6B

Code:

```
using System;
usingSystem.Collections.Generic;
usingSystem.ComponentModel;
usingSystem.Data;
usingSystem.Drawing;
usingSystem.Text;
usingSystem.Windows.Forms;
using System.IO;
usingMicrosoft.DirectX.Direct3D;
usingMicrosoft.DirectX;

namespace GP_E
{
publicpartialclassForm1 : Form
    {
private Device device;
privatePresentParameterspres;
private Mesh mesh;
privateMaterial[] materials;
privateTexture[] textures;
public Form1()
        {
InitializeComponent();
        }
publicboolInitializeGraphics()
        {
pres = newPresentParameters();
pres.Windowed = true;
pres.SwapEffect = SwapEffect.Discard;
pres.EnableAutoDepthStencil = true;
pres.AutoDepthStencilFormat = DepthFormat.D16;
            device = newDevice(0, DeviceType.Hardware, this,
CreateFlags.SoftwareVertexProcessing,
pres);
device.RenderState.CullMode = Cull.None;
CreateMesh(@"airplane 2.x");
returntrue;
        }
publicvoidCreateMesh(string path)
        {
ExtendedMaterial[] exMaterials;
            mesh = Mesh.FromFile(path, MeshFlags.SystemMemory, device,
outexMaterials);
if (textures != null)
            {
DisposeTextures();
            }
            textures = newTexture[exMaterials.Length];
            materials = newMaterial[exMaterials.Length];

for (inti = 0; i<exMaterials.Length; ++i)
            {
if (exMaterials[i].TextureFilename != null)
                {
stringtexturePath = Path.Combine(Path.GetDirectoryName(path),
exMaterials[i].TextureFilename);
                    textures[i] = TextureLoader.FromFile(device, texturePath);
                }
```

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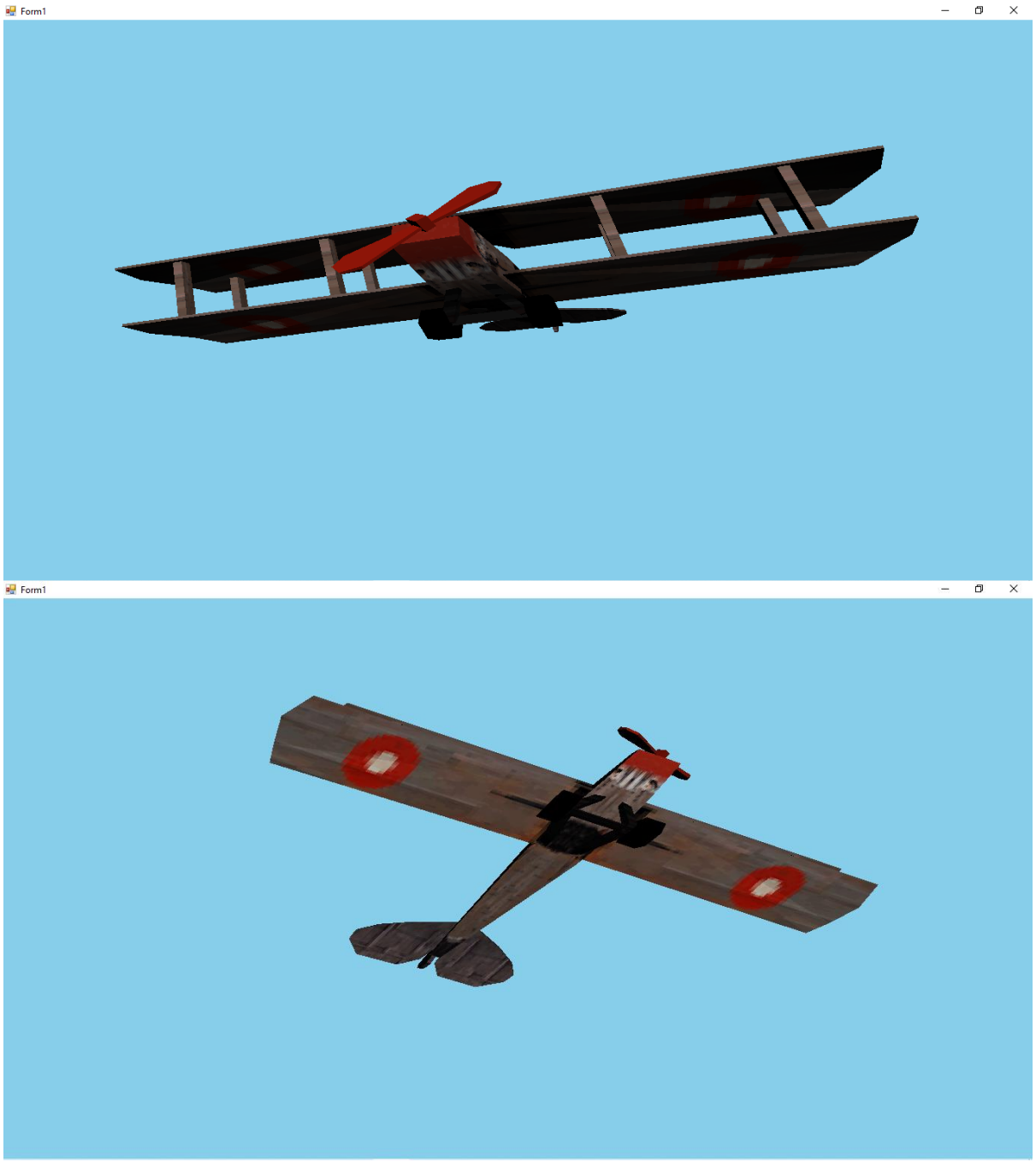
                materials[i] = exMaterials[i].Material3D;
                materials[i].Ambient = materials[i].Diffuse;
            }
        }
publicvoidDisposeTextures()
        {
if (textures == null)
            {
return;
            }
foreach (Texture t in textures)
            {
if (t != null)
                {
t.Dispose();
                }
            }
        }
publicvoidSetupMatrices()
        {
float yaw = Environment.TickCount / 500.0F;
float pitch = Environment.TickCount / 500.0F;
float roll = Environment.TickCount / 500.0F;
device.Transform.World = Matrix.RotationYawPitchRoll(yaw, pitch, roll);
device.Transform.View = Matrix.LookAtLH(new Vector3(0, 0, -8), new Vector3(0, 0, 0),
new
            Vector3(0, 1, 0));
device.Transform.Projection = Matrix.PerspectiveFovLH((float)Math.PI / 2.0F, 1.0F,
1.0F, 12.0F);
        }
publicvoidSetupLights()
        {
device.RenderState.Lighting = true;
device.Lights[0].Diffuse = Color.White;
device.Lights[0].Specular = Color.White;
device.Lights[0].Type = LightType.Directional;
device.Lights[0].Direction = new Vector3(-1, -1, 3);
device.Lights[0].Enabled = true;
device.RenderState.Ambient = Color.FromArgb(0x00, 0x00, 0x00);

        }
publicvoidRenderMesh()
        {
for (inti = 0; i<materials.Length; ++i)
            {
if (textures[i] != null)
                {
device.SetTexture(0, textures[i]);
                }
device.Material = materials[i];
mesh.DrawSubset(i);
            }
        }
publicvoidRender()
        {
device.Clear(ClearFlags.Target | ClearFlags.ZBuffer, Color.SkyBlue, 1.0F, 0);
device.BeginScene();
SetupMatrices();
SetupLights();
RenderMesh();
device.EndScene();
device.Present();
```

```
        }
publicvoidDisposeGraphics()
        {
DisposeTextures();
device.Dispose();
        }

privatevoid Form1_Paint(object sender, PaintEventArgs e)
        {
Render();
        }
    }
}
```

Output:


Form1
Form1