

Some movement.

Welcome back it's good to see you want to do more. And there is so much more to do.

We already experimented a bit with movement right? Let's make it so we can move the ship ourselves with the press of the standard keys. Most of the time A,S,D,W is used or the cursor keys.

Ready let's go.

Add this code in your Script.:

```
action myfirst_movement()
{
viper = me; //< Remember the pointer ? so the pickup action will still work.
while (1)
{ //
if (key_a) //// < on A press turns
my.pan += 5*time_step; // increase the pan angle of the ship
if (key_s)////< on S turns the other way
my.pan -= 5*time_step; // decrease the pan angle of the ship
if (key_space)/// press and hold the "Space" key to move
c_move (my, vector(15 * time_step, 0, 0), nullvector, GLIDE); //the full move instruction,
camera.x = my.x-200;//// " Distance camera x axis from the model
camera.y = my.y; ////" We do nothing with the y axis unless you want to
camera.z = my.z + 150; /// " Distance height z axis from the model
camera.tilt = -45; //
wait (1);
}
}
```

Did you notice i added the camera code ? now our racer is always in our sight.

Add this action to the viper model and run it. Yup you did it. You go with spacebar press and you can steer with a or s. Wow your racing 😊 Now would it be great if the viper can also go in reverse ? Simple we add 2 lines can you see what lines I added?

```
action myfirst_movement()
{
viper = me; //< Remember the pointer ? so the pickup action will still work.
while (1)
{ //
if (key_a) //// < on A press turns
my.pan += 5*time_step; // increase the pan angle of the ship
if (key_s)////< on S turns the other way
my.pan -= 5*time_step; // decrease the pan angle of the ship
if (key_space)/// press and hold the "Space" key to move
c_move (my, vector(15 * time_step, 0, 0), nullvector, GLIDE); //the full move instruction,
if (key_ctrl)/// press and hold the "ctrl" key to move
c_move (my, vector(-15 * time_step, 0, 0), nullvector, GLIDE); //the full move instruction,
camera.x = my.x-200;//// " Distance camera x axis from the model
camera.y = my.y; ////" We do nothing with the y axis unless you want to
camera.z = my.z + 150; /// " Distance height z axis from the model
camera.tilt = -45; //
wait (1);
}
}
```

We did it. We coded our first movement. Now try changing the keys or the speed of the pan so you can make bigger or smaller turns. See if you can create a higher speed or perhaps a lower speed on reverse. Just make yourself familiar with this coding. But its fun that we can race with a model in such a short time right? right! But Realspawn how does it work with a character model that if i change direction it faces that way immediately? Well let's figure this out shall we.

More movement

Replace the viper model with the Yoshi model. Let's see if we can make this model move the way we want. Add this code and give it to Yoshi.

```
action more_movement()
{
viper = me;/////Remember the pointer ? so the pickup action will still work,
while (1)
{
if (key_cuu) /// press and hold the "cursor up" key to move up
my.pan = -360; /// change pan to the right direction,
if (key_cud) ///press and hold the "cursor down" key to move down
my.pan = 180;///change pan to the right direction
if (key_cur) ///press and hold the "cursor right" key to move to the right
my.pan = -90;///<change pan to the right direction
if (key_cul) /// press and hold the "cursor left" key to move to the left
my.pan = 90;///<change pan to the right direction
c_move (my, vector(5 * time_step, 0, 0), nullvector, GLIDE);
camera.x = my.x-200;/////Distance camera x axis from the model
camera.y = my.y; /////" We do nothing with the y axis unless you want to
camera.z = my.z + 150; /// " Distance height z axis from the model
camera.tilt = -45; //
wait (1);
}
}
```

There you have it Yoshi goes into the direction we point him in ☺ he moves like Pac-man. The movement is there continuously so it won't stop. Let's see how we can change that.

Add this code to your script and give it to Yoshi to see if it works.

```
action last_movement()
{
viper = me;/////Remember the pointer ? so the pickup action will still work,
while (1)
{
if(key_cul && my.pan != 90) my.pan = 90; //change player pan on key press
if(key_cur && my.pan != 270) my.pan = 270; // change player pan on key press
if(key_cuu && my.pan != 0) my.pan = 0; //change player pan on key press
if(key_cud && my.pan != 180) my.pan = 180; // change player pan on key press
if(key_cuu || key_cud || key_cul || key_cur)//change player pan on key press
{
c_move(me, vector(10*time_step,0,0), nullvector, GLIDE | IGNORE_ME | IGNORE_PASSABLE);//The move
///instruction
}
camera.x = my.x-200;///// " Distance camera x axis from the model
camera.y = my.y; /////" We do nothing with the y axis unless you want to
camera.z = my.z + 150; /// " Distance height z axis from the model
camera.tilt = -45; //
wait (1);
}
}
```

Yesssss you did it Yoshi glides over the level in the direction we want it to go. Oh boy oh boy this is fun.
Ehm ? Realspawn my models have all kinds of animations included. Yup most models have animations. When you open the model in MED you will see all the animations it has. Each frame has a name. Say it has a walk animation or run then most of the times these frames are named walk 1,2,3 and so on.
If the frames have no name you can give them yourself in med.

Movement with Animation.

The Yoshi model has a run animation. Let's use that. Here is how. I made a new action based on the previous but with 2 simple additions to it. Can you see it?

```
action animated_movement()
{
vipr = me;////////< Remember the pointer ? so the pickup action will still work,
while (1)
{
if(key_cul && my.pan != 90) my.pan = 90;
if(key_cur && my.pan != 270) my.pan = 270;
if(key_cuu && my.pan != 0) my.pan = 0;
if(key_cud && my.pan != 180) my.pan = 180;
if(key_cuu || key_cud || key_cul || key_cur)
{
ent_animate(my,"run",my.skill48,ANM_CYCLE); // play "the run " animation frames
my.skill48 += 10 * time_step; //10 is animations speed gave it a skill. So it can be changed for example in game
c_move(me, vector(10*time_step,0,0), nullvector, GLIDE|IGNORE_ME|IGNORE_PASSABLE);
}
camera.x = my.x-200;///// " Distance camera x axis from the model
camera.y = my.y;//////// " We do nothing with the y axis unless you want to
camera.z = my.z + 150; /// " Distance height z axis from the model
camera.tilt = -45; //
wait (1);
}
}
```

You see ? 2 simple lines activated the run animations in code. Give this action to the yoshi model and try it.
Yes Yoshi walks ☺ you made a platform hero run in your first level. Wooooooooooooooooo i love it ☺
Yoshi has also a stand (waiting) animations. Let's activate this one for if were not running (so not pressing any keys.)

```

action animated_movement()
{
vipr = me;/////"< Remember the pointer ? so the pickup action will still work,
while (1)
{
ent_animate(my,"stand",my.skill48,ANM_CYCLE); // play "stand animation if no key is pressed" animation
my.skill48 += 1 * time_step; // 1 is animations speed

if(key_cul && my.pan != 90) my.pan = 90;
if(key_cur && my.pan != 270) my.pan = 270;
if(key_cuu && my.pan != 0) my.pan = 0;
if(key_cud && my.pan != 180) my.pan = 180;
if(key_cuu || key_cud || key_cul || key_cur)
{
ent_animate(my,"run",my.skill48,ANM_CYCLE); // play "the run " animation frames
my.skill48 += 10 * time_step; //10 is animations speed gave it a skill. So it can be changed for example in game
c_move(me, vector(10*time_step,0,0), nullvector, GLIDE|IGNORE_ME|IGNORE_PASSABLE);
}
camera.x = my.x-200;//// " Distance camera x axis from the model
camera.y = my.y; ////" We do nothing with the y axis unless you want to
camera.z = my.z + 150; /// " Distance height z axis from the model
camera.tilt = -45; //
wait (1);
}
}

```

Run it and see Yoshi is waiting until we decide it is running time ☺

I can hear you say what about jumping ? Well gravity is another story but we will come back to that later.

For now you have a lot to try out and study. I hope you enjoyed this chapter while i am creating all this i finally start learning it myself bit by bit ☺ sometimes it amazes me that one single line can do so much.

Happy game creation and see you next time ©

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