

**Tutorial**

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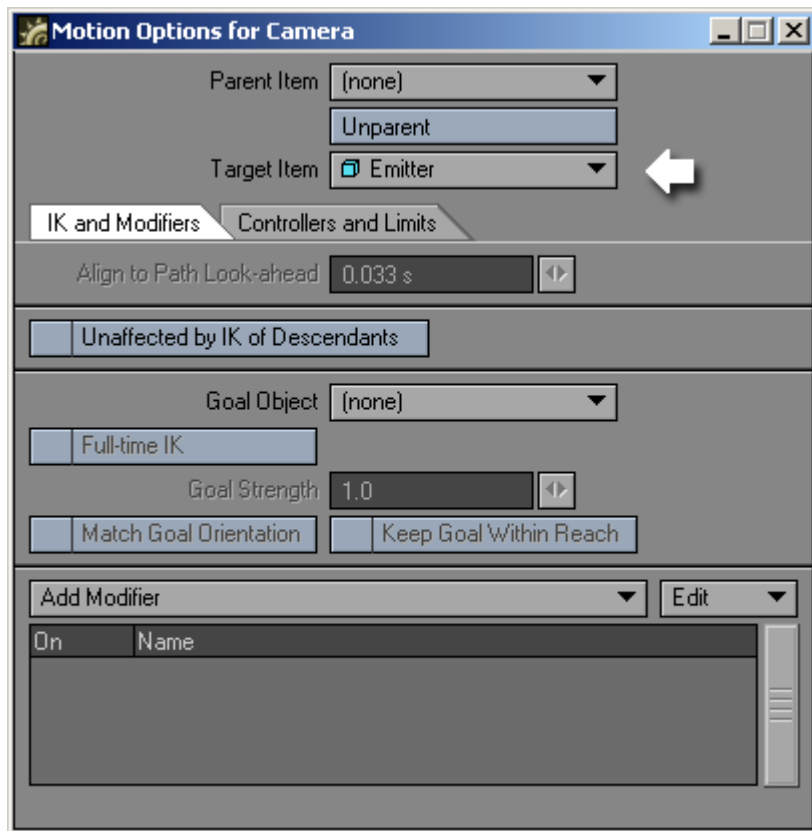
## Scene Settings

Start Lightwave with a clear scene (60 or more frames).

First create an emitter-object, but ignore the new settings window

Add a camera-position at frame 60:

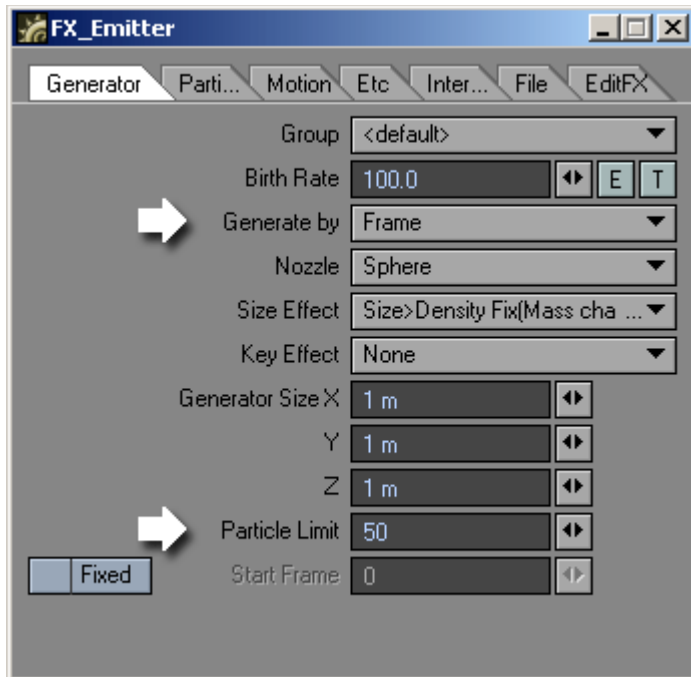
X: -1.7m | Y:2.8m | Z: 1m



Motion Options for Camera (m)

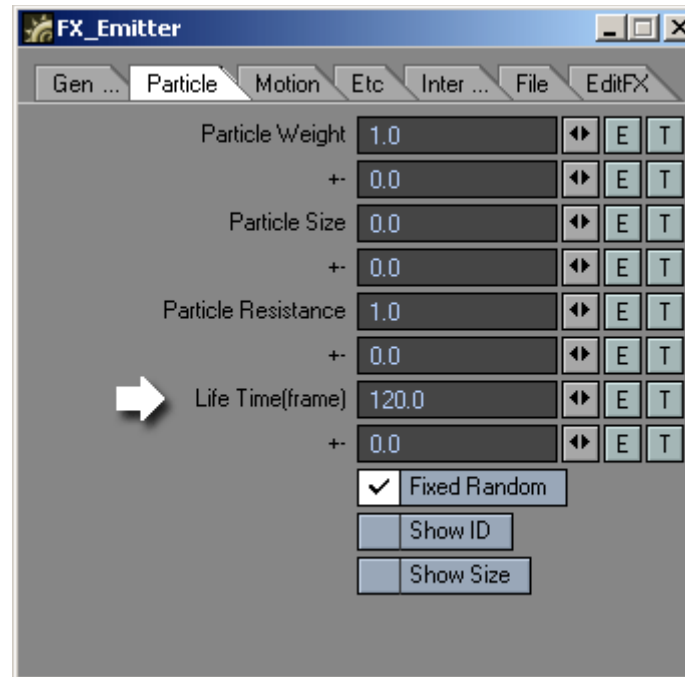
Target Item: Emitter

## FX Emitter Settings



Generator-Tab:

Generate by: Frame  
Particle Limit: 50

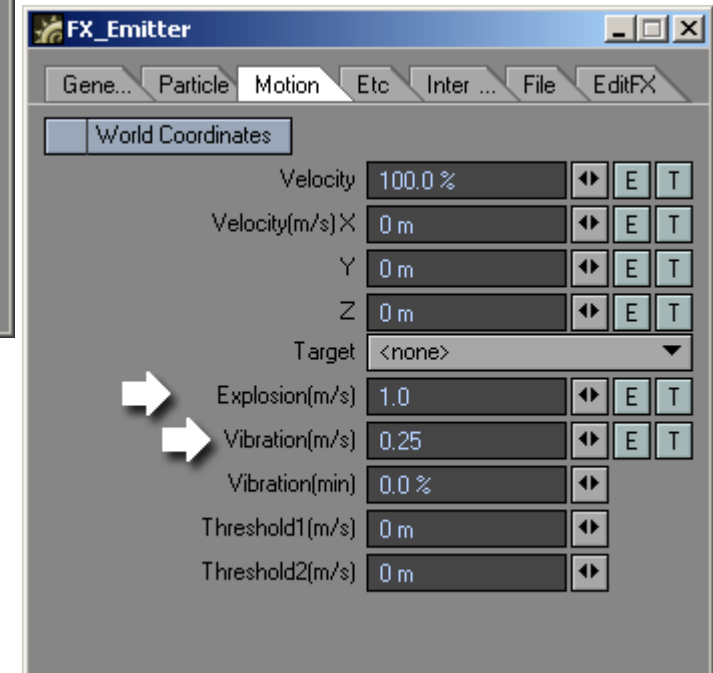


Particle-Tab:

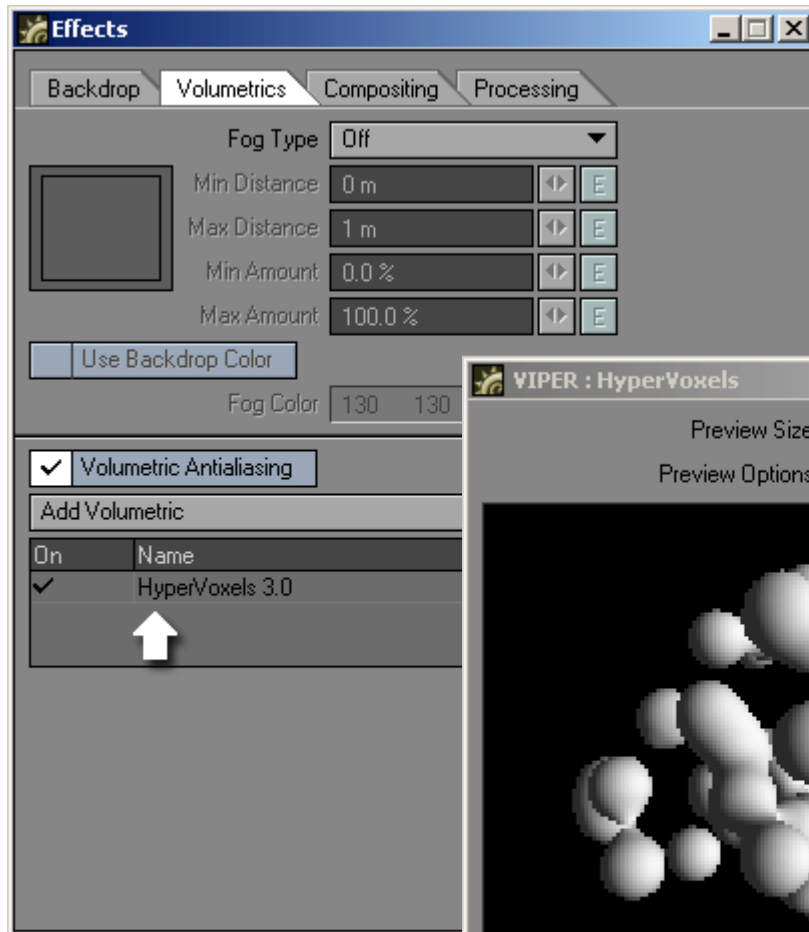
Life Time: 120

Motion-Tab:

Explosion: 1.0  
Vibration: 0.25



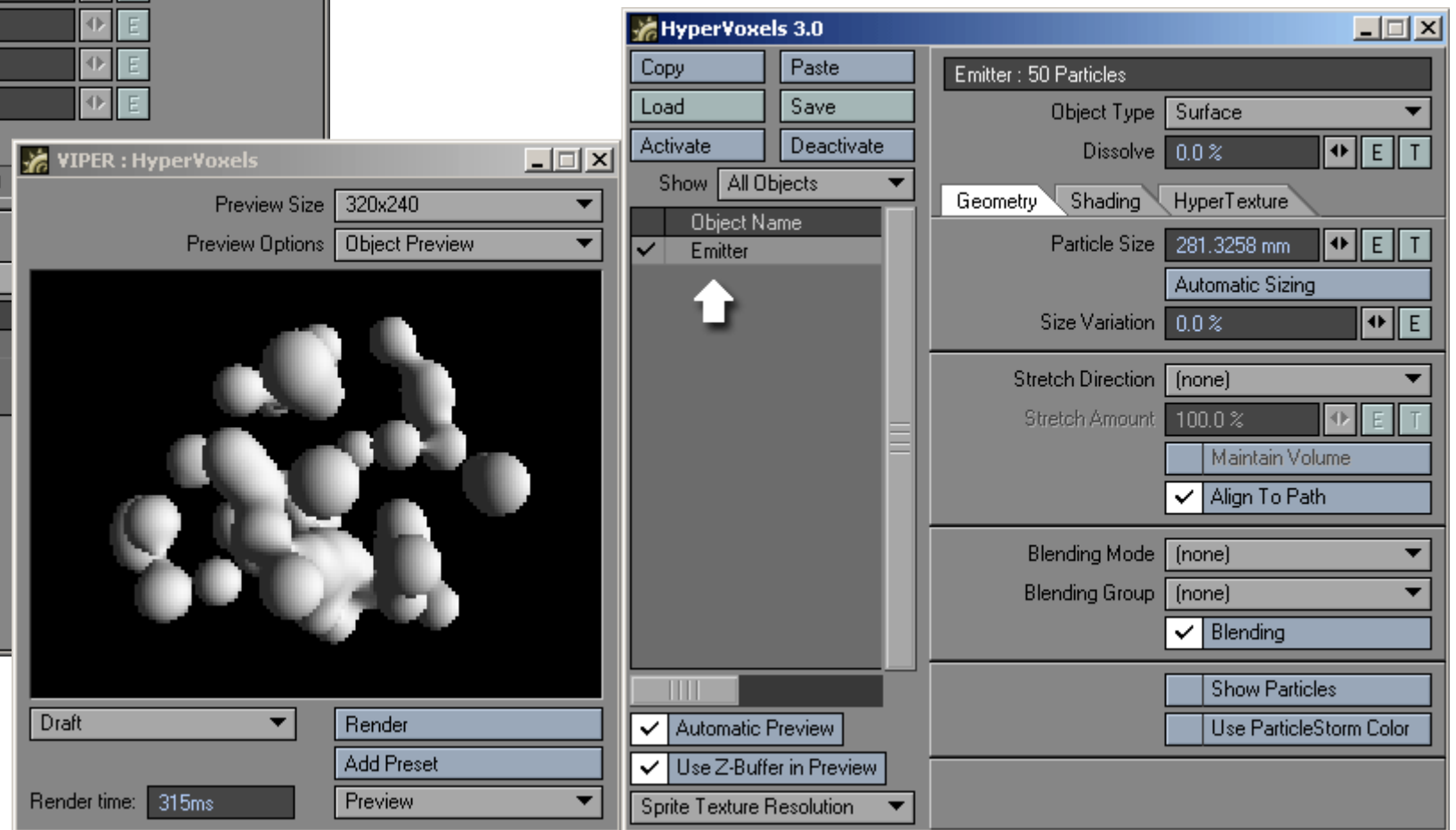
## Volumetrics Settings

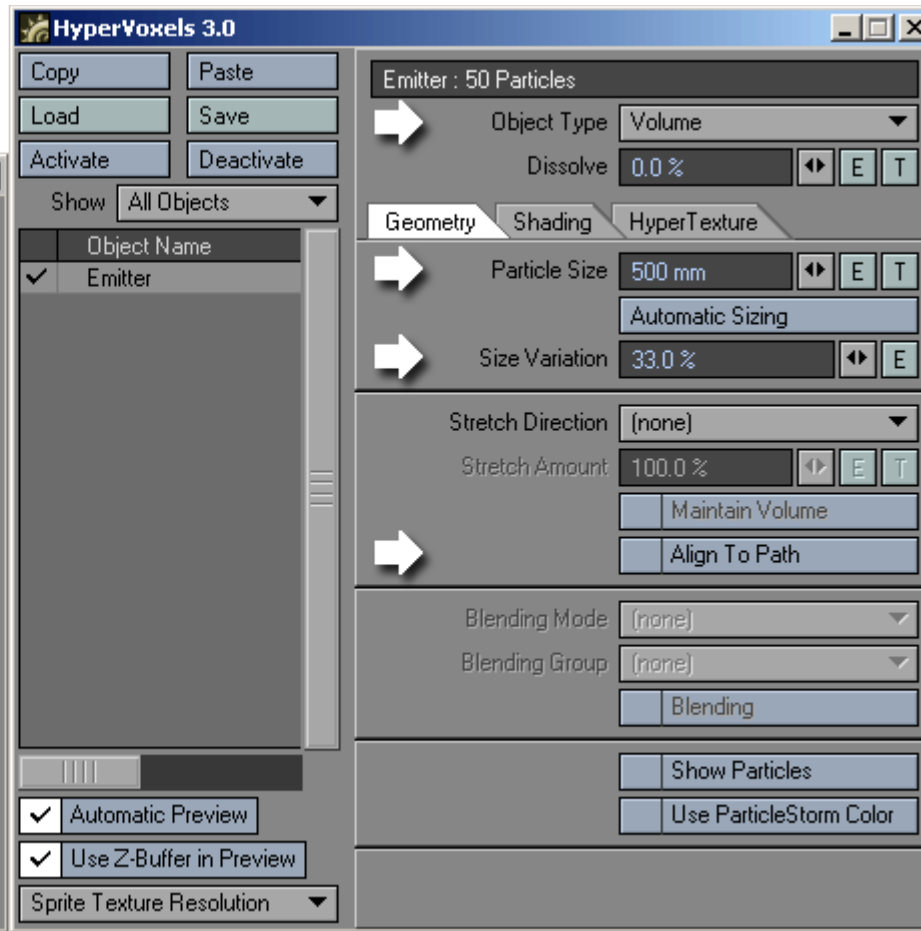
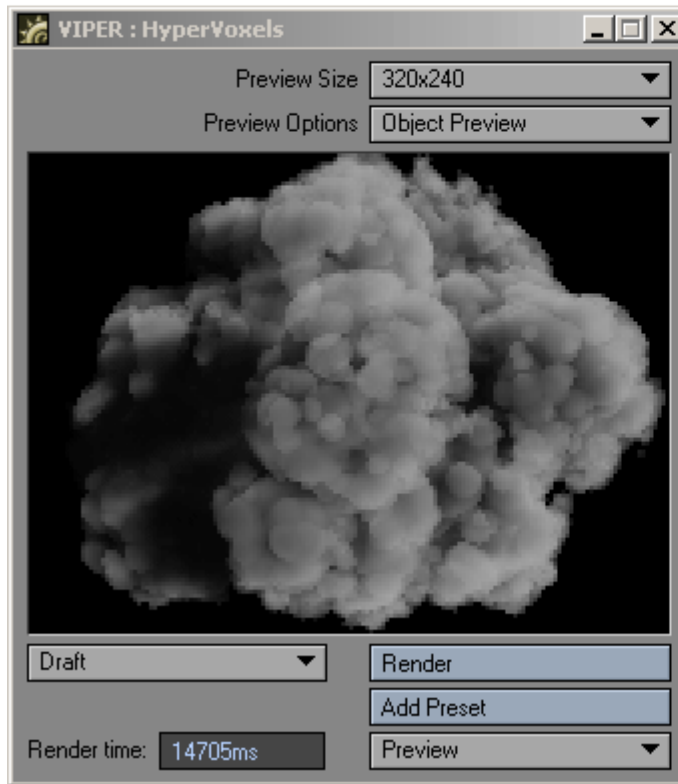


Add HyperVoxels under the Volumetrics-Tab (^F6) and open it with doubleclick.

Activate the Emitter with doubleclick.

Open the viper window (F7) to see a realtime preview



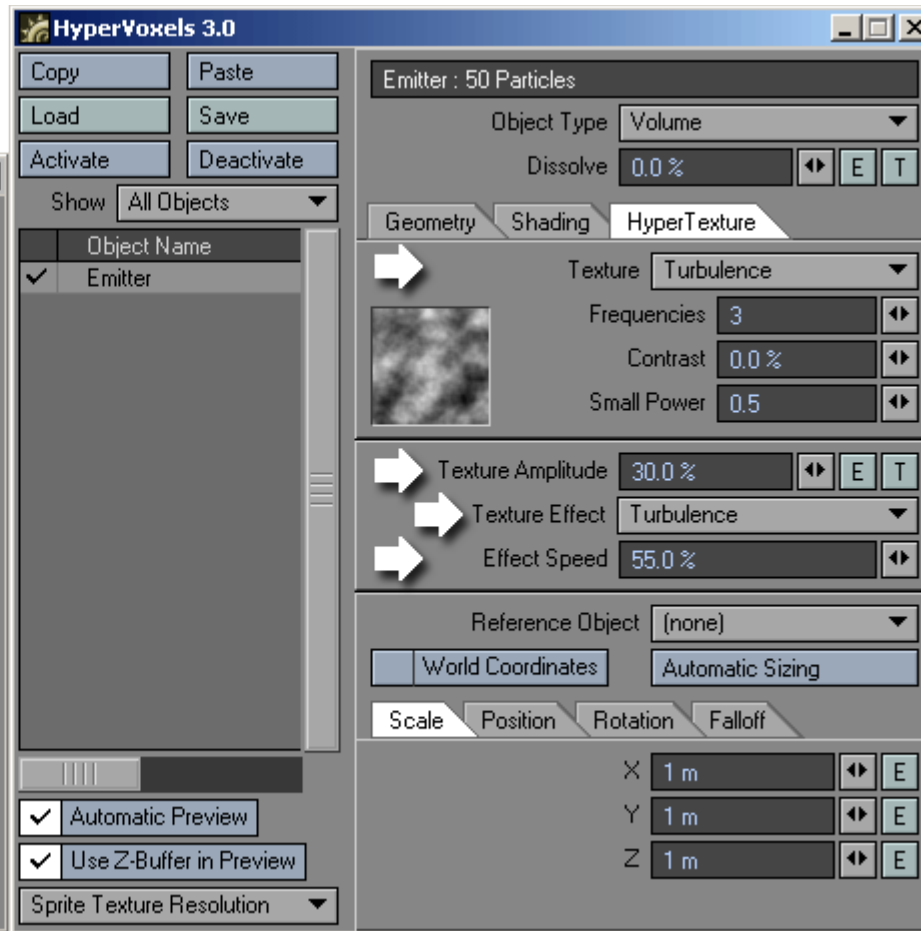
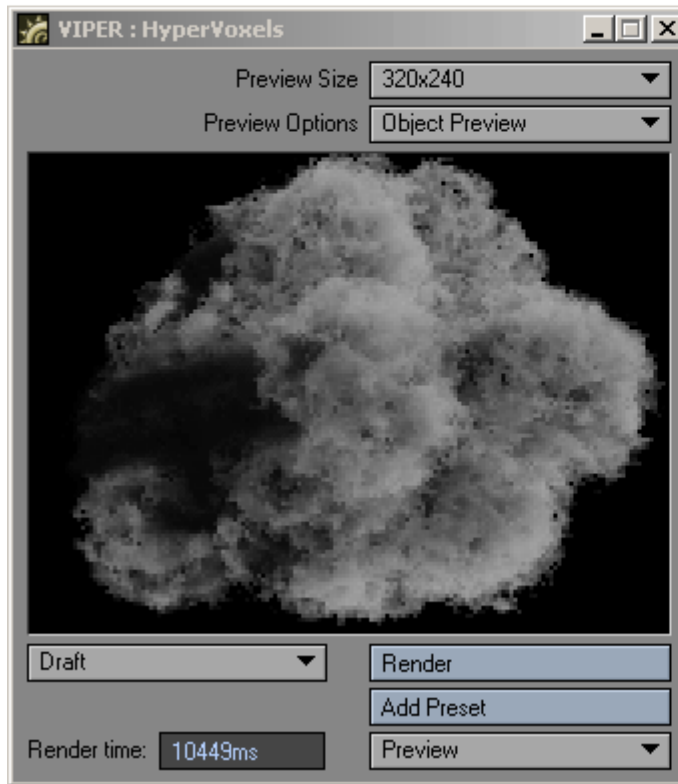


Object Type: Volume

Particle Size: 500 mm

Size Variation: 33.0 %

Align To Path: deactivate



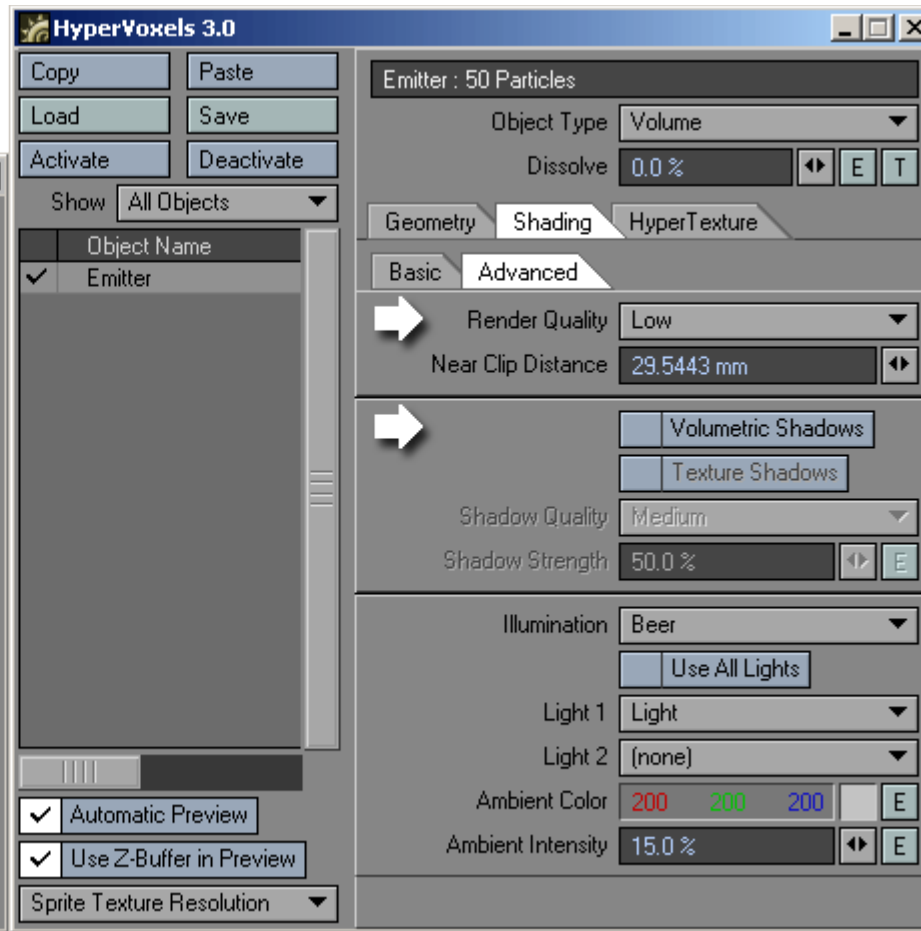
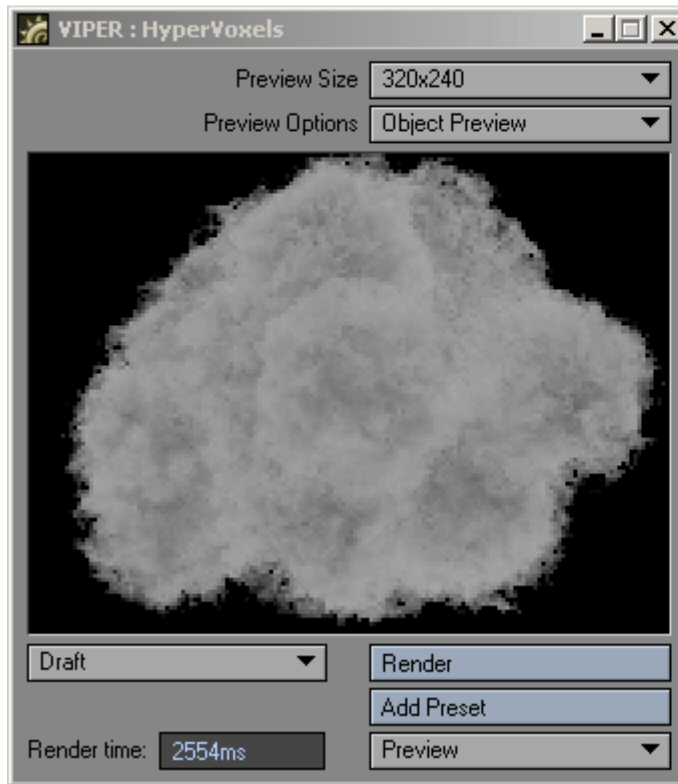
HyperTexture:

Texture: Turbulence

Amplitude: 30.0 %

Effect: Turbulence

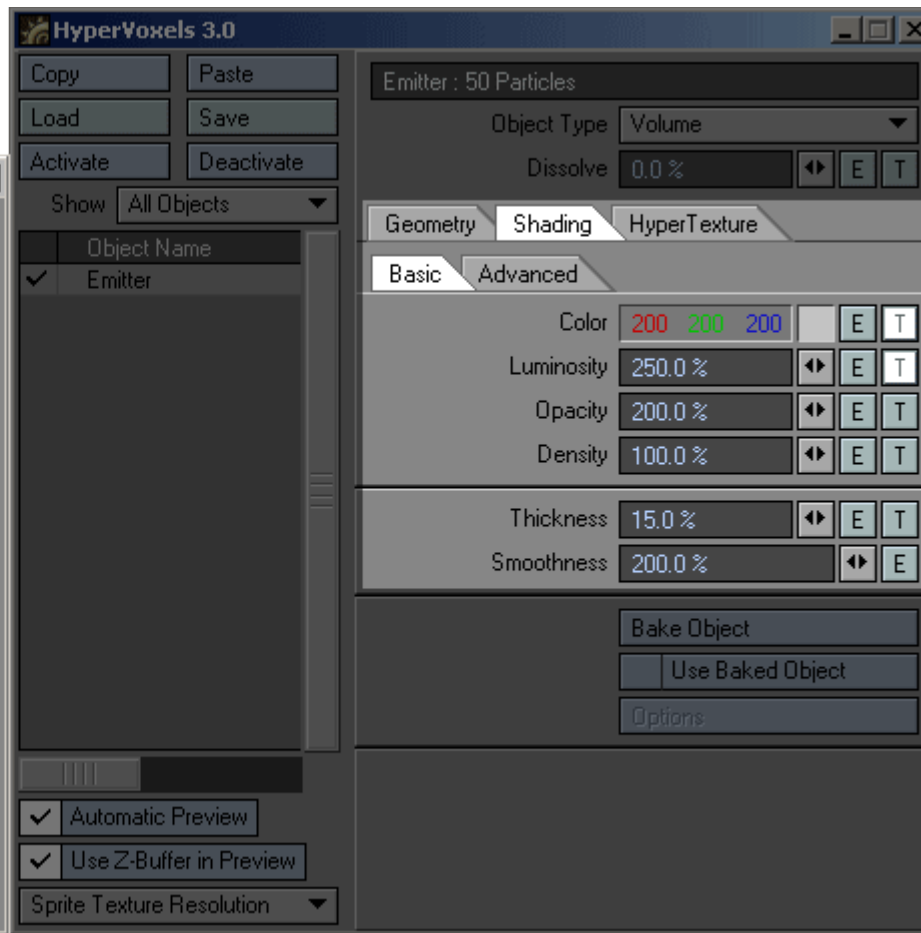
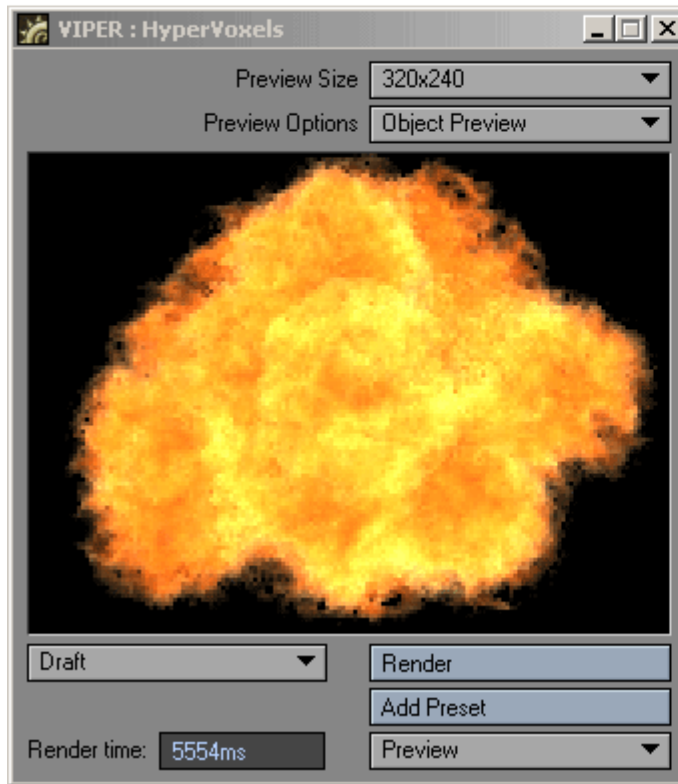
Speed: 55.0 %



Shading–Advanced:

Render Quality: Low

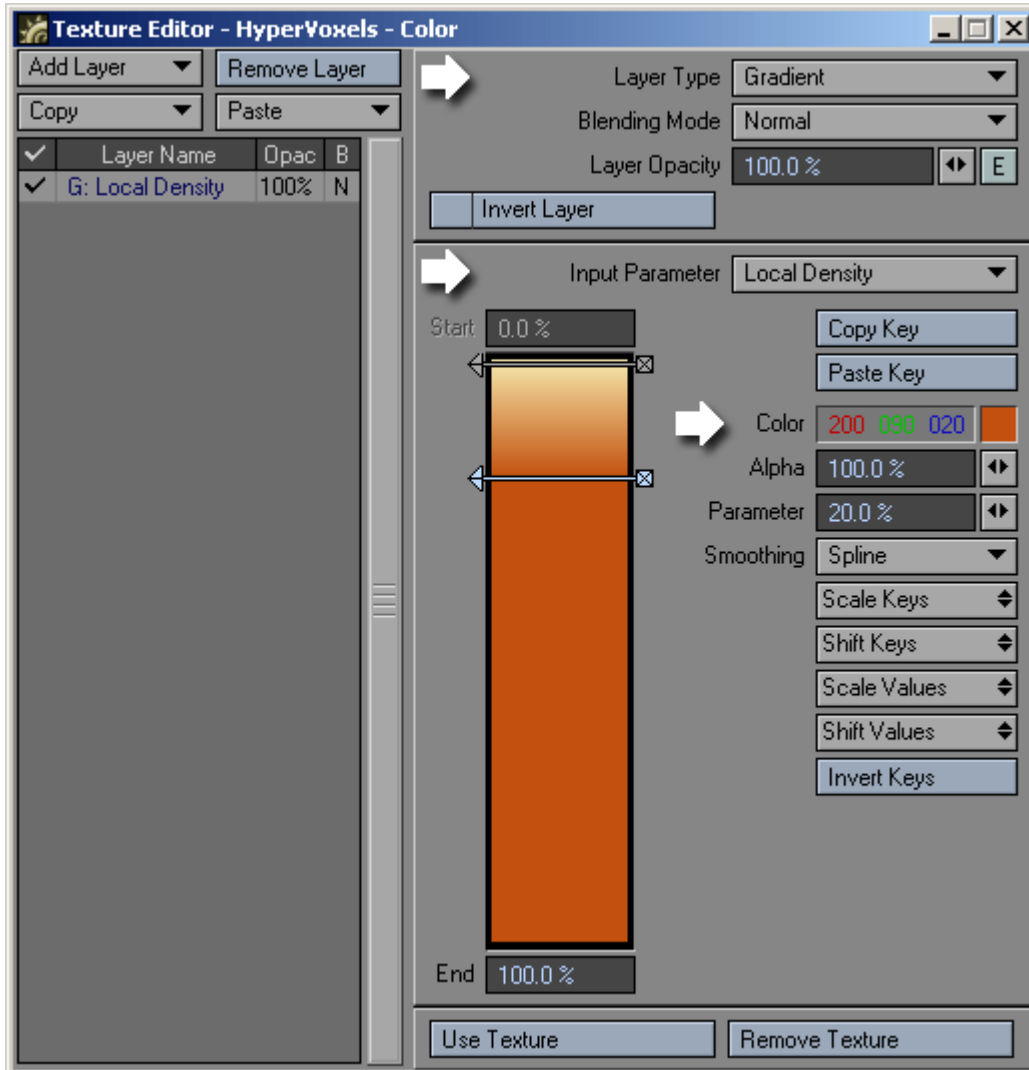
Volumetric Shadows: deactivate



Shading-Basic:

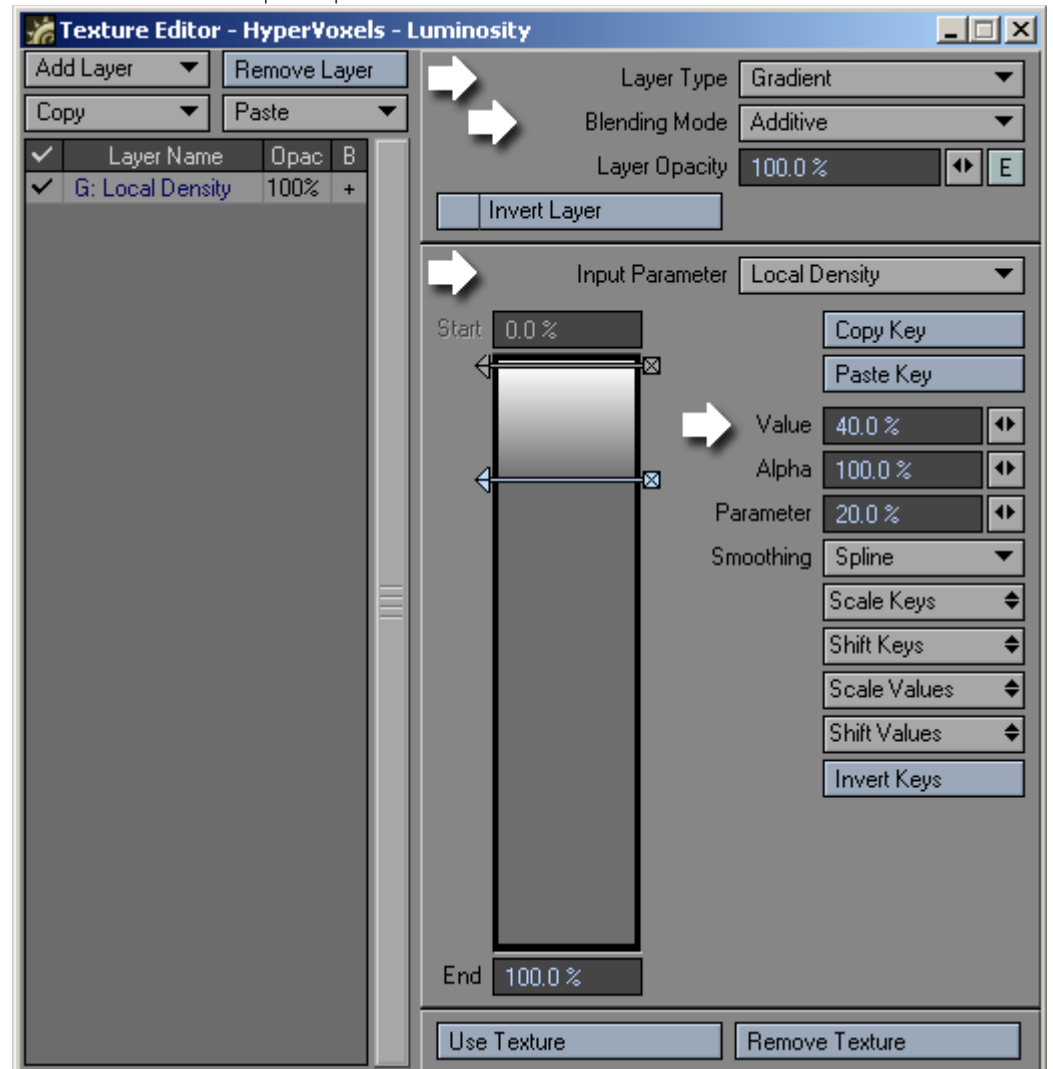
Color: Texture Editor (T)  
Luminosity: 250.0 % + T  
Opacity: 200.0 %

Thickness: 15.0 %  
Smoothness: 200.0 %



Layer Type: Gradient  
 Blending Mode: Additive (only Luminosity)  
 Input Parameter: Local Density

Parameter	Color	Luminosity Value
0.0 %	245   230   175	85.0 %
20.0 %	200   090   020	40.0 %



## Camera Settings

Add Motion Blur for better results:

**Camera Properties**

Current Camera: Camera

Resolution: VGA (640 x 480)

Resolution Multiplier: 100 %

Width: 640

Height: 480

Pixel Aspect Ratio: 1.0

Limited Region Off

Segment Memory Limit

Frame Aspect Ratio: 1.333

Segments: 1

Zoom Factor: 3.2

Aperture Height: 0.5906"

Focal Length: 24.0 mm

FOV: 45.24° x 34.71°

Antialiasing: Classic, Enhanced Low

Reconstruction Filter: Classic

Soft Filter:  Adaptive Sampling

Threshold: 0.1

**Motion Effects** | Stereo and DOF | Mask Options

Motion Blur: Normal

Particle Blur

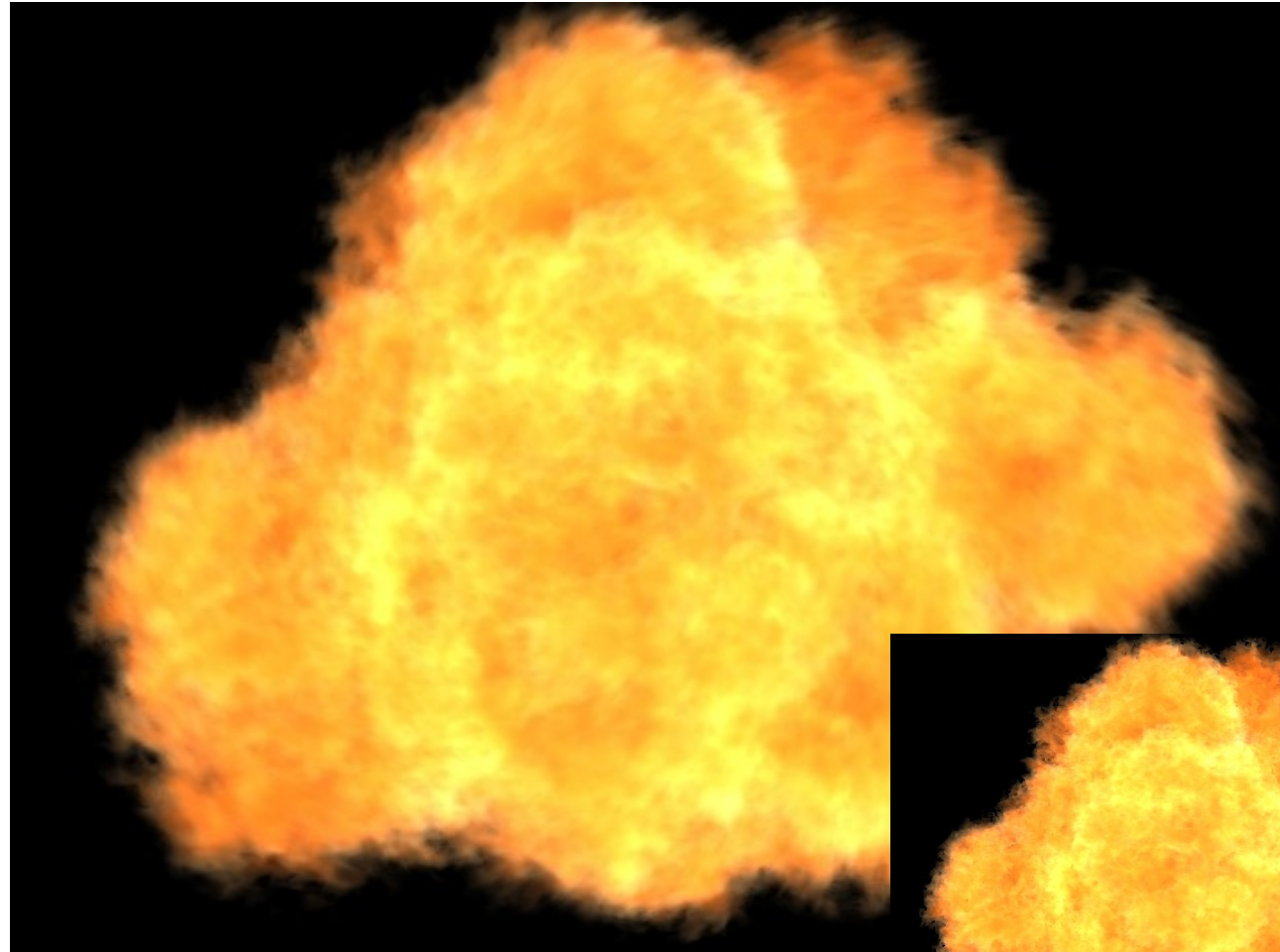
Blur Length: 66.0 %

Shutter Angle: 237.6°

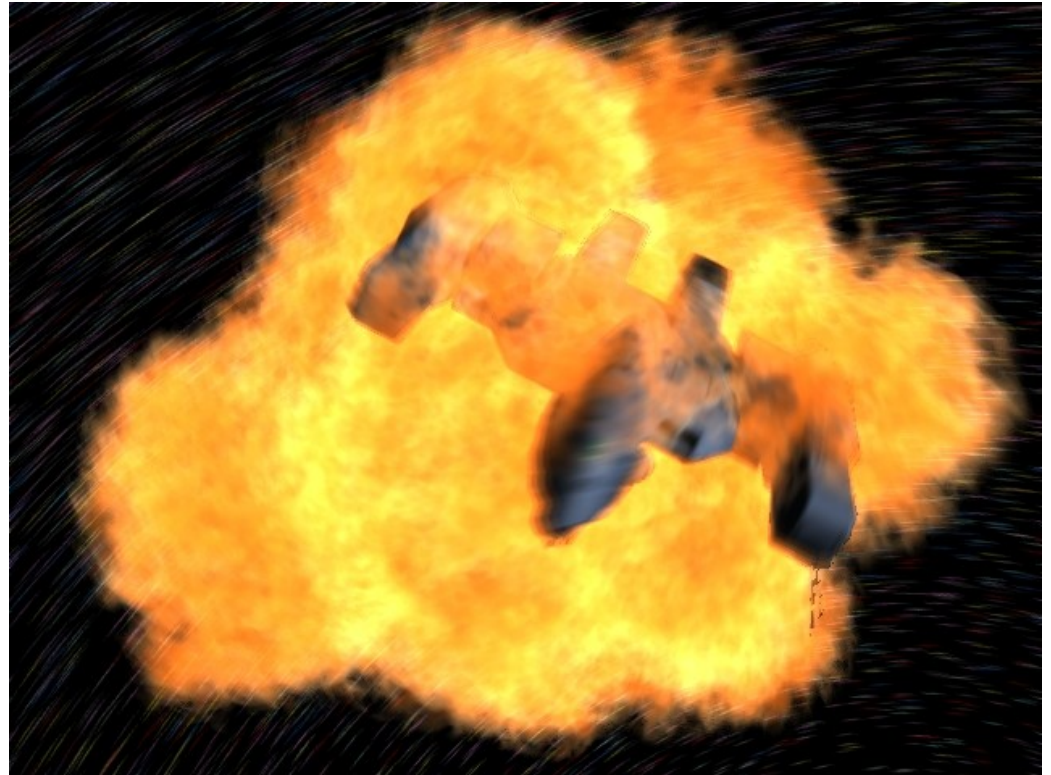
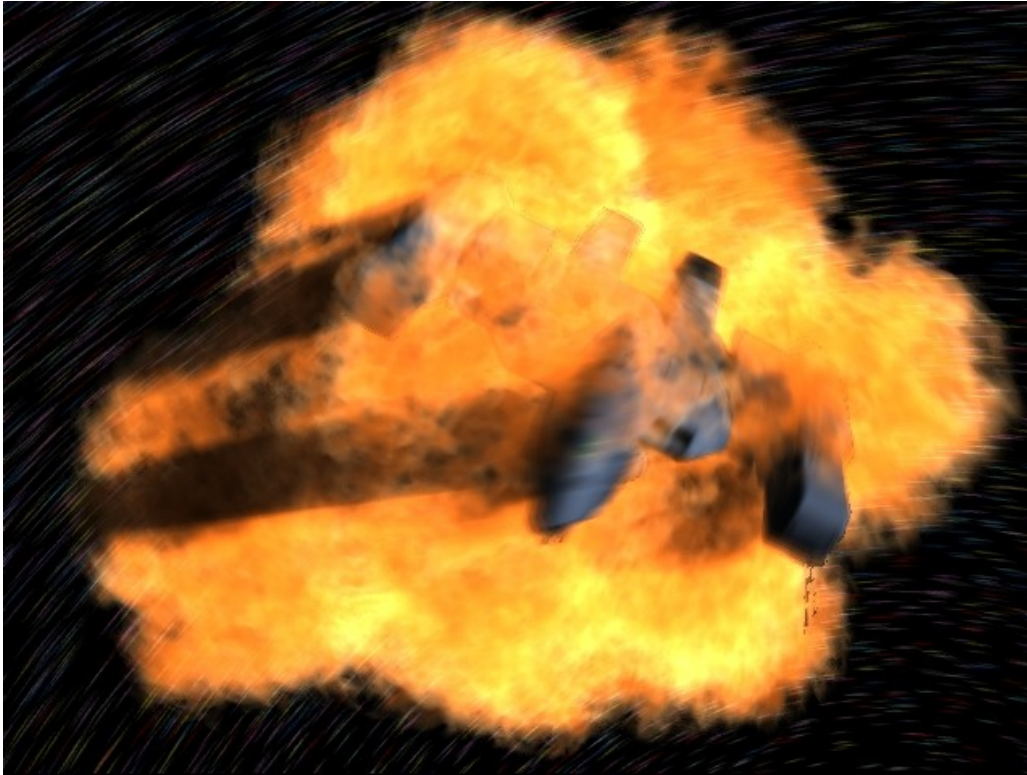
Exposure Time: 0.0264 s

Field Rendering: Off

Motion Blur:



## Additional Information



Avoid unwanted shadows and reduce your rendering time:

1. global deactivation of shadows inside Render Options (no object cast shadows, barely practicable),
2. deactivate „Cast Shadow“ inside Object Properties (makes only sense with a few objects like in the picture above)
3. create extra lightsources with deactivated shadows for the hypervoxels (best solution)