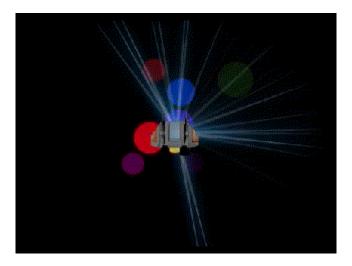
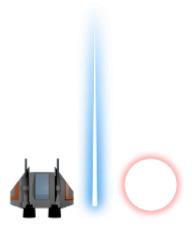
## **Futurama Appearance Effect**

This tutorial will teach you how to create a warp appearance effect like at the start of the Futurama title sequence. The effect will look something like this:



In order to make this, you will need three simple things: an object like a ship, a blue spike, and a flat ball:



Begin by creating the alien ship on screen:

```
[Alien]
Graphic = AlienGraphic
Position = (0, 0, 0.5)
ChildList = WarpAppearance

[AlienGraphic]
Texture = ship.png
Pivot = center
```

Notice the WarpAppearance object added to the child list. This is where the appearance affects will be added. Whenever an instance of an alien ship is created, a nice appearance effect will show with it.

Define WarpAppearance with:

WarpAppearance is just an empty object that is turning. This object will only live for 4 seconds, then it will die. Attached to this (as a child) is WarpSpineMaker.

Create WarpSpineMaker with:

```
[WarpSpineMaker]
Spawner = WarpSpineSpawner
Position = (0, -3, 0)

[WarpSpineSpawner]
Object = WarpSpine
ActiveObject = 40
WaveSize = 5
WaveDelay = 0.1
CleanOnDelete = true
UseSelfAsParent = true
```

WarpSpineMaker has a spawner defined (WarpSpineSpawner). WarpSpineSpawner will spawn loads of WarpSpine objects, which are the blue spike texture as above.

```
[WarpSpine]
Graphic = @
Texture = warp-spine.png
Pivot = (17, 202, 0)
AngularVelocity = -200 ~ 200
FXList = FadeInOutFX
LifeTime = 1.0
```

This is the interesting part. Each WarpSpine object that is spawned by WarpSpineSpawner has a low centered pivot point and a random spin value. Each only lives for a second, but this gives a "filtered light" effect. To smooth the appearance in and out of each object, a FadeInOutFX is defined:

```
[FadeInOutFX]
SlotList
         = FadeInOutFXSlot
KeepInCache = true
           = false
Loop
[FadeInOutFXSlot]
             = alpha
Type
Curve
             = sine
StartTime
            = 0.0
             = 4.0
EndTime
StartValue
            = 0.0
```

```
EndValue = 1.0
Absolute = true
```

Add a small piece of object creation code to your project's init() function:

```
orxObject_CreateFromConfig("Alien");
```

Compile and run. The ship will appear with a dazzling array of blue spines surrounding it.

For a minor enhancement, we'll also spawn some randomly coloured balls to act as a type of lens flare. Change the WarpAppearance to include a child called BubbleCreator:

And it is defined as:

```
[BubbleCreator]
Spawner = BubbleSpawner
LifeTime = 3

[BubbleSpawner]
Object = Bubble
ActiveObject = 24
WaveSize = 2
WaveDelay = 0.1
UseRelativeSpeed = true
```

BubbleCreator only lives for 3 seconds in total and has a spawner called: BubbleSpawner. It in turn spawns objects called Bubble:

```
[Bubble]
Graphic = @
Texture = glow-bubble.png
LifeTime = 1
Speed = (-250, -250, 0) ~ (250, 250, 0);
Scale = 0.5 ~ 1.0
Pivot = center
HSV = (0.0, 1.0, 1.0) ~ (1.0, 1.0, 1.0)
FXList = FadeAwayFX
```

These shoot away in random directions, have a random colour and size. They also fade nicely away with FadeAwayFX, which we'll define here:

```
[FadeAwayFX]
SlotList = FadeAwayFXSlot
KeepInCache = true
Loop = false
```

```
[FadeAwayFXSlot]
Type
             = alpha
Curve
              = linear
StartTime
              = 0.0
              = 0.5
EndTime
StartValue
              = 1.0
EndValue
              = 0.0
Period
              = 0.5
Absolute
              = true
```

Run that and the alien will appear in a wash of blue spikey light and coloured flares.

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