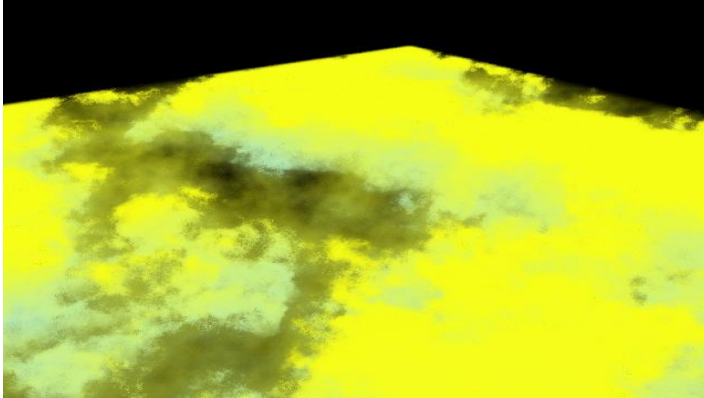


Designing fluids-part 1: Creating clouds above the ocean

JMG Spring 2007

This tutorial is an intro to designing with fluids which requires pressing a lot of buttons, checking boxes, moving some sliders and adjusting parameters. But the results are awesome.



Sky with Color gradient from Blue to White to Black

Go to Dynamics > Fluids > Create a 3D container

X = 40 Y = 4 Z = 40

Size X = 40 Y = 4 Z = 40

Boundary Draw = None

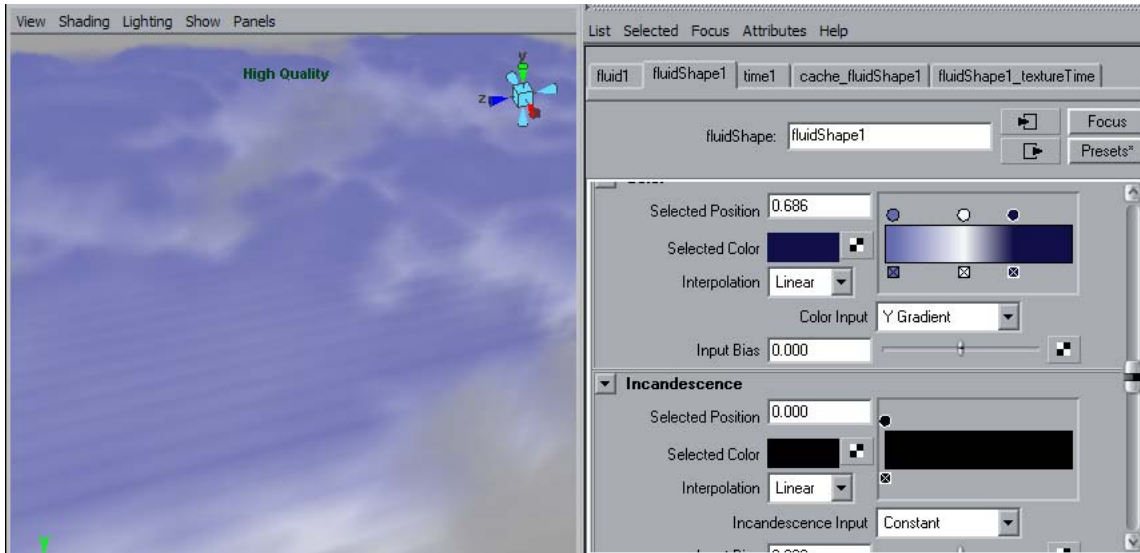
fluidShape > Display > Shaded Display > as Render

Contents Method > Density Velocity Temperature Fuel = zero

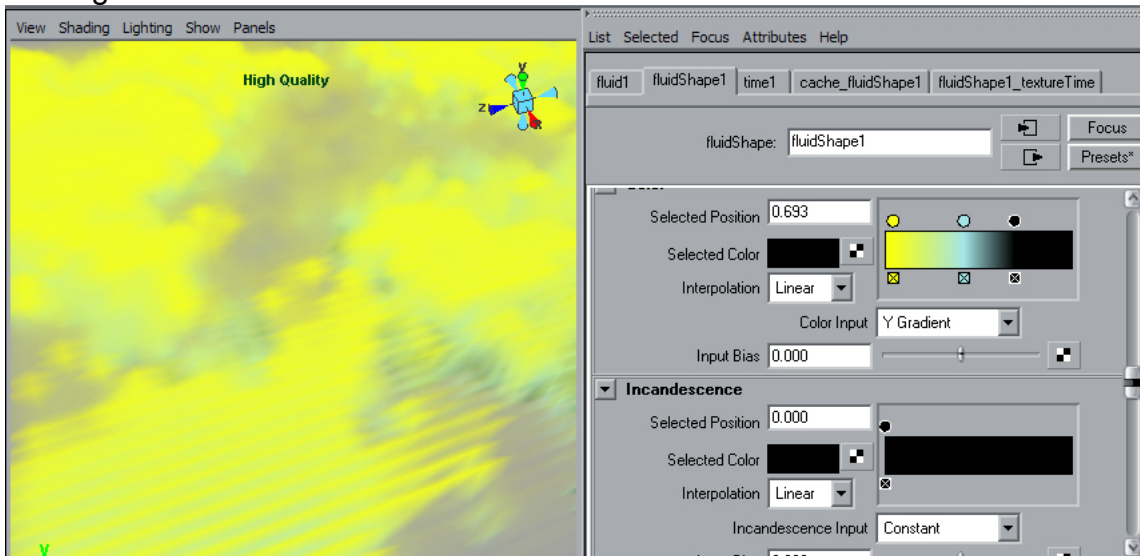
Shading > Transparency = 10%

Color > Color Input = Y gradient

Color gradient from Blue to White to Black



Color gradient from Yellow to Blue to Black



Incandescence > Incandescence Input = Constant
 Gradient = all black

Opacity > Input = Constant
 Opacity 0 to 50 % flat after ramps up

Texture > Texture color Incandescence Opacity
 Texture Type = Perlin Noise

Let's adjust the control points on the opacity ramp
 BAmpitude = 1.8
 Frequency Ratio = 3
 Depth Max = 4

Let's animate the clouds

Drag the Texture Time Slider, keyframe Texture Time for different positions of the slider

Create Ocean

Go to Dynamics > FluidEffects > Create Ocean, check attach to Camera and Create Preview Plane

Note that you can't see the fluid effect without Preview plane. Attach to Camera translates the preview plane inside the frame of the selected camera

Let's add objects floating on the surface of the ocean

Add Ocean Surface Locator moves up and down based on the waves. Note that you can only translate on x and z

Go to Locator Attributes > Extra Attributes

Add Dynamic Locator (can only translate on XYZ)

Add Boat Locator (can translate on XYZ with buoyancy)

Create a Boat Locator

Add a Polygonal cube or a boat on the surface of the water

Go to Outliner, parent the Polygonal cube or the boat to the Boat Locator,

Go to Locator Attributes > Extra Attributes

Increase Dampening

The following method showing how to reduce the buoyancy of the boat is inspired by the Fluids section of Digit Tutorials.

Create skeleton select Ctrl+ Shift select root joint and the box press p to parent them

Create an IK Handle from leg to ankle

Create an Ocean Surface Locator for the ankle

Select the Locator

Animation > Constraint point

The locator helps control the buoyancy of the boat on the surface of the water.

