



Welcome back my friends ☺ It seems to me you like what I do otherwise you would not have returned.

This game project is like simple shooter. The player has health and can move anywhere it wants to go. It fires flashy bullets and the goal is to destroy all enemies that are spawned.

Now if you did all previous workshops you should know a lot of scripting already. No need to go over it all again so I will only explain the new stuff that is important.

Let's see we have a spawning object that creates enemy bots. These bots will follow the player and on hit they will take health of the player. Now have a look at the code.

Line 399 - 442

action enemy_1() <<< the name of our enemy action

var run_percentage;<<<< variable for the running animation.

my.group=1;<<<<make it part of group 1

set(my,BRIGHT | POLYGON | METAL | SHADOW);<<<< polygon metal and shadow setting

my.emask |= (ENABLE_ENTITY | ENABLE_IMPACT | ENABLE_SCAN); <<<< collide with entity and have impact + scan

my.event = remove_enemy; <<<<< when impact use remove_enemy function

my.eflags |= FAT | NARROW;<<<<< better collision

vec_set(my.min_x,vector(-20,-20,-20));<<<<set box

vec_set(my.max_x,vector(20,20,20));<<<<set box

VECTOR temp;<<<< create a vector

while (!powerloader) {wait (1);}<<<<<< wait till the player Powerloader pointer is loaded.

while (1)

if (vec_dist(powerloader.x, my.x) > 1500) <<<< if distance is bigger then 1500

enemy_stands(); <<<<< use the enemy_stands function

else <<<<< If above is not happening then.....

if (vec_dist (powerloader.x, my.x) > 10) <<<< if distance is bigger then 10

vec_set(temp, powerloader.x);

vec_sub(temp, my.x);

vec_to_angle(my.pan, temp);<<<<<< set all vecs (remember ?)

ent_animate(my, "walk", run_percentage, ANM_CYCLE); <<<<<then play the "run" animation

c_ignore(1);<<<<<< ignora all group 1 members

c_move (my, vector(15 * time_step, 0, 0), nullvector, IGNORE_PASSABLE | GLIDE);<<<<<movement

run_percentage += 2 * time_step; <<<<<<6 = "run" animation speed

if(enable_shooting ==1) <<<<<< when this variable is equal to 1

ent_remove(me);<<<<<< remove the model

break;<<<<<< stop the action !

else <<<<< if above is not working then



enemy_stands(); <<<< play and use animation function stands.

So these bots will follow player until it hits the player. I created a nice simple enemy spawning here is the script :

Line 447 - 475

```
action enemy_spawner()<<<< name of the action

set(my,PASSABLE | INVISIBLE); <<< make passable and invisible
var spawn_timer = 160; <<<<set time to spawn
VECTOR temp1; <<<<<set vector for particle emitting
while(1)

my.pan += 10* time_step; <<<< rotate pan
my.roll += 10*time_step; <<<<< make it roll
vec_for_vertex(temp1, my, 1330); <<<< set particle on this vertec
effect(my_effect2, 1, temp1.x, nullvector); <<<<start the effect
spawn_timer -=1* time_step;<<<<<make variable count down to 0

if(spawn_timer <=0) <<<<<< when 0 is hit
snd_play(created_snd,100,0); <<<< play a sound
ent_create("magic23+8.png", vector(my.x,my.y,my.z+50), sprite_played);<<<<create sprite and animation
ent_create("powerloadere.mdl", vector(my.x+20,my.y,my.z),enemy_1);<<<< create enemy with enemy_1
action

wait(-2);<<<< wait 2 secs
spawn_timer =random (150);<<<<pic a new variable number it chooses random out of 150

if(enable_shooting ==1) <<<< if this variable is 1
ent_remove(me);<<<<<<< remove the spawner
break;<<<<<stop action
```

Cool aint it ☺ Now you know how to make enemies spawn and if you paid close attention in the previous space shooter workshop, you should be able to make enemies fire at you. When you rund the game you see that the spawning object have a nice particle effect to it. Here is the code it uses. Thanks to Malice who have made an awesome series about scripting particles :

https://www.youtube.com/playlist?list=PLV6SWUMWCdyCm3UJ7ex5IGfgQSeljx_15



Line 12- 16

```
function p_alphafade(PARTICLE *p) <<<< fade the particles
p.alpha = random(100); <<<<< set random alpha
if (p.alpha <= 10) p.lifespan = 0; <<<<<< when alpha is smaller or equal to 10 set life span to 0
```

Line 27- 35

```
BMAP* effect_tga = "spark.tga"; <<<< use spark.tga as particle
function my_effect(PARTICLE *p)<<<<< name of the function

p.lifespan = 0.1;<<<< lifespawn set on 0.1
p.alpha = 60;<<<<< alpha on 60
p.bmap = effect_tga; <<<<<the sprite that is used
p.size = random(40); <<<<<< set random pick number under 40
p.flags |= (MOVE|BRIGHT); <<<<<<set it to move and be bright
p.event = p_alphafade; <<<< use the event/function
```

The final part that needs a little explanation is the players health. Let's do it.

Line 167- 184

```
#define health skill20 <<<< we use defining a skill to set health and to be able to change it.

function health_indicator()<<<<<name of the function

ENTITY* ent_owner = you;<<<<<<<<< health is the player (you)

set (my, BRIGHT | PASSABLE);<<<<<you know this by know
while (ent_owner)<<<<< when above is done it should

vec_set (my.x, ent_owner.x); <<<<<there is that vec set again
my.z += 10; <<<<<<distance from z
my.x +=50;<<<<<<distance from x
my.tilt =-90;<<<<<tilt otherwise you won't see it from top down ☺

my.scale_x = ent_owner.health * 0.05; <<<<<< use 0.05 to scale up the health graphic
```

So now all we need is to create and use this in the player action.
We do this by adding some simple lines to the player code.



Line 207

```
my.skill20 = 10; <<<<set skill20 to 10 so the health is 10
```

Line 216

```
ent_create ("health.pcx", nullvector, health_indicator); <<< create the health and set it so it will  
stick to the player, it uses the health_indicator function.
```

Line 259

```
if(my.skill20 <=0){ <<<<when health is lower or equal to 0 game over function starts.
```

Line 187-191

```
function remove_player() <<<every time player has impact it uses this function
```

```
my.skill20 -=1; <<< and takes one of the players health
```

And there you have it all to create a simple shooter ☺ toy with this and experiment. Make new ammo settings, stronger or faster bots, add a timer, create bigger health all is there for you to use. You can also give each spawned bot its own health

I still have some ideas to expand this game or use another way of controlling it ☺ Curious ? well keep visiting my place and hopefully part II will be up soon.

I'll hope you enjoy all I created till now.

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