CS250 Intro to CS II

Spring 2019

Sprites

- A sprite is a graphic image used in game development.

- In SDL you need to:

  1. Load the images into memory using loadSprite

  2. Display the images to the screen using drawSprite
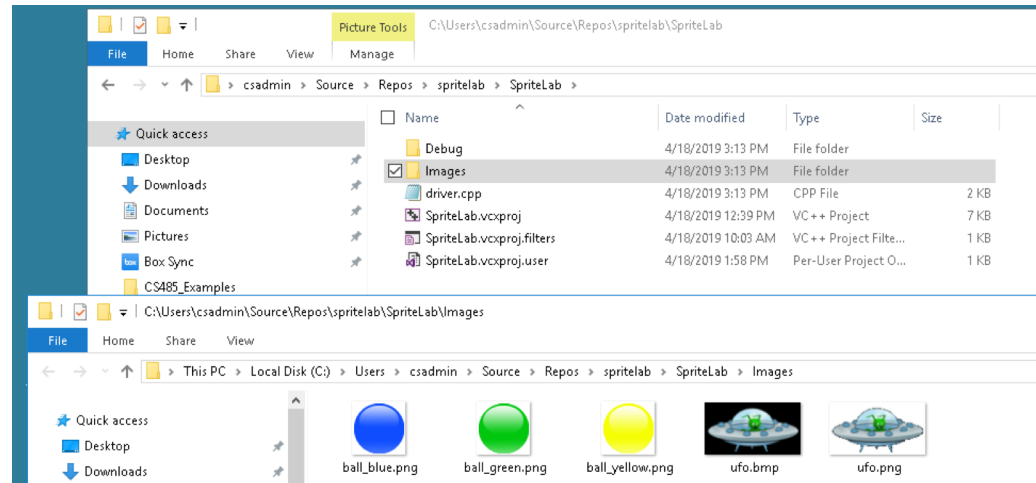
  3. SDLSprite

ufo.png

Images

- Use SDL_Image library!

- Images are commonly saved as bitmaps

- bitmap – data that describes every pixel in an image

- Acceptable file formats include: .bmp, .jpeg, and .png

- SDLManager has basic sprite functionality
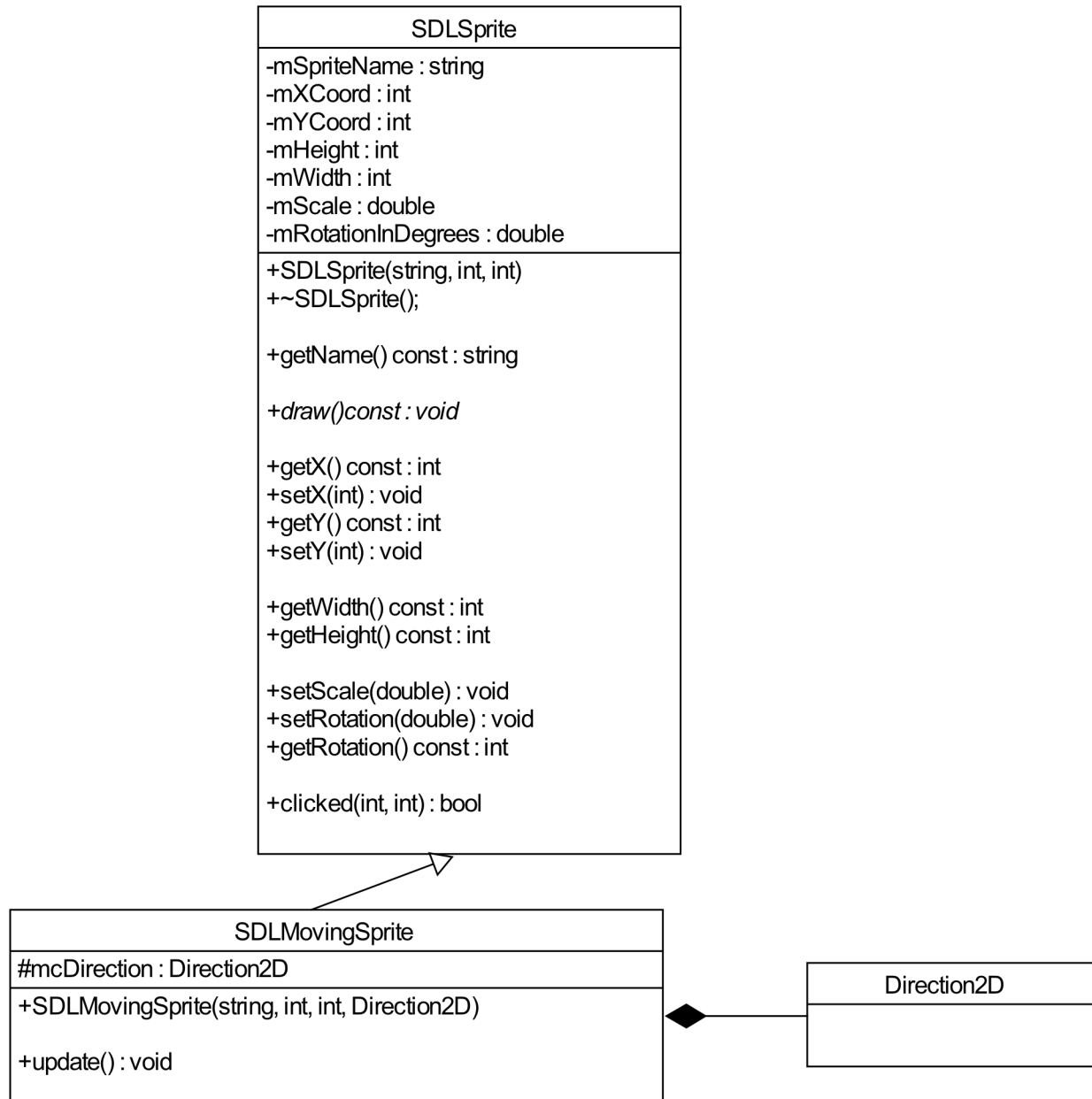
Where to place images?

- Place images exactly as you would a text file
- Can make a folder inside of the project folder

SDLSprite("Images\\ufo.png", 100, 100);

SpriteLab

- Grab SpriteLab from CS250 Public

- A UML diagram is included

SDLSprite

-mSpriteName : string
-mXCoord : int
-mYCoord : int
-mHeight : int
-mWidth : int
-mScale : double
-mRotationInDegrees : double

+SDLSprite(string, int, int)
+~SDLSprite();

+getName() const : string

+*draw()const : void*

+getX() const : int
+setX(int) : void
+getY() const : int
+setY(int) : void

+getWidth() const : int
+getHeight() const : int

+setScale(double) : void
+setRotation(double) : void
+getRotation() const : int

+clicked(int, int) : bool

SDLMovingSprite

#mcDirection : Direction2D

+SDLMovingSprite(string, int, int, Direction2D)

+update() : void

Direction2D

Code

```
SDLMovingSprite *pcMS = new SDLMovingSprite("Images\\ufo.png",
                           100, 100, Direction2D::SE);

pcMS->update();
psMS->draw();


delete pcMS;
```

Your Task

- Add two moving sprites, one green ball, one blue ball to the SpriteLab driver, at random locations, directions, and speeds.

- The images are in SpriteLab\Images