

Workshop 15 Mini Sprite Animator

```
P_AdvAnimationSect1.pde X P_AnimatedSprite.pde P_Unit.pde
P_AdvAnimationSect1.pde
1 int fps = 15;
2 Unit alienUnit;
3 boolean isFollowingMouse = false;
4 boolean isAnimated = true;
5
6 void setup() {
7   size( 512, 512 );
8   background( 255, 204, 0 );
9   frameRate( 24 );
10
11   // Unit
12   float unitPosX = width/2;
13   float unitPosY = height/2;
14   alienUnit = new Unit("Alien-kun", unitPosX, unitPosY);
15
16   AnimatedSprite IdleAlienAnimation = new AnimatedSprite(unitPosX, unitPosY, fps);
17   IdleAlienAnimation.loadImagesFromPath("alienIdle/");
18
19   AnimatedSprite WalkAlienAnimation = new AnimatedSprite(unitPosX, unitPosY, fps);
20   WalkAlienAnimation.loadImagesFromPath("alienWalk/");
21
22   alienUnit.registerIdleAnimation( IdleAlienAnimation );
23   alienUnit.registerWalkAnimation( WalkAlienAnimation );
24 }
25
26 void draw() {
27   // draw code here
28   background(255);
29   fill(0);
30   text(fps + "\n(Press +/- to change)\n" +
31     "\nPress 'p' to loop/stop." +
```

Figure 1

```
33   "\nPress 'f' to Follow Mouse", 20, 20);
34
35   if ( isFollowingMouse )
36   { // add the velocity/acceleration built-up
37     alienUnit.moveToward( mouseX, mouseY, 10);
38   }
39   // update will apply the built-up force to
40   // the location of the unit
41   alienUnit.update();
42   alienUnit.checkEdge();
43   alienUnit.render();
44 }
45
46 void keyPressed() {
47   if (key == '=') { // Trap
48     alienUnit.isMoving = true;
49   }
50   if (key == '-') {
51     fps--;
52     if (fps < 0) fps = 0;
53     alienUnit.setFPS( fps );
54   }
55   if (key == '+') {
56     fps++;
57     alienUnit.setFPS( fps );
58   }
59   if (key == 'f') {
60     // try to follow mouse
61     isFollowingMouse = !isFollowingMouse;
62   }
```

Figure 2

For the Figure 1,2 and 3 is a how to do in interface and interact with user in this point is an animation of the alien it not like alien naaa for this task we use alienUnit this one is a object of unit class that contain HashMap to collect the data in this time and this task you not provide me keyPressed() == p but I write it already I use a alienUnit.the attribute name animations and then .get() because this one is a map if we want to use value I need to call method get and put the KeyIndex and then call method that from AnimatedSprite to stop or play(see in Figure 3) it again and another It a same concept use alienUnit to do

```
62   isFollowingMouse = !isFollowingMouse;
63 }
64 if (key == 'p') {
65   // try to follow mouse
66   isAnimated = !isAnimated;
67   if(isAnimated){
68     alienUnit.animations.get("Walk").stopPlay();
69     alienUnit.animations.get("Idle").stopPlay();
70   }else{
71     alienUnit.animations.get("Walk").playLoop();
72     alienUnit.animations.get("Idle").playLoop();
73   }
74 }
75 }
76 }
```

Figure 3

Class AnimatedSprite is a class that contain anything that can do a animation in this time we use to get path of a alien and use it in Class Unit in HashMap attribute that have generic type is class AnimatedSprite

Class Unit it like a controller class to control to interact with GUI and do with class AnimatedSprite