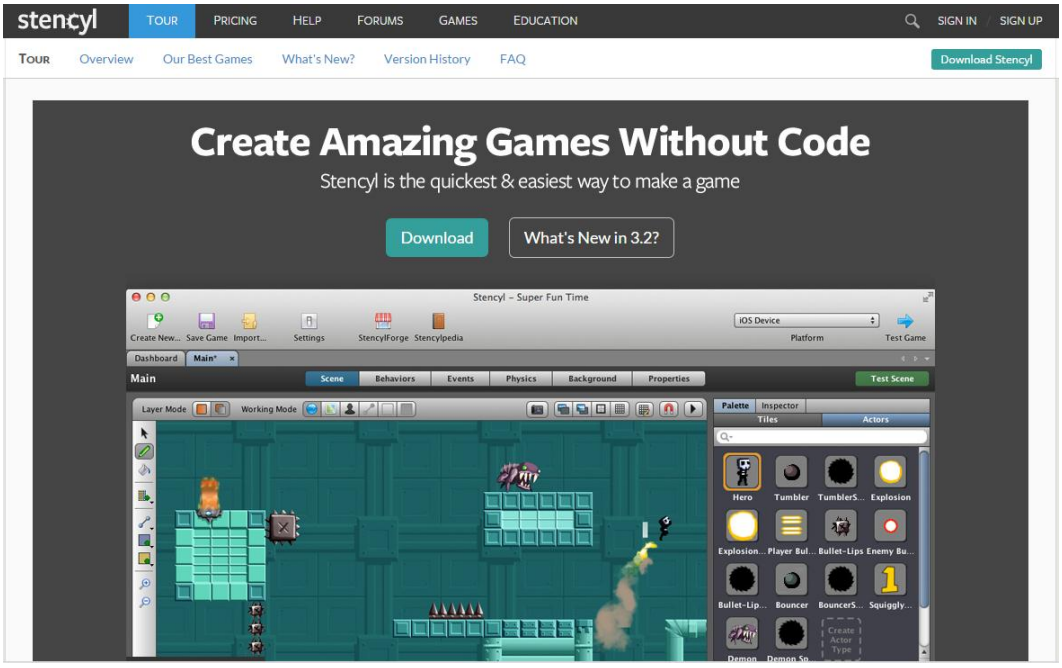
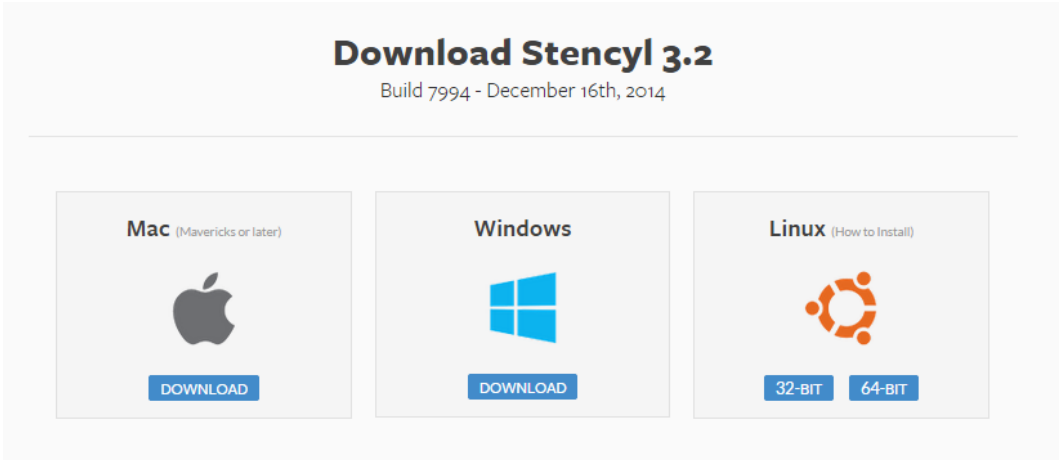
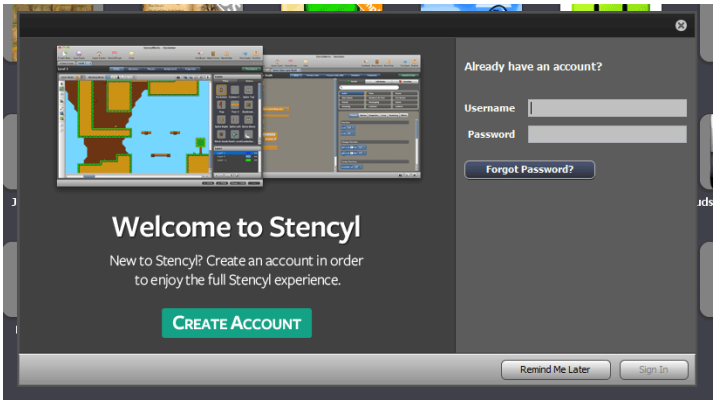
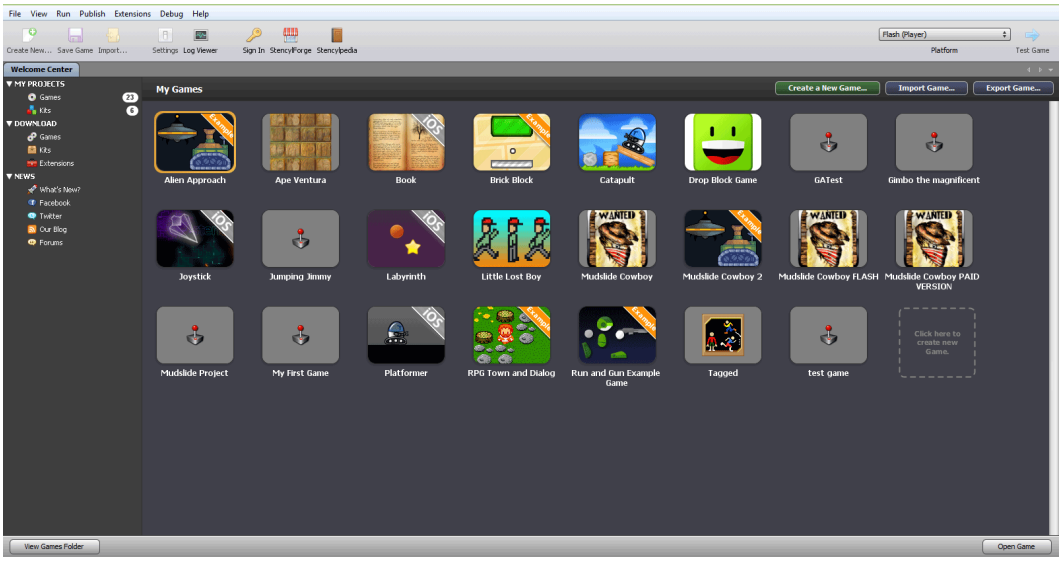
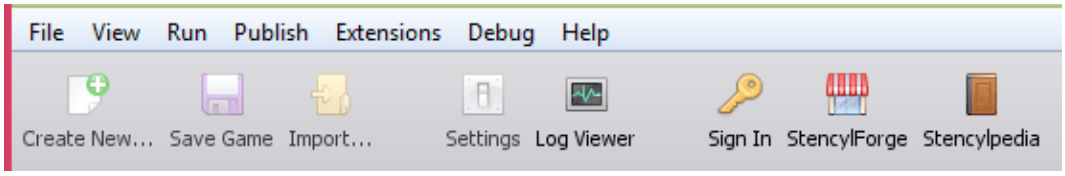
Chapter 1: Exploring the Stencyl Toolset and Game Engine

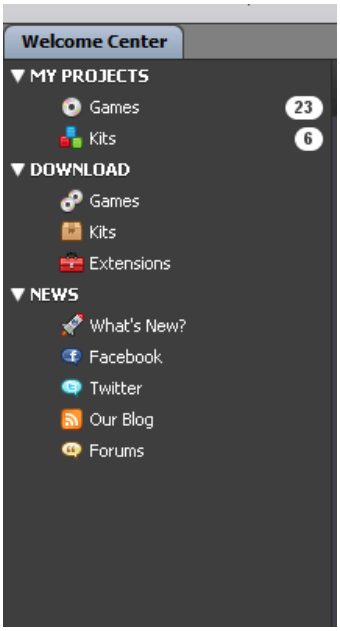


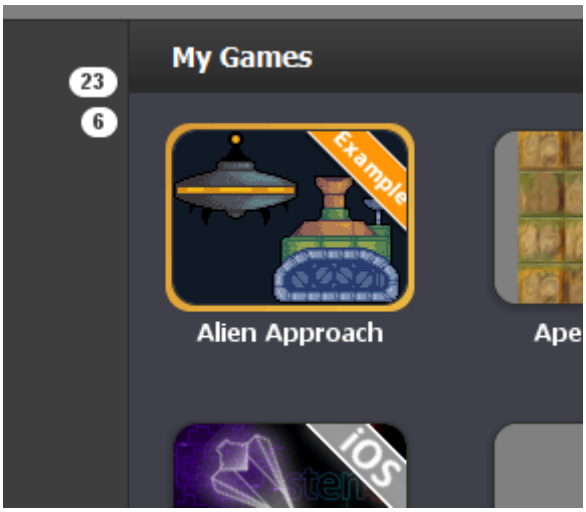


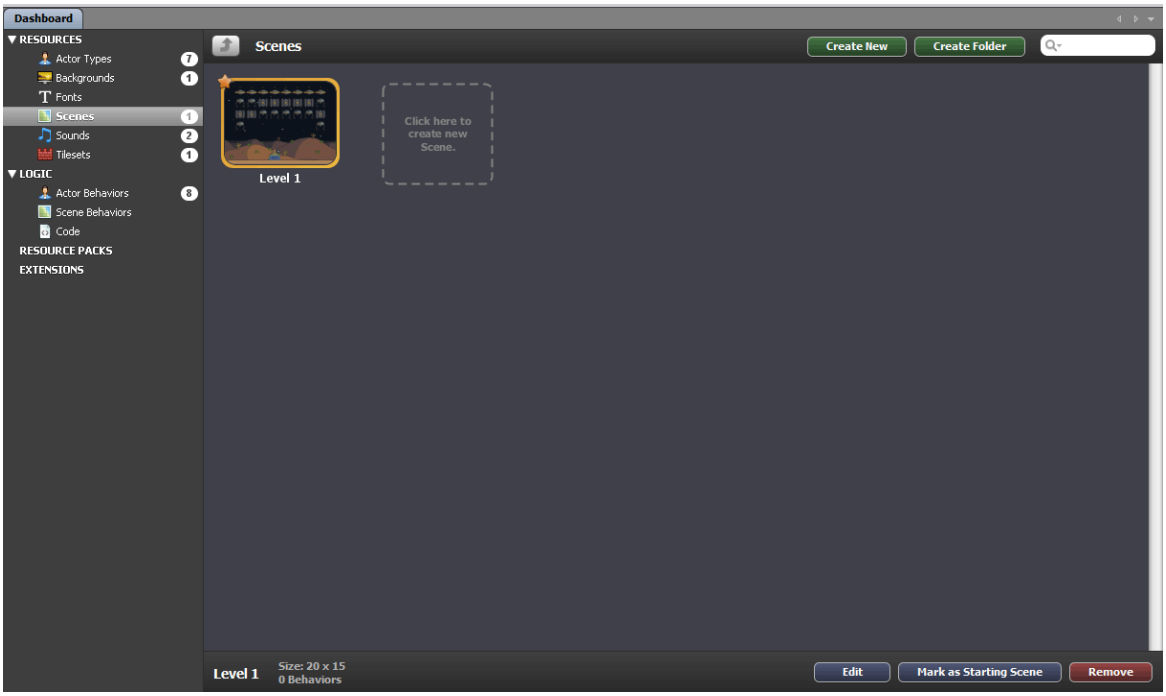

Already have an account?
Username
Password
Forgot Password?
Welcome to Stencyl
New to Stencyl? Create an account in order to enjoy the full Stencyl experience.
CREATE ACCOUNT
Remind Me Later
Sign In

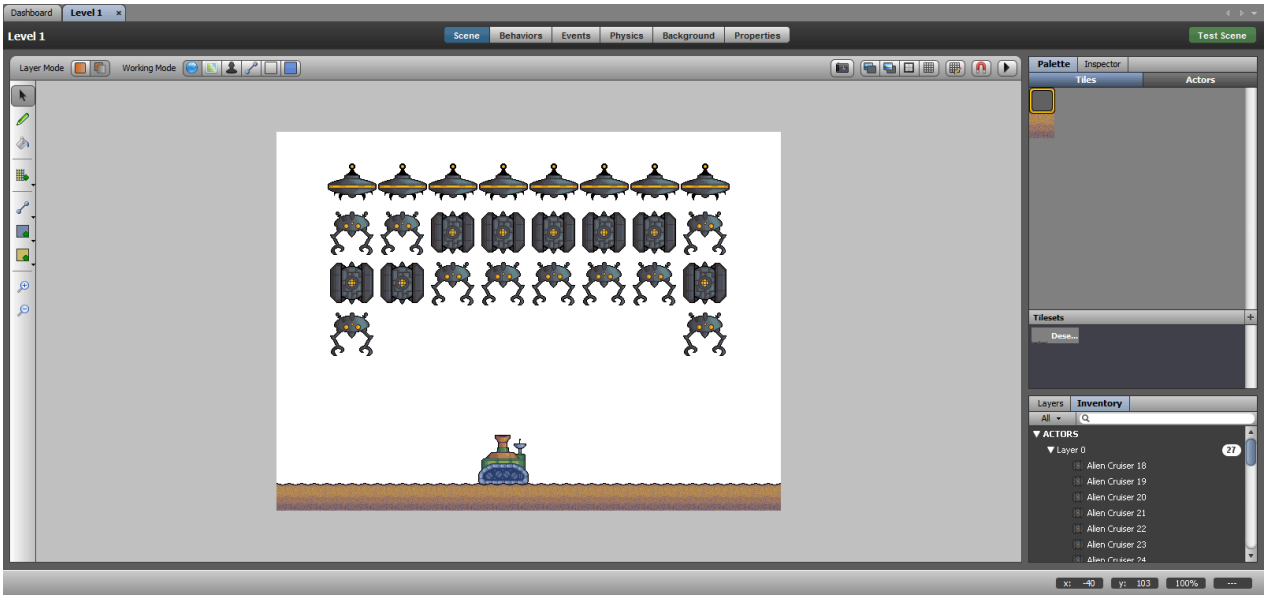

File View Run Publish Extensions Debug Help
Create New... Save Game Import... Settings Log Viewer Sign In StencylForge Stencylpedia
Flash (Player)
Platform
Test Game
Welcome Center
MY PROJECTS
Games
Kits
DOWNLOAD
Games
Kits
Extensions
NEWS
What's New?
Facebook
Twitter
Our Blog
Forums
My Games
Create a New Game...
Import Game...
Export Game...
Alien Approach
Ape Ventura
Book
Brick Block
Catapult
Drop Block Game
GATest
Gimbo the magnificent
Joystick
Jumping Jimmy
Labyrinth
Little Lost Boy
Mudslide Cowboy
Mudslide Cowboy 2
Mudslide Cowboy FLASH
Mudslide Cowboy PAID VERSION
Mudslide Project
My First Game
Platformer
RPG Town and Dialog
Run and Gun Example Game
Tagged
test game
Click here to create new Game.
View Games Folder
Open Game

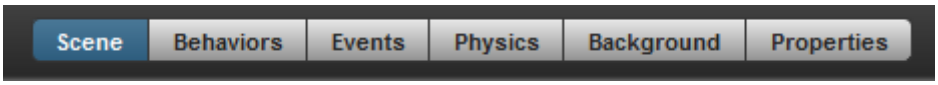

File View Run Publish Extensions Debug Help
Create New...
Save Game
Import...
Settings
Log Viewer
Sign In
StencylForge
Stencylpedia


Welcome Center
MY PROJECTS
Games
23
Kits
6
DOWNLOAD
Games
Kits
Extensions
NEWS
What's New?
Facebook
Twitter
Our Blog
Forums

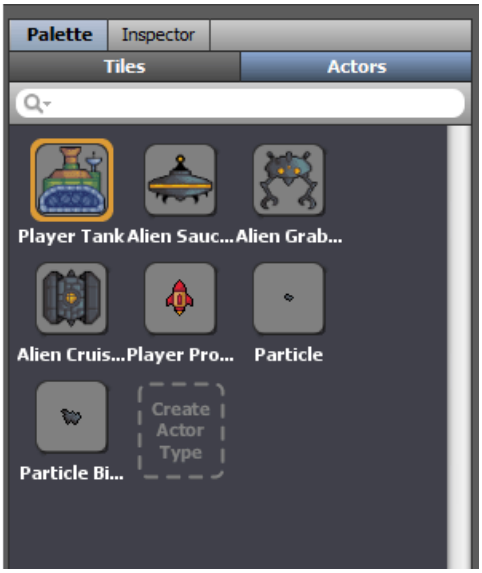

My Games
23
6
Example
Alien Approach
Ape
iOS

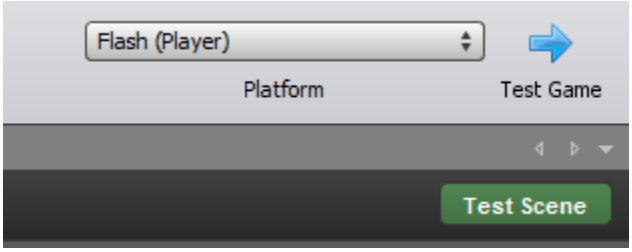

Dashboard
RESOURCES
Actor Types 7
Backgrounds 1
Fonts
Scenes 1
Sounds 2
Tilesets 1
LOGIC
Actor Behaviors 8
Scene Behaviors
Code
RESOURCE PACKS
EXTENSIONS
Scenes
Create New
Create Folder
Level 1
Click here to create new Scene.
Level 1
Size: 20 x 15
0 Behaviors
Edit
Mark as Starting Scene
Remove

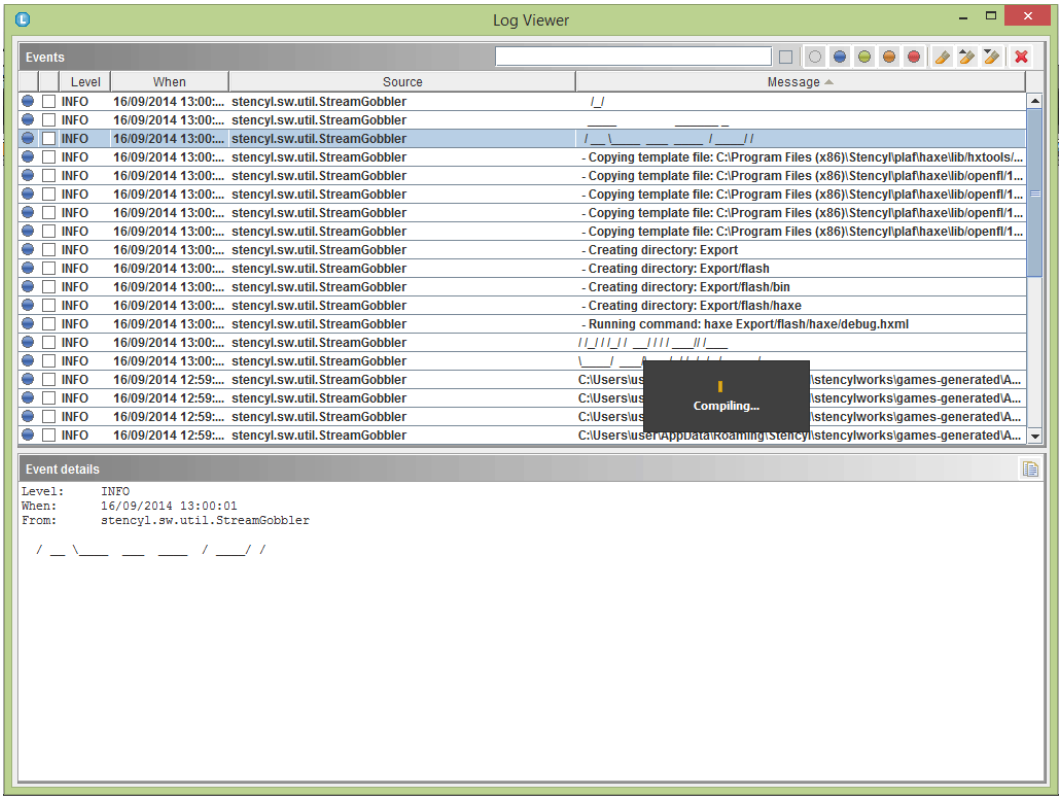

Dashboard
Level 1
Level 1
Scene
Behaviors
Events
Physics
Background
Properties
Test Scene
Layer Mode
Working Mode
Palette
Inspector
Tiles
Actors
Tilesets
Layers
Inventory
ACTORS
Layer 0
Alien Cruiser 18
Alien Cruiser 19
Alien Cruiser 20
Alien Cruiser 21
Alien Cruiser 22
Alien Cruiser 23


Scene
Behaviors
Events
Physics
Background
Properties

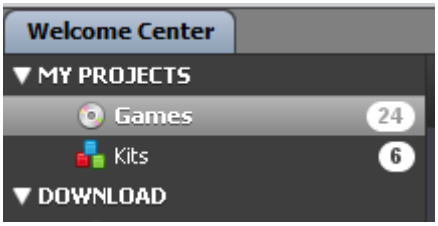
Palette
Inspector
Tiles
Actors
Tilesets


Palette
Inspector
Tiles
Actors
Player Tank
Alien Sauc...
Alien Grab...
Alien Cruis...
Player Pro...
Particle
Particle Bi...
Create Actor Type


Flash (Player)
Platform
Test Game
Test Scene

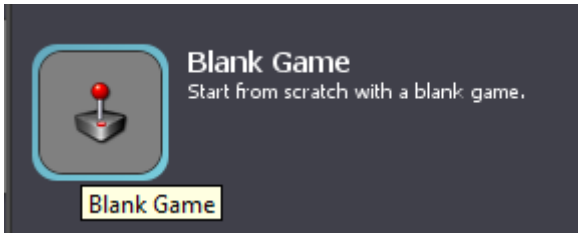

Log Viewer
Events
Level
When
Source
Message
INFO 16/09/2014 13:00:... stencyl.sw.util.StreamGobbler
- Copying template file: C:\Program Files (x86)\Stencyl\plaf\haxe\lib/hxtools/...
- Copying template file: C:\Program Files (x86)\Stencyl\plaf\haxe\lib/openfl/1...
- Creating directory: Export
- Creating directory: Export/flash
- Creating directory: Export/flash/bin
- Creating directory: Export/flash/haxe
- Running command: haxe Export/flash/haxe/debug.hxml
Compiling...
INFO 16/09/2014 12:59:... stencyl.sw.util.StreamGobbler
Event details
Level: INFO
When: 16/09/2014 13:00:01
From: stencyl.sw.util.StreamGobbler

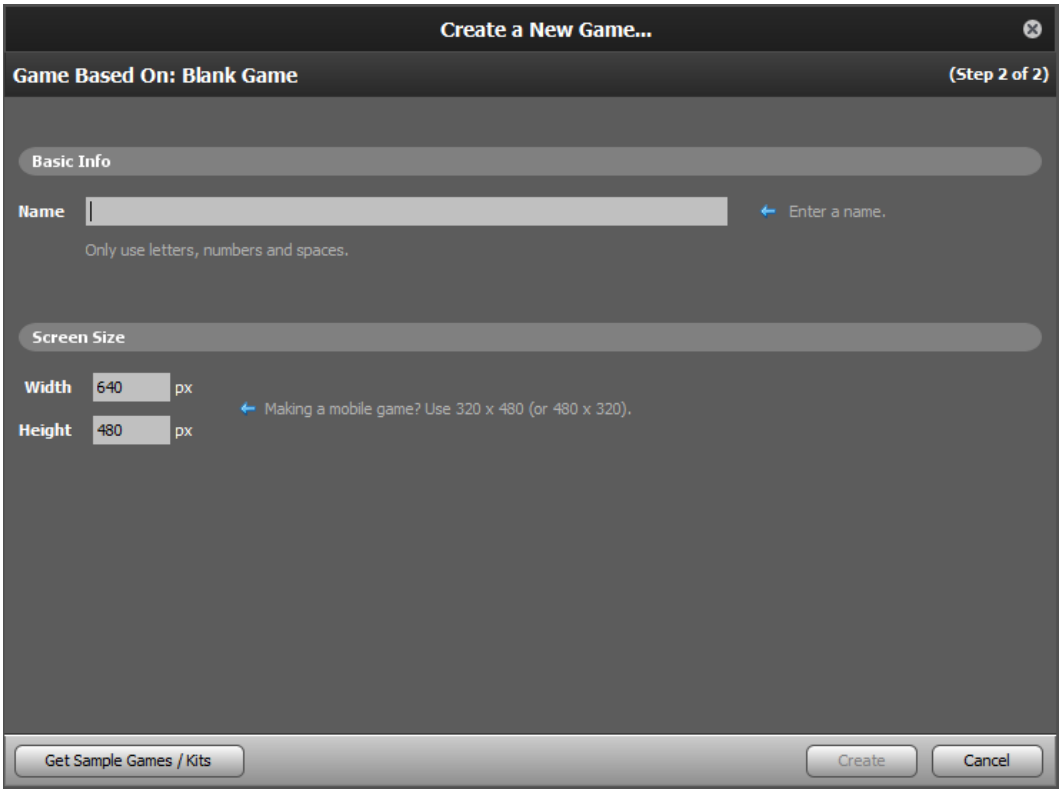
Chapter 2: Starting the Game Project



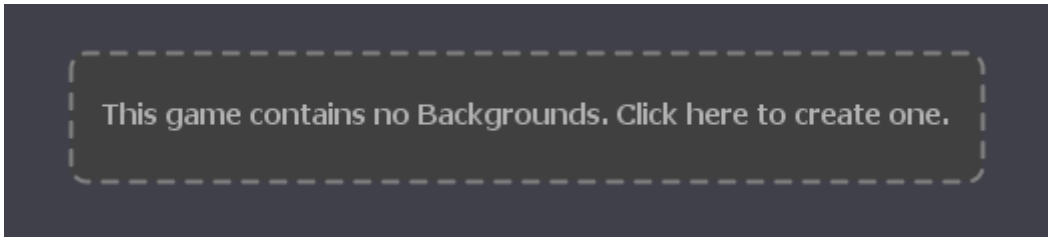
Click here to create new Game.

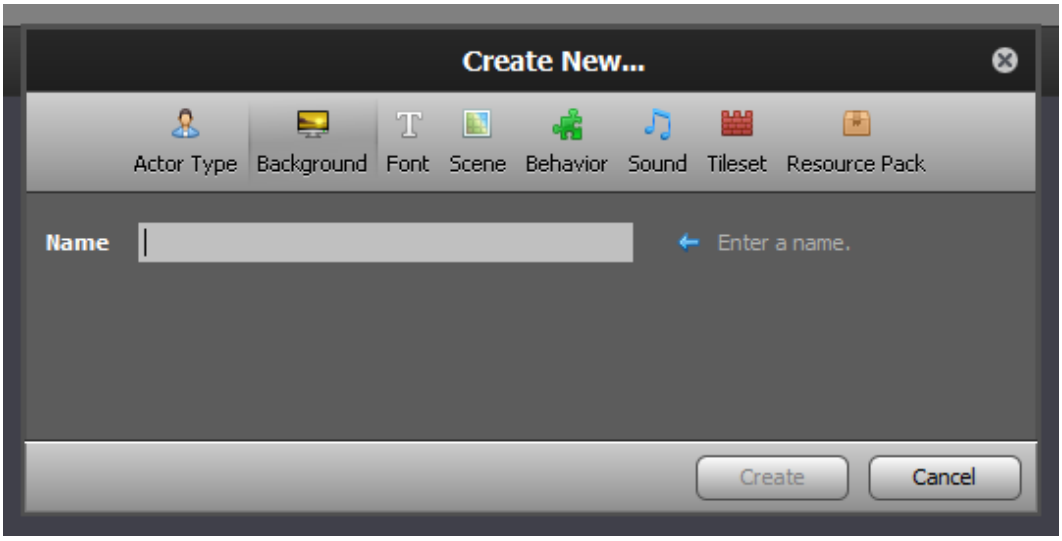
Create a New Game...
What kind of game do you want to create?
(Step 1 of 2)
Balloons
Fire at balloons using your mouse!
This is a simple example game for u...
Crash Course Kit
This kit contains the game graphics, sounds, and behaviors needed for the Crash...
Drop Block
This kit shows the basics of making a phyics puzzle game. Guide the block to th...
Jump and Run
This kit contains the standard player behaviors that are found in most platform...
Shooter
Create a game that is similar to Space Invaders.
Example
Balloons
Fire at balloons using your mouse!
This is a simple example game for users who are new to StencylWorks.
Get Sample Games / Kits
Next
Cancel

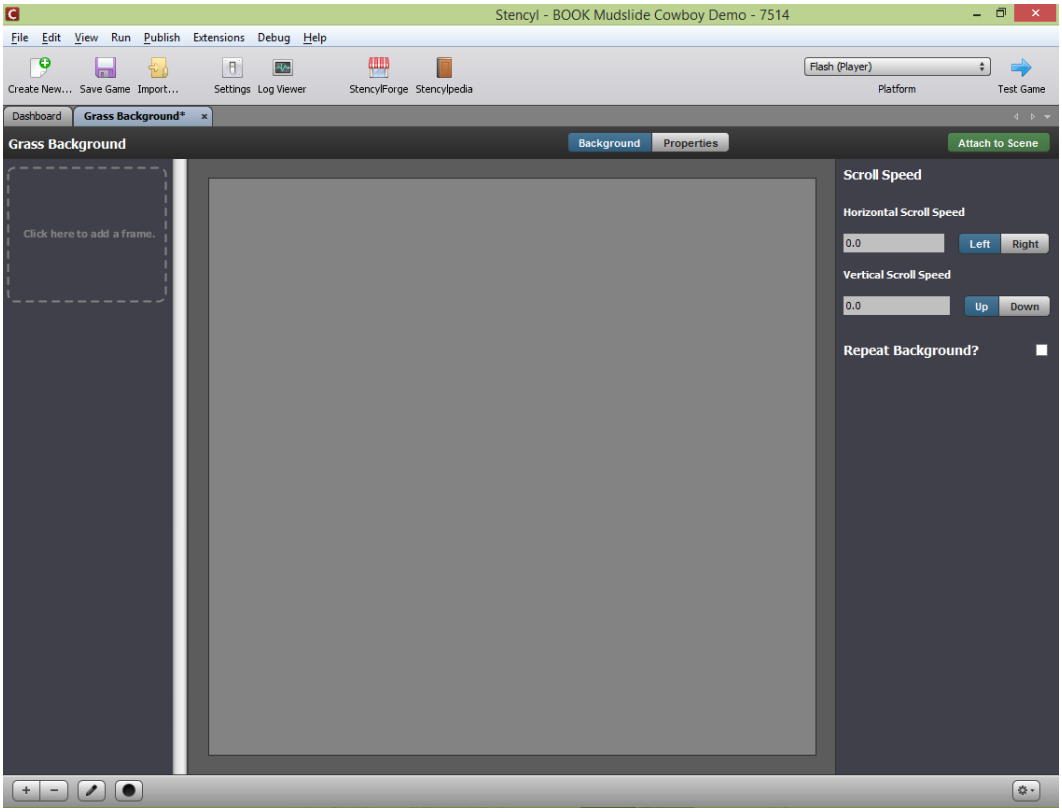

Blank Game
Start from scratch with a blank game.
Blank Game

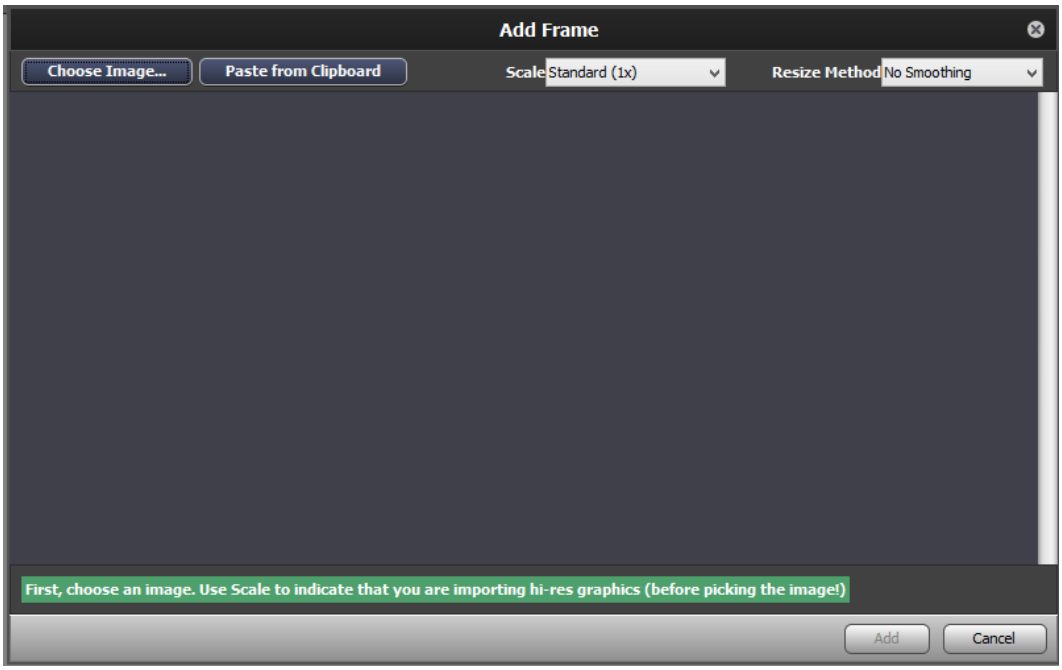

Create a New Game...
Game Based On: Blank Game
(Step 2 of 2)
Basic Info
Name
Enter a name.
Only use letters, numbers and spaces.
Screen Size
Width
640
px
Height
480
px
Making a mobile game? Use 320 x 480 (or 480 x 320).
Get Sample Games / Kits
Create
Cancel

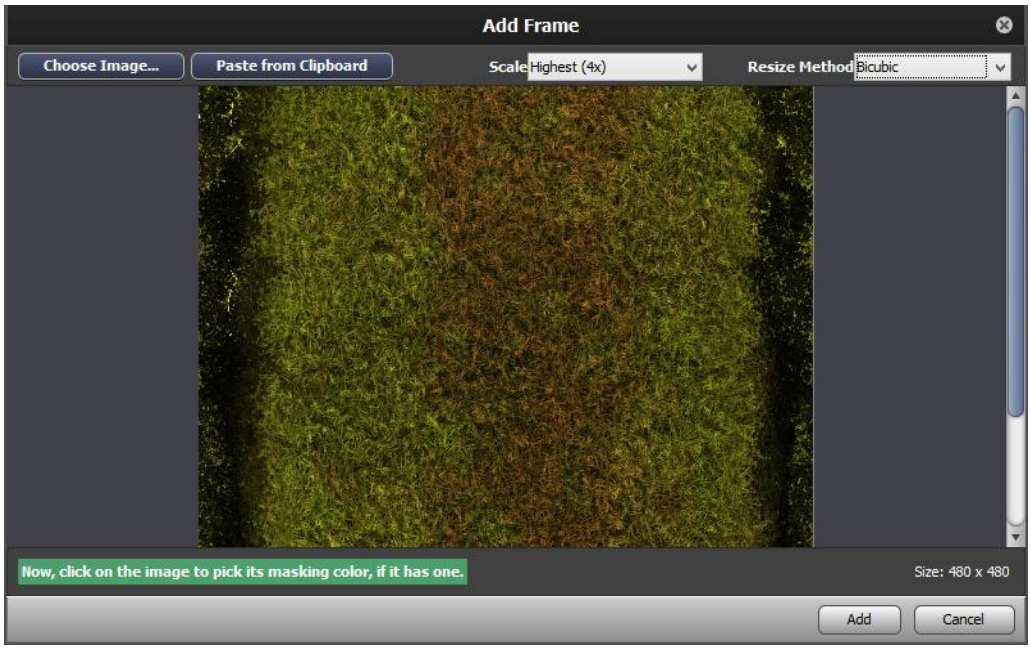
Chapter 3: Backgrounds and Tilesets

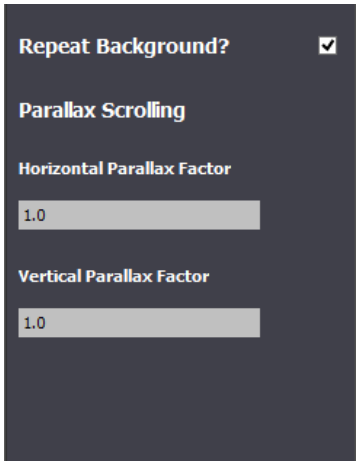


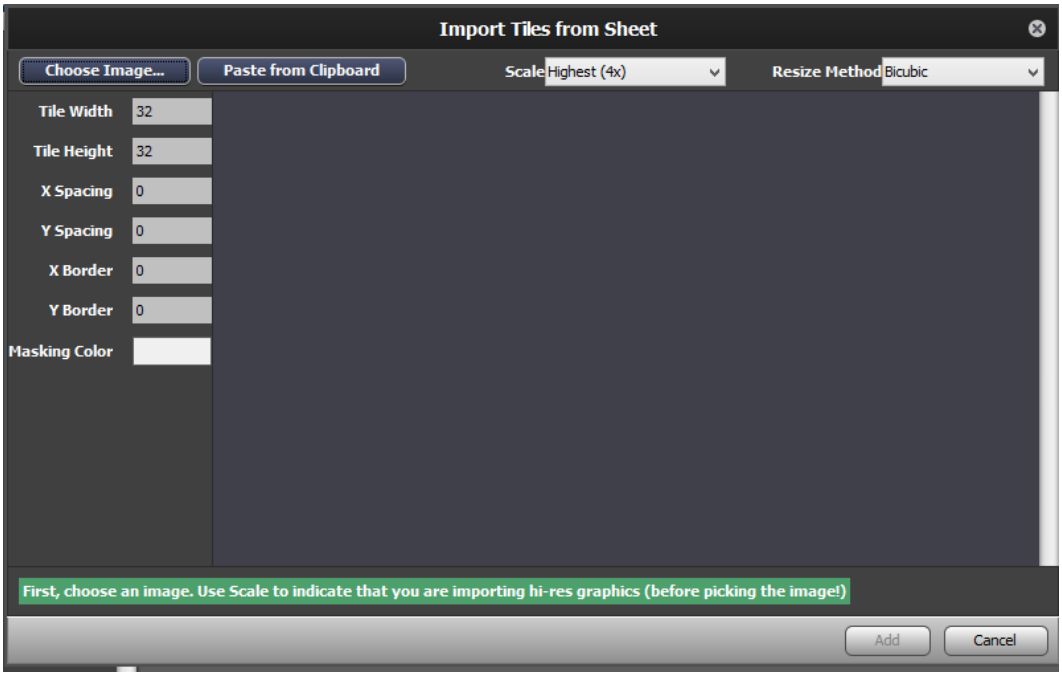


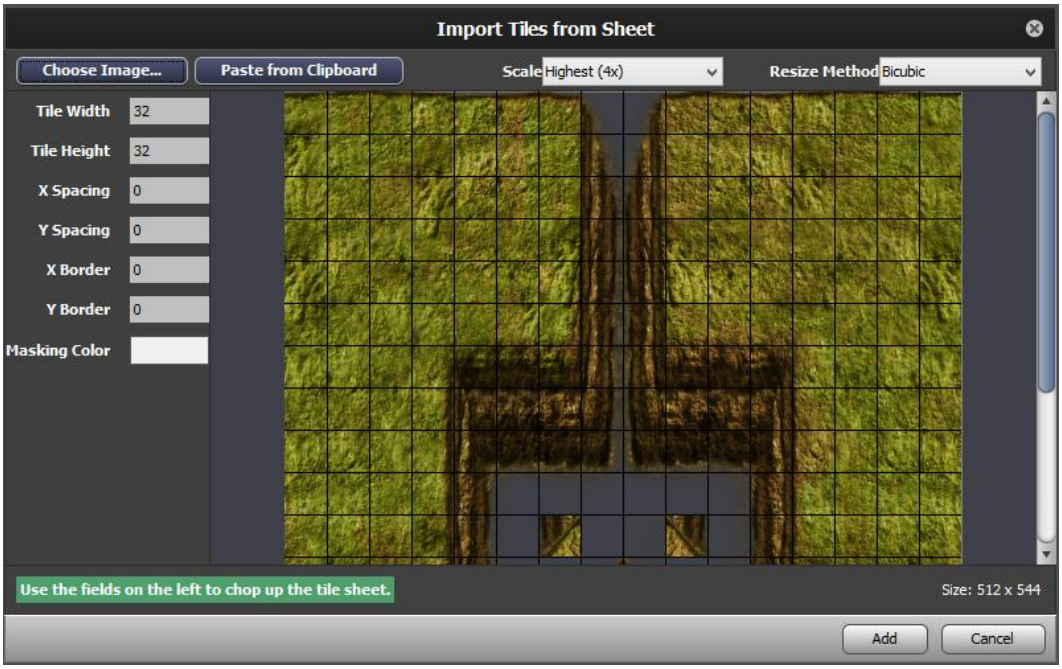

Stencyl - BOOK Mudslide Cowboy Demo - 7514
File Edit View Run Publish Extensions Debug Help
Create New... Save Game Import... Settings Log Viewer StencylForge Stencylpedia
Flash (Player)
Platform
Test Game
Dashboard
Grass Background*
Grass Background
Background
Properties
Attach to Scene
Click here to add a frame.
Scroll Speed
Horizontal Scroll Speed
0.0
Left
Right
Vertical Scroll Speed
0.0
Up
Down
Repeat Background?

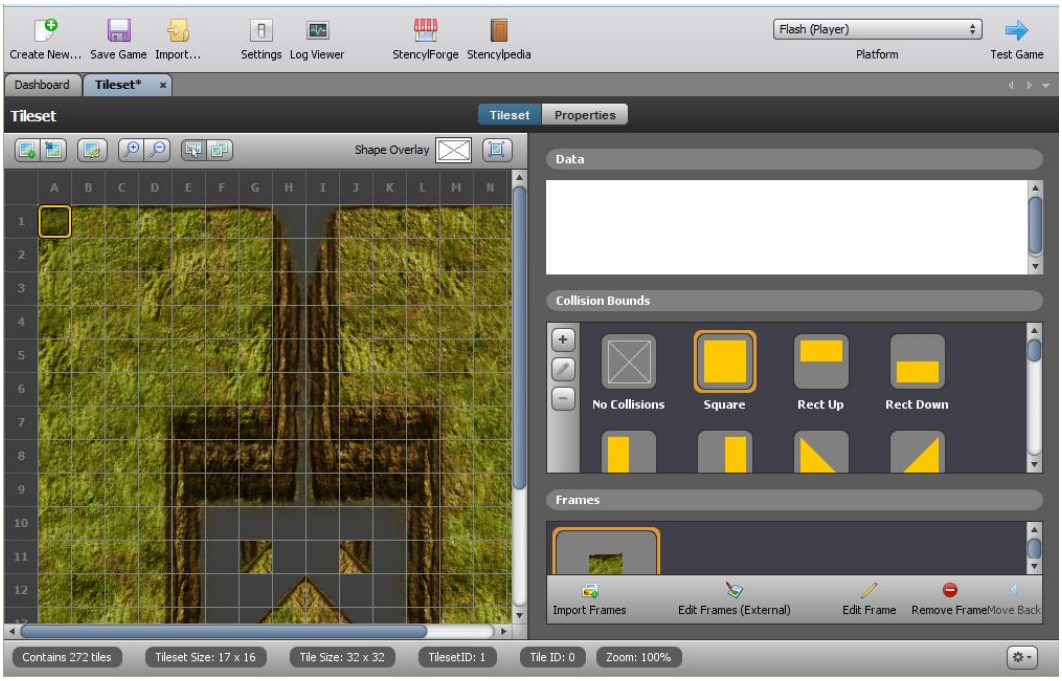

Add Frame
Choose Image...
Paste from Clipboard
Scale
Standard (1x)
Resize Method
No Smoothing
First, choose an image. Use Scale to indicate that you are importing hi-res graphics (before picking the image!)
Add
Cancel


Add Frame
Choose Image...
Paste from Clipboard
Scale
Highest (4x)
Resize Method
Bicubic
Now, click on the image to pick its masking color, if it has one.
Size: 480 x 480
Add
Cancel

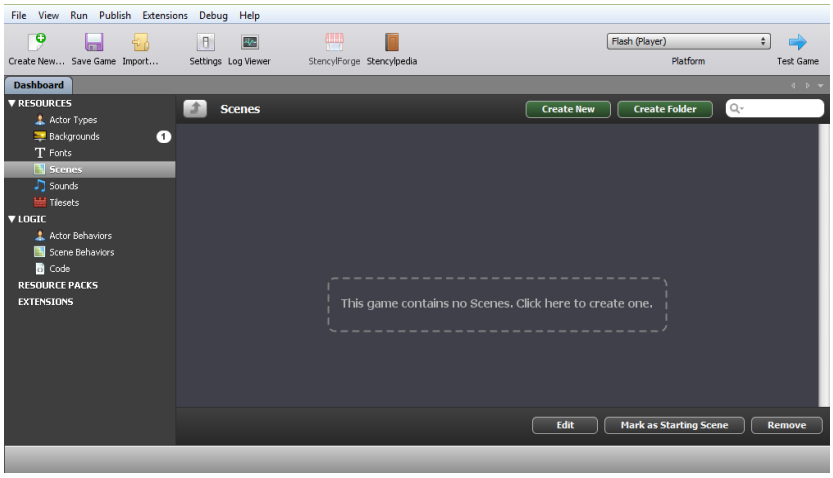

Repeat Background?
Parallax Scrolling
Horizontal Parallax Factor
1.0
Vertical Parallax Factor
1.0

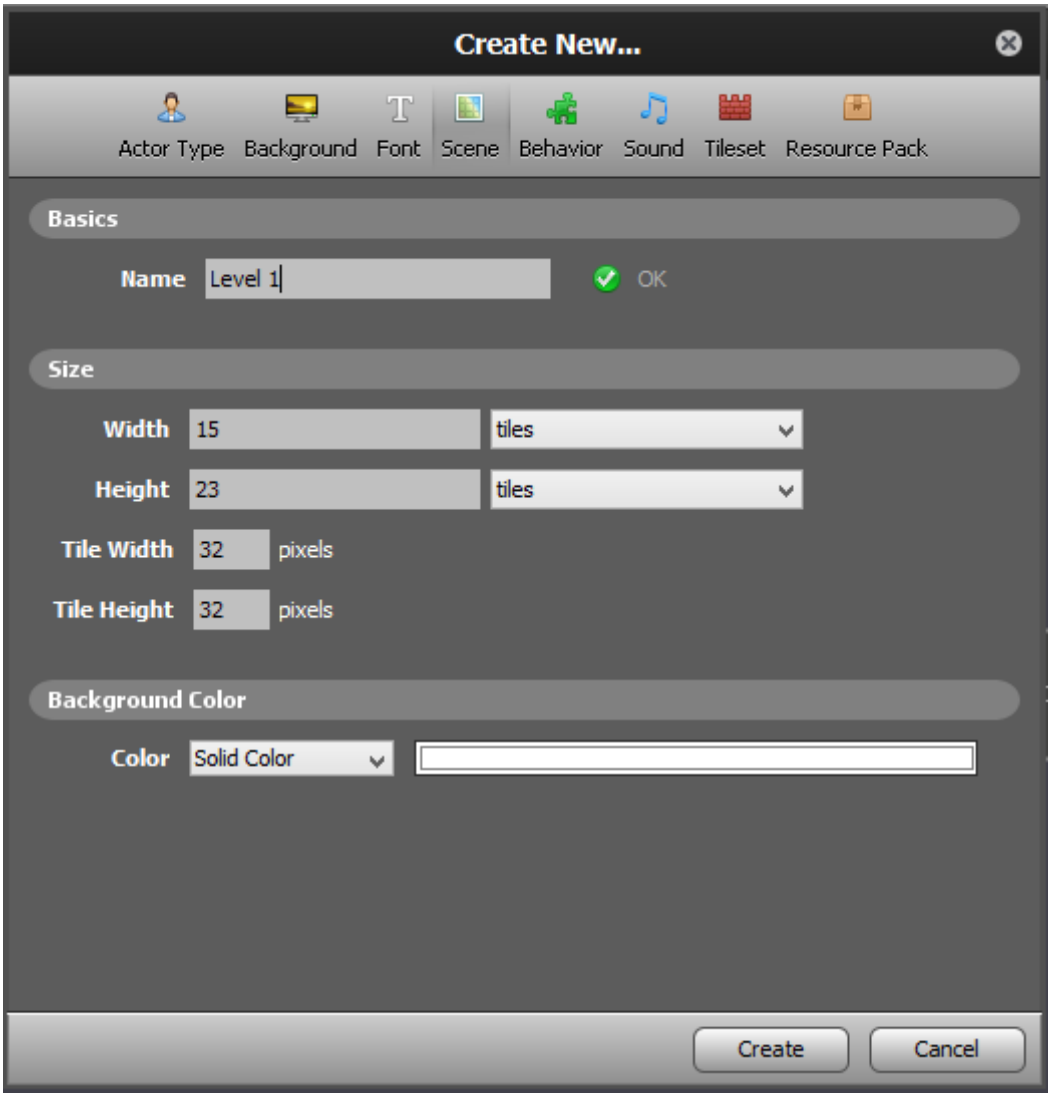

Import Tiles from Sheet
Choose Image...
Paste from Clipboard
Scale Highest (4x)
Resize Method Bicubic
Tile Width 32
Tile Height 32
X Spacing 0
Y Spacing 0
X Border 0
Y Border 0
Masking Color
First, choose an image. Use Scale to indicate that you are importing hi-res graphics (before picking the image!)
Add
Cancel

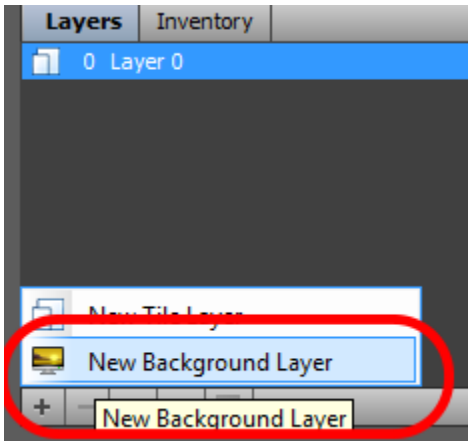

Import Tiles from Sheet
Choose Image...
Paste from Clipboard
Scale Highest (4x)
Resize Method Bicubic
Tile Width 32
Tile Height 32
X Spacing 0
Y Spacing 0
X Border 0
Y Border 0
Masking Color
Use the fields on the left to chop up the tile sheet.
Size: 512 x 544
Add
Cancel

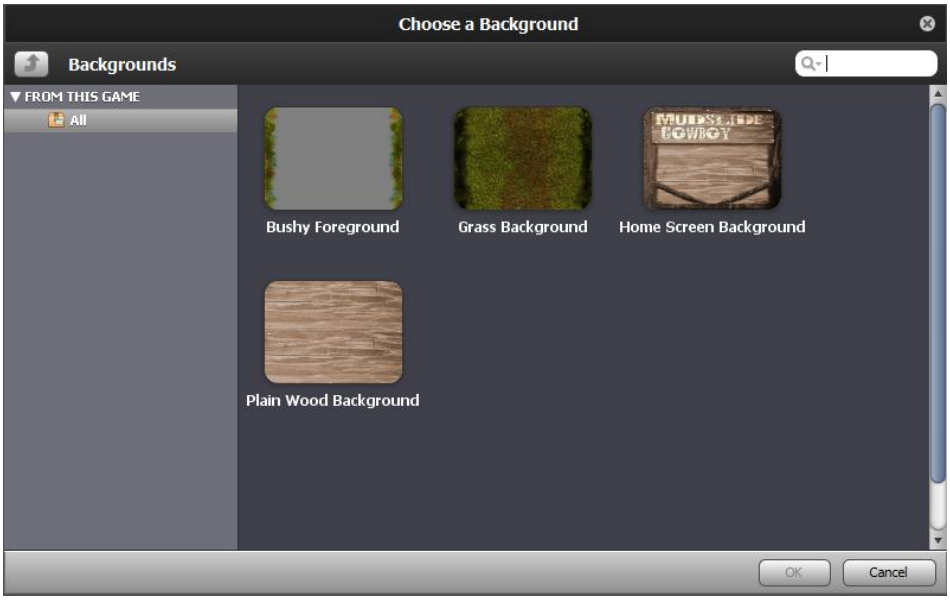

Create New...
Save Game
Import...
Settings
Log Viewer
StencylForge
Stencylpedia
Flash (Player)
Platform
Test Game
Dashboard
Tileset*
Tileset
Tileset
Properties
Shape Overlay
Data
Collision Bounds
No Collisions
Square
Rect Up
Rect Down
Frames
Import Frames
Edit Frames (External)
Edit Frame
Remove Frame
Move Back
Contains 272 tiles
Tileset Size: 17 x 16
Tile Size: 32 x 32
TilesetID: 1
Tile ID: 0
Zoom: 100%

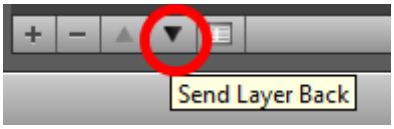
Chapter 4: Building Levels Using Scenes

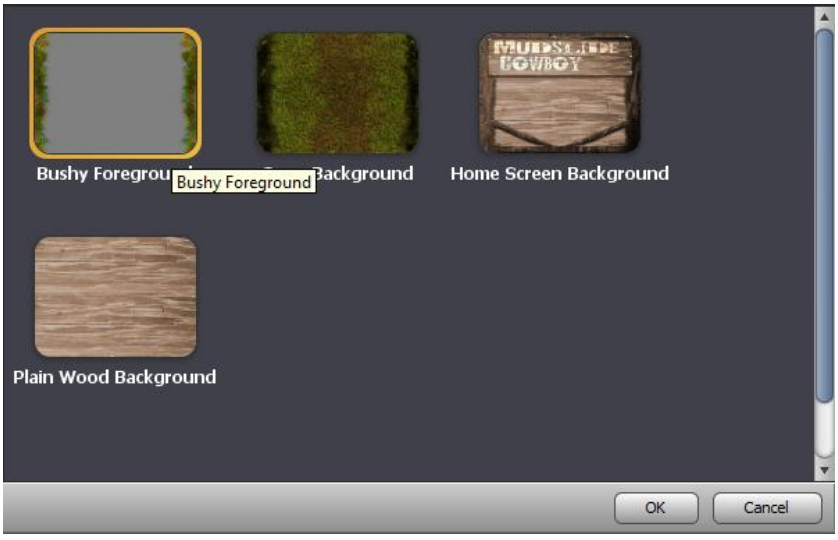


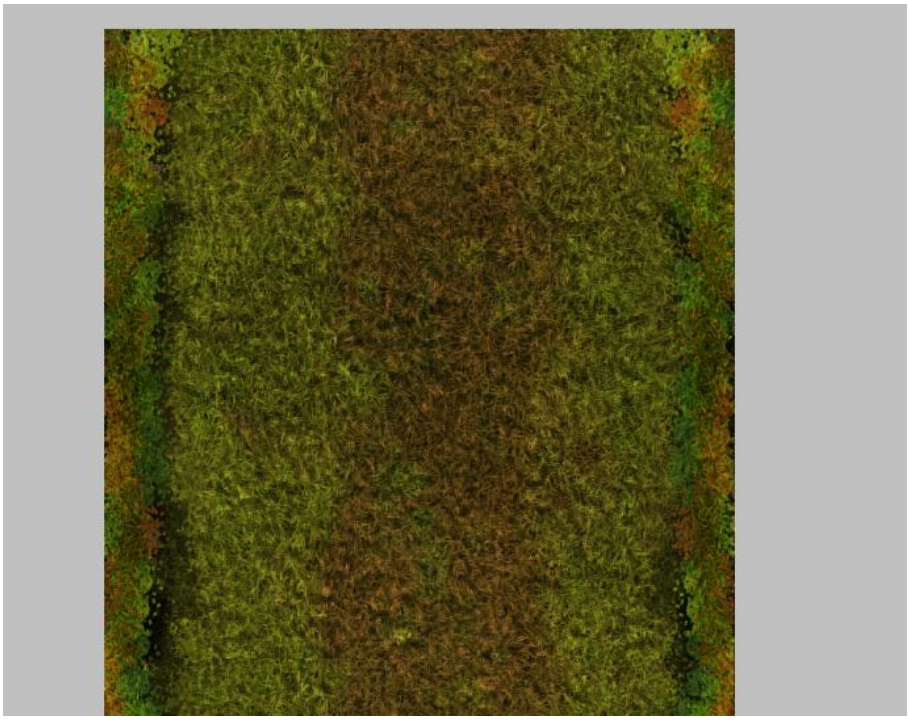

Create New...
Actor Type
Background
Font
Scene
Behavior
Sound
Tileset
Resource Pack
Basics
Name
Level 1
OK
Size
Width
15
tiles
Height
23
tiles
Tile Width
32
pixels
Tile Height
32
pixels
Background Color
Color
Solid Color
Create
Cancel


Layers
Inventory
0 Layer 0
New Background Layer
New Background Layer

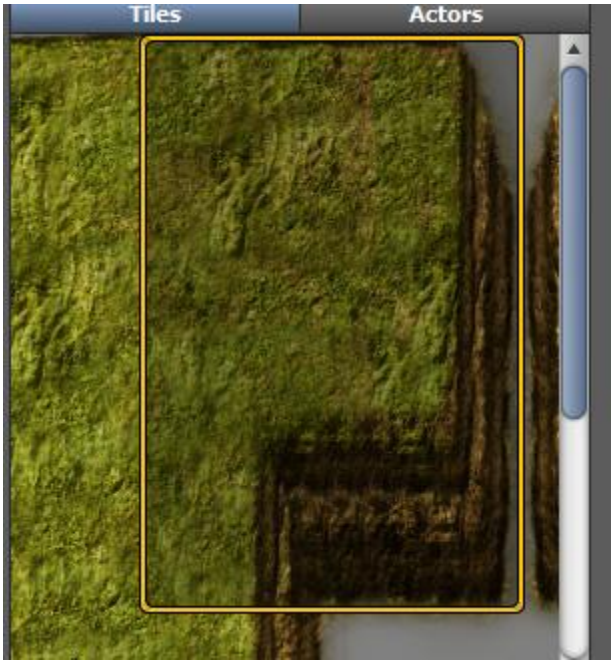

Choose a Background
Backgrounds
FROM THIS GAME
All
Bushy Foreground
Grass Background
Home Screen Background
Plain Wood Background
OK
Cancel

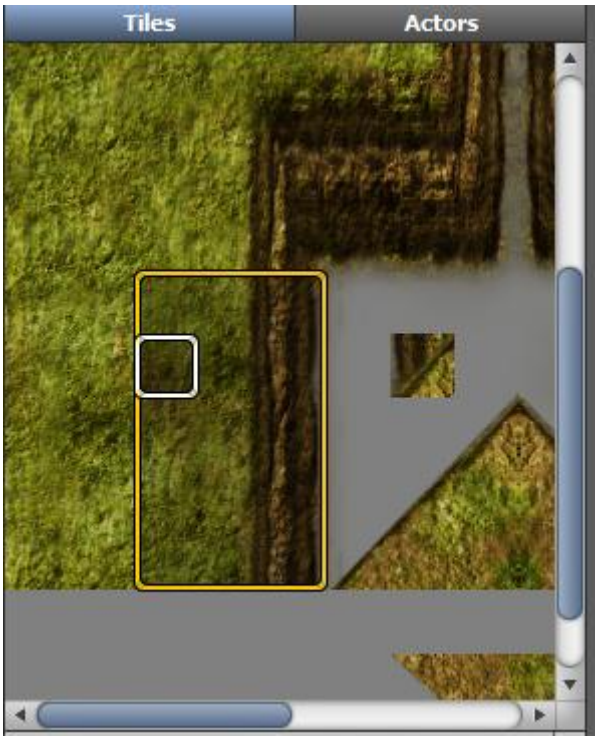

Send Layer Back


Bushy Foreground
Home Screen Background
Plain Wood Background
OK
Cancel

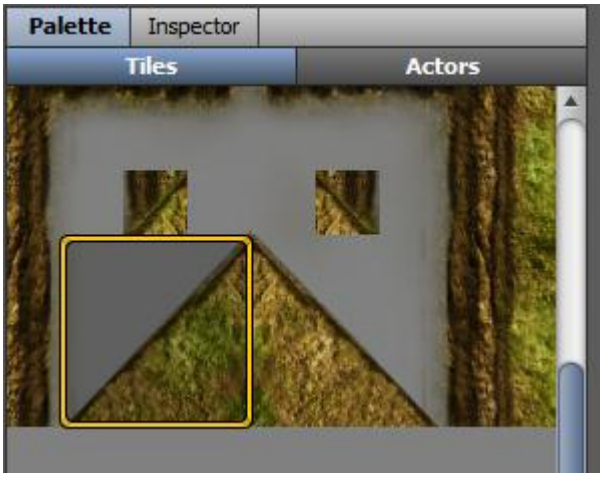


Palette
Inspector
Tiles
Actors


Tiles
Actors

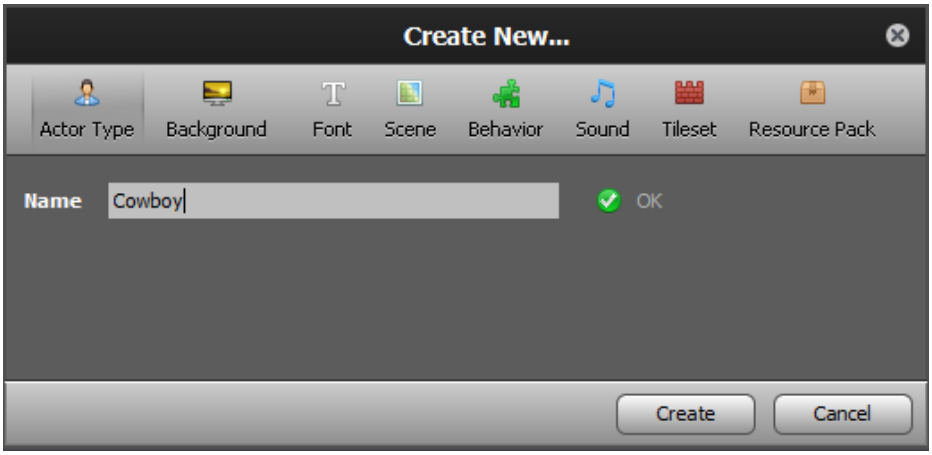

Tiles
Actors

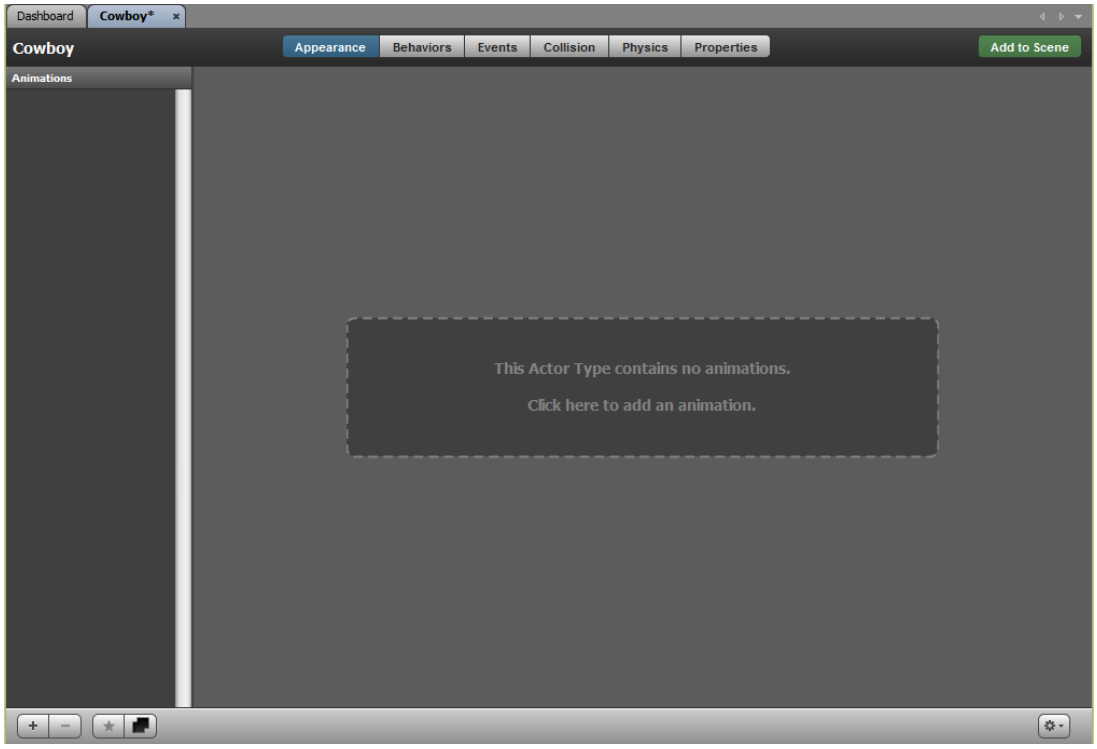
Tiles
Actors

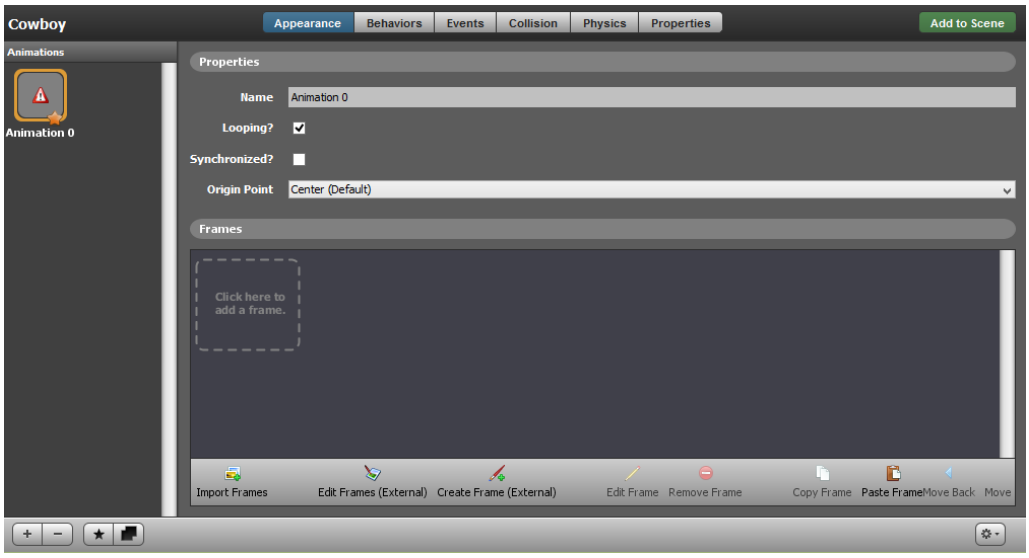

Palette
Inspector
Tiles
Actors

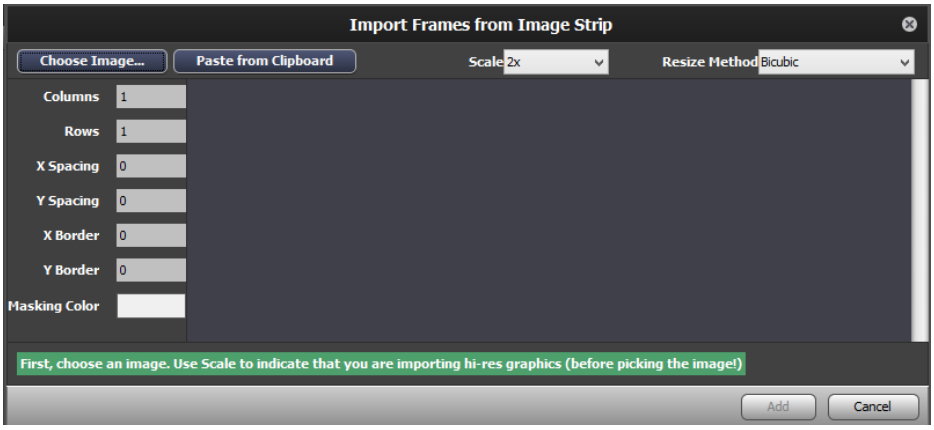
Palette
Inspector
Tiles
Actors

Chapter 5: Actor Types and Instances

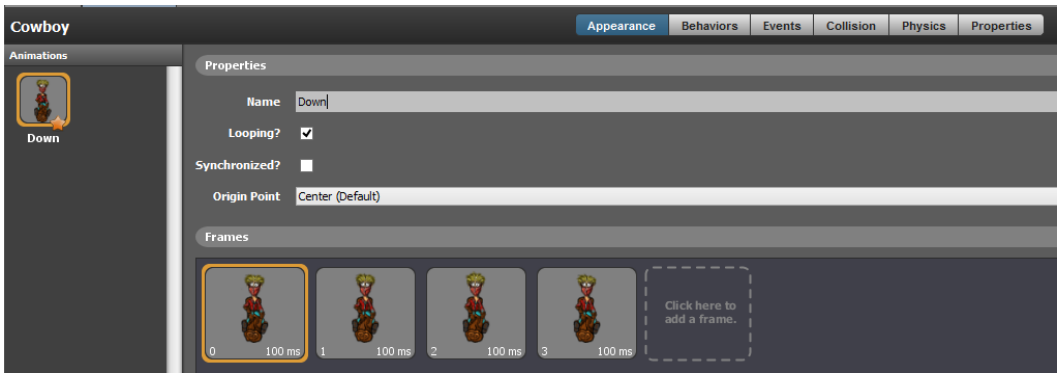


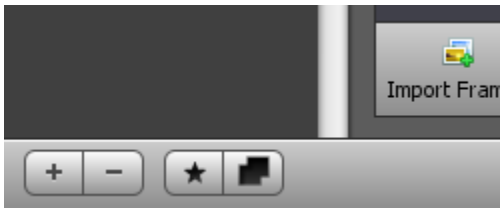

Dashboard
Cowboy*
Cowboy
Appearance
Behaviors
Events
Collision
Physics
Properties
Add to Scene
Animations
This Actor Type contains no animations.
Click here to add an animation.

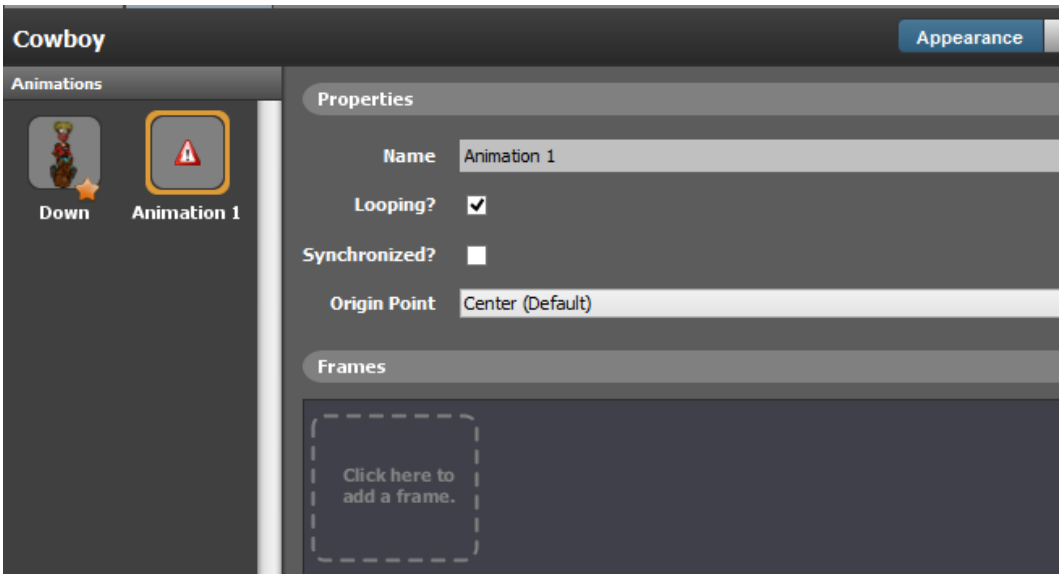

Cowboy
Appearance
Behaviors
Events
Collision
Physics
Properties
Add to Scene
Animations
Animation 0
Properties
Name
Animation 0
Looping?
Synchronized?
Origin Point
Center (Default)
Frames
Click here to add a frame.
Import Frames
Edit Frames (External)
Create Frame (External)
Edit Frame
Remove Frame
Copy Frame
Paste Frame
Move Back
Move

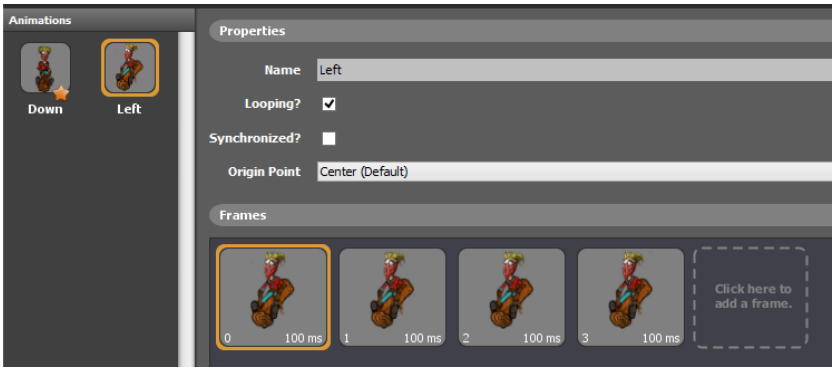

Import Frames from Image Strip
Choose Image...
Paste from Clipboard
Scale 2x
Resize Method Bicubic
Columns 1
Rows 1
X Spacing 0
Y Spacing 0
X Border 0
Y Border 0
Masking Color
First, choose an image. Use Scale to indicate that you are importing hi-res graphics (before picking the image!)
Add
Cancel

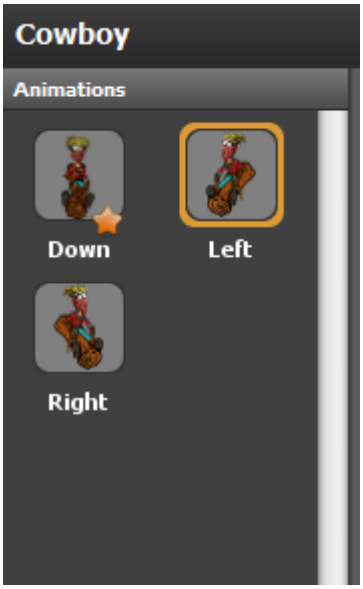
Import Frames from Image Strip
Choose Image...
Paste from Clipboard
Scale 4x
Resize Method Bicubic
Columns 1
Rows 1
X Spacing 0
Y Spacing 0
X Border 0
Y Border 0
Masking Color
Now, click on the image to pick its masking color, if it has one.
Size: 600 x 374
Add
Cancel

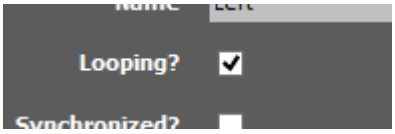

Cowboy
Appearance
Behaviors
Events
Collision
Physics
Properties
Animations
Down
Properties
Name Down
Looping?
Synchronized?
Origin Point Center (Default)
Frames
0 100 ms
1 100 ms
2 100 ms
3 100 ms
Click here to add a frame.


Import Fram

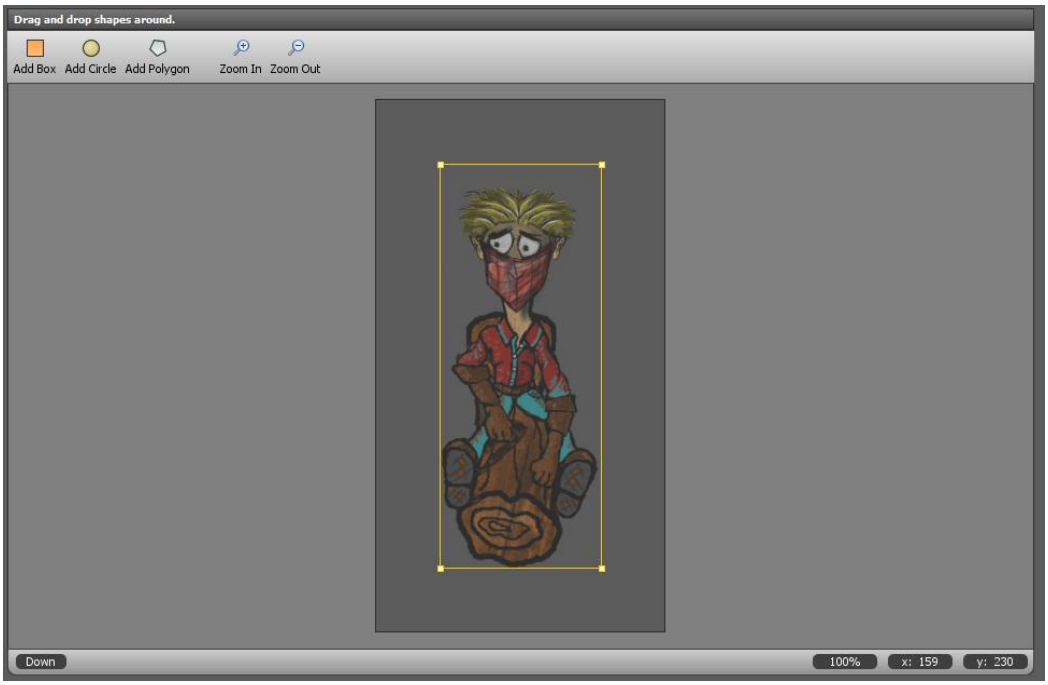

Cowboy
Appearance
Animations
Down
Animation 1
Properties
Name
Animation 1
Looping?
Synchronized?
Origin Point
Center (Default)
Frames
Click here to add a frame.


Animations
Down
Left
Properties
Name
Left
Looping?
Synchronized?
Origin Point
Center (Default)
Frames
0 100 ms
1 100 ms
2 100 ms
3 100 ms
Click here to add a frame.


Cowboy
Animations
Down
Left
Right


Looping?

Appearance
Behaviors
Events
Collision
Physics
Properties


Drag and drop shapes around.
Add Box
Add Circle
Add Polygon
Zoom In
Zoom Out
Down
100%
x: 159
y: 230

Current Shape

X Position (Left) 0

Y Position (Top) 0

Width 150

Height 374

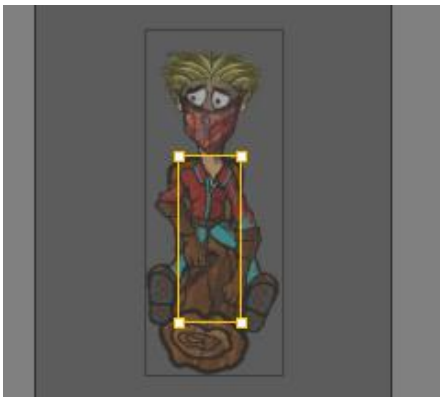
Physical Properties

Is a Sensor?

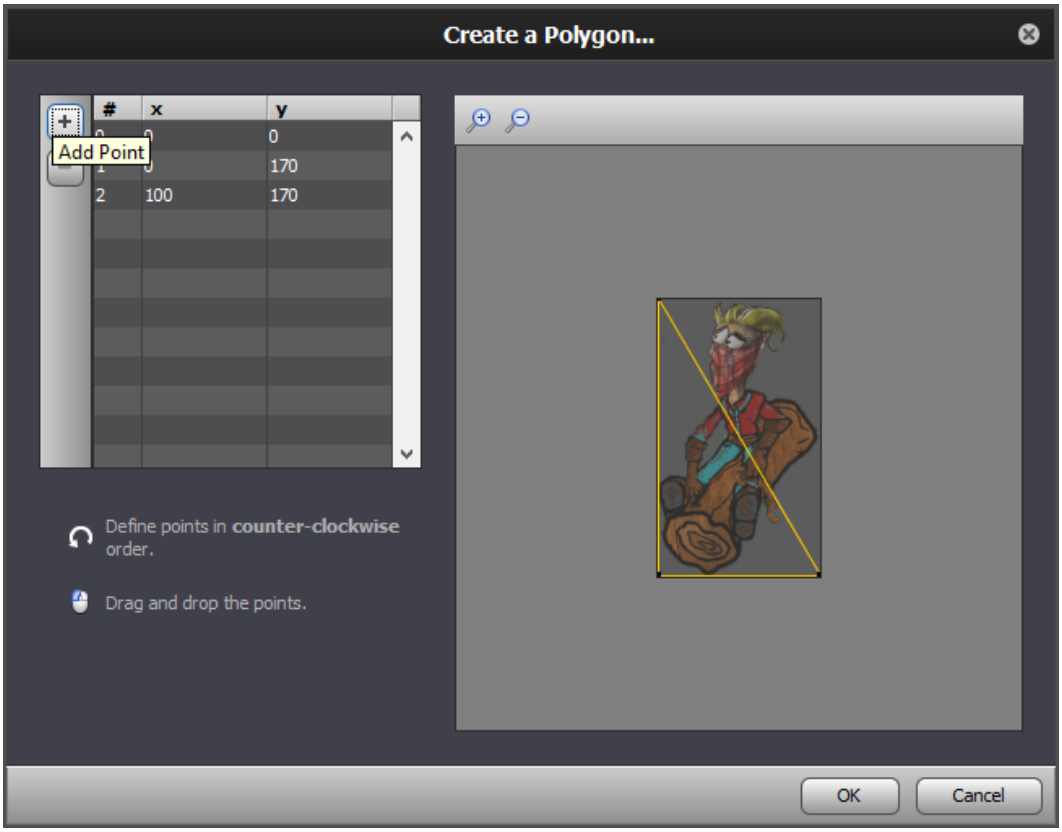
Allows shapes to detect collisions without producing a response, so they do not appear to be solid.

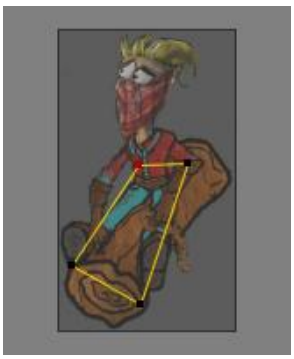
Group Same as Actor Type (Default) Edit Groups...

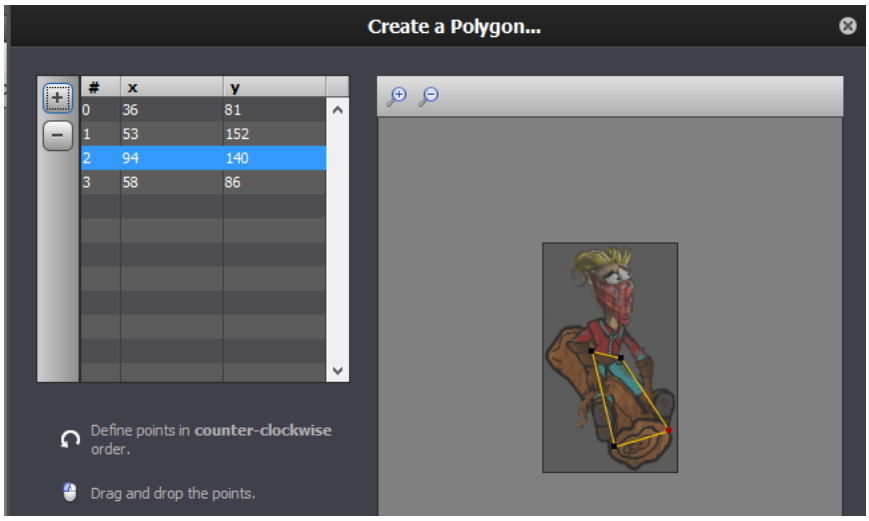
Assign this shape to a different group from that of its parent actor type. Useful for multi-shape actors.

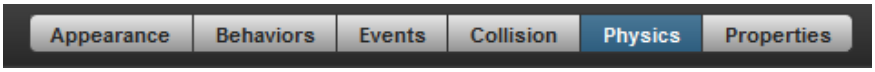


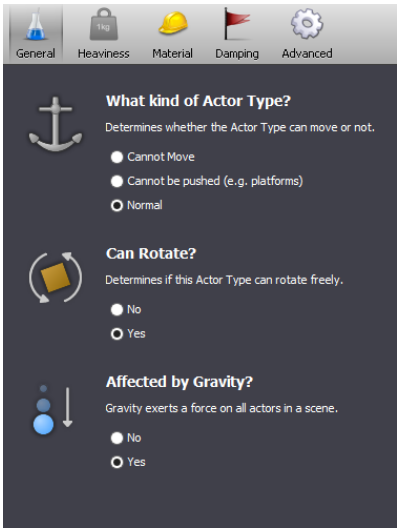
Drag and drop shapes around.
Add Box
Add Circle
Add Polygon
Zoom In
Zoom Out
Add Polygon

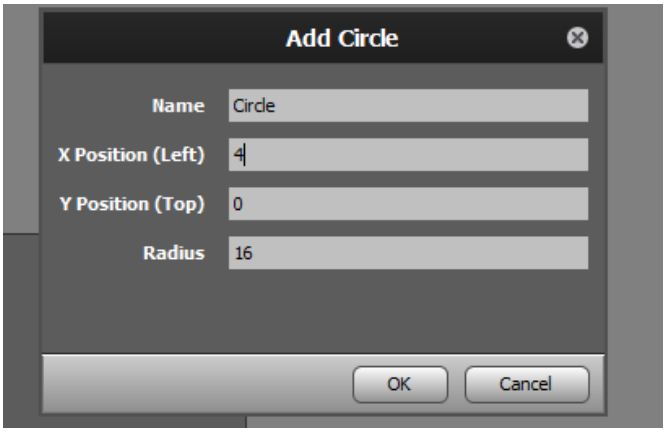

Create a Polygon...
Add Point
x y
0 0 0
1 0 170
2 100 170
Define points in counter-clockwise order.
Drag and drop the points.
OK
Cancel

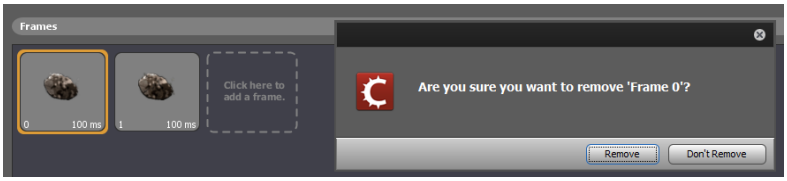


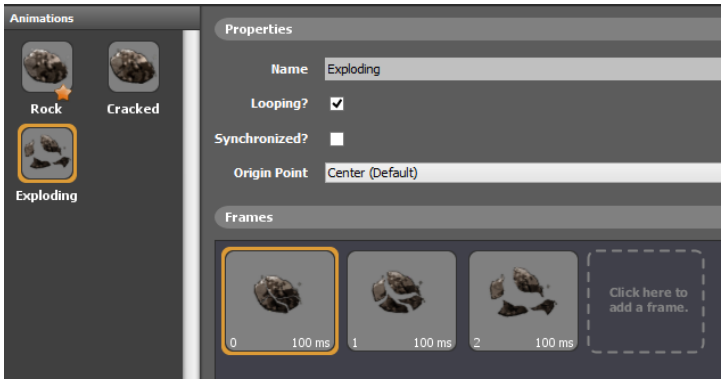

Create a Polygon...
x y
0 36 81
1 53 152
2 94 140
3 58 86
Define points in counter-clockwise order.
Drag and drop the points.

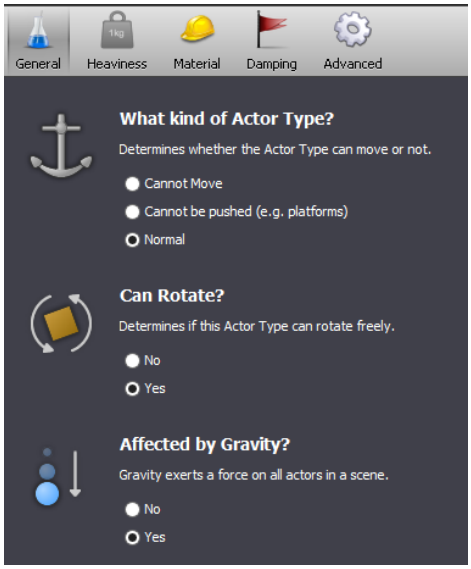

Appearance
Behaviors
Events
Collision
Physics
Properties

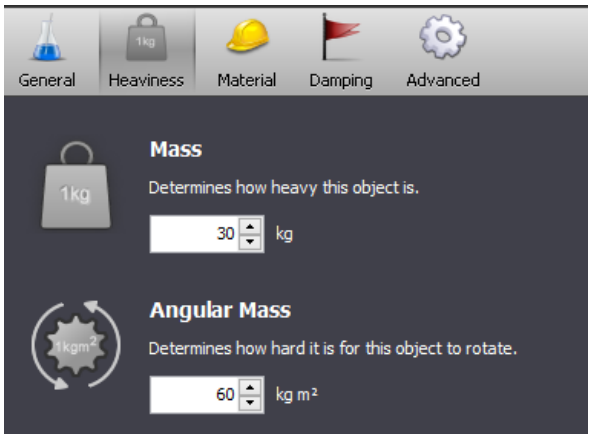

General
Heaviness
Material
Damping
Advanced
What kind of Actor Type?
Determines whether the Actor Type can move or not.
Cannot Move
Cannot be pushed (e.g. platforms)
Normal
Can Rotate?
Determines if this Actor Type can rotate freely.
No
Yes
Affected by Gravity?
Gravity exerts a force on all actors in a scene.
No
Yes


Add Circle
Name
Circle
X Position (Left)
4
Y Position (Top)
0
Radius
16
OK
Cancel

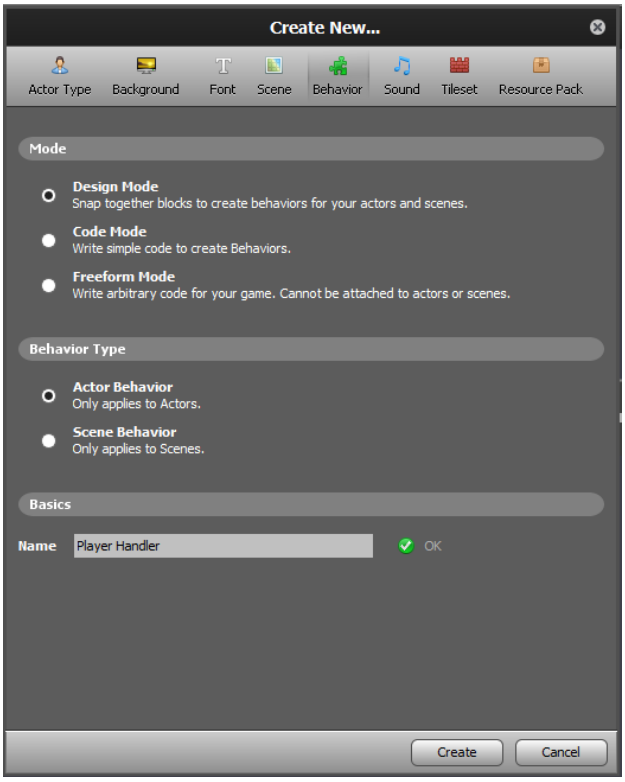

Frames
0
100 ms
1
100 ms
Click here to add a frame.
Are you sure you want to remove 'Frame 0'?
Remove
Don't Remove

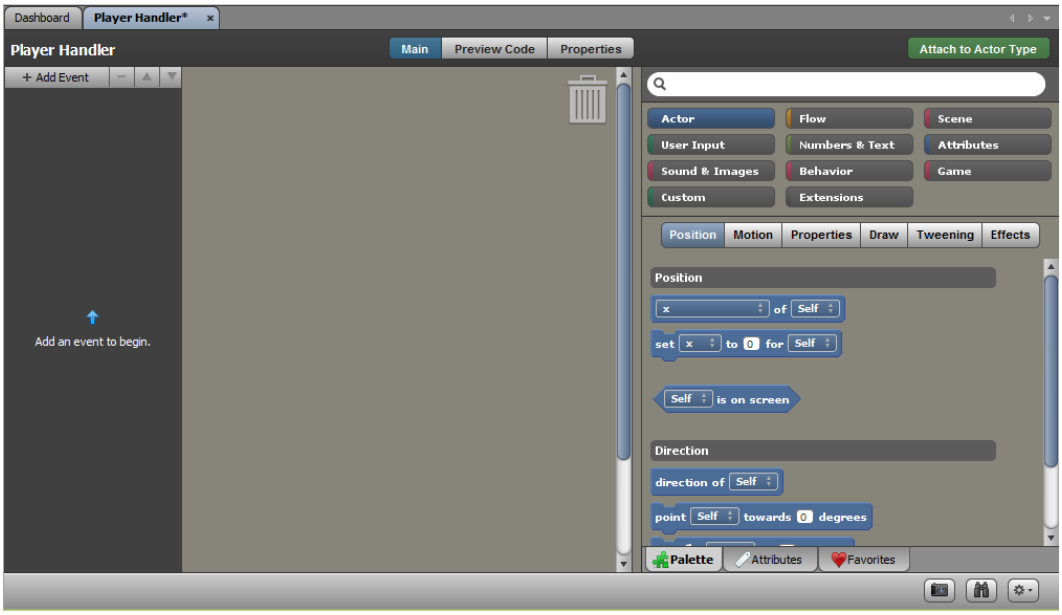

Animations
Rock
Cracked
Exploding
Properties
Name
Exploding
Looping?
Synchronized?
Origin Point
Center (Default)
Frames
0
100 ms
1
100 ms
2
100 ms
Click here to add a frame.

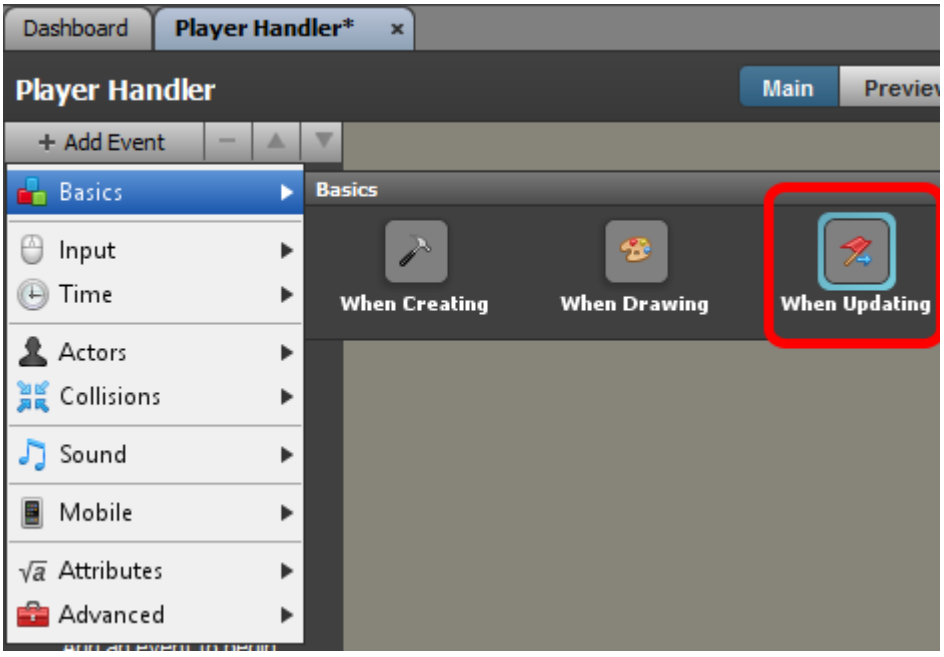

General
Heaviness
Material
Damping
Advanced
What kind of Actor Type?
Determines whether the Actor Type can move or not.
Cannot Move
Cannot be pushed (e.g. platforms)
Normal
Can Rotate?
Determines if this Actor Type can rotate freely.
No
Yes
Affected by Gravity?
Gravity exerts a force on all actors in a scene.
No
Yes

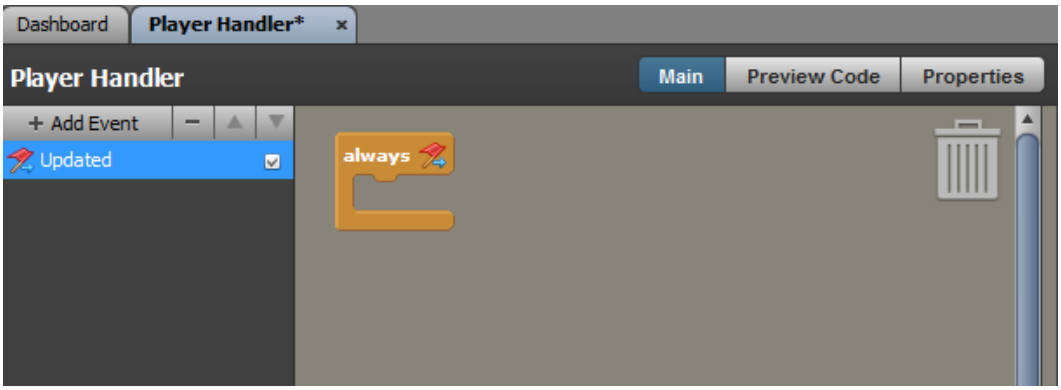

General
Heaviness
Material
Damping
Advanced
1kg
Mass
Determines how heavy this object is.
30
kg
1kgm²
Angular Mass
Determines how hard it is for this object to rotate.
60
kg m²

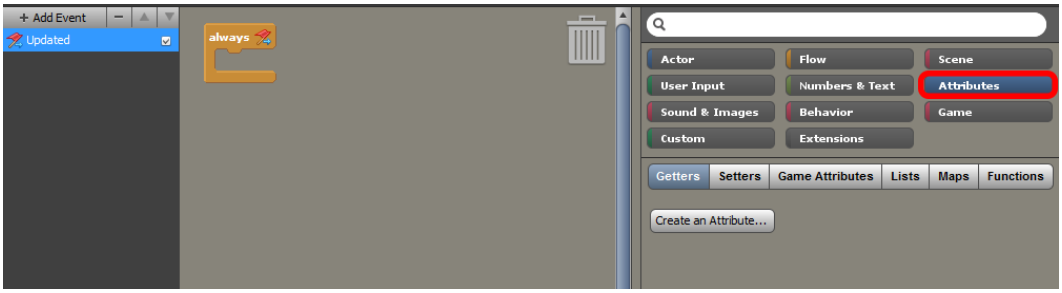
Chapter 6: Writing Simple Behaviors




Dashboard
Player Handler*
Player Handler
Main
Preview Code
Properties
Attach to Actor Type
+ Add Event
Add an event to begin.
Actor
Flow
Scene
User Input
Numbers & Text
Attributes
Sound & Images
Behavior
Game
Custom
Extensions
Position
Motion
Properties
Draw
Tweening
Effects
Position
x of Self
set x to 0 for Self
Self is on screen
Direction
direction of Self
point Self towards 0 degrees
Palette
Attributes
Favorites

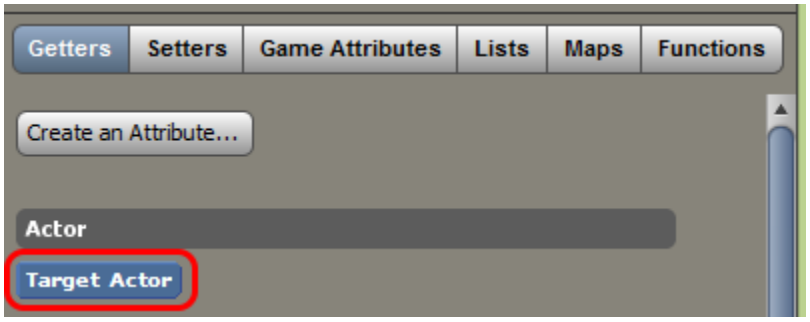

Dashboard
Player Handler*
Player Handler
Main
+ Add Event
Basics
Input
Time
Actors
Collisions
Sound
Mobile
Attributes
Advanced
Basics
When Creating
When Drawing
When Updating

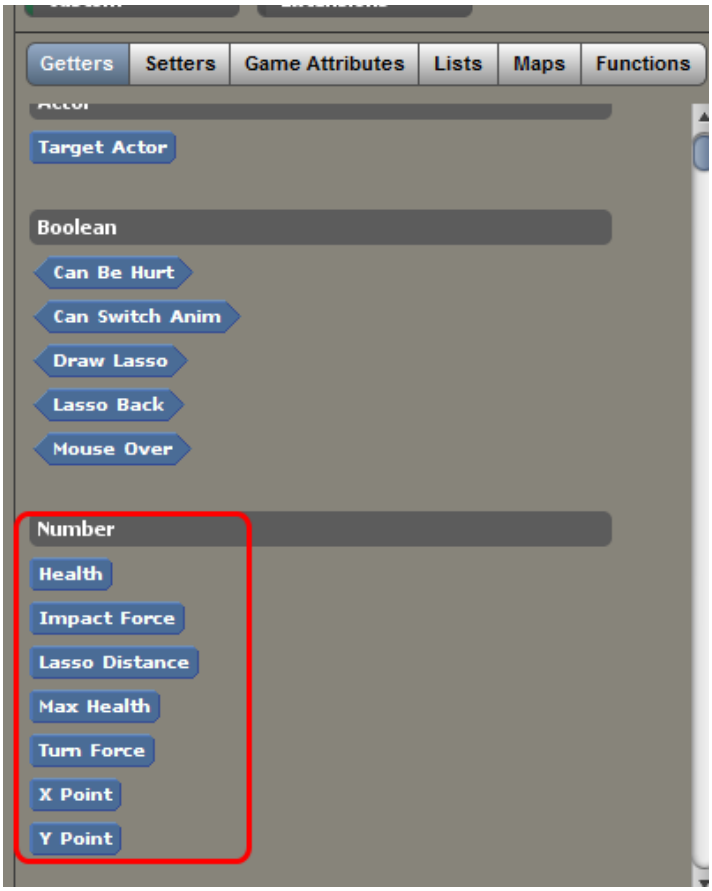

Dashboard
Player Handler*
Player Handler
Main
Preview Code
Properties
+ Add Event
Updated
always

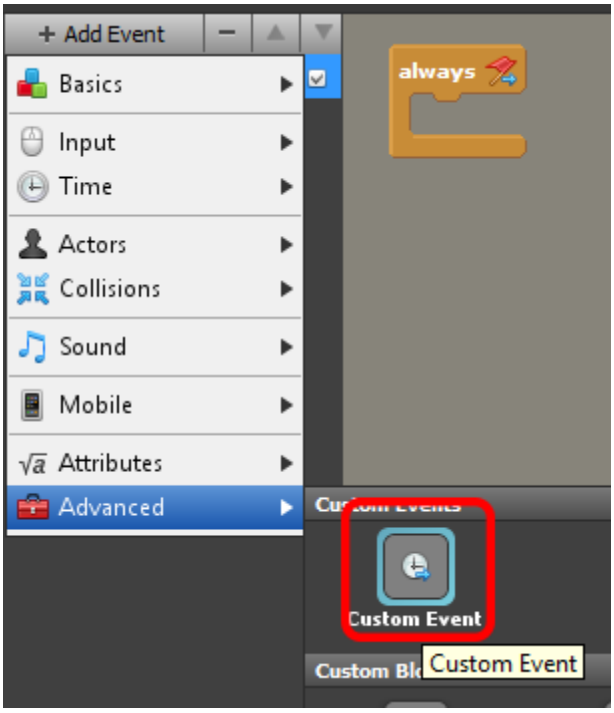

+ Add Event
Updated
always
Actor
Flow
Scene
User Input
Numbers & Text
Attributes
Sound & Images
Behavior
Game
Custom
Extensions
Getters
Setters
Game Attributes
Lists
Maps
Functions
Create an Attribute...

User Input
Numbers & Text
Attributes
Sound & Images
Behavior
Game
Custom
Extensions
Getters
Setters
Game Attributes
Lists
Maps
Functions
Create an Attribute...

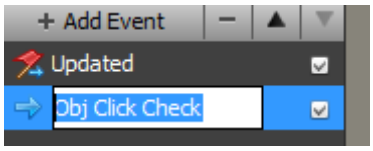
Create an Attribute...
Name
Target Actor
OK
Type
Actor
Hidden?
Hidden attributes do not appear when a user configures this behavior. They are like local variables.
OK
Cancel

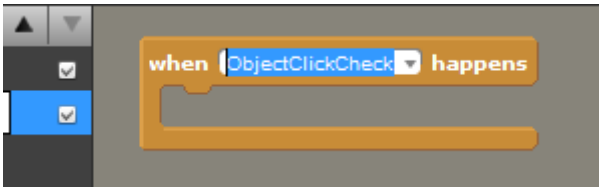

Getters
Setters
Game Attributes
Lists
Maps
Functions
Create an Attribute...
Actor
Target Actor


Getters
Setters
Game Attributes
Lists
Maps
Functions
Target Actor
Boolean
Can Be Hurt
Can Switch Anim
Draw Lasso
Lasso Back
Mouse Over
Number
Health
Impact Force
Lasso Distance
Max Health
Turn Force
X Point
Y Point

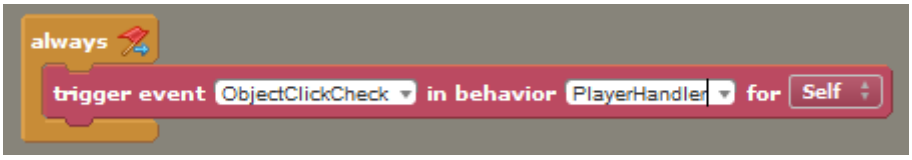

+ Add Event
Basics
Input
Time
Actors
Collisions
Sound
Mobile
Attributes
Advanced
always
Custom Event
Custom Event

+ Add Event
Updated
Custom Event
when happens

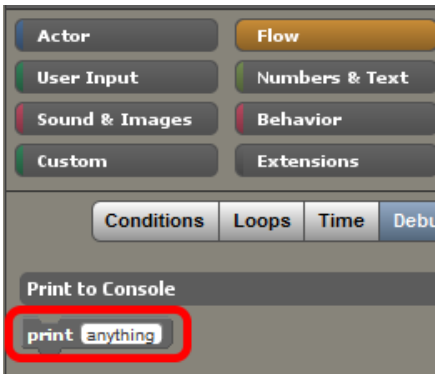

+ Add Event
Updated
Obj Click Check

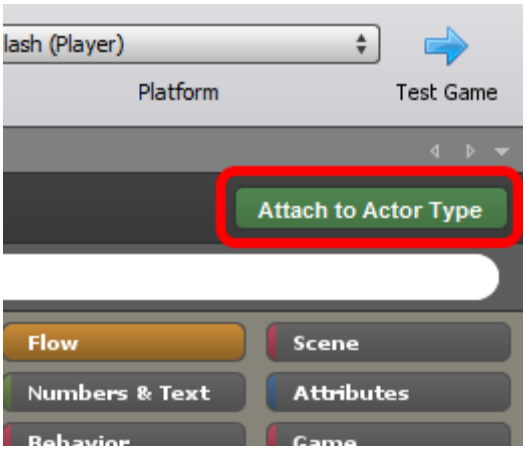

when ObjectClickCheck happens

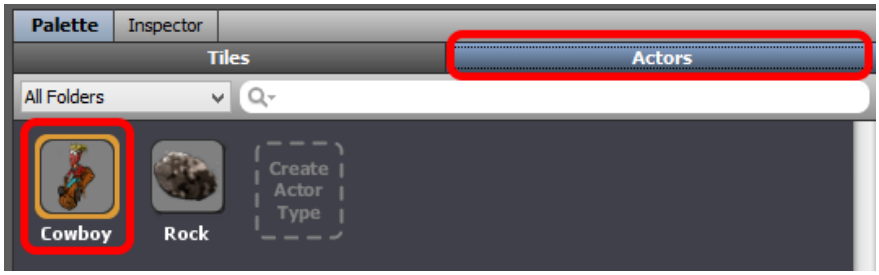
Sound & Images
Behavior
Game
Custom
Extensions
Triggers
Attributes
State
Use these to trigger Custom Events for an actor or scene.
For Actor
trigger event text in behavior text for Self
trigger event text in all behaviors for Self

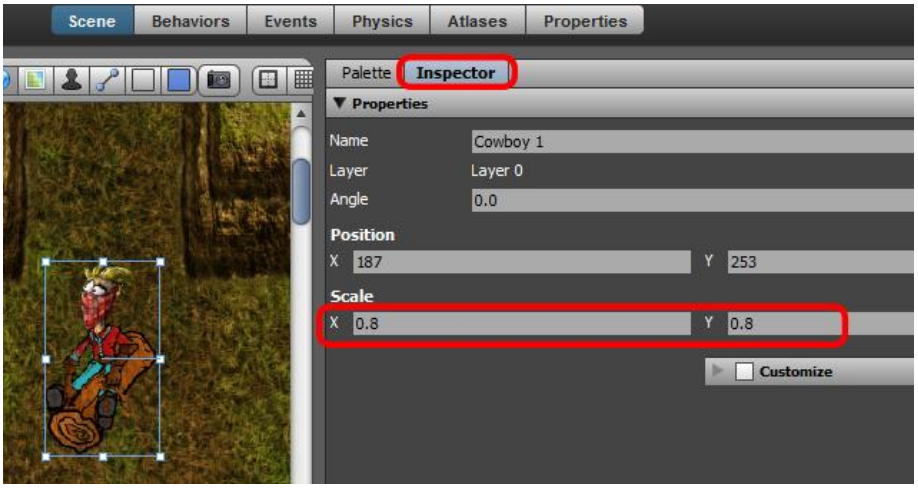

always
trigger event ObjectClickCheck in behavior PlayerHandler for Self

+ Add Event
Updated
Obj Click Check
Handle Dir Clicks
always
trigger event ObjectClickCheck in behavior PlayerHandler for Self
trigger event HandleDirectionClicks in behavior PlayerHandler for Self

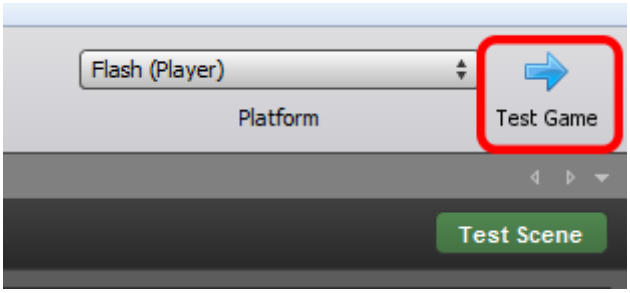

Actor
Flow
User Input
Numbers & Text
Sound & Images
Behavior
Custom
Extensions
Conditions
Loops
Time
Print to Console
print anything


lash (Player)
Platform
Test Game
Attach to Actor Type
Flow
Scene
Numbers & Text
Attributes


Palette
Inspector
Tiles
Actors
All Folders
Cowboy
Rock
Create Actor Type

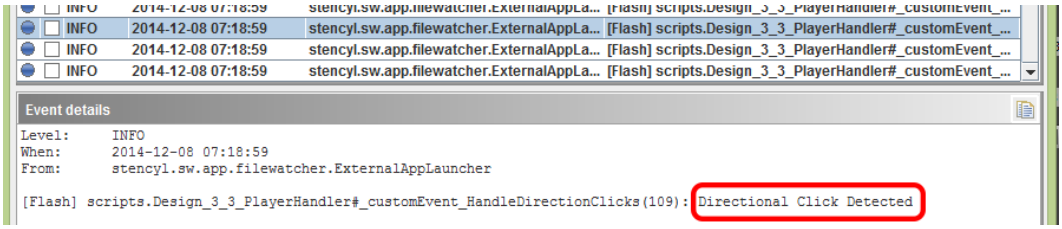

Scene
Behaviors
Events
Physics
Atlases
Properties
Palette
Inspector
Properties
Name
Cowboy 1
Layer
Layer 0
Angle
0.0
Position
X
187
Y
253
Scale
X
0.8
Y
0.8
Customize

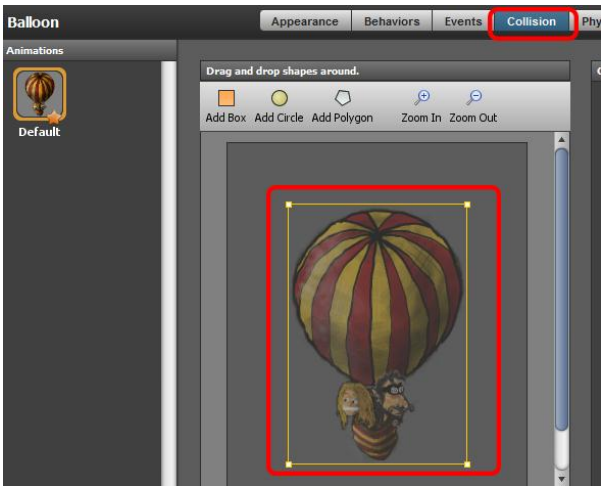
Create New...
Save Game
Import...
Settings
Log Viewer
StencylForge
Stencylpedia

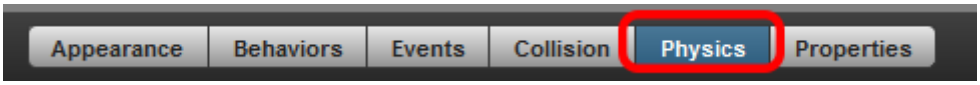

Flash (Player)
Platform
Test Game
Test Scene

+ Add Event
Updated
Obj Click Check
Handle Dir Clicks
always
trigger event
ObjectClickCheck
in behavio
PlayerHandler
for
Self
trigger event
HandleDirectionClicks
in beha vior
PlayerHandler
Self

Player Handler
for
vior
Player Handler

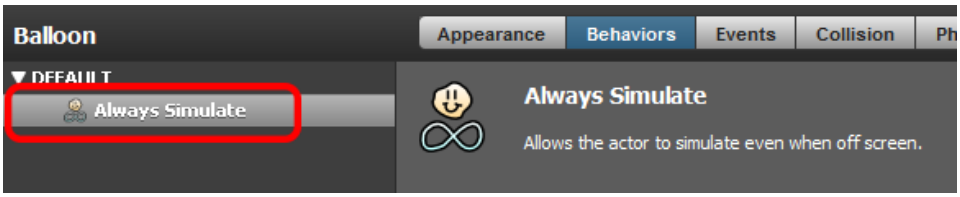

INFO 2014-12-08 07:18:59 stencyl.sw.app.filewatcher.ExternalAppLa... [Flash] scripts.Design_3_3_PlayerHandler#_customEvent_...
INFO 2014-12-08 07:18:59 stencyl.sw.app.filewatcher.ExternalAppLa... [Flash] scripts.Design_3_3_PlayerHandler#_customEvent_...
INFO 2014-12-08 07:18:59 stencyl.sw.app.filewatcher.ExternalAppLa... [Flash] scripts.Design_3_3_PlayerHandler#_customEvent_...
Event details
Level: INFO
When: 2014-12-08 07:18:59
From: stencyl.sw.app.filewatcher.ExternalAppLauncher
[Flash] scripts.Design_3_3_PlayerHandler#_customEvent_HandleDirectionClicks(109): Directional Click Detected

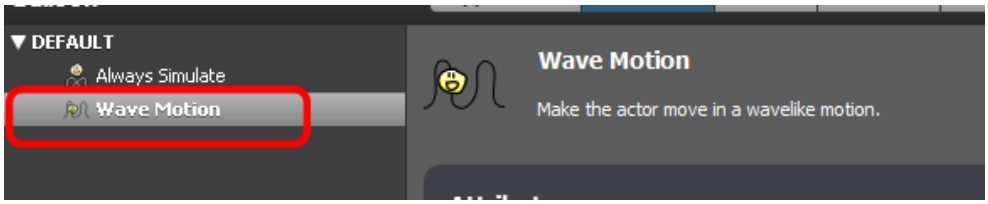

Balloon
Appearance
Behaviors
Events
Collision
Animations
Default
Drag and drop shapes around.
Add Box
Add Circle
Add Polygon
Zoom In
Zoom Out

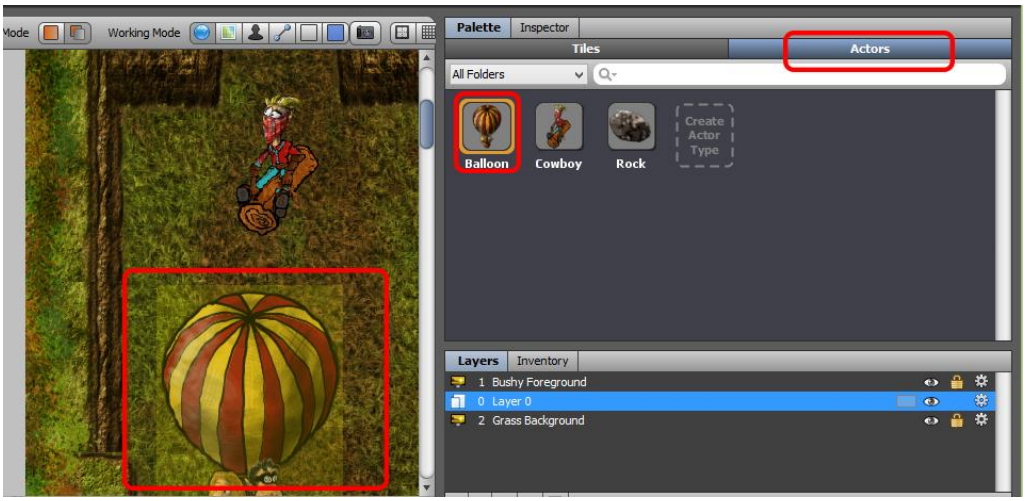

Appearance
Behaviors
Events
Collision
Physics
Properties

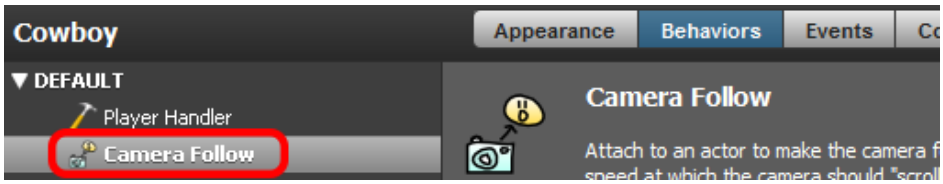
Appearance
Behaviors
Events
Collision
Physics
Properties

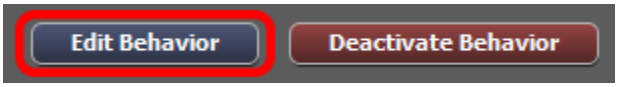
Appearance
Behaviors
Events
Collision
Physics
Properties

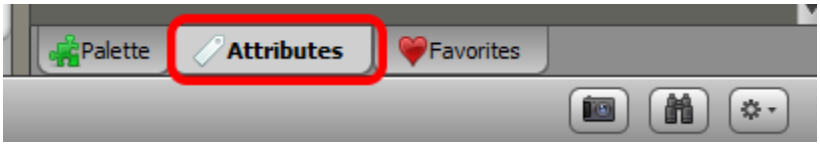

Balloon
Appearance
Behaviors
Events
Collision
DEFAULT
Always Simulate
Always Simulate
Allows the actor to simulate even when off screen.

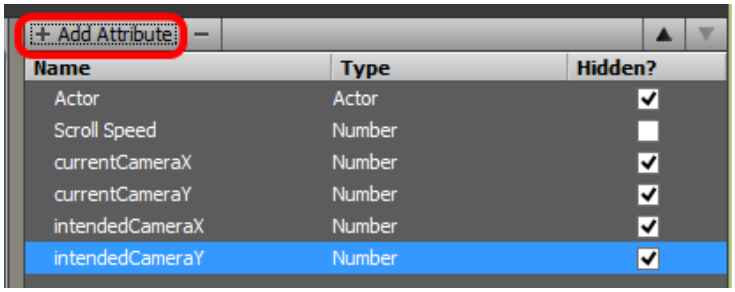

DEFAULT
Always Simulate
Wave Motion
Wave Motion
Make the actor move in a wavelike motion.

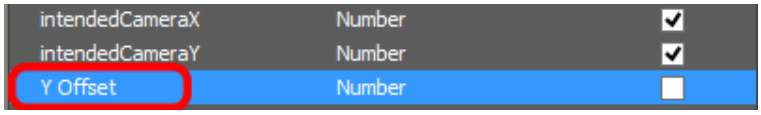

Working Mode
Palette
Inspector
Tiles
Actors
All Folders
Balloon
Cowboy
Rock
Create Actor Type
Layers
Inventory
1 Bushy Foreground
0 Layer 0
2 Grass Background

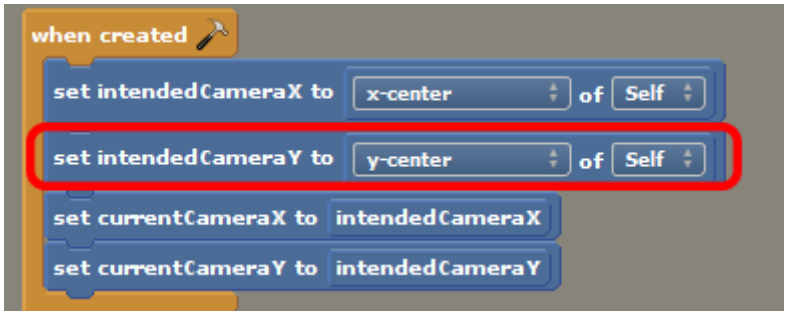

Cowboy
Appearance
Behaviors
Events
DEFAULT
Player Handler
Camera Follow
Camera Follow
Attach to an actor to make the camera f

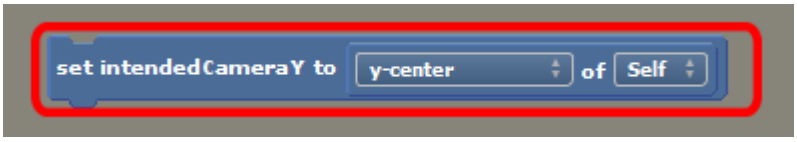

Edit Behavior
Deactivate Behavior

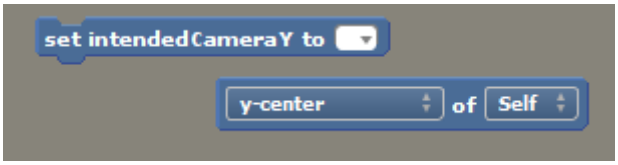

Palette
Attributes
Favorites

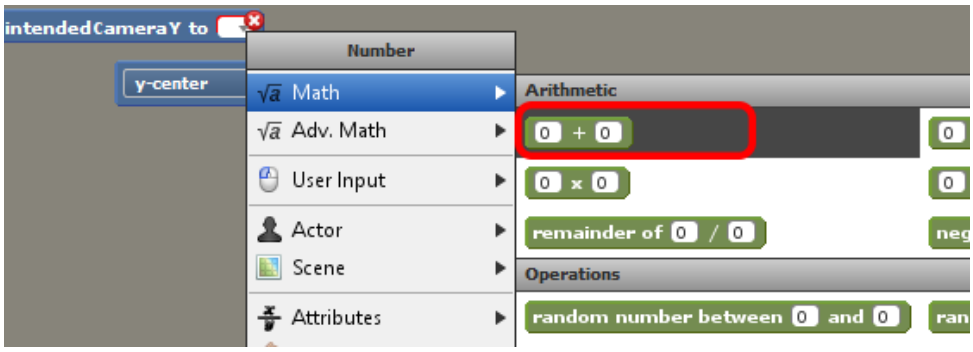

+ Add Attribute
Name
Type
Hidden?
Actor
Actor
Scroll Speed
Number
currentCameraX
Number
currentCameraY
Number
intendedCameraX
Number
intendedCameraY
Number


intendedCameraX
Number
intendedCameraY
Number
Y Offset
Number

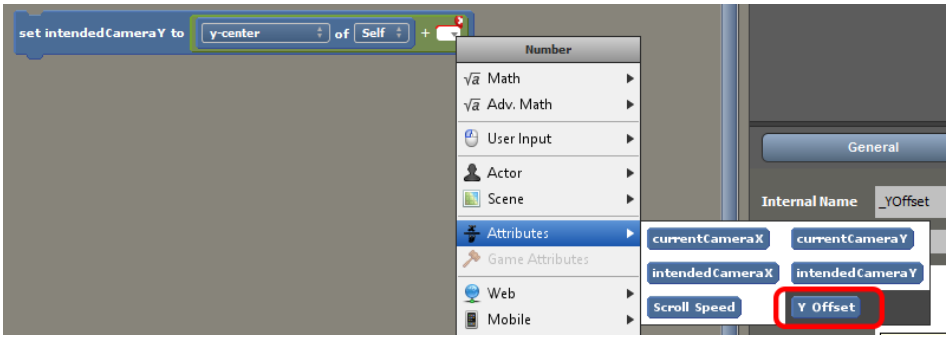

when created
set intendedCameraX to
x-center
of
Self
set intendedCameraY to
y-center
of
Self
set currentCameraX to
intendedCameraX
set currentCameraY to
intendedCameraY

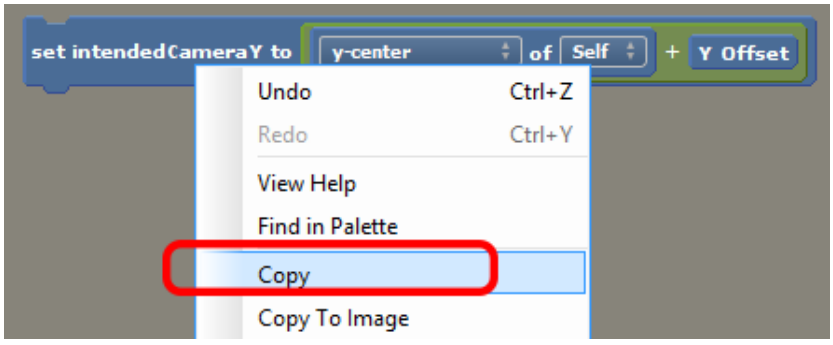

set intendedCameraY to
y-center
of
Self

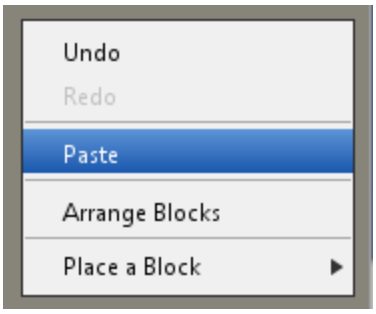

set intendedCameraY to
y-center
of
Self

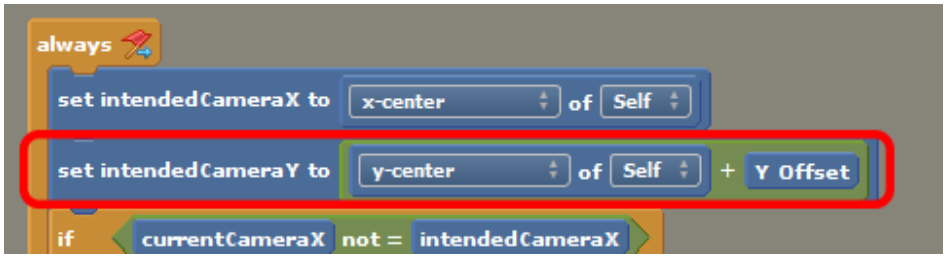

intendedCameraY to
y-center
Number
Math
Adv. Math
User Input
Actor
Scene
Attributes
Arithmetic
0 + 0
0 x 0
remainder of 0 / 0
Operations
random number between 0 and 0

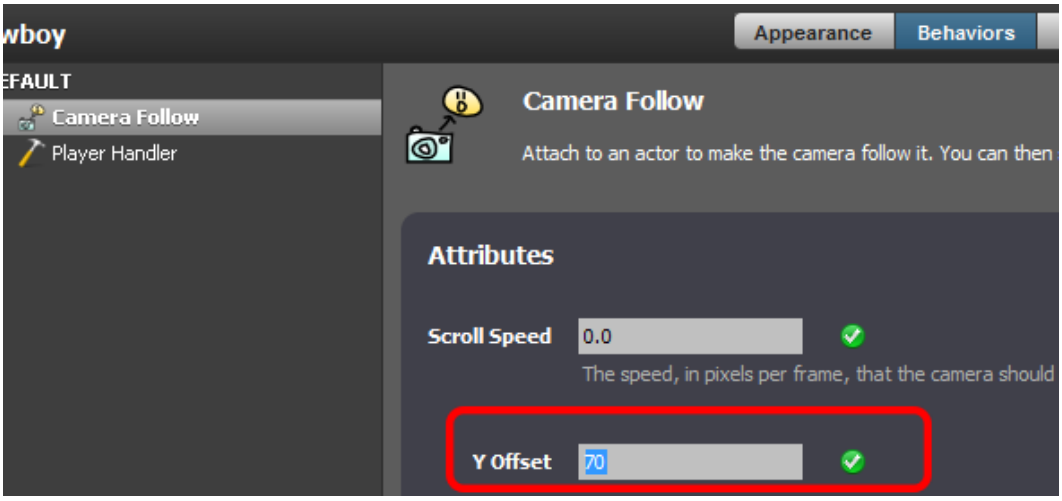
set intendedCameraY to
y-center
of
Self


set intendedCameraY to
y-center
of
Self
Number
Math
Adv. Math
User Input
Actor
Scene
Attributes
Game Attributes
Web
Mobile
General
Internal Name
_YOffset
currentCameraX
currentCameraY
intendedCameraX
intendedCameraY
Scroll Speed
Y Offset

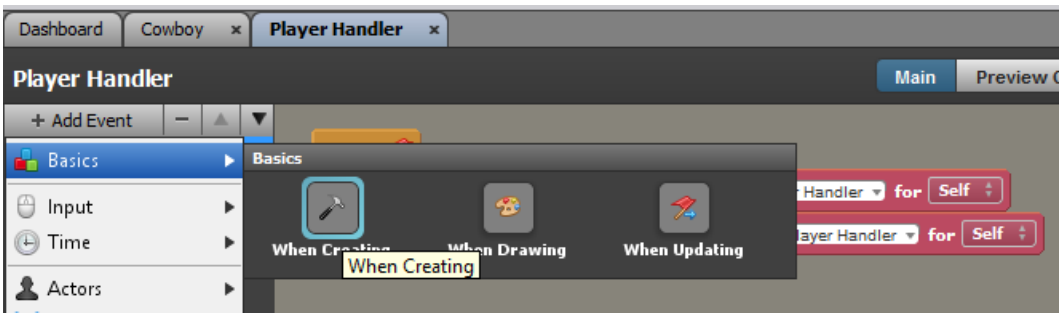

set intendedCameraY to
y-center
of
Self
+
Y Offset
Undo
Ctrl+Z
Redo
Ctrl+Y
View Help
Find in Palette
Copy
Copy To Image

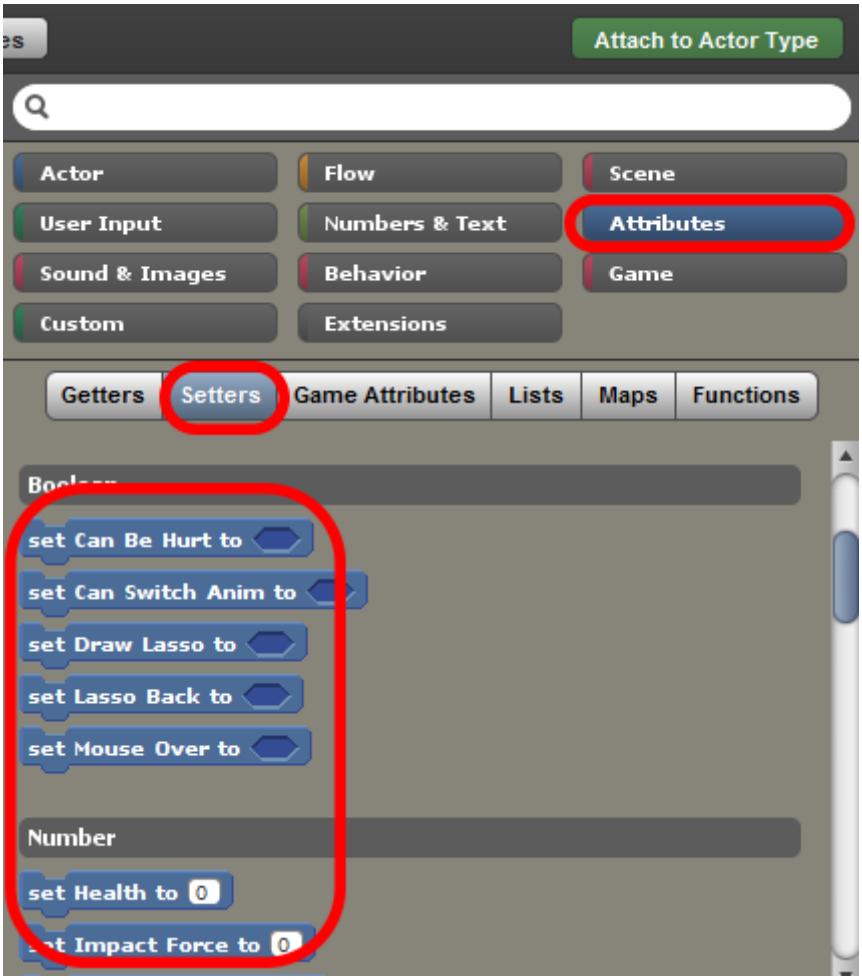

Undo
Redo
Paste
Arrange Blocks
Place a Block


always
set intendedCameraX to
x-center
of
Self
set intendedCameraY to
y-center
of
Self
+
Y Offset
if
currentCameraX
not =
intendedCameraX

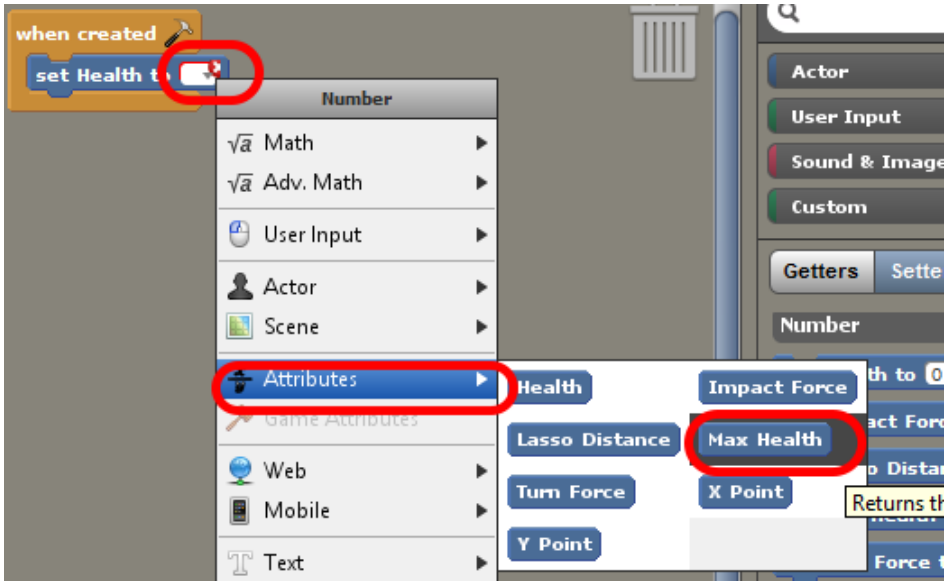

wboy
Appearance
Behaviors
EFAULT
Camera Follow
Player Handler
Camera Follow
Attach to an actor to make the camera follow it. You can then
Attributes
Scroll Speed
0.0
The speed, in pixels per frame, that the camera should
Y Offset
70

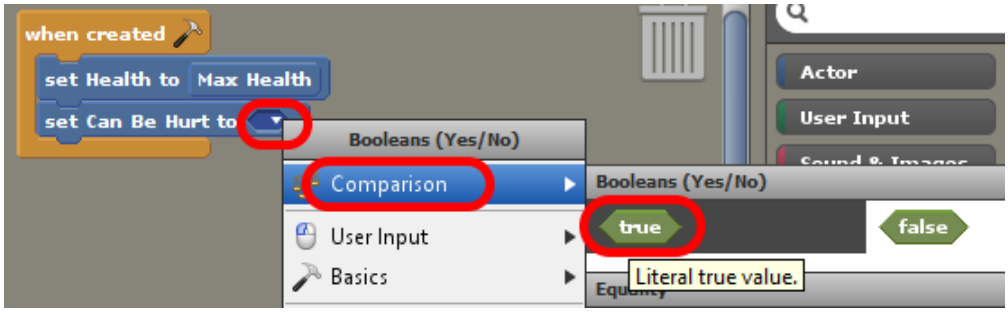
Chapter 7: Complex Behaviors and Code



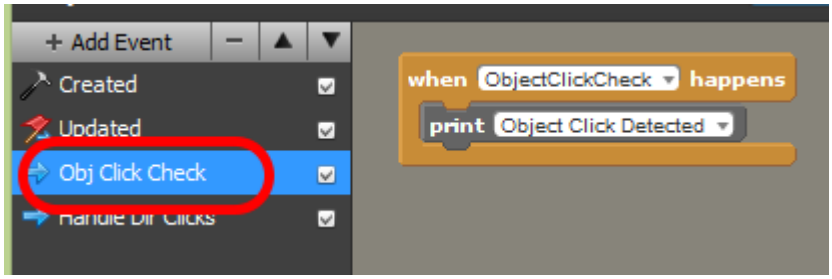


+ Add Event
Created
Updated
Obj Click Check
Handle Dir Clicks
set Health to
Actor
Flow
User Input
Sound & Images
Custom
Getters
Setters
Number
set Health to 0


when created
set Health t
Number
Math
Adv. Math
User Input
Actor
Scene
Attributes
Web
Mobile
Text
Health
Impact Force
Lasso Distance
Max Health
Turn Force
X Point
Y Point
Actor
User Input
Sound & Image
Custom
Getters
Number

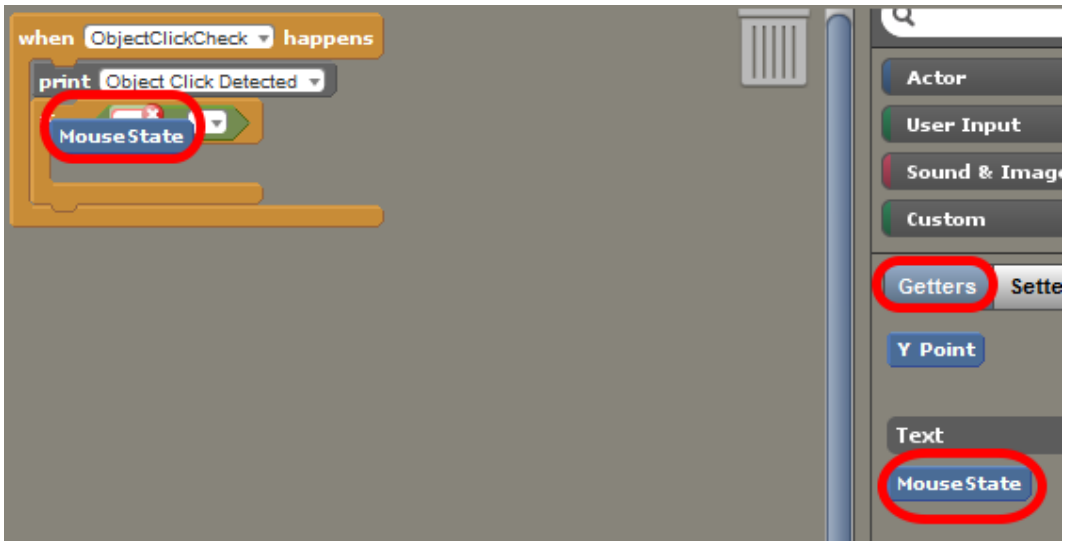

when created
set Health to Max Health
set Can Be Hurt to
Booleans (Yes/No)
Comparison
User Input
Basics
Booleans (Yes/No)
true
false
Literal true value.
Actor
User Input

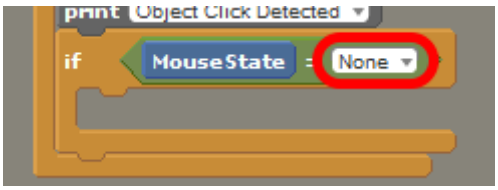
when created
set Health to Max Health
set Can Be Hurt to true
set Draw Lasso to false
set Mouse Over to false
set MouseState to None
make Self always active
Actor
Flow
User Input
Numbers & Text
Sound & Images
Behavior
Custom
Extensions
Position
Motion
Properties
Draw
Misc
make Self always active
enable continuous collision detection for Self


+ Add Event
Created
Updated
Obj Click Check
when ObjectClickCheck happens
print Object Click Detected

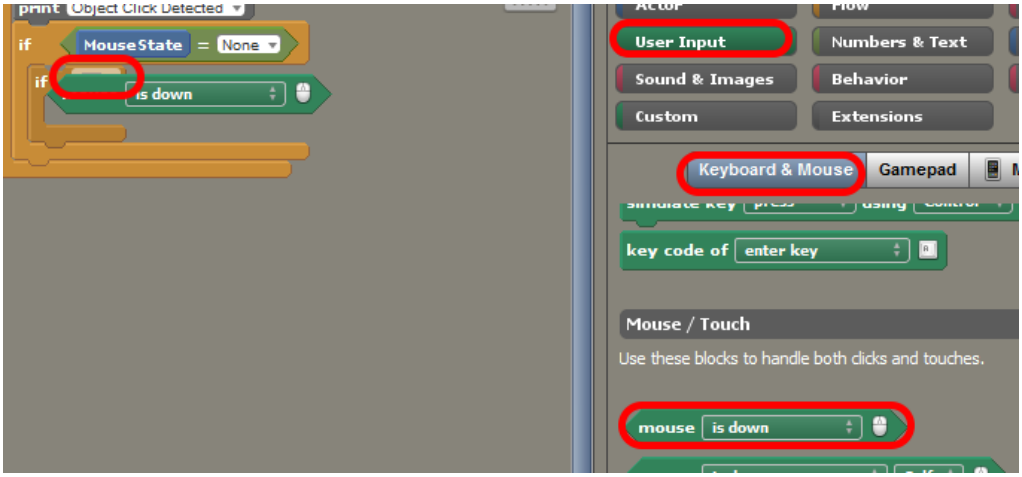
+ Add Event
Created
Updated
Obj Click Check
Handle Dir Clicks
when ObjectClickCheck happens
if
Actor
Flow
User Input
Sound & Images
Behavior
Custom
Extensions
Conditions
Loops
Time
Debug
Conditionals
if
otherwise
otherwise if

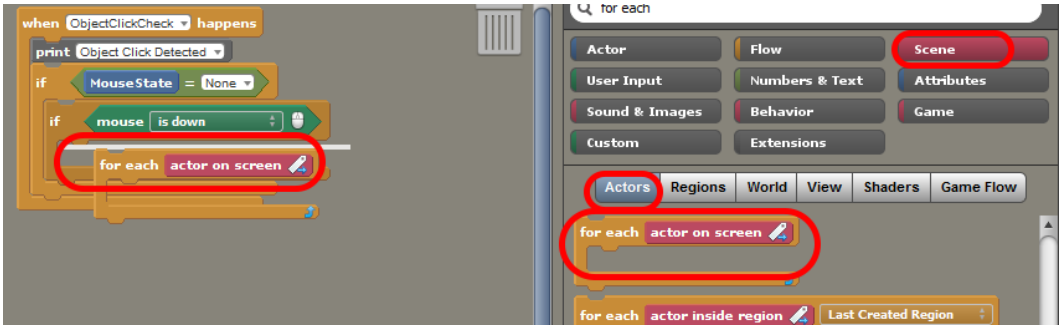
when ObjectClickCheck happens
print Object Click Detected
if
Actor
Flow
User Input
Numbers
Sound & Images
Behavior
Custom
Extension
Conditions
Loops
and
or
true
false
anything as boolean
Equality
anything = anything

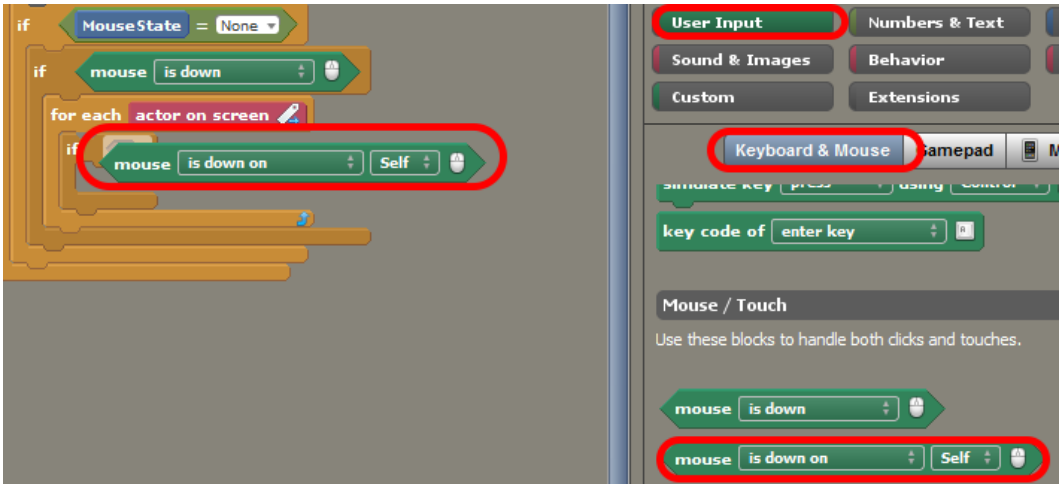

when ObjectClickCheck happens
print Object Click Detected
MouseState
Actor
User Input
Custom
Getters
Y Point
Text
MouseState

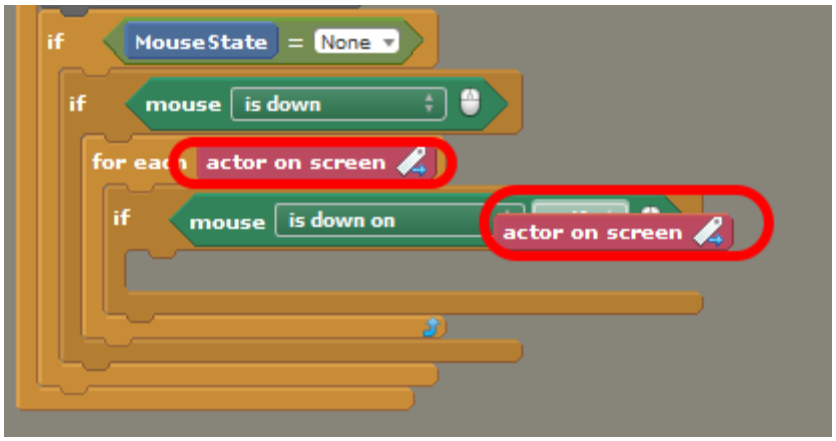

print Object Click Detected
if
MouseState
None

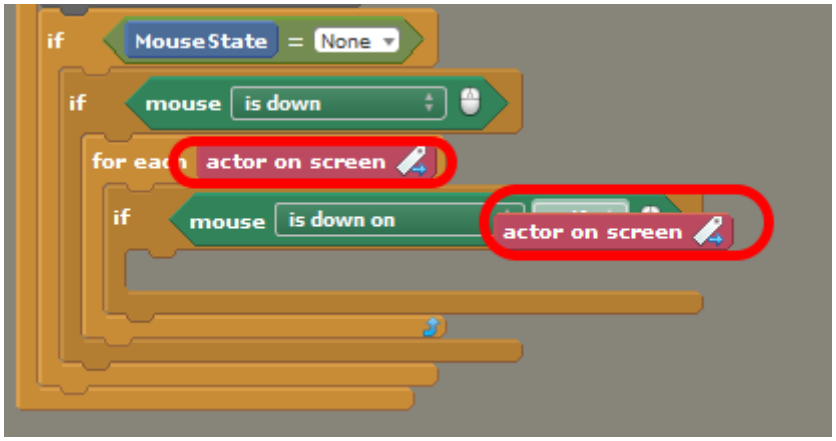
print Object Click Detected
if
None
if

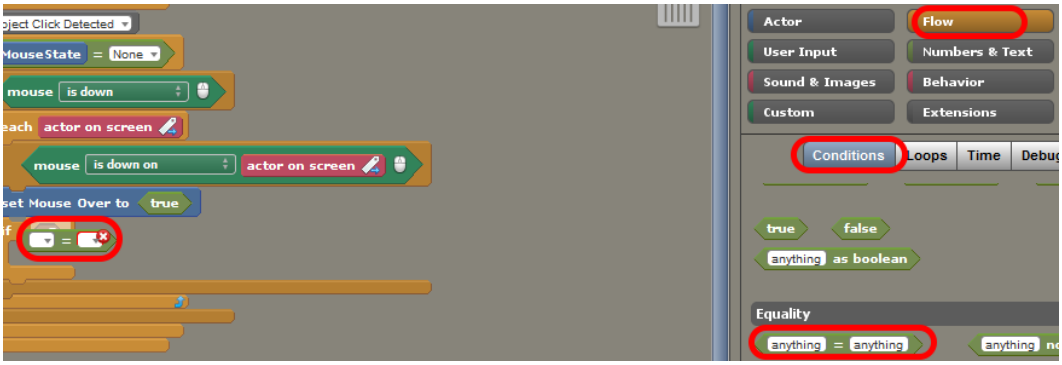

print Object Click Detected
if MouseState = None
if
is down
User Input
Numbers & Text
Sound & Images
Behavior
Custom
Extensions
Keyboard & Mouse
Gamepad
key code of enter key
Mouse / Touch
Use these blocks to handle both clicks and touches.
mouse is down

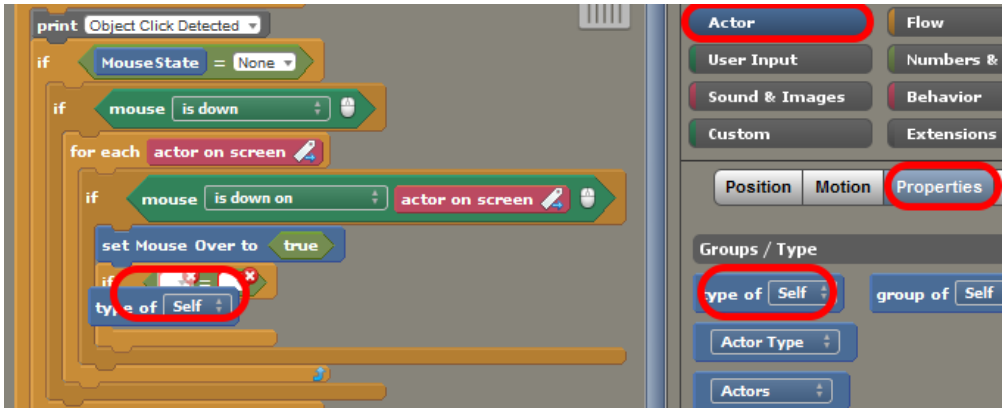

when ObjectClickCheck happens
print Object Click Detected
if MouseState = None
if mouse is down
for each actor on screen
for each
Actor
Flow
Scene
User Input
Numbers & Text
Attributes
Sound & Images
Behavior
Game
Custom
Extensions
Actors
Regions
World
View
Shaders
Game Flow
for each actor on screen
for each actor inside region
Last Created Region


if MouseState = None
if mouse is down
for each actor on screen
if
mouse is down on Self
User Input
Numbers & Text
Sound & Images
Behavior
Custom
Extensions
Keyboard & Mouse
Gamepad
key code of enter key
Mouse / Touch
Use these blocks to handle both clicks and touches.
mouse is down
mouse is down on Self


if
MouseState = None
if
mouse is down
for each actor on screen
if
mouse is down on
actor on screen

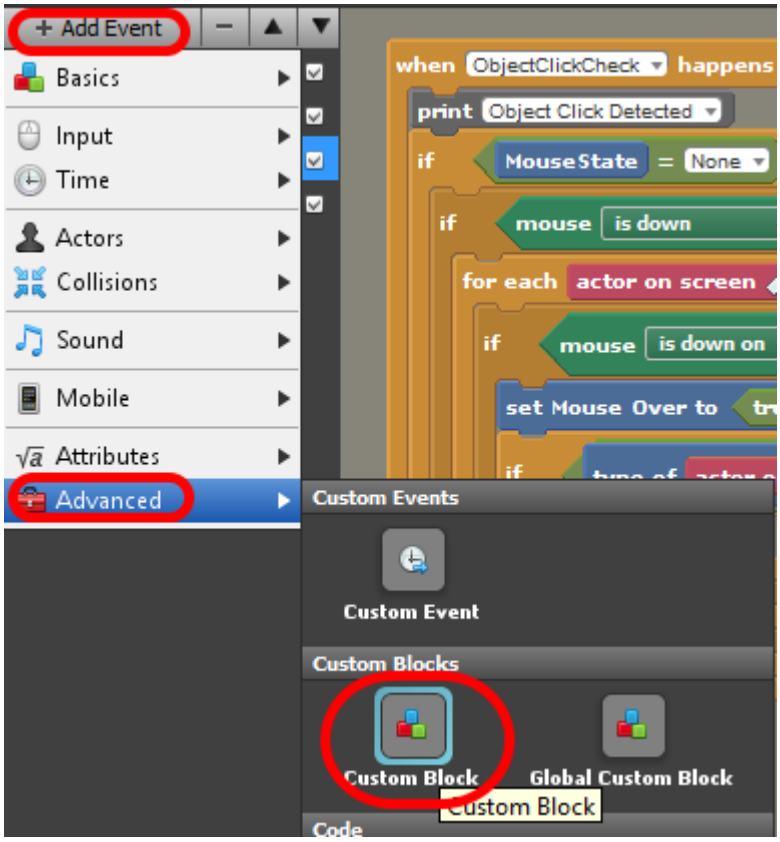

if
MouseState = None
if
mouse is down
for each actor on screen
if
mouse is down on
actor on screen

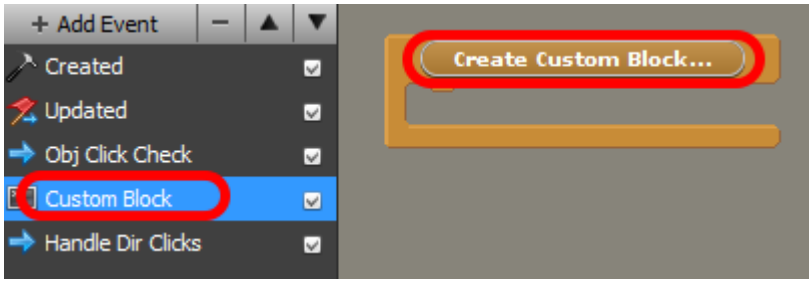

Actor
Flow
User Input
Numbers & Text
Sound & Images
Behavior
Custom
Extensions
Conditions
Loops
Time
true
false
anything as boolean
Equality
anything = anything

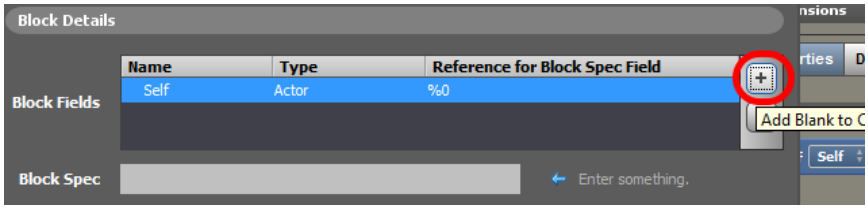

print Object Click Detected
if MouseState = None
if mouse is down
for each actor on screen
if mouse is down on actor on screen
set Mouse Over to true
Self
Actor
Flow
User Input
Numbers &
Sound & Images
Behavior
Custom
Extensions
Position
Motion
Properties
Groups / Type
group of Self
Actor Type
Actors

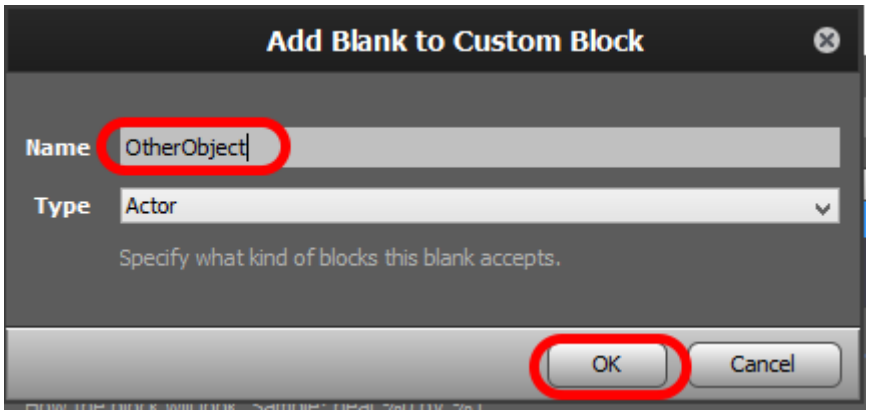
if mouse is down
for each actor on screen
if mouse is down on actor on screen
set Mouse Over to true
if Self =
actor on screen

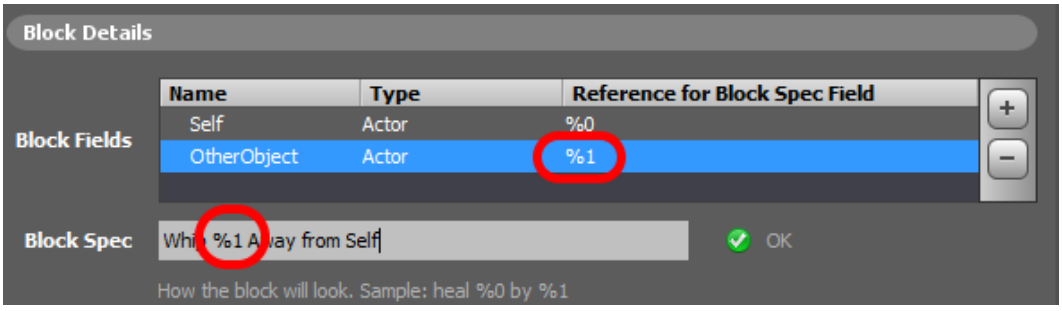
Choose an Actor Type
Actor Types
FROM THIS GAME
All
Balloon
Cowboy
Rock
OK
Cancel


+ Add Event
Basics
Input
Time
Actors
Collisions
Sound
Mobile
Attributes
Advanced
when ObjectClickCheck happens
print Object Click Detected
if MouseState = None
if mouse is down
for each actor on screen
if mouse is down on
set Mouse Over to
Custom Events
Custom Event
Custom Blocks
Custom Block
Global Custom Block
Custom Block
Code

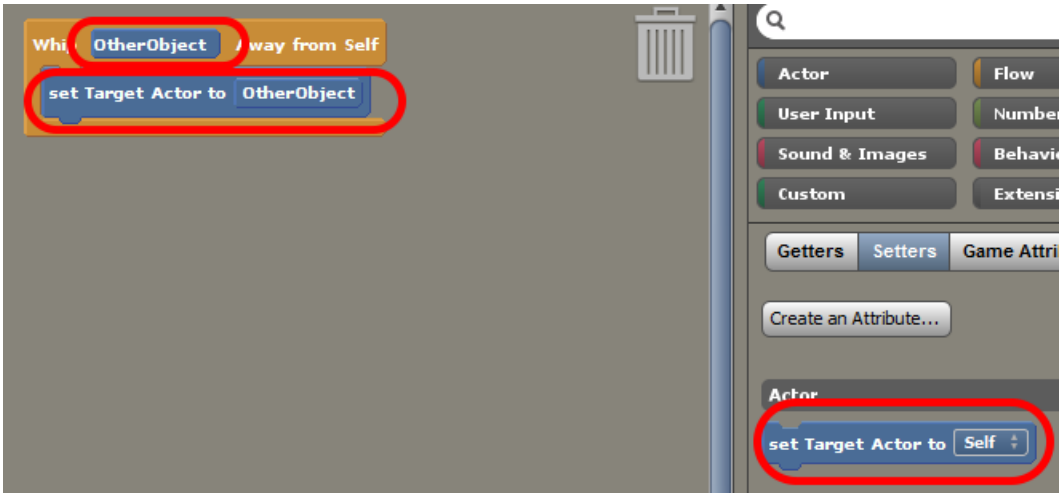

+ Add Event
Created
Updated
Obj Click Check
Custom Block
Handle Dir Clicks
Create Custom Block...

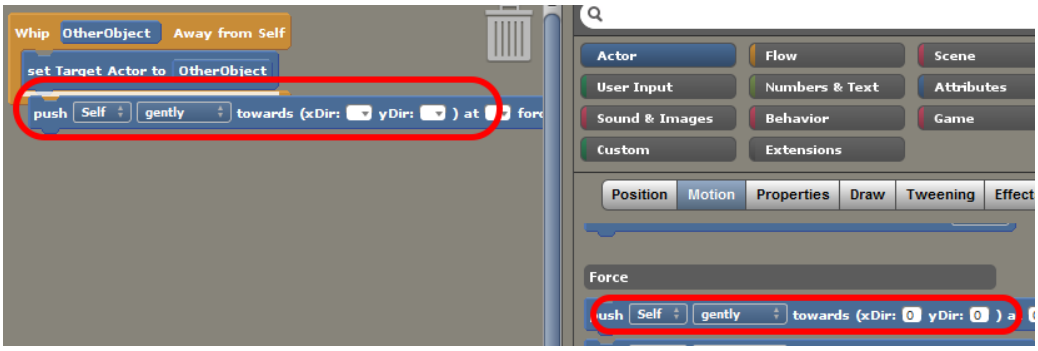

Block Details
Name
Type
Reference for Block Spec Field
Block Fields
Self
Actor
%0
Add Blank to C
Block Spec
Enter something.
Self

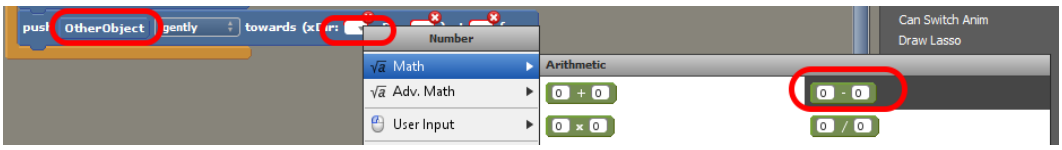

Add Blank to Custom Block
Name
OtherObject
Type
Actor
Specify what kind of blocks this blank accepts.
OK
Cancel

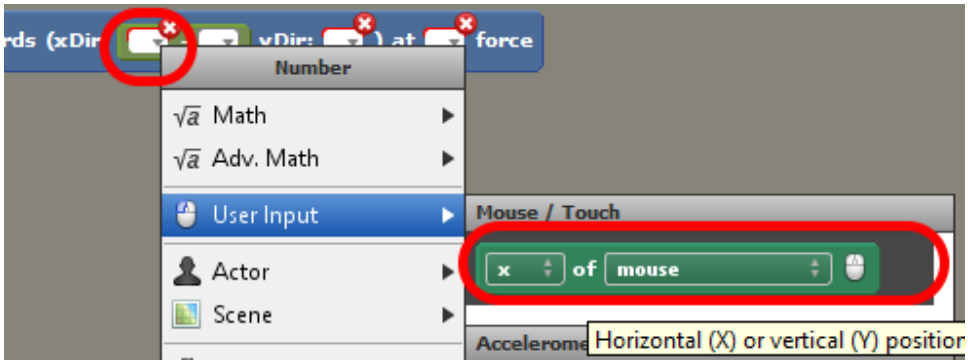

Block Details
Name
Type
Reference for Block Spec Field
Block Fields
Self
Actor
%0
OtherObject
Actor
%1
Block Spec
%1 Away from Self
OK
How the block will look. Sample: heal %0 by %1

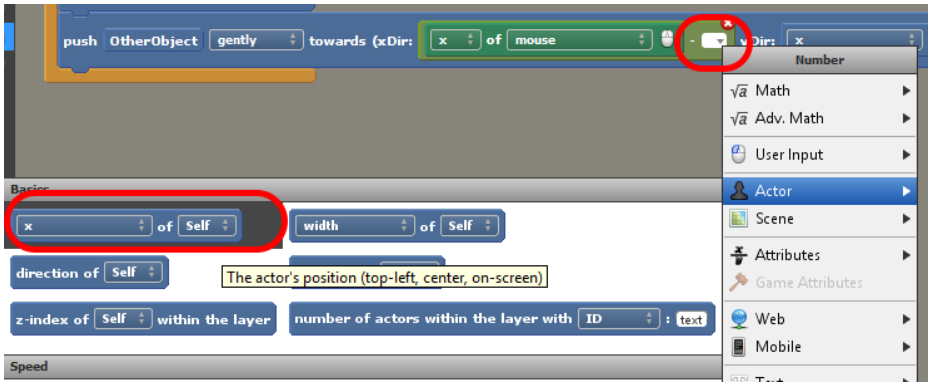
+ Add Event
Created
Updated
Obj Click Check
Custom Block
Handle Dir Clicks
Whip
OtherObject
Away from Self

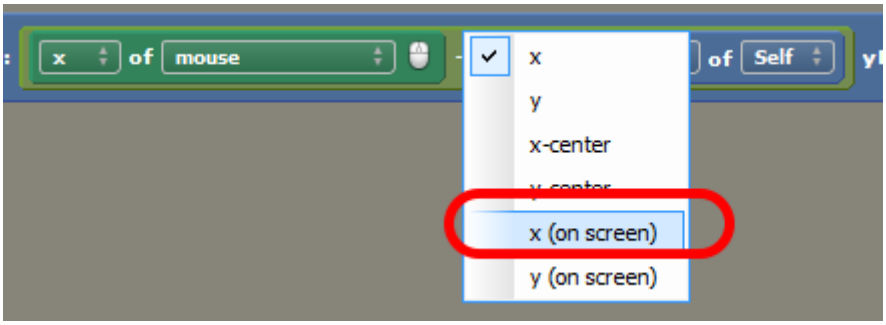

OtherObject
set Target Actor to OtherObject
Actor
Flow
User Input
Sound & Images
Custom
Getters
Setters
Create an Attribute...
set Target Actor to Self


Whip
OtherObject
Away from Self
set Target Actor to OtherObject
push
Self
gently
towards (xDir:
yDir:
Actor
Flow
Scene
User Input
Numbers & Text
Attributes
Sound & Images
Behavior
Game
Custom
Extensions
Position
Motion
Properties
Draw
Tweening
Force

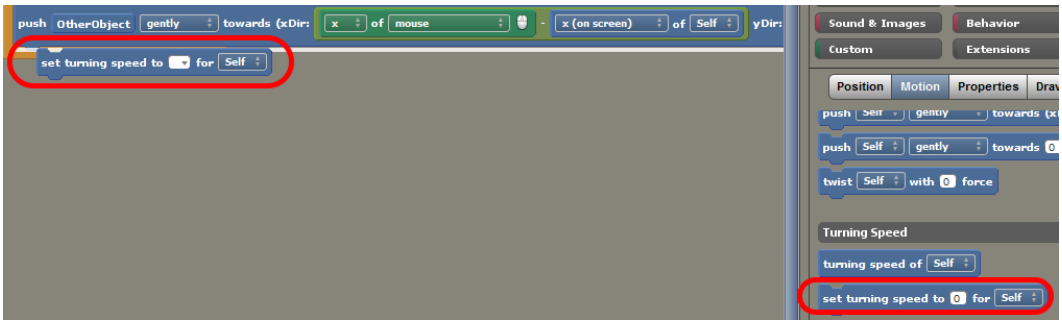

OtherObject
gently
towards
Number
Math
Adv. Math
User Input
Arithmetic
Can Switch Anim
Draw Lasso

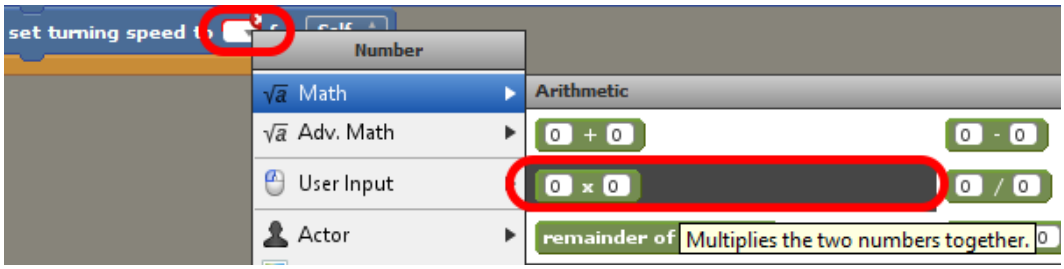

Number
Math
Adv. Math
User Input
Actor
Scene
Mouse / Touch
x of mouse
Horizontal (X) or vertical (Y) position

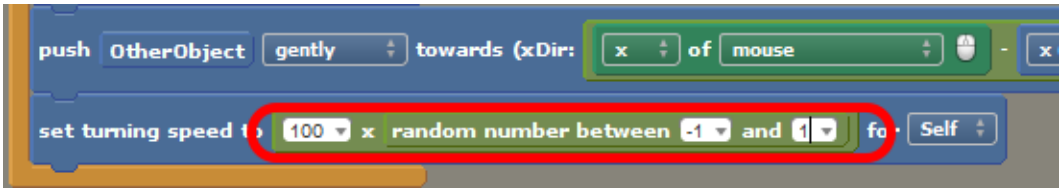

push OtherObject gently towards (xDir: x of mouse
Number
Math
Adv. Math
User Input
Actor
Scene
Attributes
Game Attributes
Web
Mobile
x of Self
width of Self
direction of Self
The actor's position (top-left, center, on-screen)
z-index of Self within the layer
number of actors within the layer with ID : text
Speed

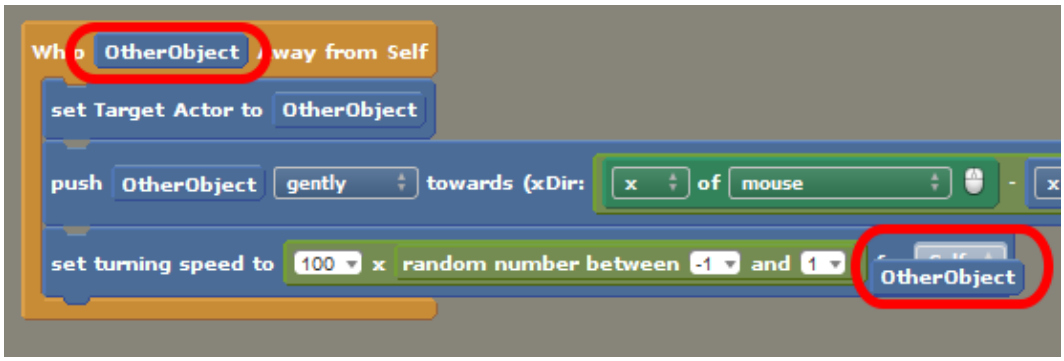

x of mouse
of Self
x
y
x-center
x (on screen)
y (on screen)

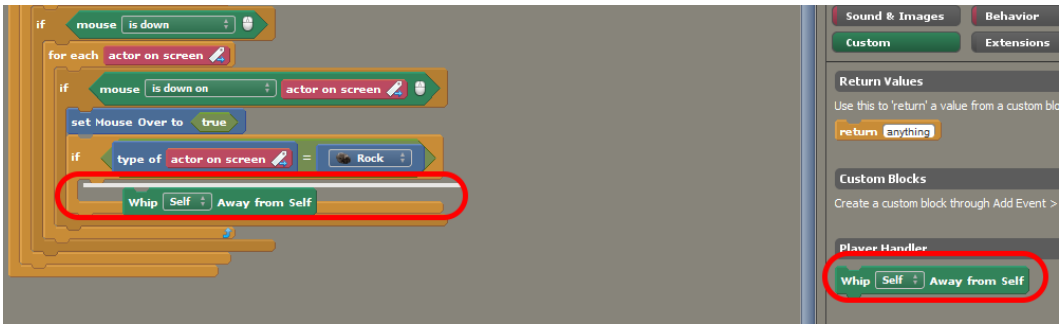
yDir
y of mouse
y (on screen) of Self
force

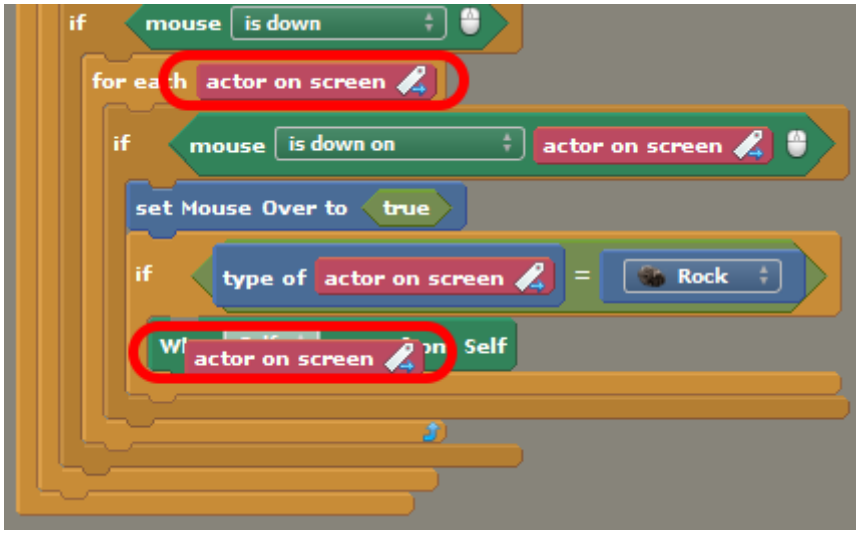

push OtherObject gently towards (xDir: x of mouse - x (on screen) of Self yDir:
set turning speed to for Self
Sound & Images
Behavior
Custom
Extensions
Position
Motion
Properties
push Self gently towards
twist Self with 0 force
Turning Speed
turning speed of Self
set turning speed to 0 for Self

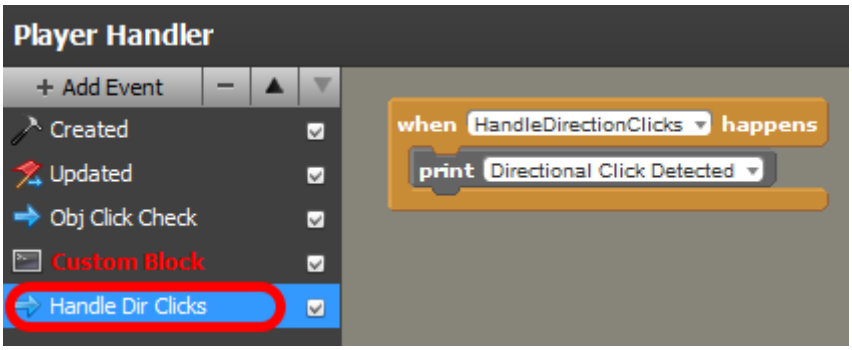

Number
Math
Adv. Math
User Input
Actor
Arithmetic
0 + 0
0 - 0
0 x 0
0 / 0
remainder of
Multiplies the two numbers together.

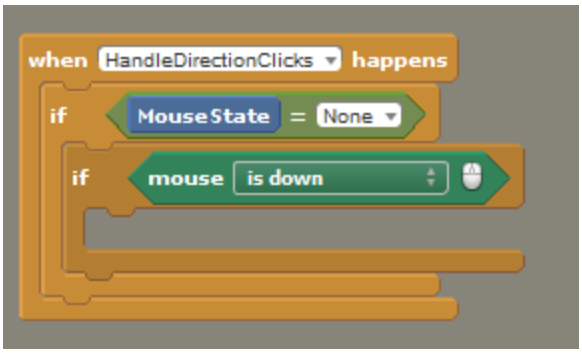

push OtherObject gently towards (xDir: x of mouse
set turning speed to 100 x random number between -1 and 1 Self

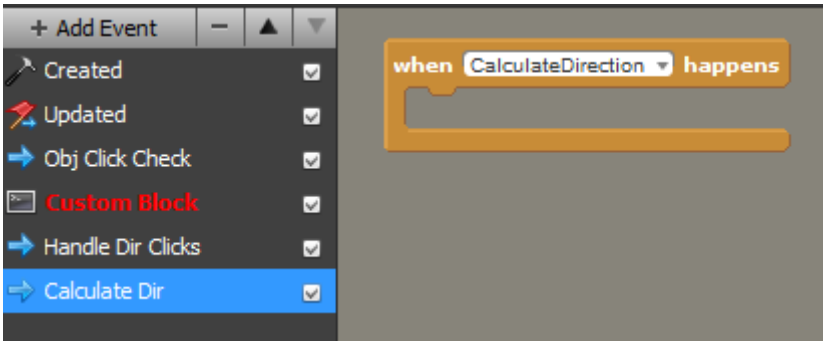

OtherObject
way from Self
set Target Actor to OtherObject
push OtherObject gently towards (xDir: x of mouse
set turning speed to 100 x random number between -1 and 1
OtherObject


if mouse is down
for each actor on screen
if mouse is down on actor on screen
set Mouse Over to true
if type of actor on screen = Rock
Whip Self Away from Self
Sound & Images
Behavior
Custom
Extensions
Return Values
Use this to 'return' a value from a custom blo
return anything
Custom Blocks
Create a custom block through Add Event >
Player Handler
Whip Self Away from Self


if mouse is down
for each actor on screen
if mouse is down on actor on screen
set Mouse Over to true
if type of actor on screen = Rock
actor on screen
Self


Player Handler
+ Add Event
Created
Updated
Obj Click Check
Custom Block
Handle Dir Clicks
when HandleDirectionClicks happens
print Directional Click Detected

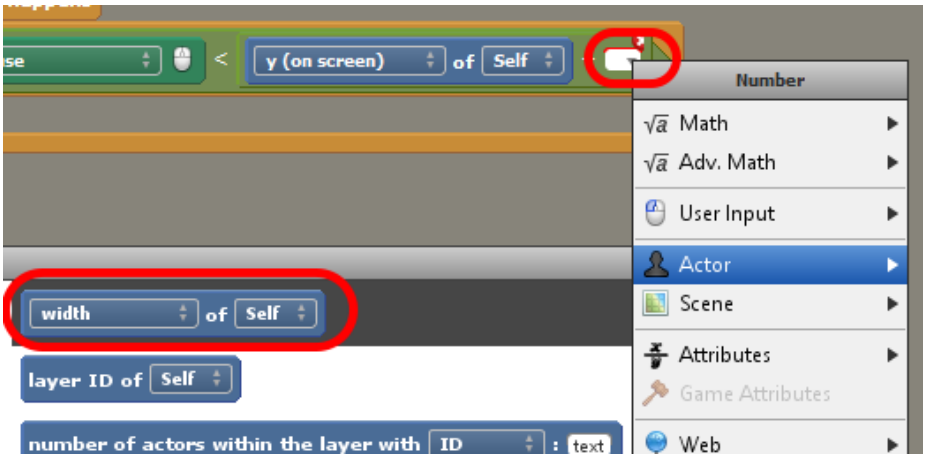

when HandleDirectionClicks happens
if
MouseState = None
if
mouse is down

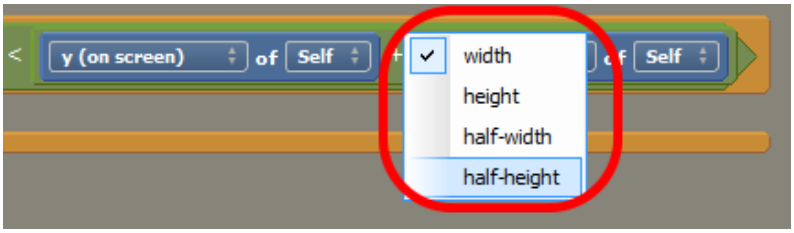

+ Add Event
Created
Updated
Obj Click Check
Custom Block
Handle Dir Clicks
Calculate Dir
when CalculateDirection happens

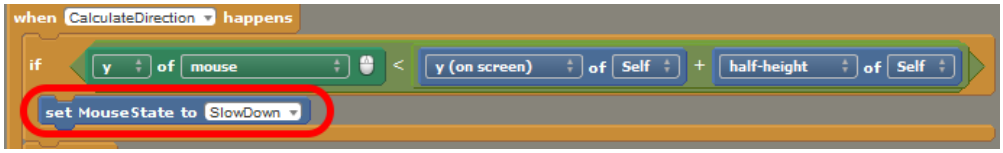
when CalculateDirection happens
if
otherwise
if
otherwise if
otherwise if

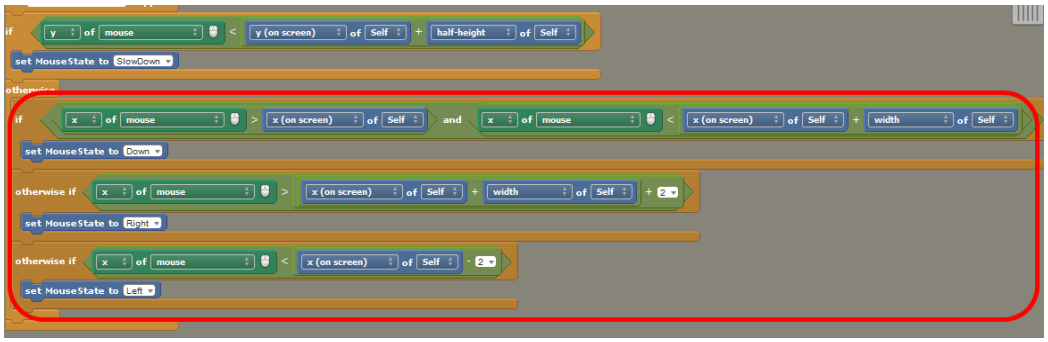
when CalculateDirection happens
if
Booleans (Yes/No)
Comparison
User Input
Basics
Actor
Game Flow
Attributes
Game Attributes
Web
Mobile
Favorites
Booleans (Yes/No)
true
false
Equality
anything = anything
anything not = anything
Operators
and
or
not
Inequality
0 < 0
0 <= 0

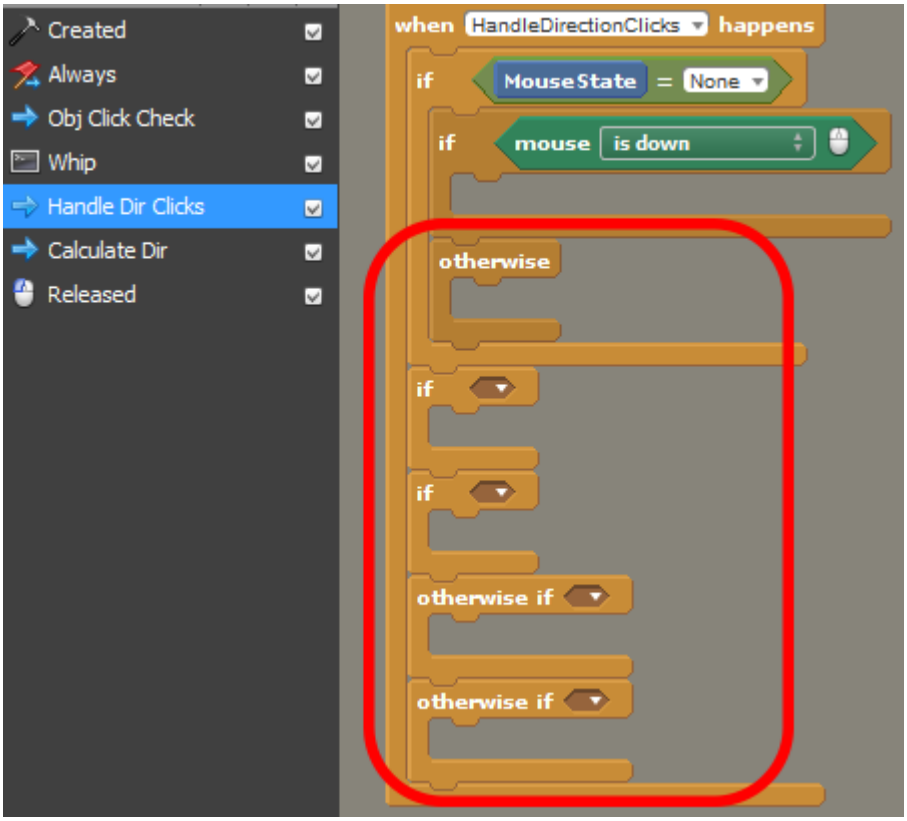
when CalculateDirection happens
if
y of mouse
<
+


y (on screen) of Self
width of Self
layer ID of Self
number of actors within the layer with ID : text
Number
Math
Adv. Math
User Input
Actor
Scene
Attributes
Game Attributes
Web

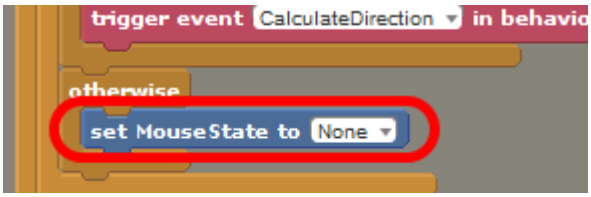

y (on screen) of Self
Self
width
height
half-width
half-height

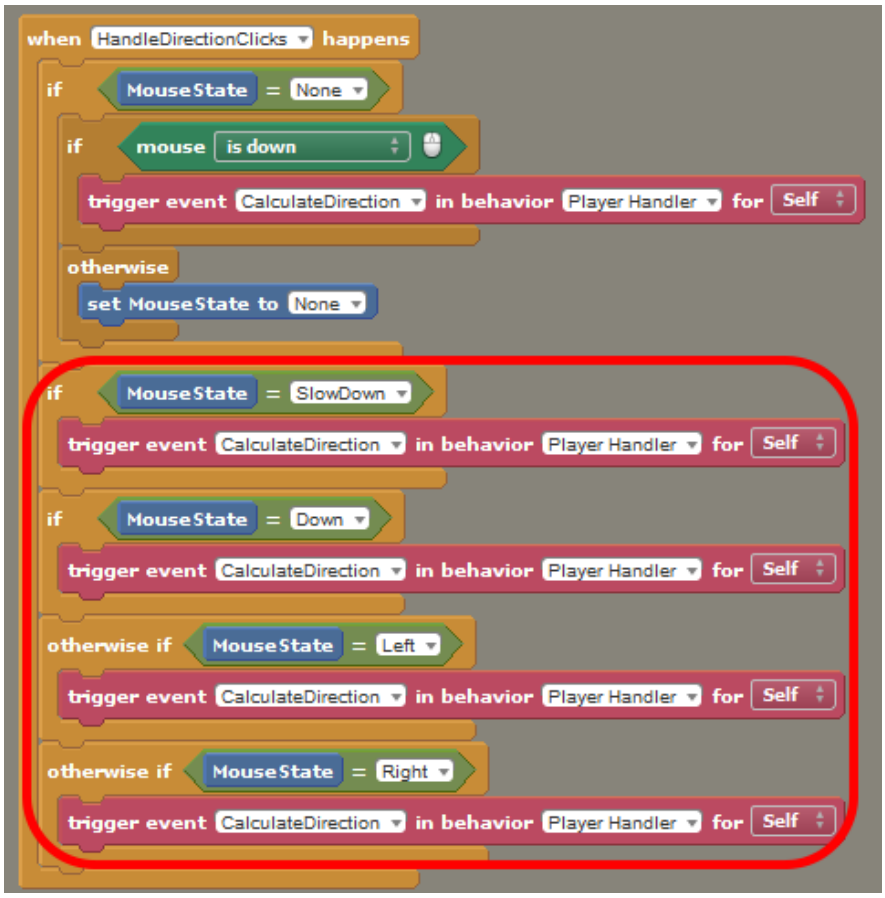

when CalculateDirection happens
if y of mouse < y (on screen) of Self + half-height of Self
set MouseState to SlowDown


if y of mouse < y (on screen) of Self + half-height of Self
set MouseState to SlowDown
if x of mouse > x (on screen) of Self and x of mouse < x (on screen) of Self + width of Self
set MouseState to Down
otherwise if x of mouse > x (on screen) of Self + width of Self + 2
set MouseState to Right
otherwise if x of mouse < x (on screen) of Self - 2
set MouseState to Left


Created
Always
Obj Click Check
Whip
Handle Dir Clicks
Calculate Dir
Released
when HandleDirectionClicks happens
if MouseState = None
if mouse is down
otherwise
if
if
otherwise if
otherwise if

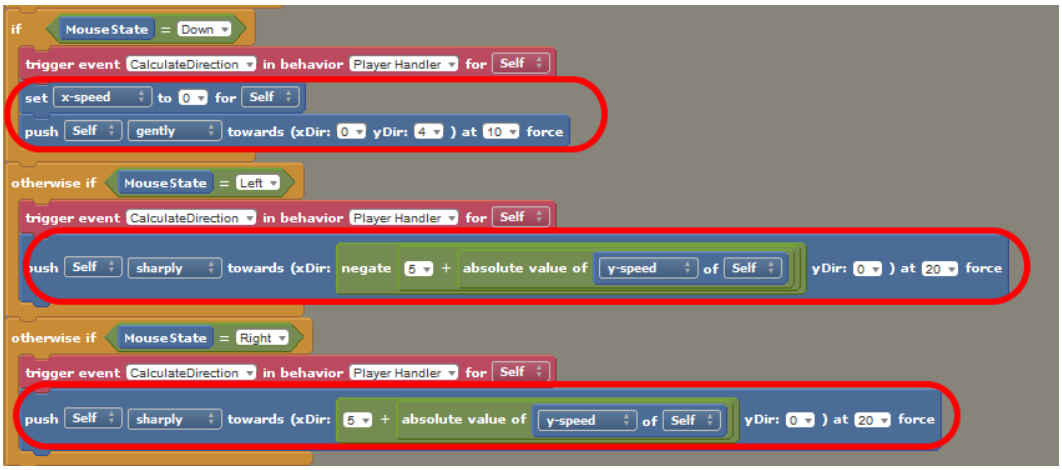
if
MouseState = None
if
mouse is down
trigger event CalculateDirection in behavior Player Handler for Self
otherwise

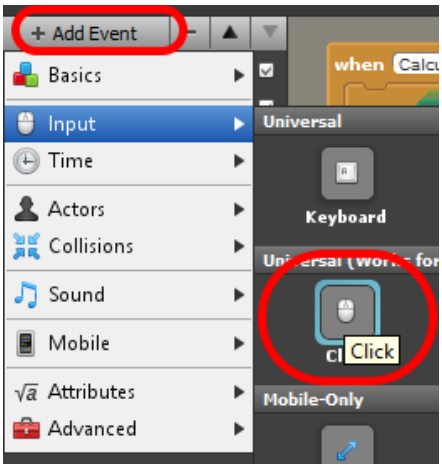

trigger event CalculateDirection in behavio
otherwise
set MouseState to None

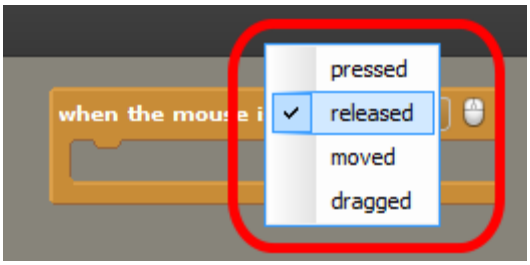

when HandleDirectionClicks happens
if
MouseState = None
if
mouse is down
trigger event CalculateDirection in behavior Player Handler for Self
otherwise
set MouseState to None
if
MouseState = SlowDown
trigger event CalculateDirection in behavior Player Handler for Self
if
MouseState = Down
trigger event CalculateDirection in behavior Player Handler for Self
otherwise if
MouseState = Left
trigger event CalculateDirection in behavior Player Handler for Self
otherwise if
MouseState = Right
trigger event CalculateDirection in behavior Player Handler for Self

if
MouseState = SlowDown
trigger event CalculateDirection in behavior Player Handler for Self
if
y-speed of Self > 3

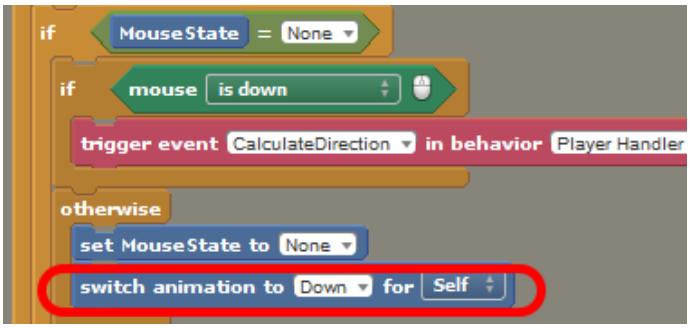
if
y-speed of Self > 3
set y-speed to y-speed of Self - 0.1 for Self


if MouseState = Down
trigger event CalculateDirection in behavior Player Handler for Self
set x-speed to 0 for Self
push Self gently towards (xDir: 0 yDir: 4) at 10 force
otherwise if MouseState = Left
trigger event CalculateDirection in behavior Player Handler for Self
push Self sharply towards (xDir: negate 5 + absolute value of y-speed of Self yDir: 0) at 20 force
otherwise if MouseState = Right
trigger event CalculateDirection in behavior Player Handler for Self
push Self sharply towards (xDir: 5 + absolute value of y-speed of Self yDir: 0) at 20 force

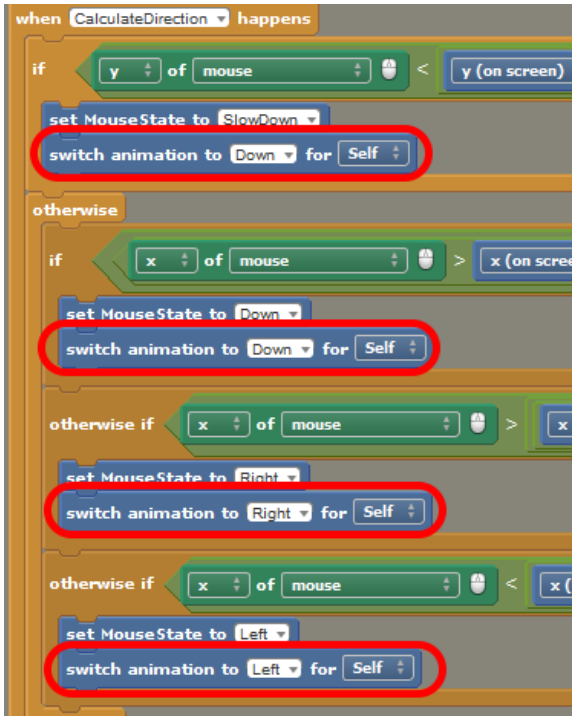

+ Add Event
Basics
Input
Time
Actors
Collisions
Sound
Mobile
Attributes
Advanced
when
Universal
Keyboard
Click
Mobile-Only


when the mous
pressed
released
moved
dragged

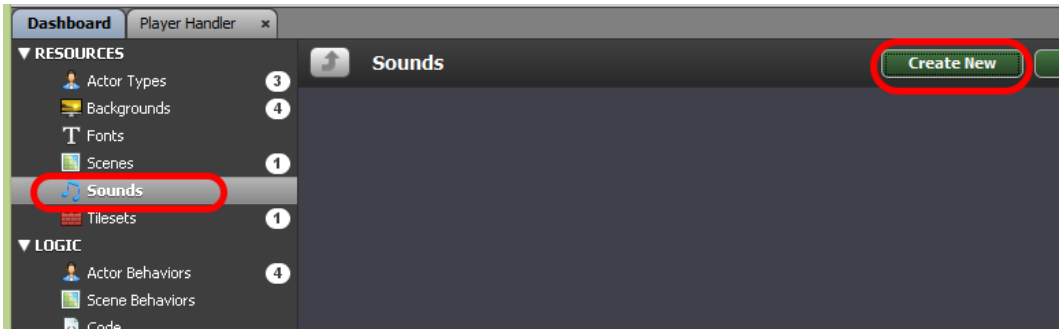
when the mouse is
released
set MouseState to
None

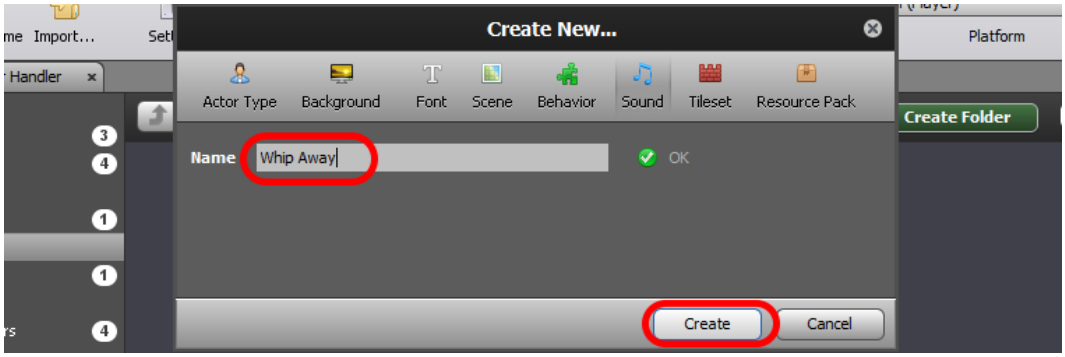

if
MouseState
=
None
if
mouse
is down
trigger event
CalculateDirection
in behavior
Player Handler
otherwise
set MouseState to
None
switch animation to
Down
for
Self

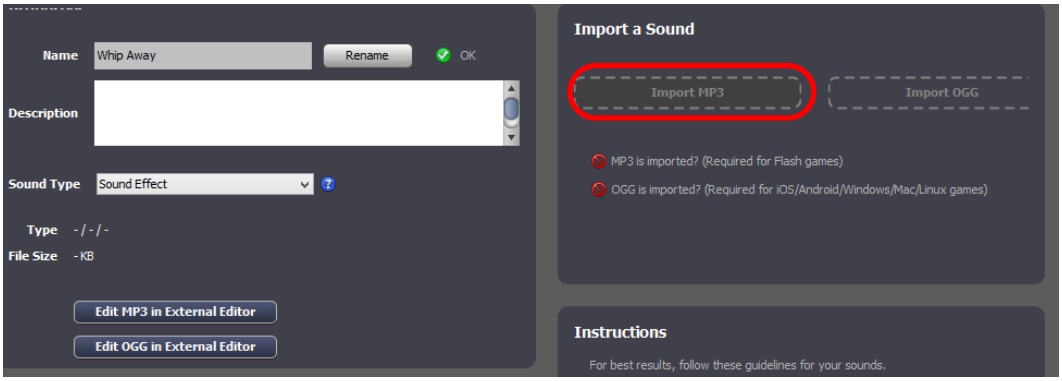
when the mouse is
released
set MouseState to
None
switch animation to
Down
for
Self


when CalculateDirection happens
if y of mouse < y (on screen)
set MouseState to SlowDown
switch animation to Down for Self
otherwise
if x of mouse > x (on scre
set MouseState to Down
switch animation to Down for Self
otherwise if x of mouse >
set MouseState to Right
switch animation to Right for Self
otherwise if x of mouse <
set MouseState to Left
switch animation to Left for Self

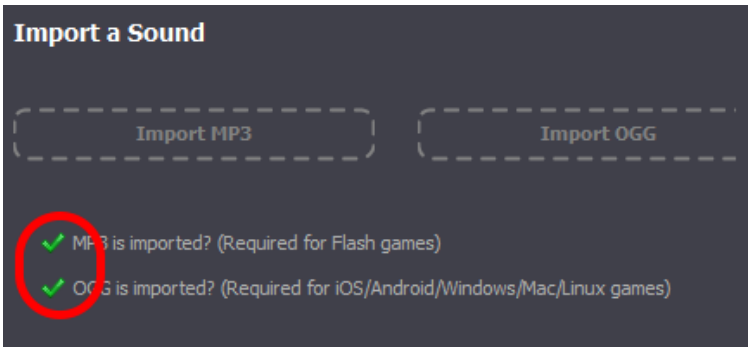
Chapter 8: Adding Sound FX and Music

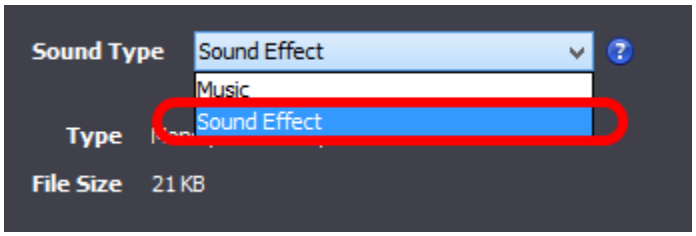




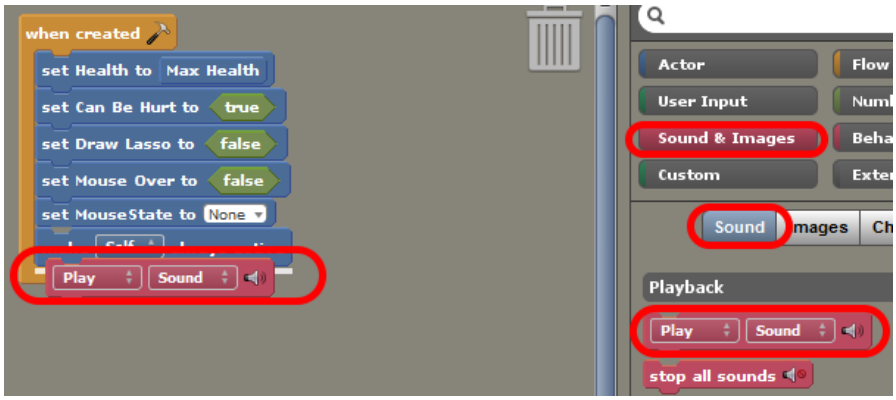


Import a Sound
Import MP3
Import OGG

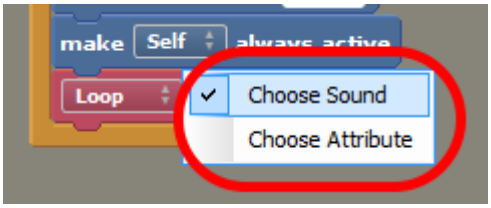

Import a Sound
Import MP3
Import OGG
is imported? (Required for Flash games)
is imported? (Required for iOS/Android/Windows/Mac/Linux games)

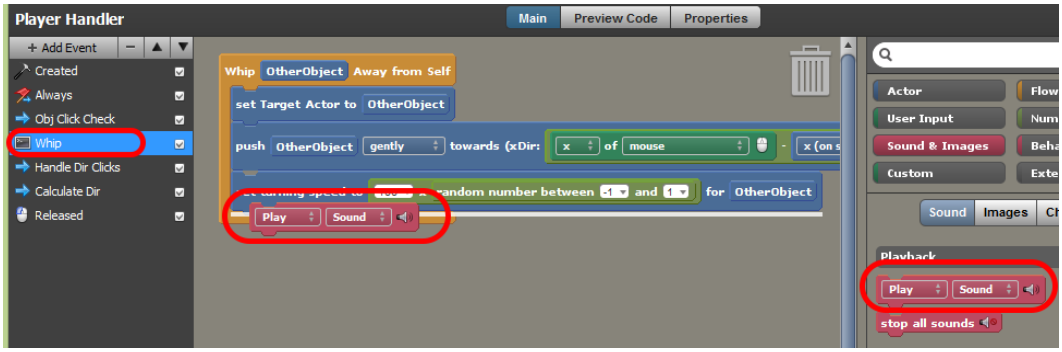

Sound Type
Sound Effect
Music
Sound Effect
Type
File Size
21 KB

Dashboard
Player Handler
Whip Away*
Player Handler
+ Add Event
Created
Always
Obj Click Check
Whip
Handle Dir Clicks
Calculate Dir
Released
when created
set Health to Max Health
set Can Be Hurt to true
set Draw Lasso to false
set Mouse Over to false
set MouseState to None
make Self always active

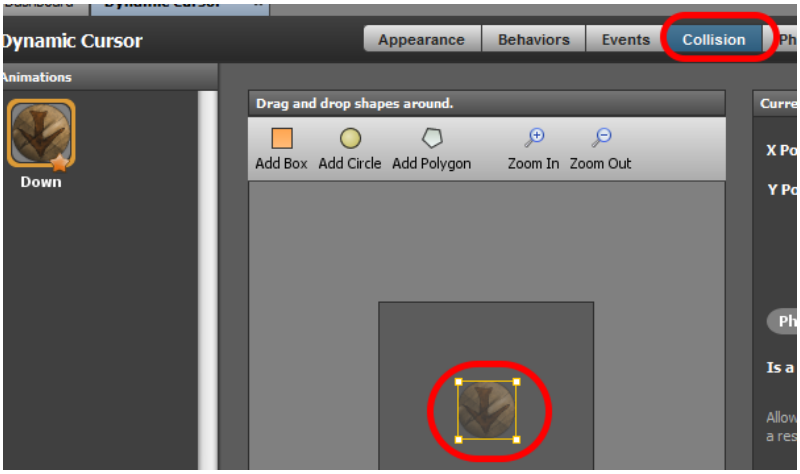

when created
set Health to Max Health
set Can Be Hurt to true
set Draw Lasso to false
set Mouse Over to false
set MouseState to None
Play
Sound
Actor
User Input
Sound & Images
Custom
Sound
Playback
Play
Sound
stop all sounds

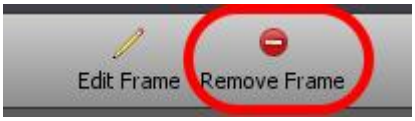
always active
Play
Loop
Sound

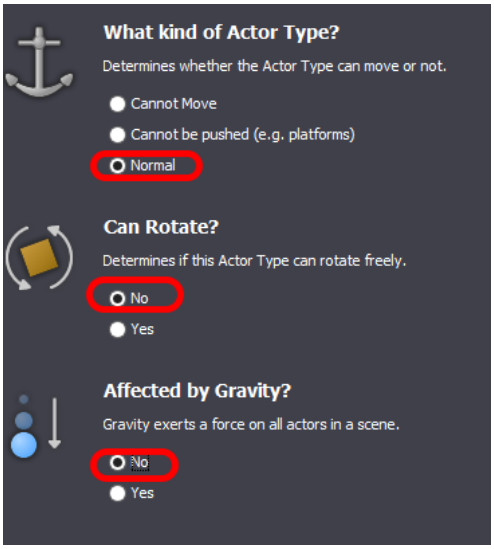

make
Self
Loop
Choose Sound
Choose Attribute

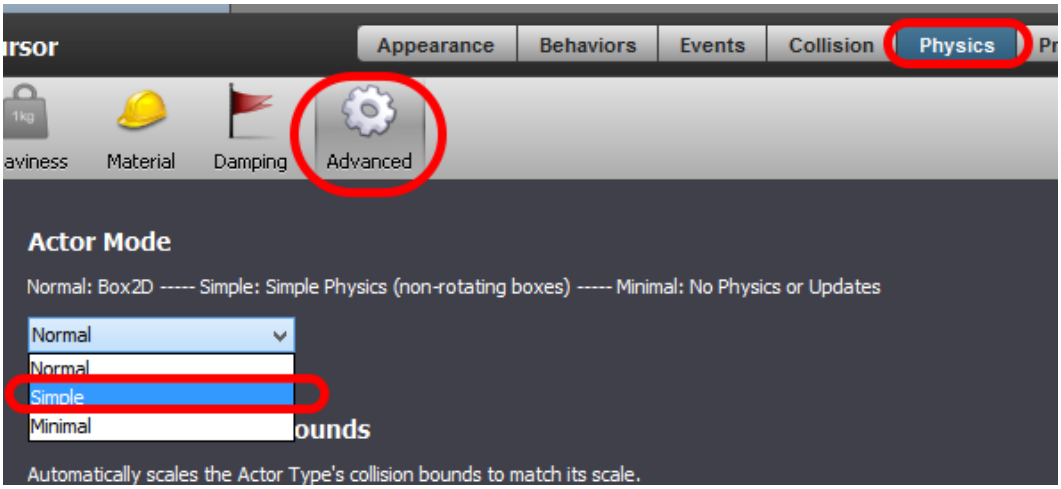

Player Handler
Main
Preview Code
Properties
+ Add Event
Created
Always
Obj Click Check
Whip
Handle Dir Clicks
Calculate Dir
Released
Whip OtherObject Away from Self
set Target Actor to OtherObject
push OtherObject gently towards (xDir:
of mouse
random number between
and
for OtherObject
Play
Sound
Actor
User Input
Sound & Images
Custom
Sound
Images
Playback
Play
Sound
stop all sounds

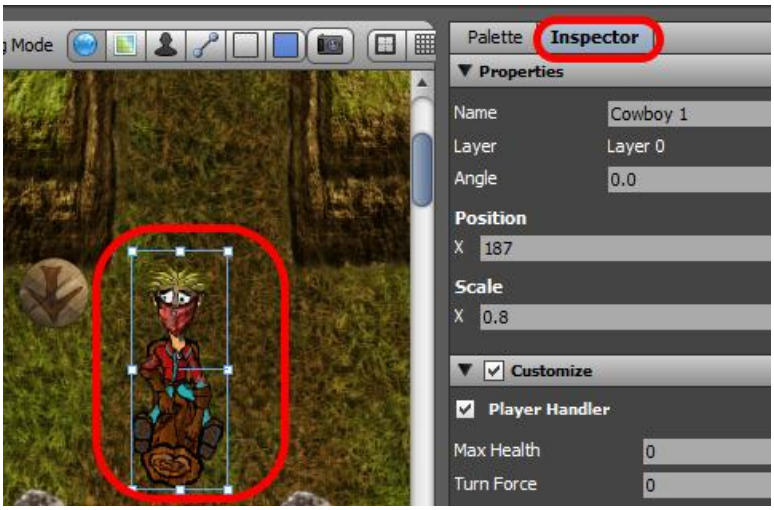
Chapter 9: Adding HUD Elements

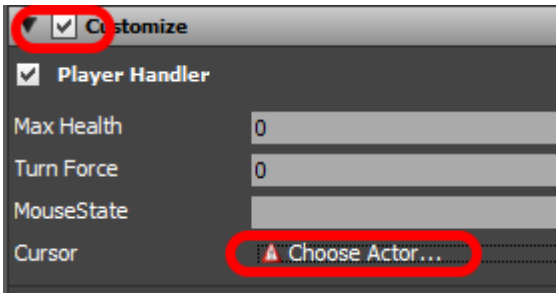


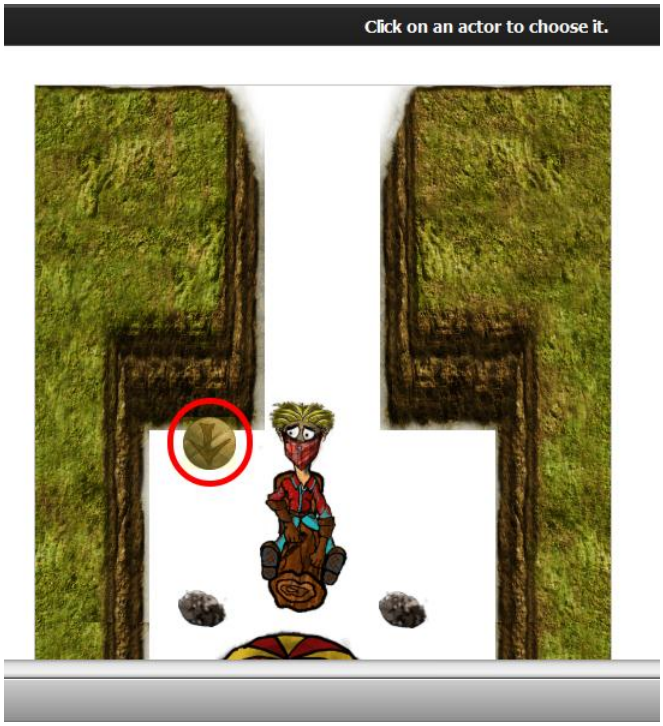


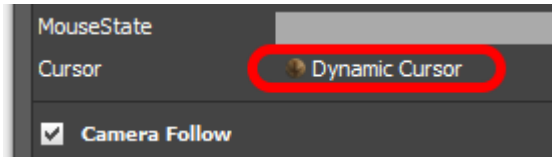



Appearance
Behaviors
Events
Collision
Physics
Material
Damping
Advanced
Actor Mode
Normal: Box2D ----- Simple: Simple Physics (non-rotating boxes) ----- Minimal: No Physics or Updates
Normal
Normal
Simple
Minimal
Automatically scales the Actor Type's collision bounds to match its scale.

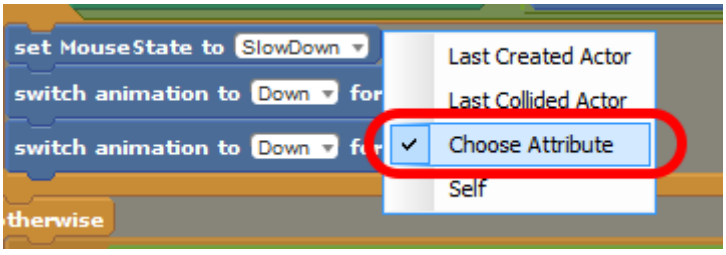

Palette
Inspector
Properties
Name
Cowboy 1
Layer
Layer 0
Angle
0.0
Position
X
187
Scale
X
0.8
Customize
Player Handler
Max Health
0
Turn Force
0

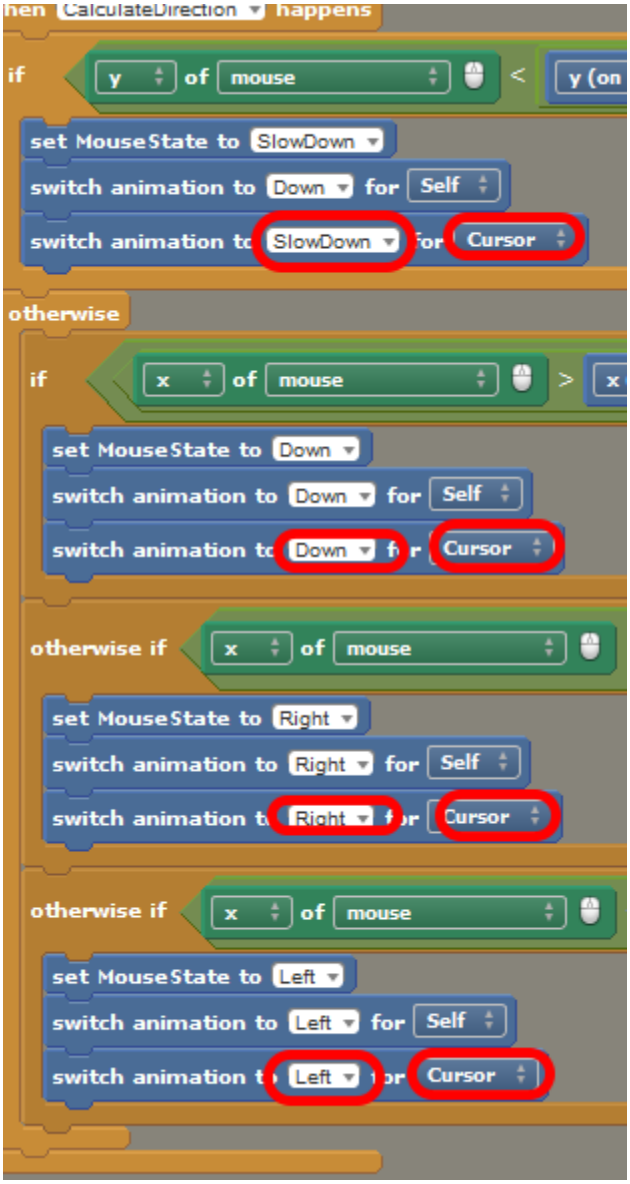

Player Handler
Max Health
0
Turn Force
0
MouseState
Cursor
Choose Actor...

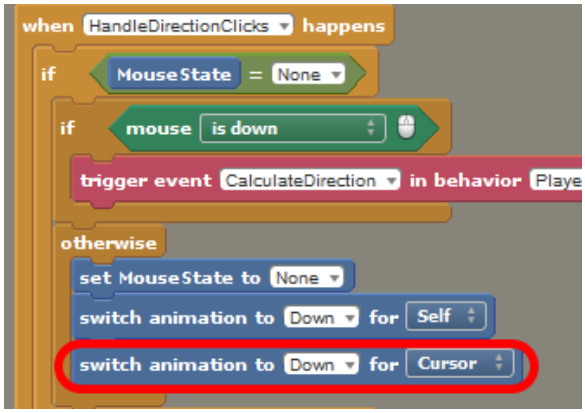

Click on an actor to choose it.

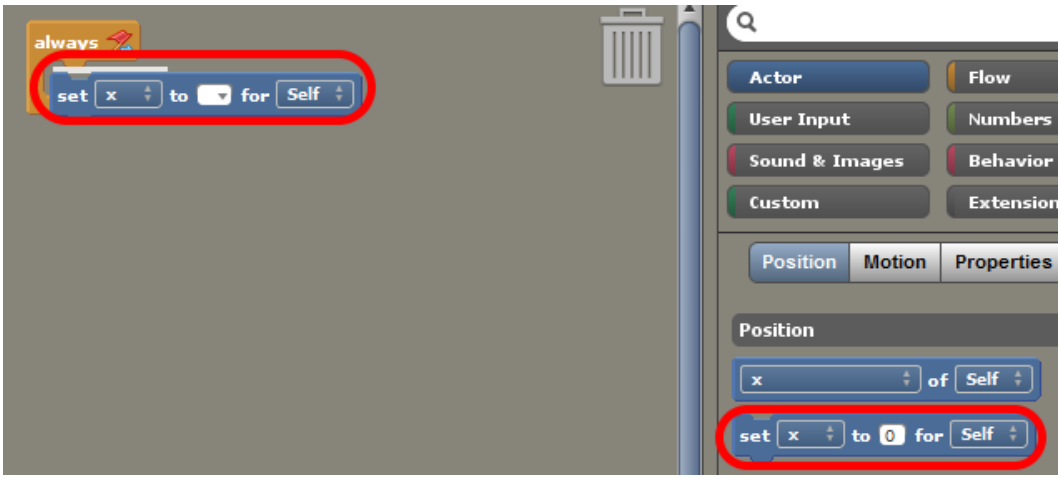

MouseState
Cursor
Dynamic Cursor
Camera Follow

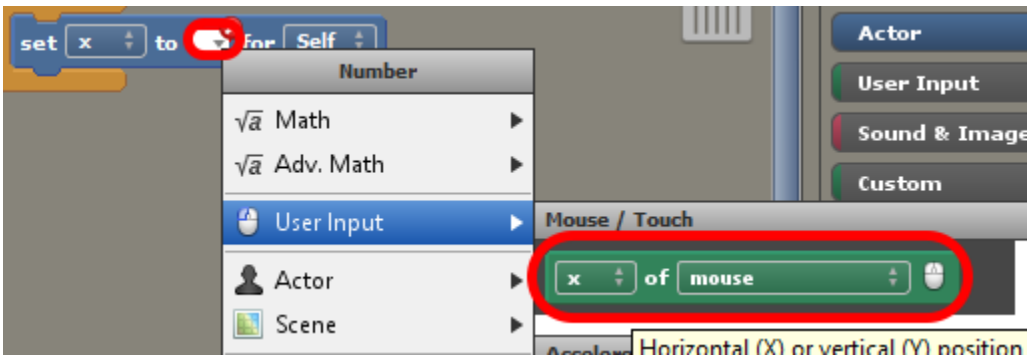
when CalculateDirection happens
if
y
of
mouse
<
y (on screen)
set MouseState to SlowDown
switch animation to Down for Self
switch animation to Down for Self

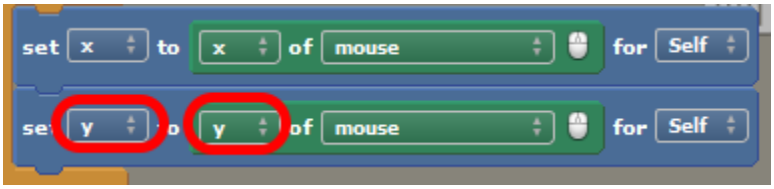

set MouseState to SlowDown
switch animation to Down for
switch animation to Down
Last Created Actor
Last Collided Actor
Choose Attribute
Self
otherwise


hen CalculateDirection happens
if y of mouse < y (on
set MouseState to SlowDown
switch animation to Down for Self
switch animation to SlowDown for Cursor
otherwise
if x of mouse > x
set MouseState to Down
switch animation to Down for Self
switch animation to Down for Cursor
otherwise if x of mouse
set MouseState to Right
switch animation to Right for Self
switch animation to Right for Cursor
otherwise if x of mouse
set MouseState to Left
switch animation to Left for Self
switch animation to Left for Cursor

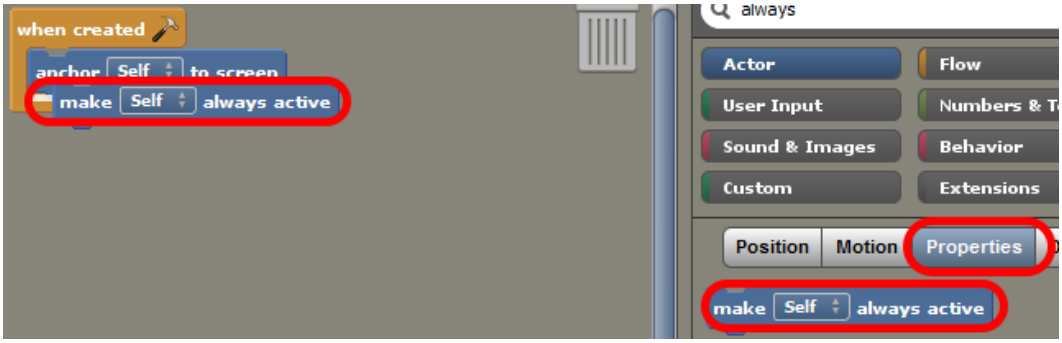

when HandleDirectionClicks happens
if MouseState = None
if mouse is down
trigger event CalculateDirection in behavior Playe
otherwise
set MouseState to None
switch animation to Down for Self
switch animation to Down for Cursor

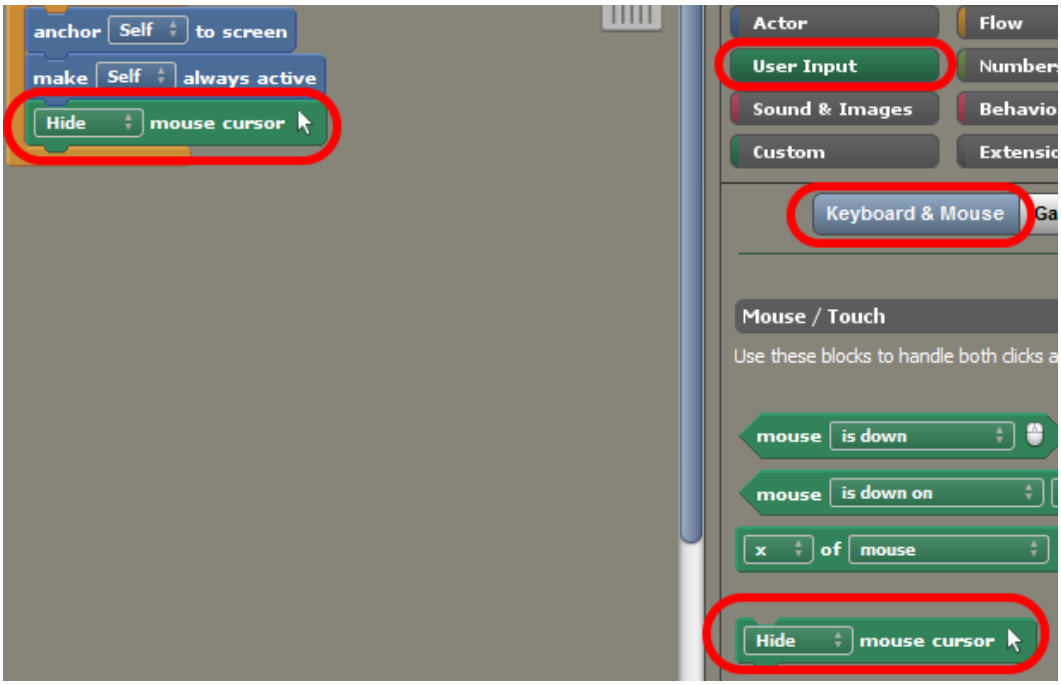

always
set x to for Self
Actor
Flow
User Input
Numbers
Sound & Images
Behavior
Custom
Extension
Position
Motion
Properties
Position
x of Self
set x to 0 for Self


set x to for Self
Number
Math
Adv. Math
User Input
Actor
Scene
Mouse / Touch
x of mouse
Actor
User Input
Sound & Image
Custom
Horizontal (X) or vertical (Y) position

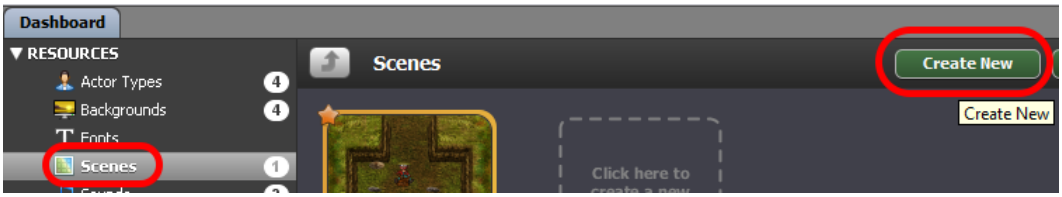

set x to x of mouse for Self
y to y of mouse for Self

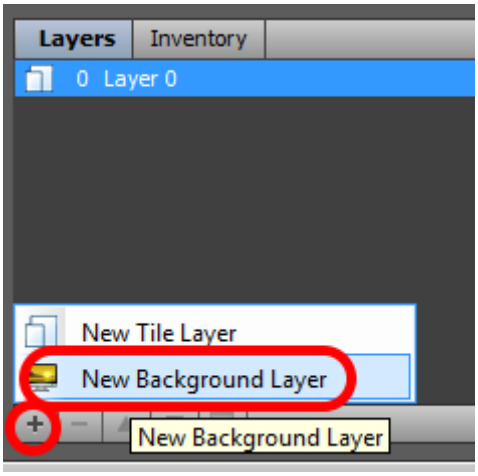
anchor Self to screen
anchor
Actor
Flow
User Input
Numbers & Text
Sound & Images
Behavior
Custom
Extensions
Position
Motion
Properties
Draw
Show sprite for Self
set opacity of Self to 0 %
opacity of Self
Anchoring
anchor Self to screen

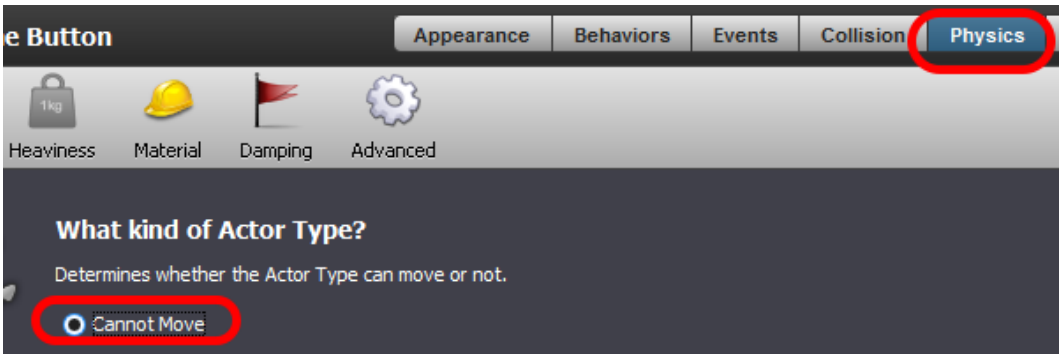

when created
anchor Self to screen
make Self always active
always
Actor
Flow
User Input
Sound & Images
Behavior
Custom
Extensions
Position
Motion
Properties
make Self always active

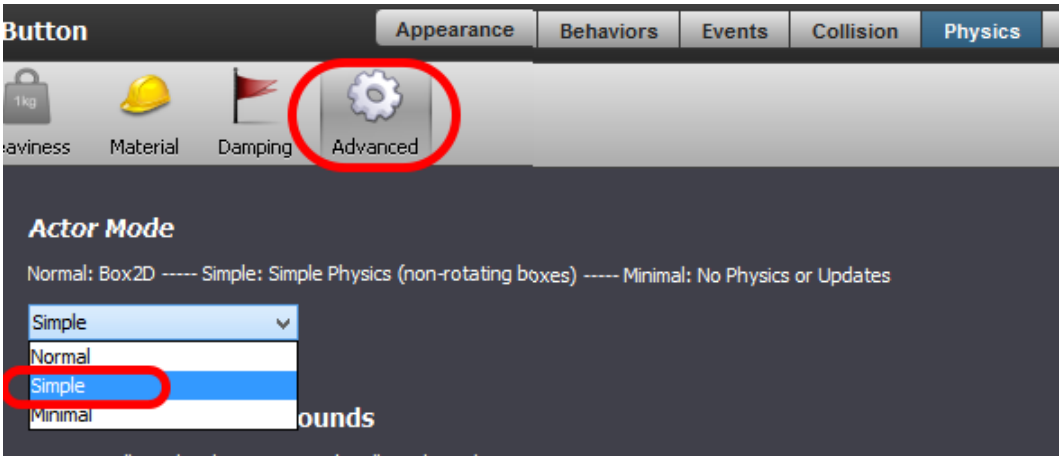

anchor Self to screen
make Self always active
Hide mouse cursor
Actor
Flow
User Input
Sound & Images
Custom
Keyboard & Mouse
Mouse / Touch
Use these blocks to handle both clicks a
mouse is down
mouse is down on
x of mouse
Hide mouse cursor

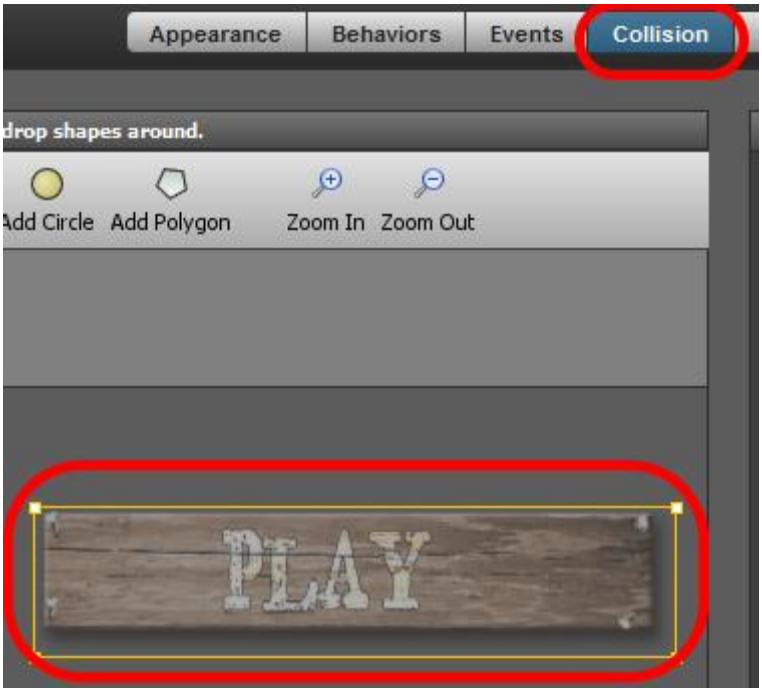
Chapter 10: Adding Menus and Buttons

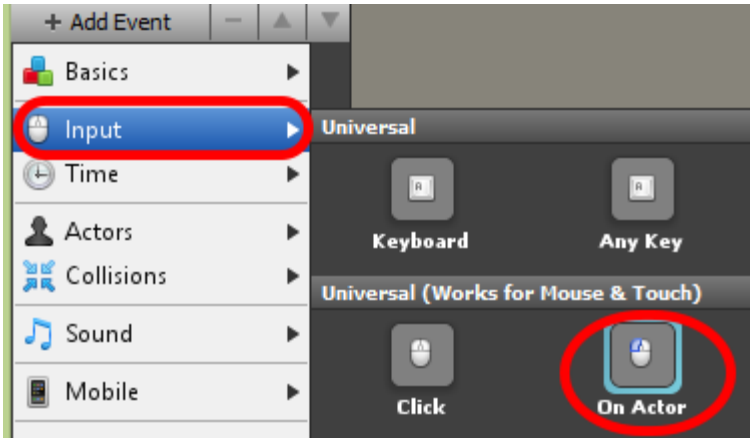


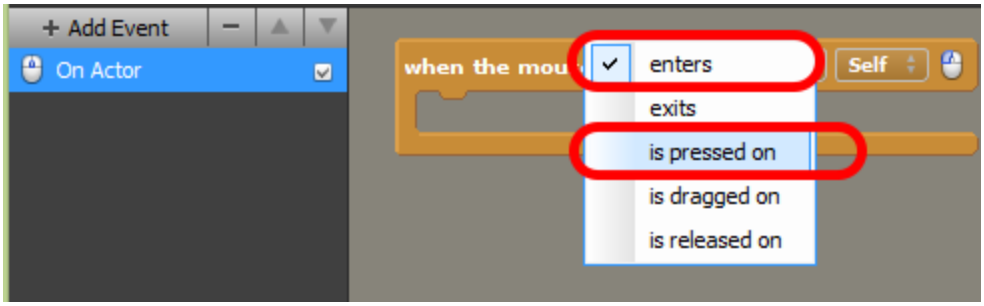


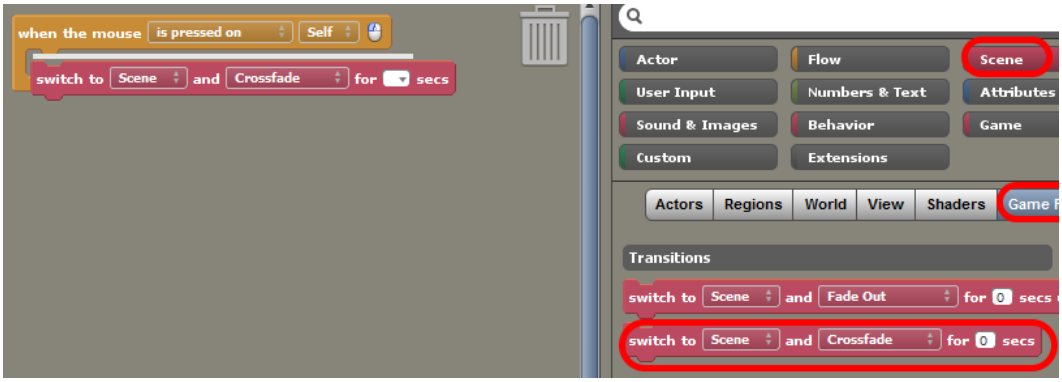


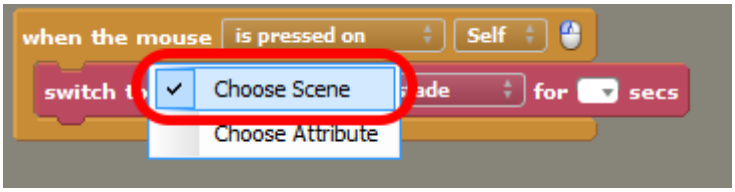

Button
Appearance
Behaviors
Events
Collision
Physics
Material
Damping
Advanced
Actor Mode
Normal: Box2D ----- Simple: Simple Physics (non-rotating boxes) ----- Minimal: No Physics or Updates
Simple
Normal
Simple
Minimal

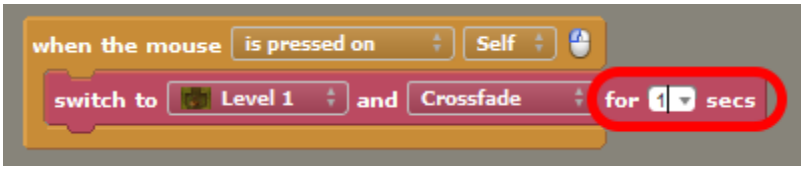

Appearance
Behaviors
Events
Collision
drop shapes around.
Add Circle
Add Polygon
Zoom In
Zoom Out
PLAY

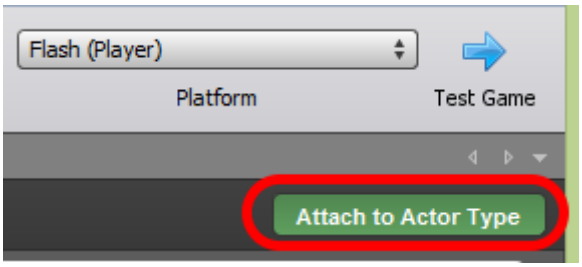

+ Add Event
Basics
Input
Time
Actors
Collisions
Sound
Mobile
Universal
Keyboard
Any Key
Universal (Works for Mouse & Touch)
Click
On Actor

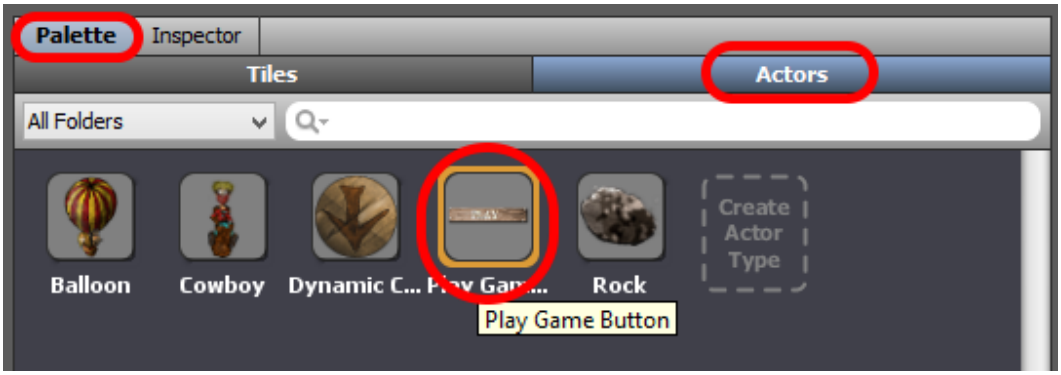

+ Add Event
On Actor
when the mou
enters
Self
exits
is pressed on
is dragged on
is released on

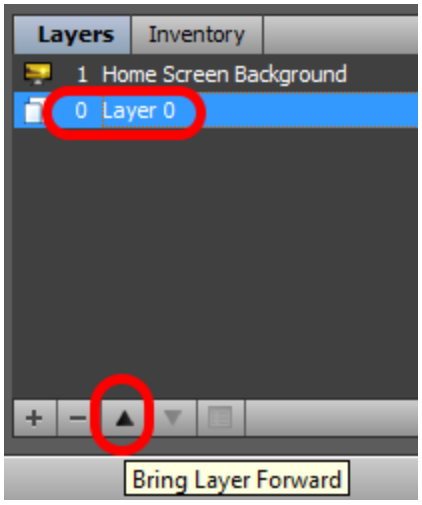

when the mouse
is pressed on
Self
switch to
Scene
and
Crossfade
for
secs
Actor
Flow
Scene
User Input
Numbers & Text
Attributes
Sound & Images
Behavior
Game
Custom
Extensions
Actors
Regions
World
View
Shaders
Transitions
switch to
Scene
and
Fade Out
for
0
secs
switch to
Scene
and
Crossfade
for
0
secs


when the mouse
is pressed on
Self
Choose Scene
Choose Attribute
for
secs


when the mouse
is pressed on
Self
switch to
Level 1
and
Crossfade
for
1
secs


Flash (Player)
Platform
Test Game
Attach to Actor Type

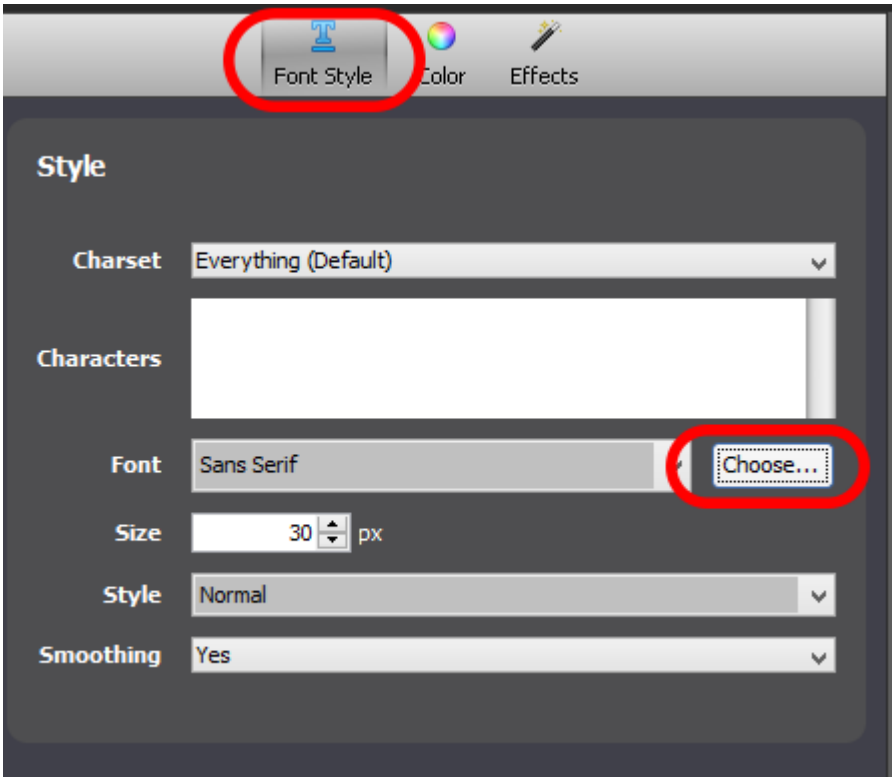

Palette
Inspector
Tiles
Actors
All Folders
Balloon
Cowboy
Dynamic C...
Rock
Create Actor Type
Play Game Button

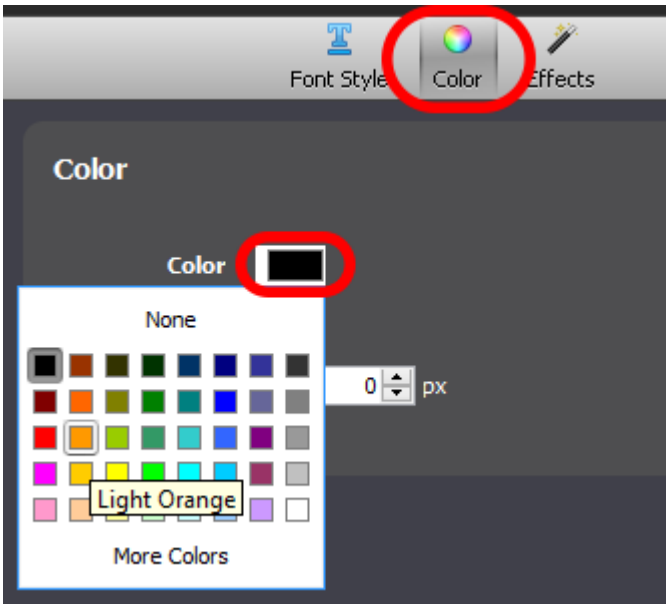

Layers
Inventory
1 Home Screen Background
0 Layer 0
Bring Layer Forward

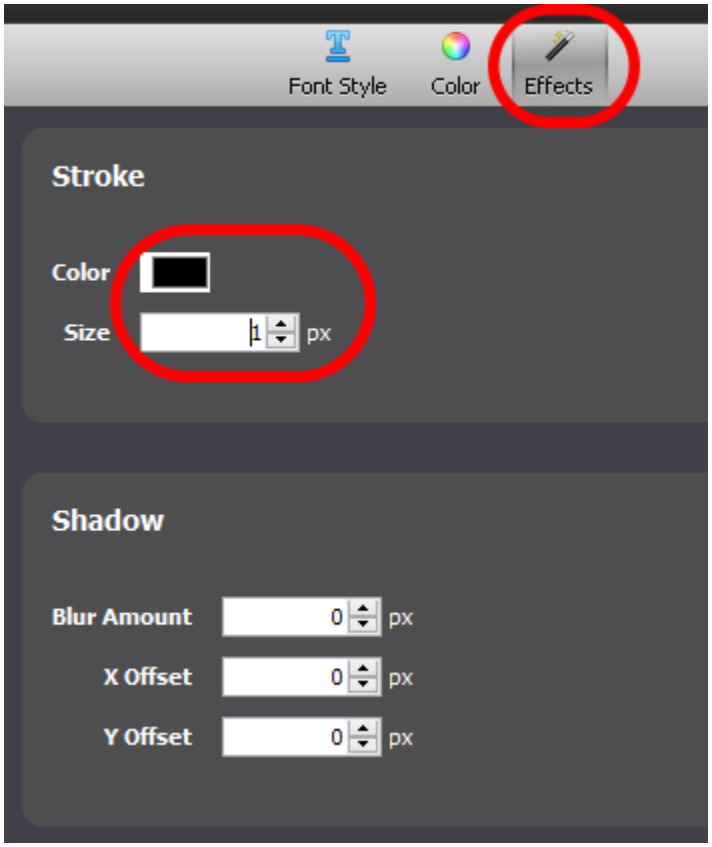
COWBOY
PLAY

Main Menu
Click here to create a new Scene.
Edit
Remove
Mark as Starting Scene
Mark as Starting Scene

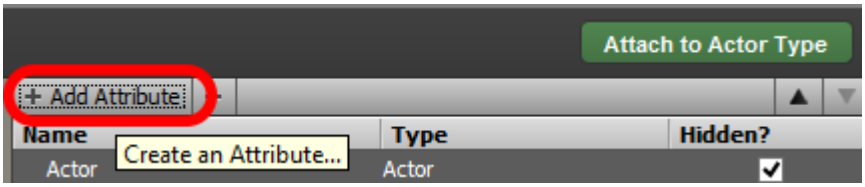
Chapter 11: Scoring and Game Rules

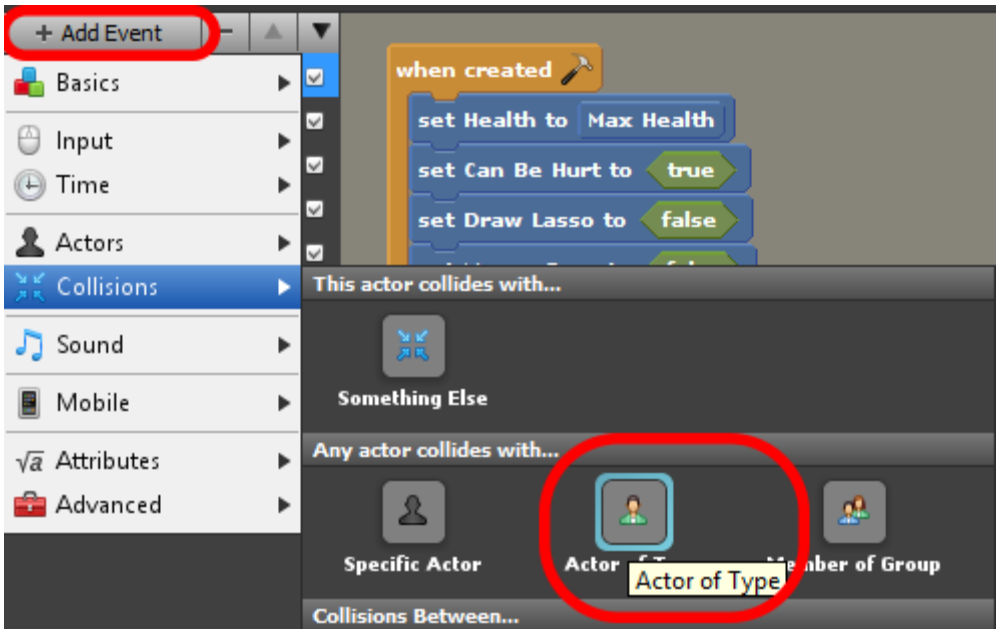


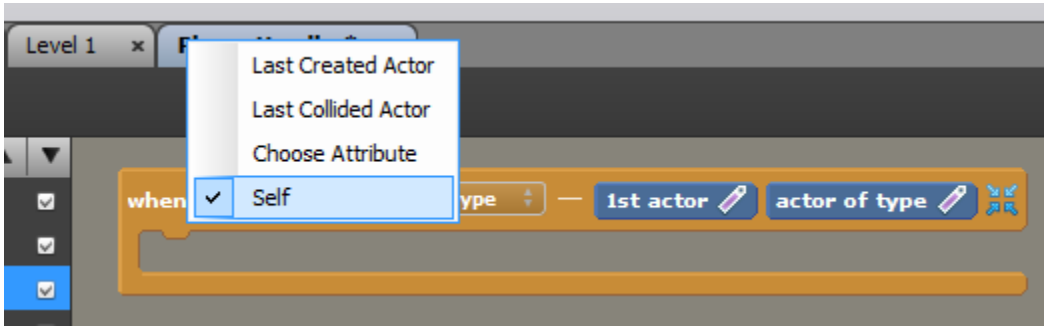



Font Style
Color
Effects
Stroke
Color
Size
1
px
Shadow
Blur Amount
0
px
X Offset
0
px
Y Offset
0
px

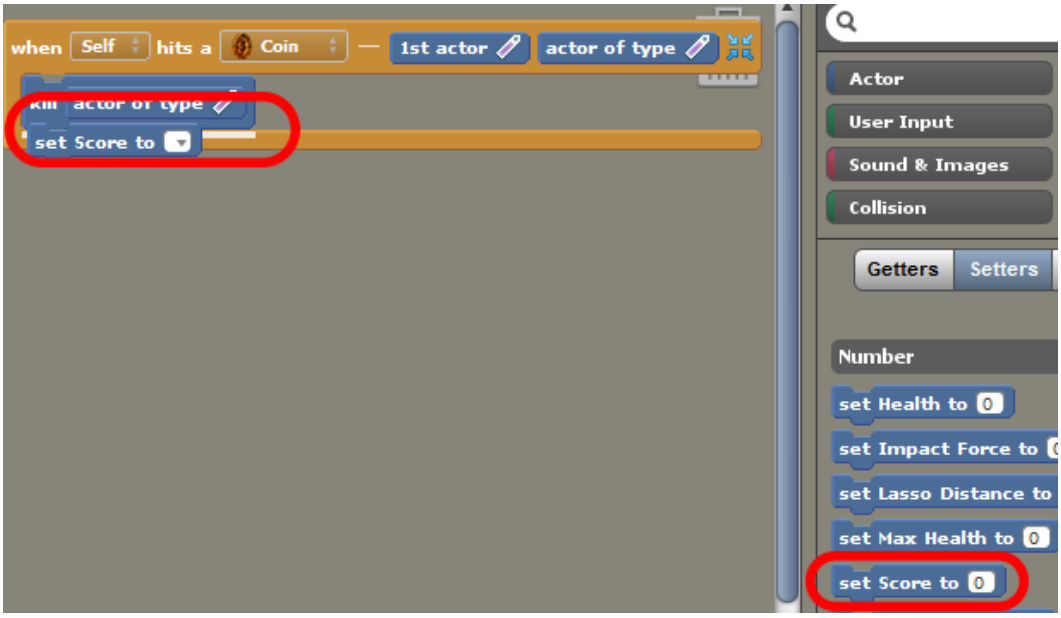
Palette
Attributes
Favorites


Attach to Actor Type
+ Add Attribute
Name
Type
Hidden?
Actor
Create an Attribute...
Actor

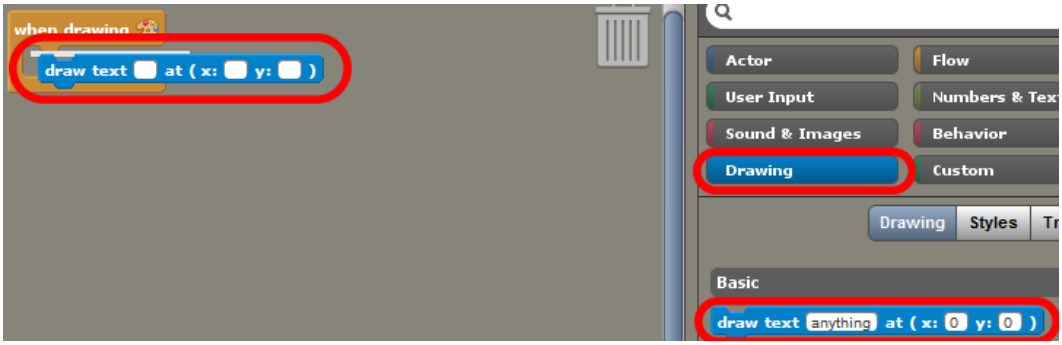

+ Add Event
Basics
Input
Time
Actors
Collisions
Sound
Mobile
Attributes
Advanced
when created
set Health to Max Health
set Can Be Hurt to true
set Draw Lasso to false
This actor collides with...
Something Else
Any actor collides with...
Specific Actor
Actor of Type
Collisions Between...

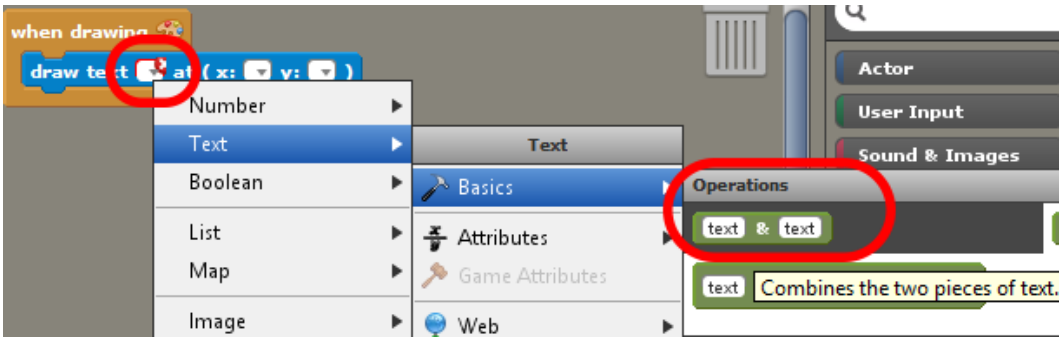

Level 1
Last Created Actor
Last Collided Actor
Choose Attribute
Self
when
1st actor
actor of type

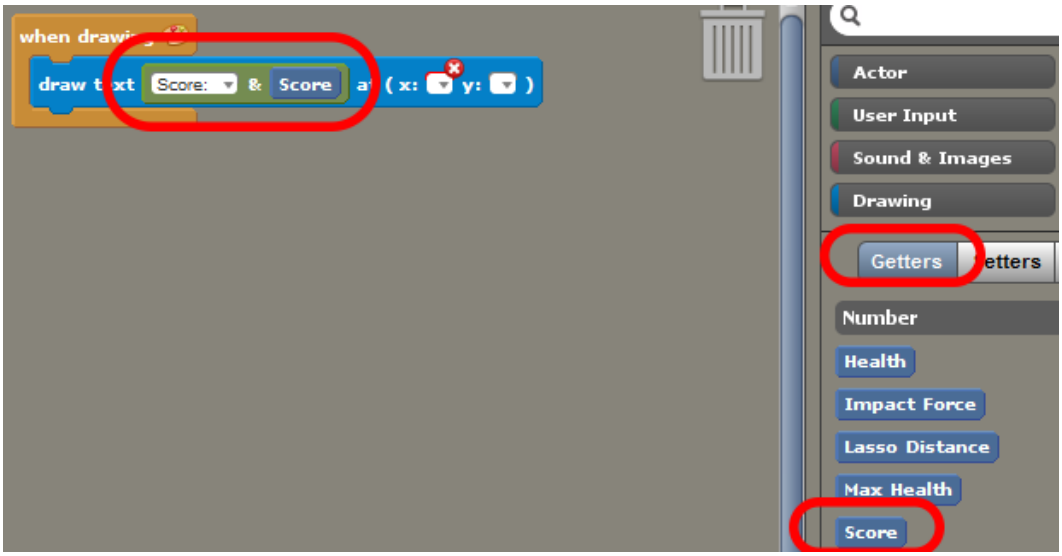
when Self hits a Coin
1st actor
actor of type
kill
actor of type


when Self hits a Coin 1st actor actor of type
kill actor of type
set Score to
Actor
User Input
Sound & Images
Collision
Getters
Setters
Number
set Health to 0
set Impact Force to
set Lasso Distance to
set Max Health to 0
set Score to 0

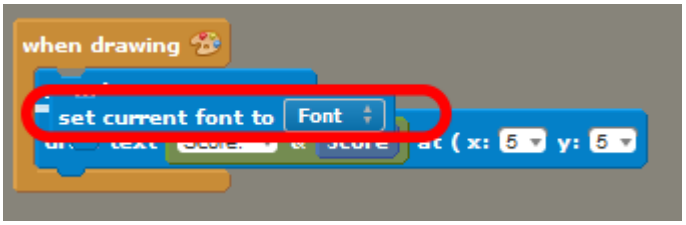
when Self hits a Coin 1st actor actor of type
kill actor of type
set Score to Score + 100

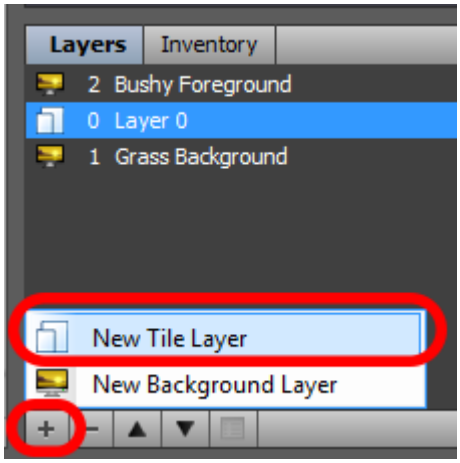

when drawing
draw text at (x: y:)
Actor
Flow
User Input
Numbers & Tex
Sound & Images
Behavior
Drawing
Custom
Drawing
Styles
Basic
draw text anything at (x: 0 y: 0)

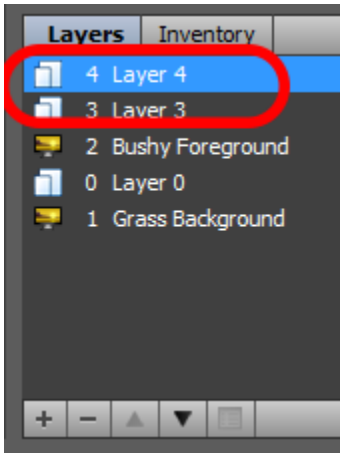

when drawing
draw text
at (x: y:)
Number
Text
Boolean
List
Map
Image
Text
Basics
Attributes
Game Attributes
Web
Operations
text & text
text
Combines the two pieces of text.
Actor
User Input
Sound & Images


when drawing
draw text
Score:
&
Score
at (x: y:)
Actor
User Input
Sound & Images
Drawing
Getters
Number
Health
Impact Force
Lasso Distance
Max Health
Score

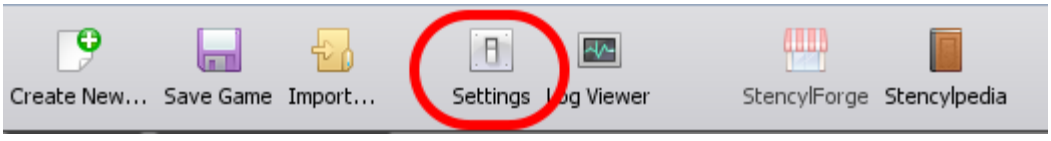
switch to screen space
at (x: 5 y: 5

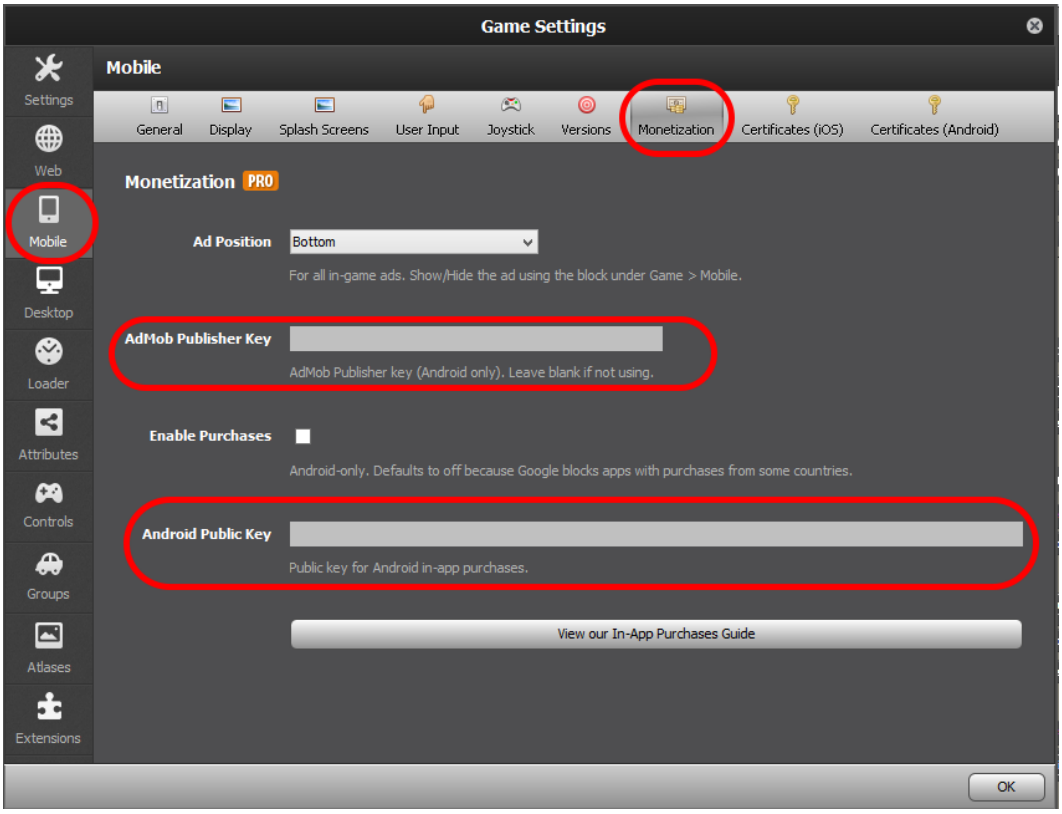

when drawing
set current font to
Font
at (x: 5 y: 5

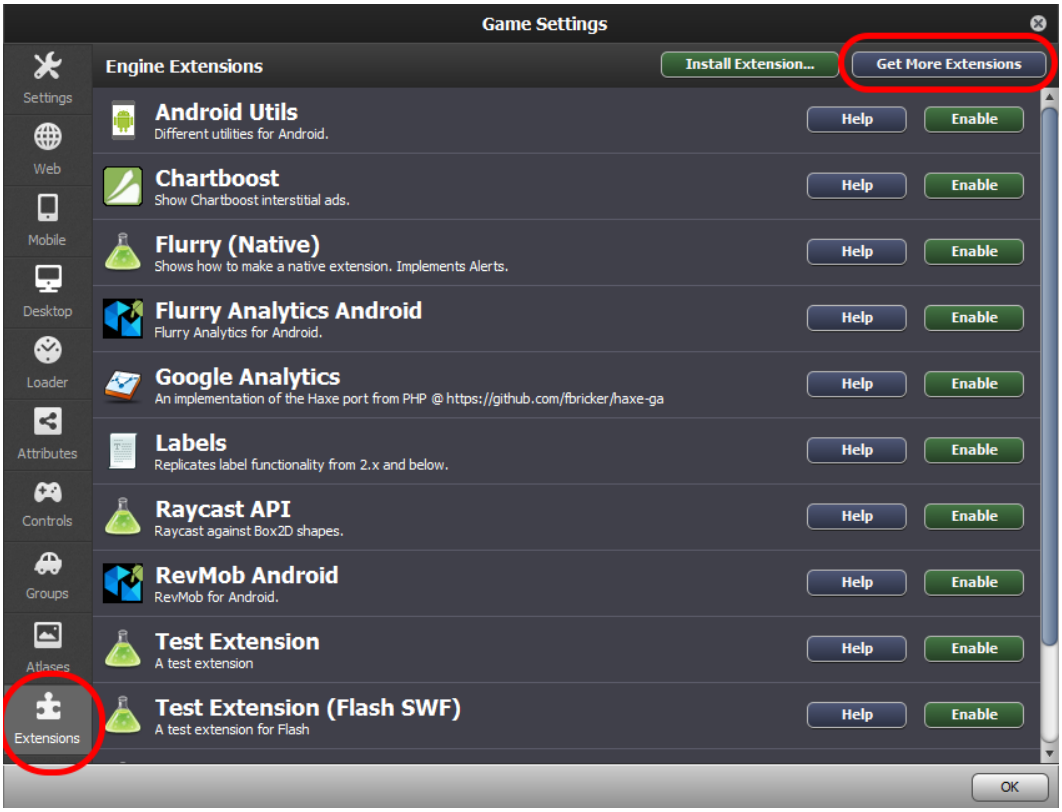

Layers
Inventory
2 Bushy Foreground
0 Layer 0
1 Grass Background
New Tile Layer
New Background Layer

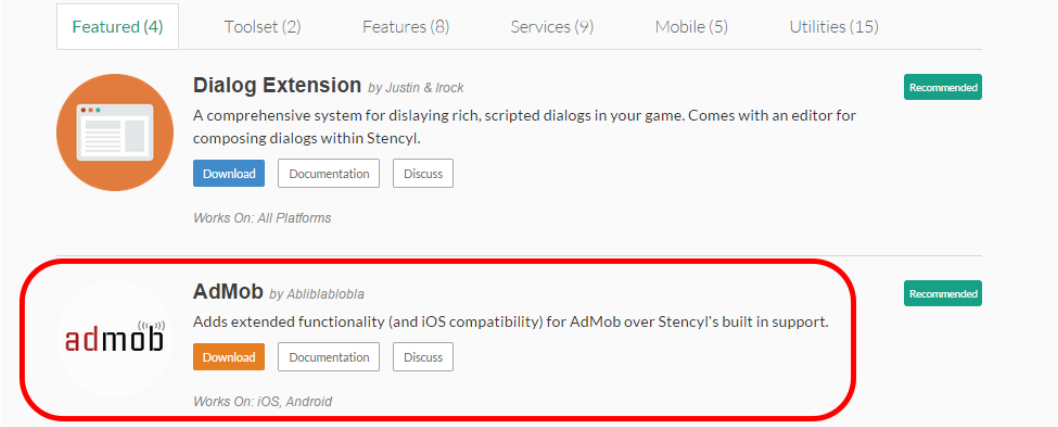

Layers
Inventory
4 Layer 4
3 Layer 3
2 Bushy Foreground
0 Layer 0
1 Grass Background

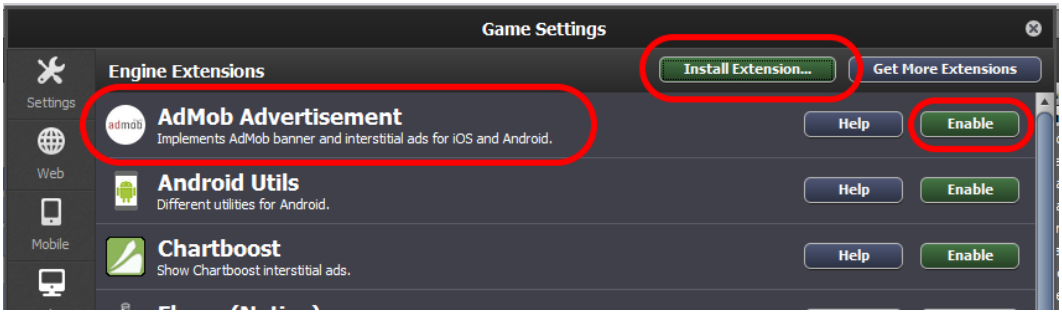
Chapter 12: Publishing and Monetization

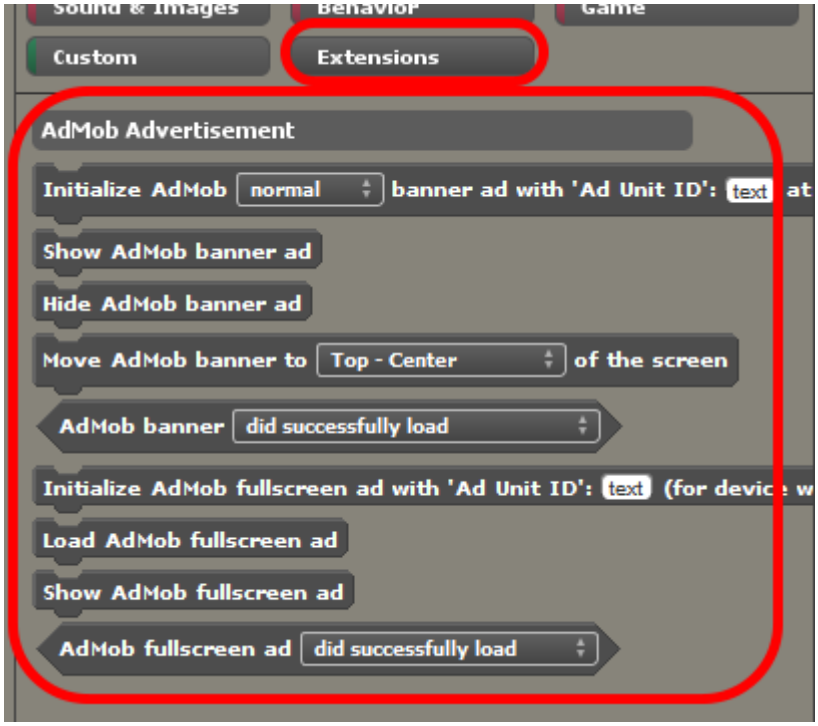


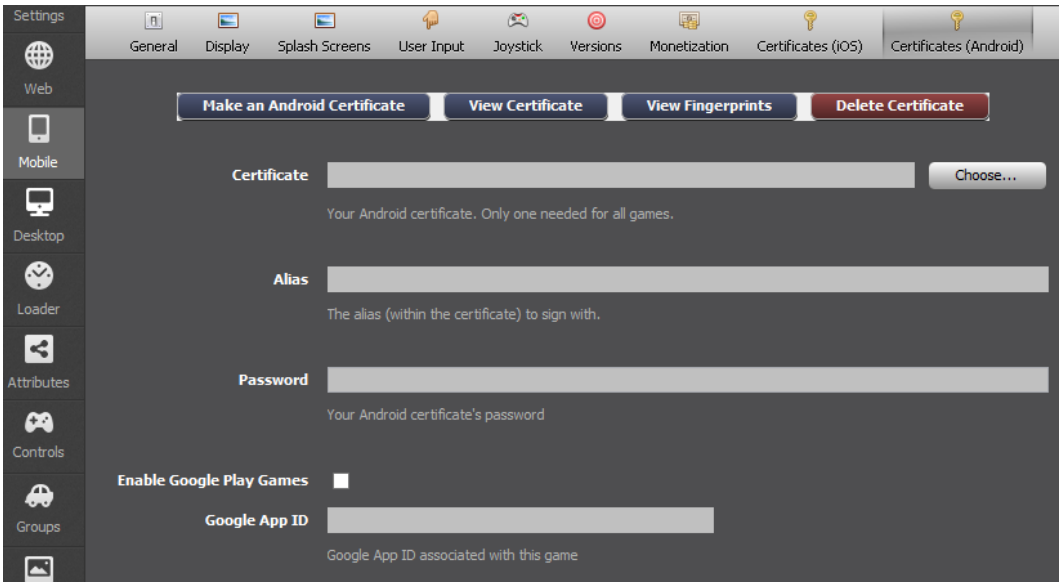

Game Settings
Settings
Web
Mobile
Desktop
Loader
Attributes
Controls
Groups
Atlases
Extensions
Mobile
General
Display
Splash Screens
User Input
Joystick
Versions
Monetization
Certificates (iOS)
Certificates (Android)
Monetization PRO
Ad Position
Bottom
For all in-game ads. Show/Hide the ad using the block under Game > Mobile.
AdMob Publisher Key
AdMob Publisher key (Android only). Leave blank if not using.
Enable Purchases
Android-only. Defaults to off because Google blocks apps with purchases from some countries.
Android Public Key
Public key for Android in-app purchases.
View our In-App Purchases Guide
OK


Game Settings
Settings
Web
Mobile
Desktop
Loader
Attributes
Controls
Groups
Atlases
Extensions
Engine Extensions
Install Extension...
Get More Extensions
Android Utils
Different utilities for Android.
Help
Enable
Chartboost
Show Chartboost interstitial ads.
Flurry (Native)
Shows how to make a native extension. Implements Alerts.
Flurry Analytics Android
Flurry Analytics for Android.
Google Analytics
An implementation of the Haxe port from PHP @ https://github.com/fbricker/haxe-ga
Labels
Replicates label functionality from 2.x and below.
Raycast API
Raycast against Box2D shapes.
RevMob Android
RevMob for Android.
Test Extension
A test extension
Test Extension (Flash SWF)
A test extension for Flash
OK


Featured (4)
Toolset (2)
Features (8)
Services (9)
Mobile (5)
Utilities (15)
Dialog Extension by Justin & Irock
A comprehensive system for dislaying rich, scripted dialogs in your game. Comes with an editor for composing dialogs within Stencyl.
Download
Documentation
Discuss
Works On: All Platforms
Recommended
AdMob by Abliblablobla
Adds extended functionality (and iOS compatibility) for AdMob over Stencyl's built in support.
Download
Documentation
Discuss
Works On: iOS, Android
Recommended


Game Settings
Settings
Web
Mobile
Engine Extensions
Install Extension...
Get More Extensions
AdMob Advertisement
Implements AdMob banner and interstitial ads for iOS and Android.
Help
Enable
Android Utils
Different utilities for Android.
Help
Enable
Chartboost
Show Chartboost interstitial ads.
Help
Enable


Custom
Extensions
AdMob Advertisement
Initialize AdMob normal banner ad with 'Ad Unit ID': text
Show AdMob banner ad
Hide AdMob banner ad
Move AdMob banner to Top - Center of the screen
AdMob banner did successfully load
Initialize AdMob fullscreen ad with 'Ad Unit ID': text
Load AdMob fullscreen ad
Show AdMob fullscreen ad
AdMob fullscreen ad did successfully load


Settings
Web
Mobile
Desktop
Loader
Attributes
Controls
Groups
General
Display
Splash Screens
User Input
Joystick
Versions
Monetization
Certificates (iOS)
Certificates (Android)
Make an Android Certificate
View Certificate
View Fingerprints
Delete Certificate
Certificate
Choose...
Your Android certificate. Only one needed for all games.
Alias
The alias (within the certificate) to sign with.
Password
Your Android certificate's password
Enable Google Play Games
Google App ID
Google App ID associated with this game