绘制六边形的实现方法

已用不同颜色的三角形表示出来

方法一

使用多个三角形拼接而成

使用TRIANGLELIST图元类型，用12个点绘制出来

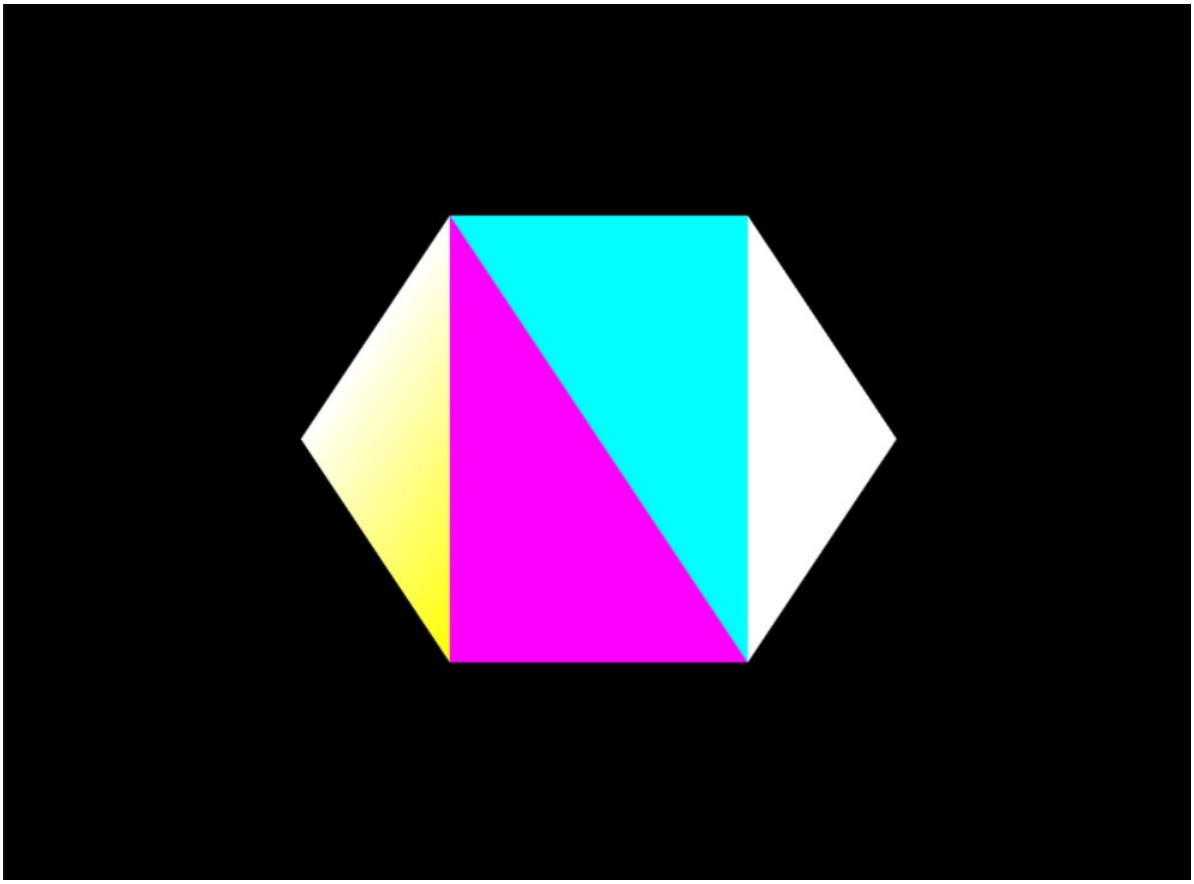
12个点分别是四个三角形的顶点

```
    VertexPosColor vertices[] =
    {
        {XMFLOAT3(0.25f,0.5f,0.5f),XMFLOAT4(1.0f,1.0f,1.0f,1.0f)},
        {XMFLOAT3(0.5f,0.0f,0.5f),XMFLOAT4(1.0f,1.0f,1.0f,1.0f)},
        {XMFLOAT3(0.25f,-0.5f,0.5f),XMFLOAT4(1.0f,1.0f,1.0f,1.0f)},

        {XMFLOAT3(-0.25f,0.5f,0.5f),XMFLOAT4(0.0f,1.0f,1.0f,1.0f)},
        {XMFLOAT3(0.25f,0.5f,0.5f),XMFLOAT4(0.0f,1.0f,1.0f,1.0f)},
        {XMFLOAT3(0.25f,-0.5f,0.5f),XMFLOAT4(0.0f,1.0f,1.0f,1.0f)},

        {XMFLOAT3(-0.25f,0.5f,0.5f),XMFLOAT4(1.0f,0.0f,1.0f,1.0f)},
        {XMFLOAT3(0.25f,-0.5f,0.5f),XMFLOAT4(1.0f,0.0f,1.0f,1.0f)},
        {XMFLOAT3(-0.25f,-0.5f,0.5f),XMFLOAT4(1.0f,0.0f,1.0f,1.0f)},

        {XMFLOAT3(-0.25f,-0.5f,0.5f),XMFLOAT4(1.0f,1.0f,0.0f,1.0f)},
        {XMFLOAT3(-0.5f,0.0f,0.5f),XMFLOAT4(1.0f,1.0f,1.0f,0.0f)},
        {XMFLOAT3(-0.25f,0.5f,0.5f),XMFLOAT4(1.0f,1.0f,1.0f,0.0f)},
    };
```

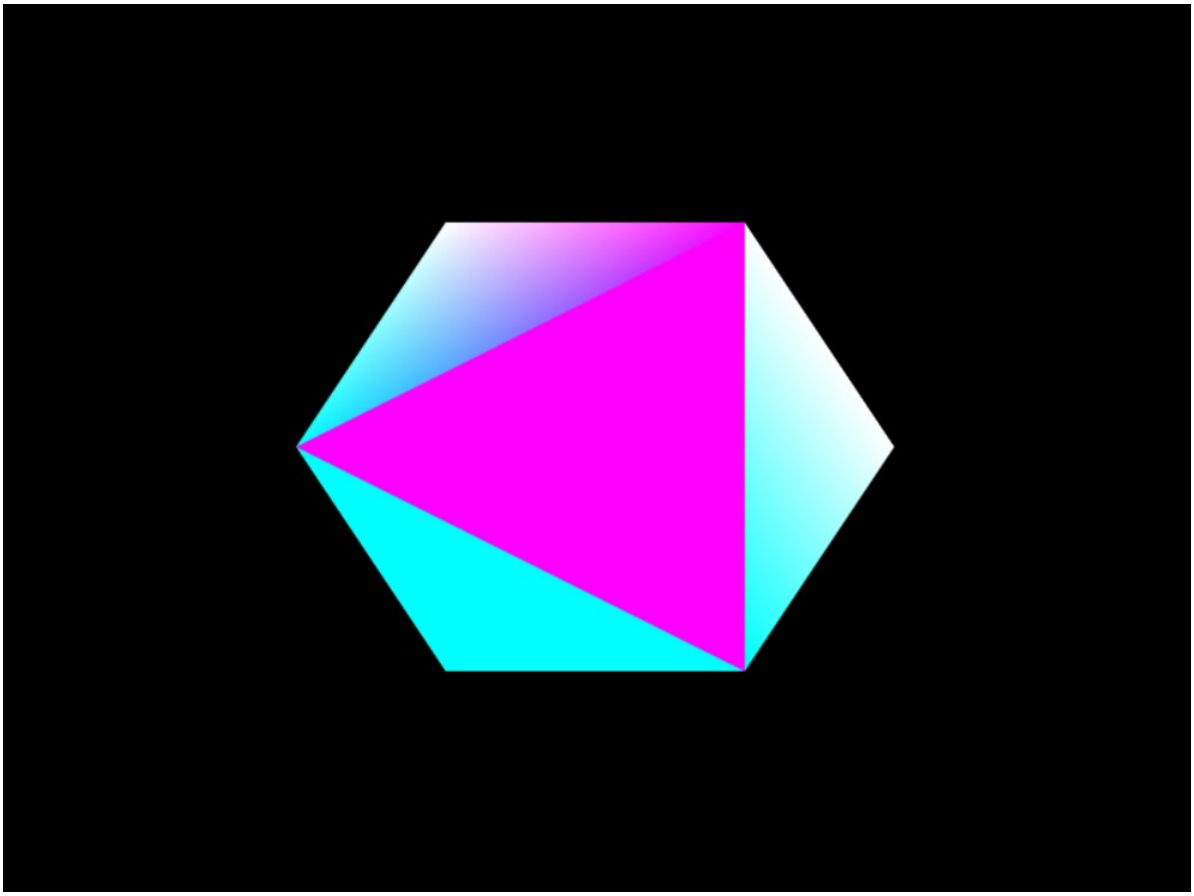


方法二

使用TRIANGLESTRIP图元类型，用9个点绘制出来

```
    VertexPosColor vertices1[] =
    {
        {XMFLOAT3(0.25f,0.5f,0.5f),XMFLOAT4(1.0f,1.0f,1.0f,1.0f)},
        {XMFLOAT3(0.5f,0.0f,0.5f),XMFLOAT4(1.0f,1.0f,1.0f,1.0f)},
        {XMFLOAT3(0.25f,-0.5f,0.5f),XMFLOAT4(0.0f,1.0f,1.0f,1.0f)},//
        {XMFLOAT3(-0.25f,-0.5f,0.5f),XMFLOAT4(0.0f,1.0f,1.0f,1.0f)},
        {XMFLOAT3(-0.5f,0.0f,0.5f),XMFLOAT4(0.0f,1.0f,1.0f,1.0f)},//
        {XMFLOAT3(-0.25f,0.5f,0.5f),XMFLOAT4(1.0f,1.0f,1.0f,1.0f)},
        {XMFLOAT3(0.25f,0.5f,0.5f),XMFLOAT4(1.0f,0.0f,1.0f,1.0f)},//
        {XMFLOAT3(0.25f,-0.5f,0.5f),XMFLOAT4(1.0f,0.0f,1.0f,1.0f)},
        {XMFLOAT3(-0.5f,0.0f,0.5f),XMFLOAT4(1.0f,0.0f,1.0f,1.0f)}

    };
```

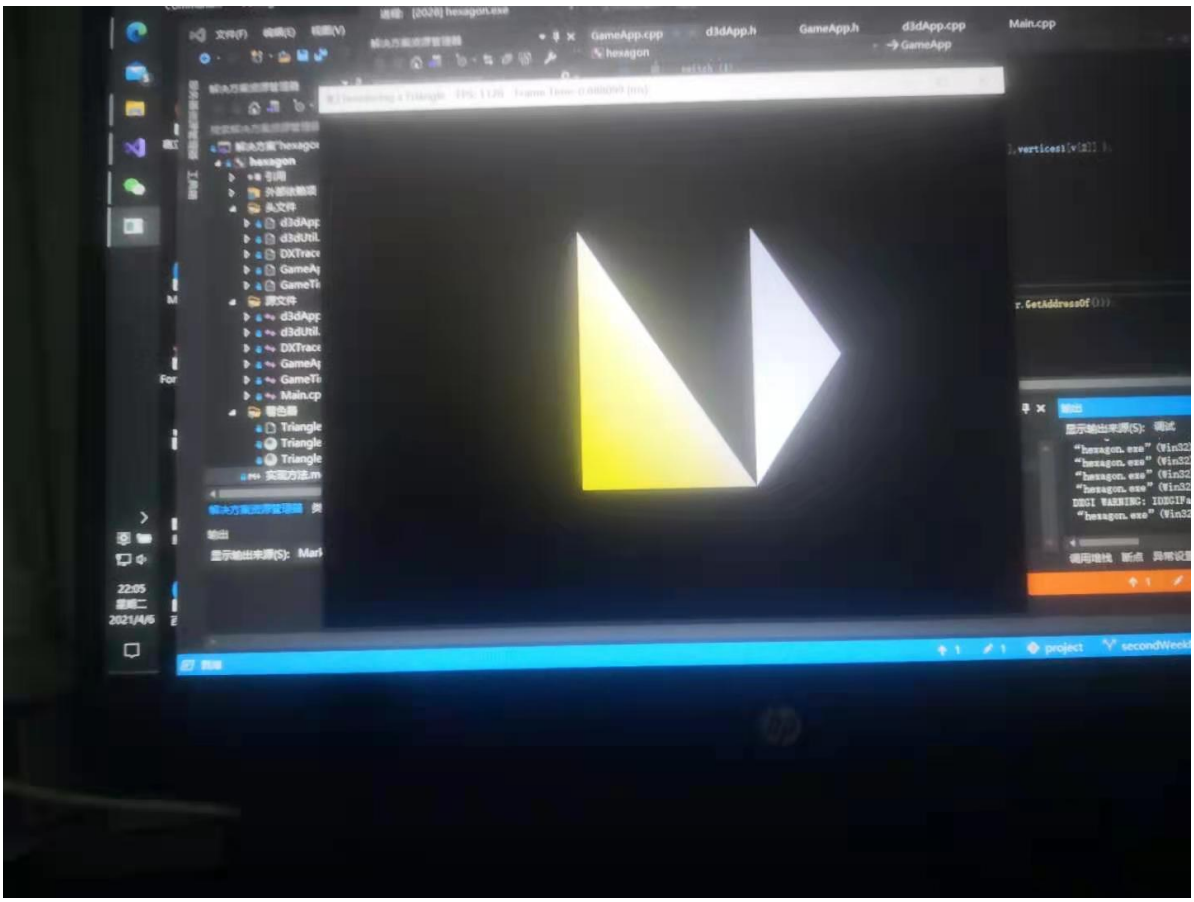


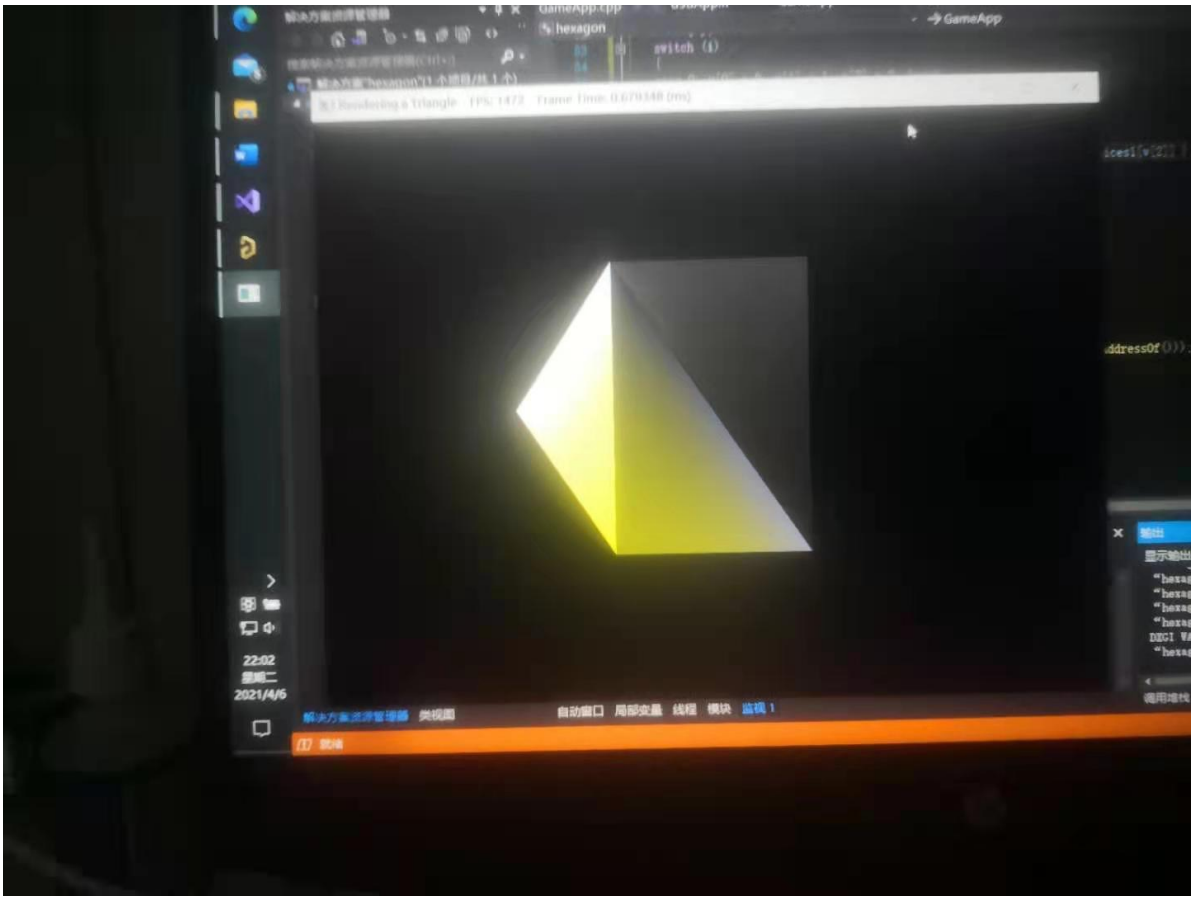
方法三

一次更新一个三角形，利用人眼的视觉延迟达到看起来是个六边形的效果

在updateScene中

```
    VertexPosColor vertices1[6] =
    {
        {XMFLOAT3(0.25f,0.5f,0.5f),XMFLOAT4(1.0f,1.0f,1.0f,1.0f)},
        {XMFLOAT3(0.5f,0.0f,0.5f),XMFLOAT4(1.0f,1.0f,1.0f,1.0f)},
        {XMFLOAT3(0.25f,-0.5f,0.5f),XMFLOAT4(1.0f,1.0f,1.0f,1.0f)},
        {XMFLOAT3(-0.25f,-0.5f,0.5f),XMFLOAT4(1.0f,1.0f,0.0f,1.0f)},
        {XMFLOAT3(-0.5f,0.0f,0.5f),XMFLOAT4(1.0f,1.0f,1.0f,0.0f)},
        {XMFLOAT3(-0.25f,0.5f,0.5f),XMFLOAT4(1.0f,1.0f,1.0f,0.0f)},
    };
    int i = rand() % 4;
    int v[3];
    switch (i)
    {
    case 0: v[0] = 0; v[1] = 1; v[2] = 2; break;
    case 1: v[0] = 5; v[1] = 0; v[2] = 2; break;
    case 2: v[0] = 5; v[1] = 2; v[2] = 3; break;
    case 3: v[0] = 5; v[1] = 3; v[2] = 4; break;
    }
    VertexPosColor vertices[3] = {
vertices1[v[0]],vertices1[v[1]],vertices1[v[2]] };
```





但是效果不太好