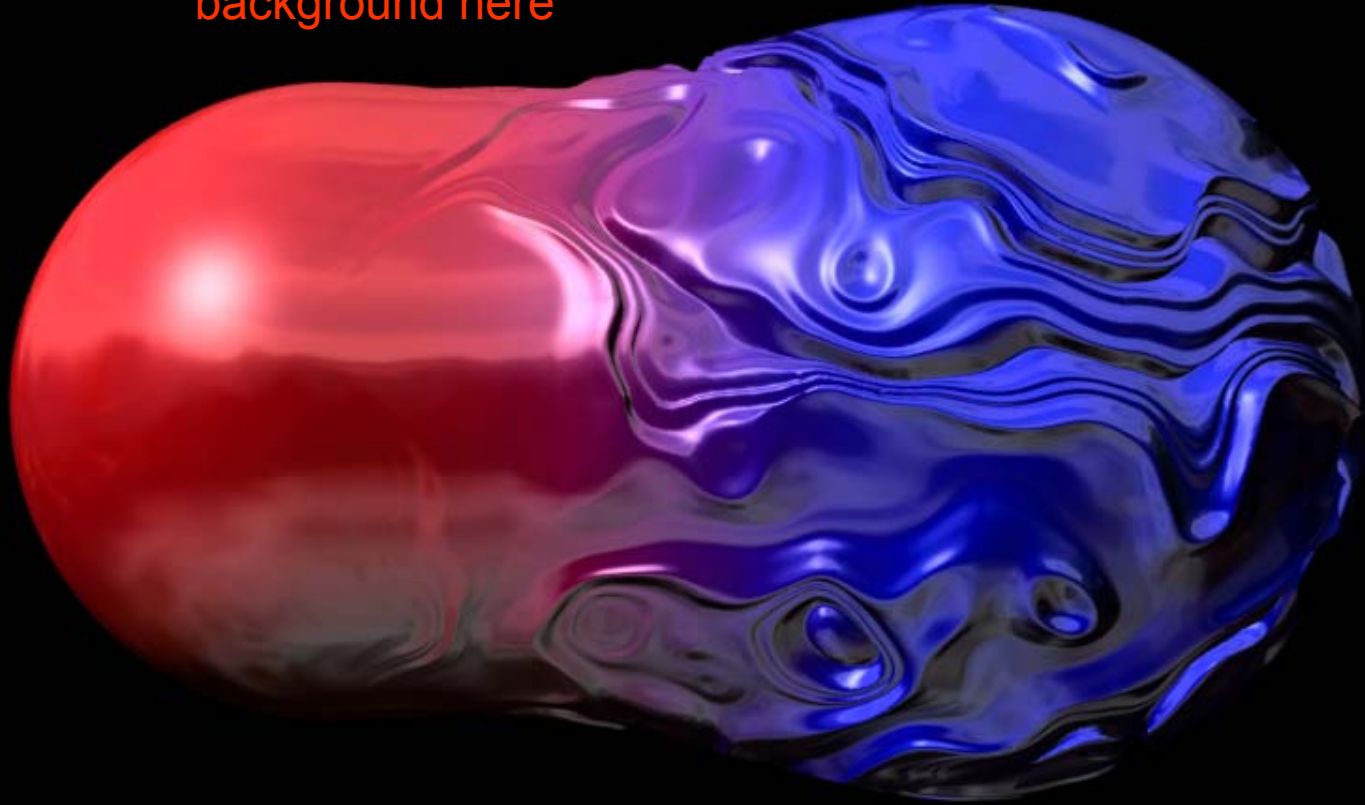


HyperVoxel Basics And

Insert good Cheap Fog
background here



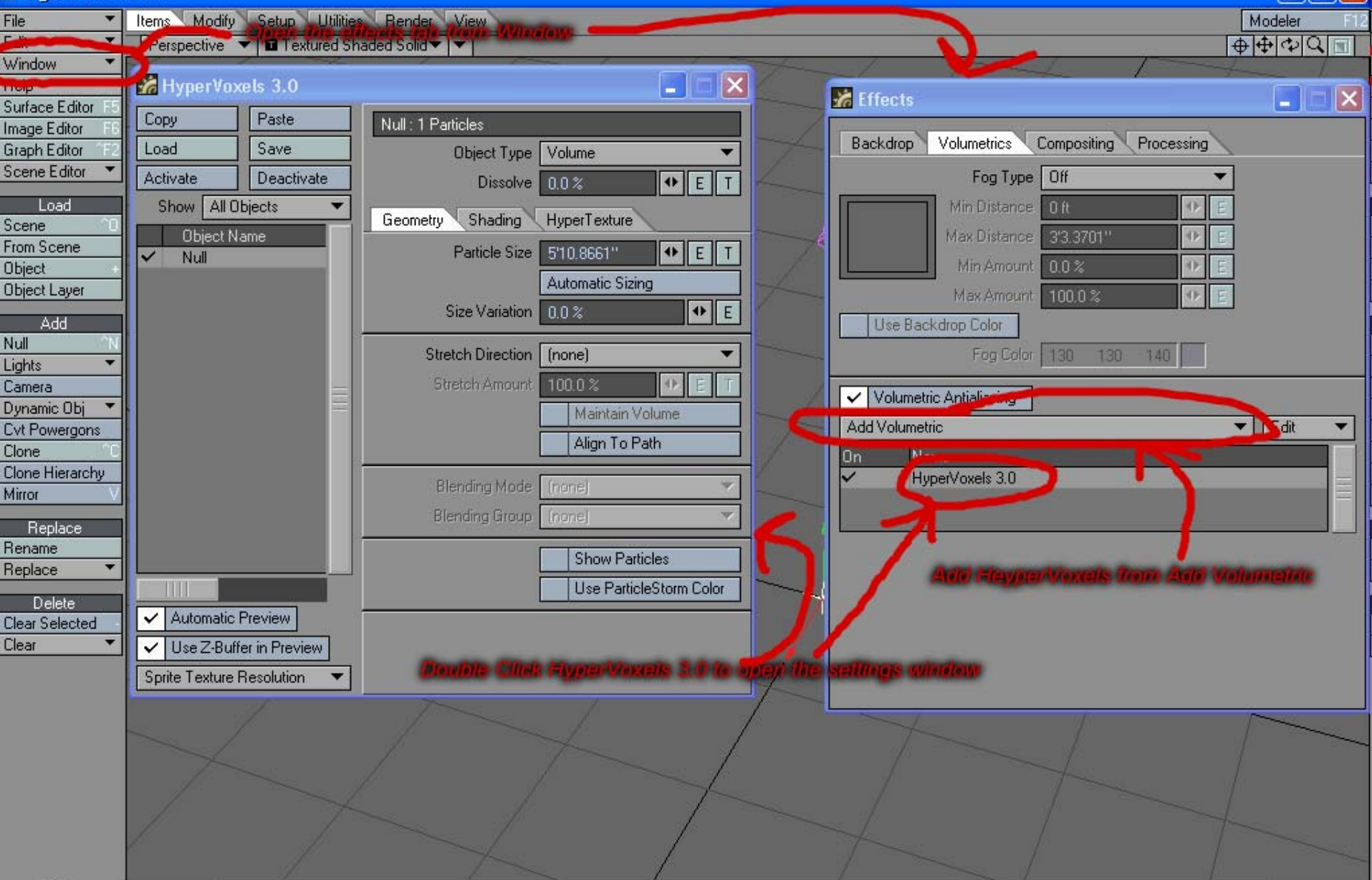
By Chris Marrs
For LightWave 3D 8.0

HyperVoxels

- Good
 - Quick Eye candy
 - Easy to setup
 - HIGH detail
- Bad
 - Longer render times for volumes
 - Smoke
 - Fire
 - Takes a bit of tweaking to look just right
 - Makes surfaces bigger

Uses of HyperVoxels

- Landscapes (good stuff)
- Water (ripples)
- Smoke & Fire
- Space Nebulas
- Rocks
- Most things with rough textures
- If using surfaces, best done so on LOW poly surfaces



Open the effects top main Window

Add HyperVoxels from Add Volumetric

Double Click HyperVoxels 3.0 to open the settings window

- File
- Edit
- Window
- Help
- Surface Editor F5
- Image Editor F6
- Graph Editor F2
- Scene Editor
- Load
- Scene
- From Scene
- Object
- Object Layer
- Add
- Null
- Lights
- Camera
- Dynamic Obj
- Cvt Powergons
- Clone
- Clone Hierarchy
- Mirror
- Replace
- Rename
- Replace
- Delete
- Clear Selected
- Clear

Items Modify Presets Utilities Render View

Perspective Textured Shaded Solid

Modeler F12

Fire&Smoke

HyperVoxels 3.0

Copy Paste Load Save Activate Deactivate

Show All Objects

Object Name
✓ Null

Null: 1 Particle

Object Type: Volume

Dissolve: 0.0 %

Geometry Shading HyperTexture

Basic Advanced

Render Quality: Very Good

Near Clip Distance: 3'3.3701"

Volumetric Shadows

Texture Shadows

Shadow Quality: Very Good

Shadow Strength: 5.0 %

Illumination: Beer

Light 1: Light

Light 2: (none)

Ambient Color: 200 200 200

Ambient Intensity: 15.0 %

Automatic Preview

Use Z-Buffer in Preview

Sprite Texture Resolution

Then you can play with the different options that can tweak the preset to your liking

I recomend using surfaces for solid volumes such as fluids things with really rough textures and the like

NOTE Be careful when applying hypervoxels to a surface with more then one polygon. You will have to increas the particle size however this will make the object seem much bigger when you do so

Position

X 0 ft 0 Y 0 ft Z 0 ft

Grid: 3'3.3701"

Objects 0 Bones B Lights L Cameras C Properties p

Auto Key +F1

Create Key ret

Delete Key del

Preview

Undo Redo Step 1

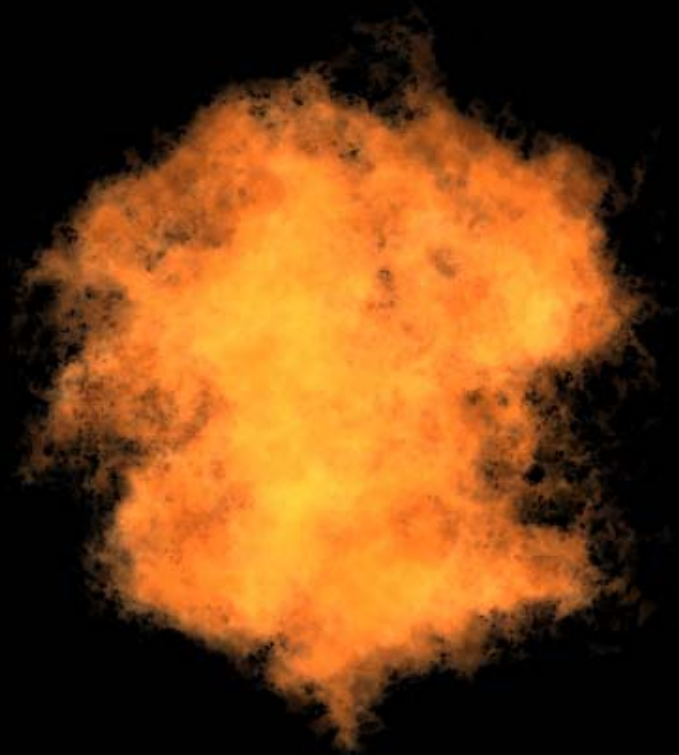
Only renders the
surface of the
volume

Created using Rock Preset
(Surface)



Renders everything
inside the volume

Billow
(Volume)



Quick Ground Cover Fog

- Easy to do
- Looks better than Supplied Fog system
- Creates fog patches
- Can also create thin cloud cover by changing the thickness setting

- File
- Edit
- Window
- Help
- Surface Editor F5
- Image Editor F6
- Graph Editor F2
- Scene Editor
- Translate
- Move
- Move Pivot
- Move Path
- Path Tool
- Add to Position
- Rotate
- Rotate
- Rotate Pivot
- Add to Rotation
- Transform
- Size H
- Stretch h
- Squash
- Add to Scale
- General
- Coord System
- Reset
- Tools
- IK BoostTool B
- IKB Calculate X
- Move TCB G
- Sliders D
- SplineControl
- Edit Tool E

Items Modify Setup Utilities Render View

Perspective Textured Shaded Solid

Modeler F12

HyperVoxels 3.0

Copy Paste

Load Save

Activate Deactivate

Show All Objects

Object Name
✓ Null
hill4

Geometry Shading HyperTexture

Null: 1 Particles

Object Type Sprite

Dissolve 0.0 %

Particle Size 657.4016"

Automatic Sizing

Size Variation 0.0 %

Stretch Direction Y

Stretch Amount 4.0 %

Maintain Volume

Align To Path

Blending Mode (none)

Blending Group (none)

Show Particles

Use ParticleStorm Color

Automatic Preview

Use Z-Buffer in Preview

Sprite Texture Resolution

change to a large size

change the stretch direction to y, and increase the stretch amount a bit. this will give the fog some height

Turn this on to see the boundaries the fog will have

Position

X	5'4.5057"	0
Y	8'4.9586"	
Z	-10'2.882"	

Grid: 32'9.7008"

Objects 0 Bones B Lights L Cameras C Properties p

Auto Key +F1

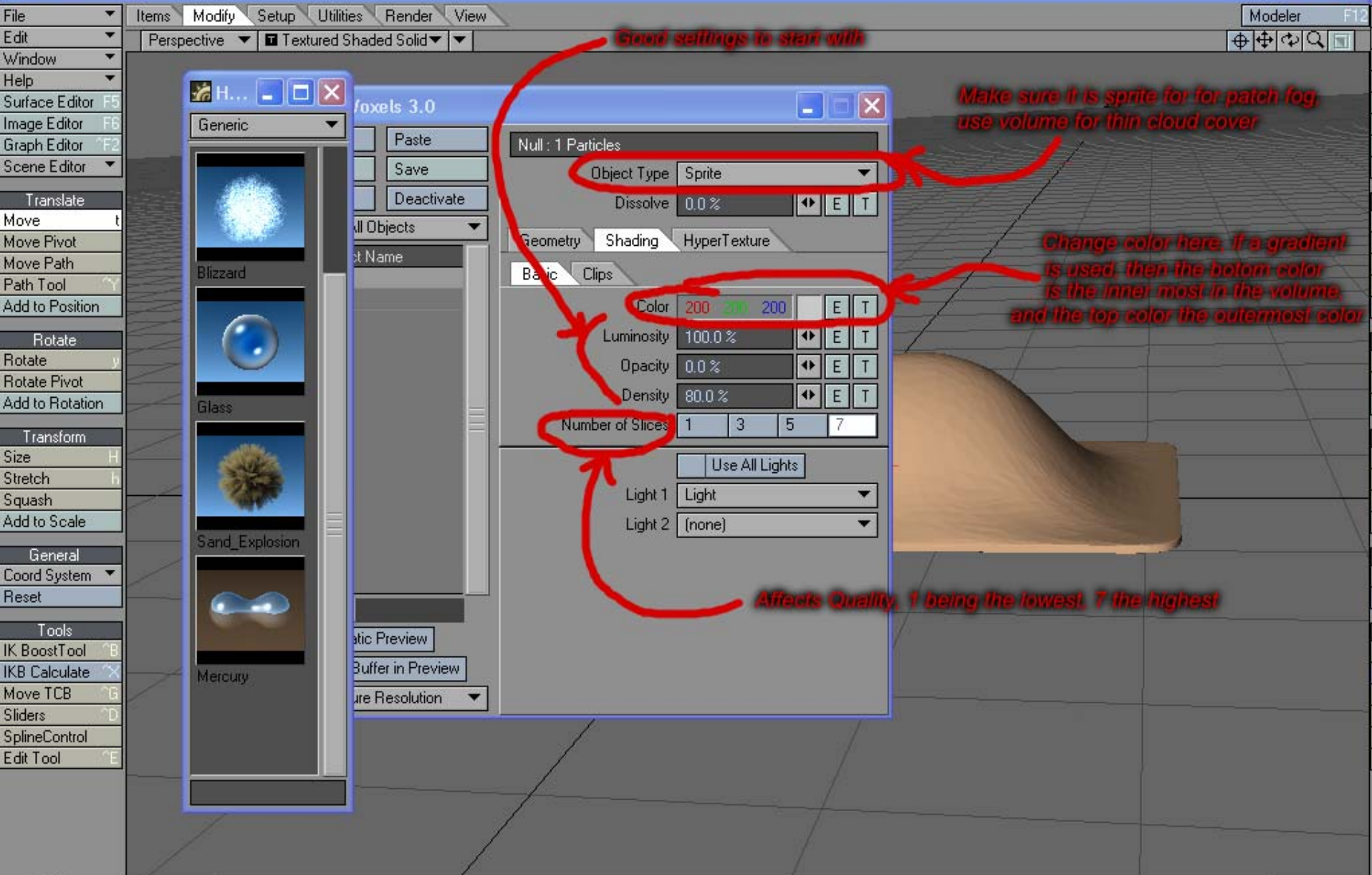
Create Key ret

Delete Key del

Preview

Undo Z Redo

Step 1



Good settings to start with

Make sure it is sprite for for patch fog, use volume for thin cloud cover

Change color here, if a gradient is used, then the bottom color is the inner most in the volume, and the top color the outermost color

Affects Quality, 1 being the lowest, 7 the highest

Position

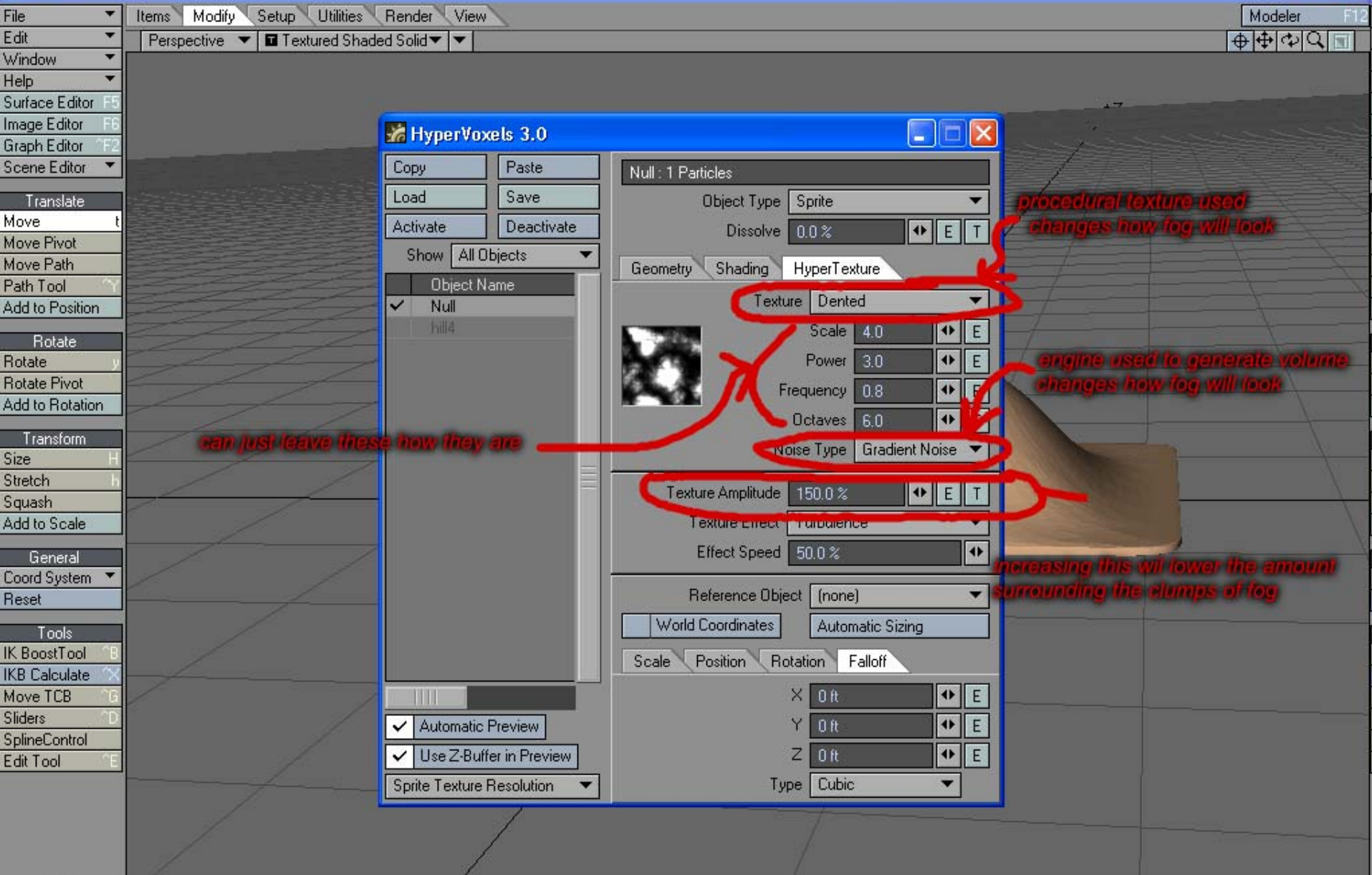
X	5'4.5057"	0
Y	8'4.9586"	Drag mouse in view to move selected items.
Z	-10'2.882"	

Grid: 32'9.7008"

Objects 0 Bones B Lights L Cameras C Properties p

Auto Key +F1
Create Key ret
Delete Key del

Preview
Undo Z Redo
Step 1



procedural texture used changes how fog will look

engine used to generate volume changes how fog will look

increasing this will lower the amount surrounding the clumps of fog

can just leave these how they are



Only the Beginning...

- There is much more to hypervoxels
- More tricks that can be done with them
- Can also create fake volumetric lighting
- Quick and good looking

References

- Essential LightWave 3D 7.5, Timothy Albee