Creating a sprite object in ThePlanet game step by step

1. Create your sprite

Use a .png if you need it to be transparent (normally what you would want to do)

A picture containing text

Description automatically generated

1. Head to Textures.cpp
2. Create a new object texture for your sprite

//Object Textures.

SDL\_Texture\* Textures::objectTexture;

SDL\_Texture\* Textures::objectTexture2;

SDL\_Texture\* Textures::objectTexture3;

SDL\_Texture\* Textures::objectTexture4;

SDL\_Texture\* Textures::objectTexture5;

SDL\_Texture\* Textures::objectTexture6;

SDL\_Texture\* Textures::objectTexture7;

SDL\_Texture\* Textures::objectTextureAirBox;

SDL\_Texture\* Textures::objectTexturePipe;

SDL\_Texture\* Textures::objectTexturePipeAction;

SDL\_Texture\* Textures::objectTextureLantern;

SDL\_Texture\* Textures::objectTextureSparkle;

SDL\_Texture\* Textures::myPDATexture

1. Head to Textures.h
2. Add a static entry for your new sprite, needs to be exactly as in the the previous step just with ‘static’ in front of the text:

static SDL\_Texture\* objectTexture;

static SDL\_Texture\* objectTexture2;

static SDL\_Texture\* objectTexture3;

static SDL\_Texture\* objectTexture4;

static SDL\_Texture\* objectTexture5;

static SDL\_Texture\* objectTexture6;

static SDL\_Texture\* objectTexture7;

static SDL\_Texture\* objectTextureAirBox;

static SDL\_Texture\* objectTexturePipe;

static SDL\_Texture\* objectTexturePipeAction;

static SDL\_Texture\* objectTextureLantern;

static SDL\_Texture\* objectTextureSparkle;

static SDL\_Texture\* Textures::myPDATexture

1. Head back to Textures.cpp
2. Find the method for the scene textures you would like to add your sprite to. For example for Scene1Textures it is here:

void Textures::Scene1Textures() {

//Background dimensions (x,y,width,height).

//Main background Rect

menuBackground = { 0, 0, 1200, 768 };

1. Now add your texture to the method you will be using.

//Objects

imageSurface = IMG\_Load("Objects/pda.png");

invTexture1 = SDL\_CreateTextureFromSurface(Scene1::renderer, imageSurface);

myPDATexture = SDL\_CreateTextureFromSurface(Scene1::renderer, imageSurface);

SDL\_FreeSurface(imageSurface);

Note: See the part where it says invTexture1.. Well that is for objects that you plan to pick up. There are 7 slots you can use, but remember that if one is already being used, then that object would need to have been used before assigning one of those invTextures. The object will be rendered in one of the slots when you pick it up.

//Inventory Textures.

SDL\_Texture\* Textures::invTexture1;

SDL\_Texture\* Textures::invTexture2;

SDL\_Texture\* Textures::invTexture3;

SDL\_Texture\* Textures::invTexture4;

SDL\_Texture\* Textures::invTexture5;

SDL\_Texture\* Textures::invTexture6;

SDL\_Texture\* Textures::invTexture7;

1. Now the difficult bit.
2. Head over to PlayerObjects.cpp
3. At the top you will need to add a couple of SDL\_Rect entries. This is for animating the object, but even if you plan not to animate the object, then you will still need to add them.
4. Add a new incremental srect and dstrect as shown below:

SDL\_Rect PlayerObjects::srcrect;

SDL\_Rect PlayerObjects::dstrect;

SDL\_Rect PlayerObjects::srcrect2;

SDL\_Rect PlayerObjects::dstrect2;

SDL\_Rect PlayerObjects::srcrect3;

SDL\_Rect PlayerObjects::dstrect3;

SDL\_Rect PlayerObjects::srcrect4;

SDL\_Rect PlayerObjects::dstrect4;

SDL\_Rect PlayerObjects::srcrect5;

SDL\_Rect PlayerObjects::dstrect5;

SDL\_Rect PlayerObjects::srcrect6;

SDL\_Rect PlayerObjects::dstrect6;

1. In PlayerObjects.cpp, go to: std::string PlayerObjects::DestroyObjects(std::string gameObject)
2. Add an additional entry shown below:

Make sure that the number is incremental to the last one in the list. This for me is 8.

if (gameObject == "PDA") {

objectToDestroy = "8";

}

1. Now find (in PlayerObjects.cpp):

std::string PlayerObjects::ObjectInteractionM1(int playerCurrentLocationX, int playerCurrentLocationY) {

1. Add your sprite object here and specify which scene it will appear on.

Make sure you give it the same name as you did in the previous step. You can see here that it is for scenebackground 1 and the location of where the player will be able to pick it up on the screen.

if (Scene1::SceneBackground == "1" && playerCurrentLocationX >= 609 && playerCurrentLocationX <= 719) {

message = "PDA";

}

1. Now find (in PlayerObjects.cpp):

std::tuple<int, int, int, int, int> PlayerObjects::ObjectSettings(int scene, int objectID, int b, int c, int d) {

1. Add your sprite object as an entry shown below:

if (scene == 1 && objectID == 1) {

return std::make\_tuple(NULL, NULL, NULL, 40, 40);

}

Just specify here the size that you want the image to be, I’ve specified 40,40. And it is important to ensure the objectID is incremental to any other objects that there might already be. So, if there were already 8 objects, then objectID would be 9.

1. Now find (in PlayerObjects.cpp):

std::tuple<int, int, int, int, int> PlayerObjects::placeObject(int scene, int objectID, int b, int c, int d) {

1. Add your sprite object as shown below:

if (scene == 1 && objectID == 1) {

//PDA

return std::make\_tuple(1, 685, 523, 20, 14);

}

Here is where it gets confusing