

# Graphics/Game Project Examples

10 Sprite Examples

5 2D Examples

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## Sprite Examples



[6-Demo-Sprite.cpp](#)

user can move or scale with mouse move/wheel



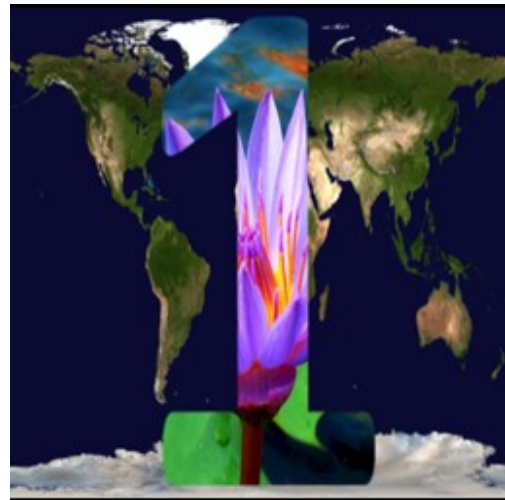
[3-Demo-Texture.cpp](#)

texture with transparency, scale with mouse wheel



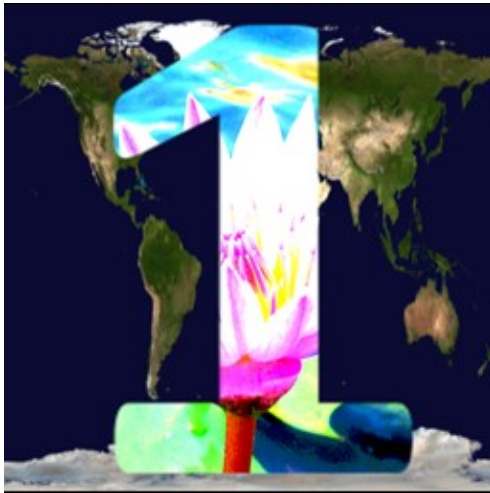
[6-Demo-AnimatedSprites.cpp](#)

read sequence of images for each sprite and display with animation through a matte



[6-Demo-BreathingSprite.cpp](#)

sprite stretches with time



### [6-Demo-GlowingSprite.cpp](#)

animate brightness of sprite



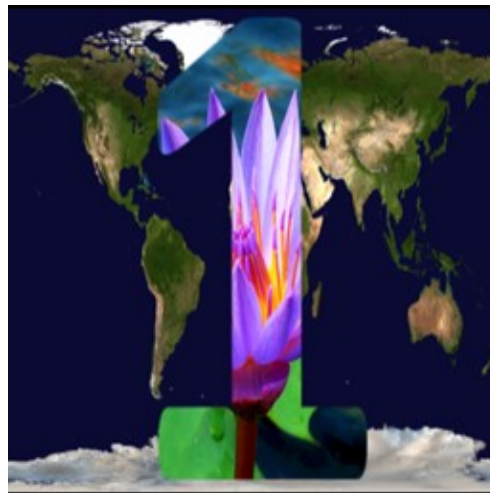
### [6-Demo-LerpingSprite.cpp](#)

animate (interpolate) between two sprites



### [6-Demo-SpriteGIF.cpp](#)

read GIF and display as animated background



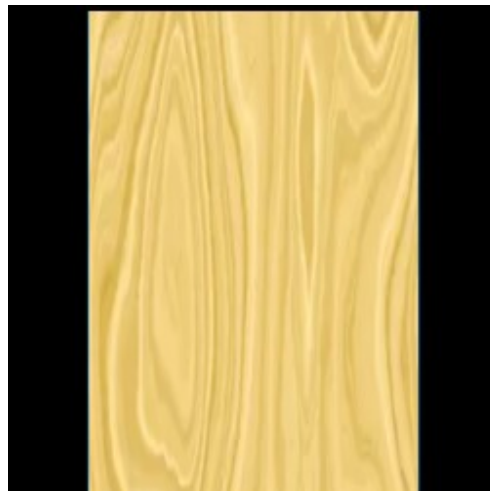
### [6-Demo-StepbackSprite.cpp](#)

if user moves sprite, it returns after two seconds



### [7-Demo-CollidingSprites.cpp](#)

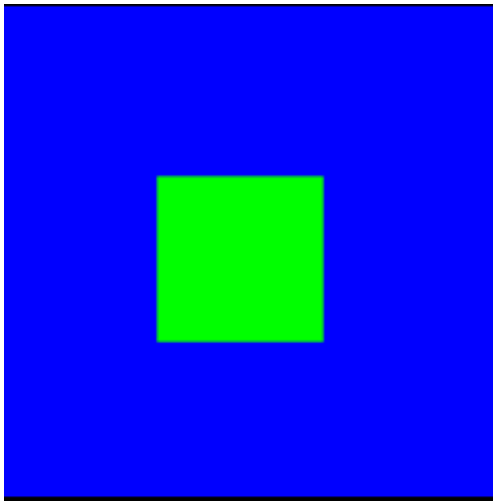
display pixel-by-pixel sprite overlap



### [10-Demo-ScrollingSprite.cpp](#)

scroll "endless" texture horizontally or vertically

## 2D Examples



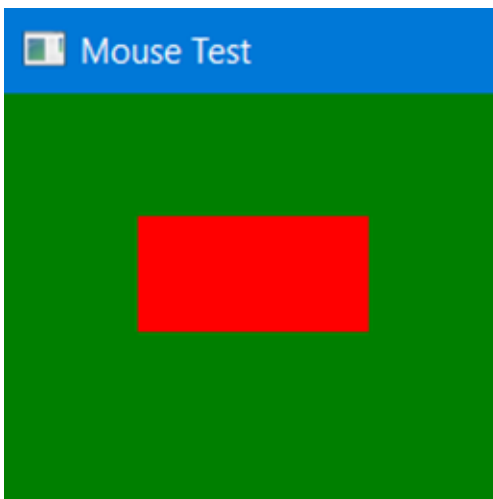
### [2-Demo-Scale.cpp](#)

scale is animated over time



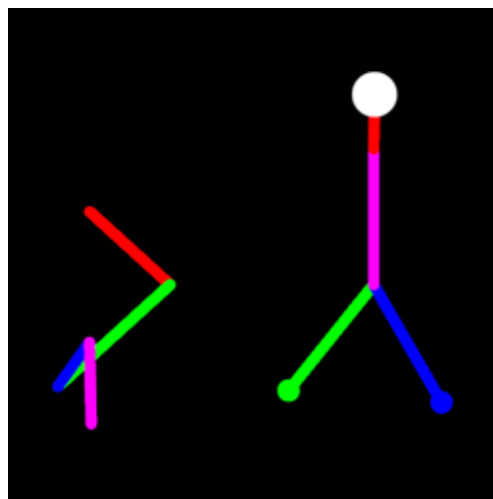
### [4-Demo-Matrix.cpp](#)

use of matrix to control rotation and location



### [4-Demo-MouseTest.cpp](#)

move sprite if hit-test successful



### [12-Demo-GoStickFigure.cpp](#)

display hierarchical transformation with Draw.h

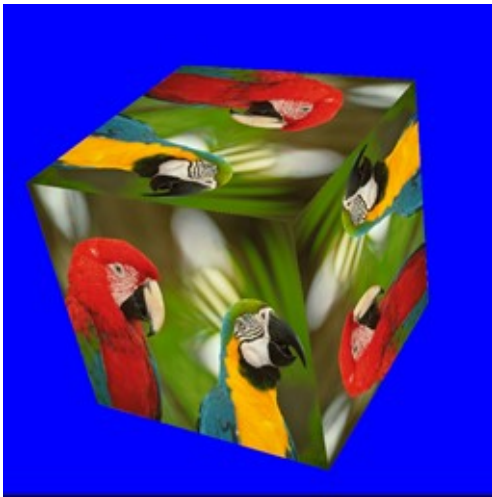


### [17-Demo-JuliaSet.cpp](#)

display 2D fractal using pixel shader

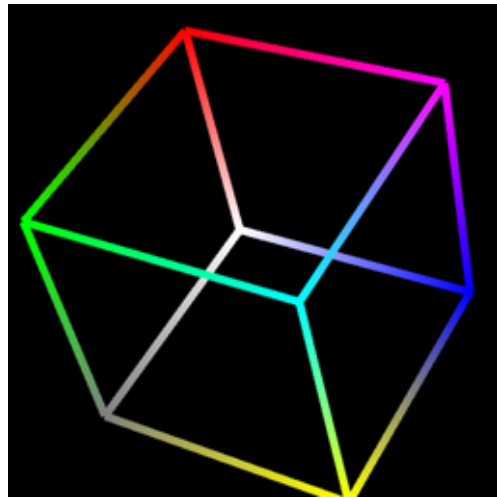


## 3D Examples



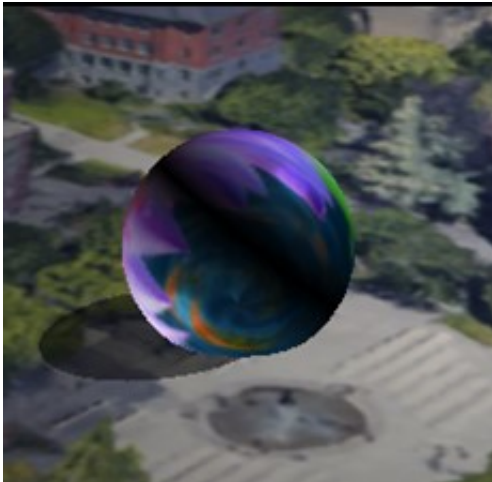
### [5-Demo-3D.cpp](#)

app defines cube and displays with texture using vertex and pixel shaders



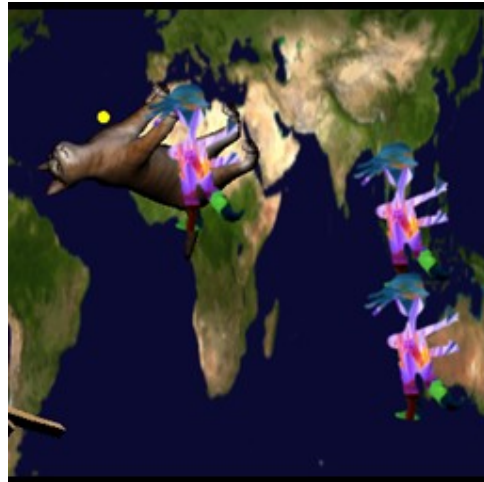
### [5-Demo-Draw.cpp](#)

define cube and display with Draw.h  
no shaders



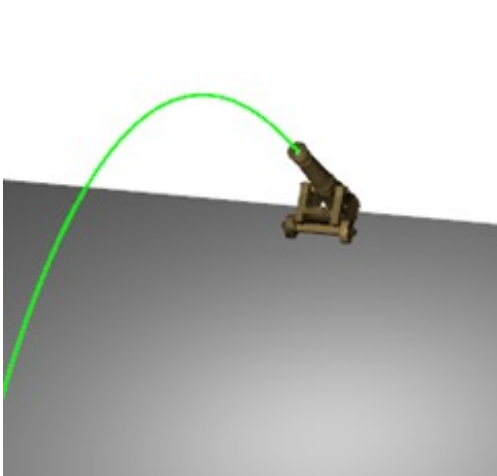
### [8-Demo-FollowBall.cpp](#)

move ball with WASD keys, camera follows ball



### [8-Demo-MeshAndSprites.cpp](#)

display 2D sprites and 3D objects



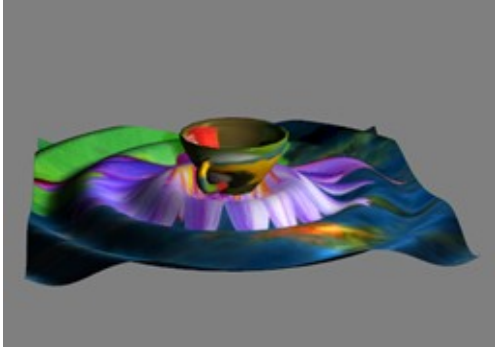
### [12-Demo-GoBallistic.cpp](#)

cannon and ball are 3D objects; app fires cannon ball along physics-based arc



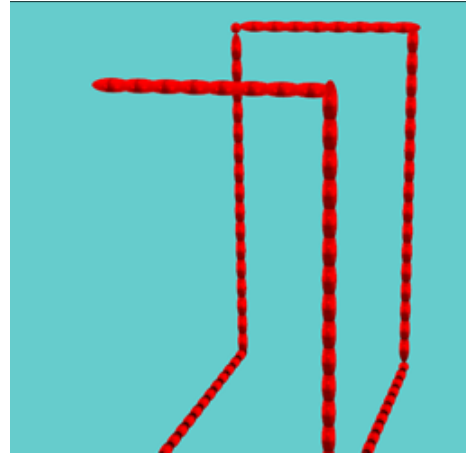
### [7-Demo-Dig-It.cpp](#)

with keyboard, drive excavator and articulate cab, boom, and arm



### [13-Demo-WavySquareAndCup.cpp](#)

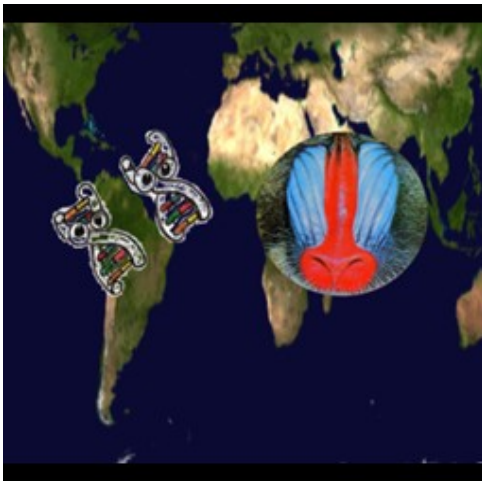
with tessellation shader, create wavy surface with floating 3D object



### [14-Demo-PumpltUp.cpp](#)

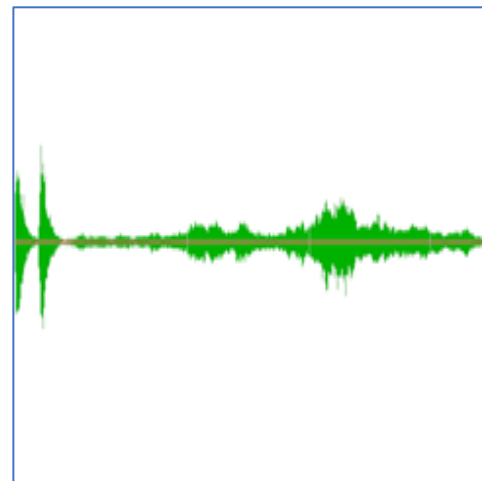
animate 3D ellipsoids along a path

## Audio Examples



### [9-Demo-Sprite-Collision&Sound.cpp](#)

play sound if movable sprites collide



### [15-Demo-Wav.cpp](#)

app displays audio, plays on user command



### [15-Demo-WavSimple.cpp](#)

simple player with adjustable volume