# 1 – Displaying the ship

Add the following class members:

Model shipModel;

Add load logic to the LoadContent method:

protected override void LoadContent()  
{

// Create a new SpriteBatch, which can be used to draw textures.

spriteBatch = new SpriteBatch(GraphicsDevice);

shipModel = Content.Load<Model>("Models\\p2\_wedge");

}

Add draw logic to the Draw method:

protected override void Draw(GameTime gameTime)

{

graphics.GraphicsDevice.Clear(Color.CornflowerBlue);

foreach (ModelMesh mesh in shipModel.Meshes)

{

foreach (BasicEffect effect in mesh.Effects)

{

effect.Projection = Matrix.CreatePerspectiveFieldOfView(MathHelper.ToRadians(45), GraphicsDevice.DisplayMode.AspectRatio, 1f, 260000.0f);

effect.View = Matrix.CreateLookAt(new Vector3(0, 0, -5000), Vector3.Zero, Vector3.Up);

effect.EnableDefaultLighting();

}

mesh.Draw();

}

base.Draw(gameTime);

}

# 2 – Moving the ship and camera

Add ship pos class member:

Matrix shipPos;

Initialize shipPos in LoadContent:

spriteBatch = new SpriteBatch(GraphicsDevice);

shipModel = Content.Load<Model>("Models\\p2\_wedge");

**shipPos = shipModel.Root.Transform \* Matrix.CreateRotationX(MathHelper.ToRadians(90)) \* Matrix.CreateTranslation(0, -8000, 0);**

Change draw method:

effect.Projection = Matrix.CreatePerspectiveFieldOfView(MathHelper.ToRadians(45), GraphicsDevice.DisplayMode.AspectRatio, **24000.0f**, 26000.0f);

effect.View = Matrix.CreateLookAt(new Vector3(0, 0, **25000**), Vector3.Zero, Vector3.Up);

**effect.World = shipPos;**

# 3 – Moving the ship

Change update method for input:

GamePadState state = GamePad.GetState(PlayerIndex.One);

Vector2 movement = new Vector2

(state.ThumbSticks.Left.X \* 200.0f \*

(float)gameTime.ElapsedGameTime.TotalMilliseconds / 12.0f,

(state.ThumbSticks.Left.Y \* 200.0f \*

(float)gameTime.ElapsedGameTime.TotalMilliseconds / 12.0f));

shipPos \*= Matrix.CreateTranslation(movement.X, movement.Y, 0);Mesh is a collection of points

Effect is collection of several things:

* is a descrpiontion about how to render a certen piece on the screen.
* How do we light that
* How to position that
* A reference to shaders
  + Piece of code running on the graphics hardware
  + Writen in HLSL
  + Where to put a point in what color

Project, View, Word – Descrips via matrices.

Project: Tel the effect how the rendering space lookslike.

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