

Skytracer Tutorial

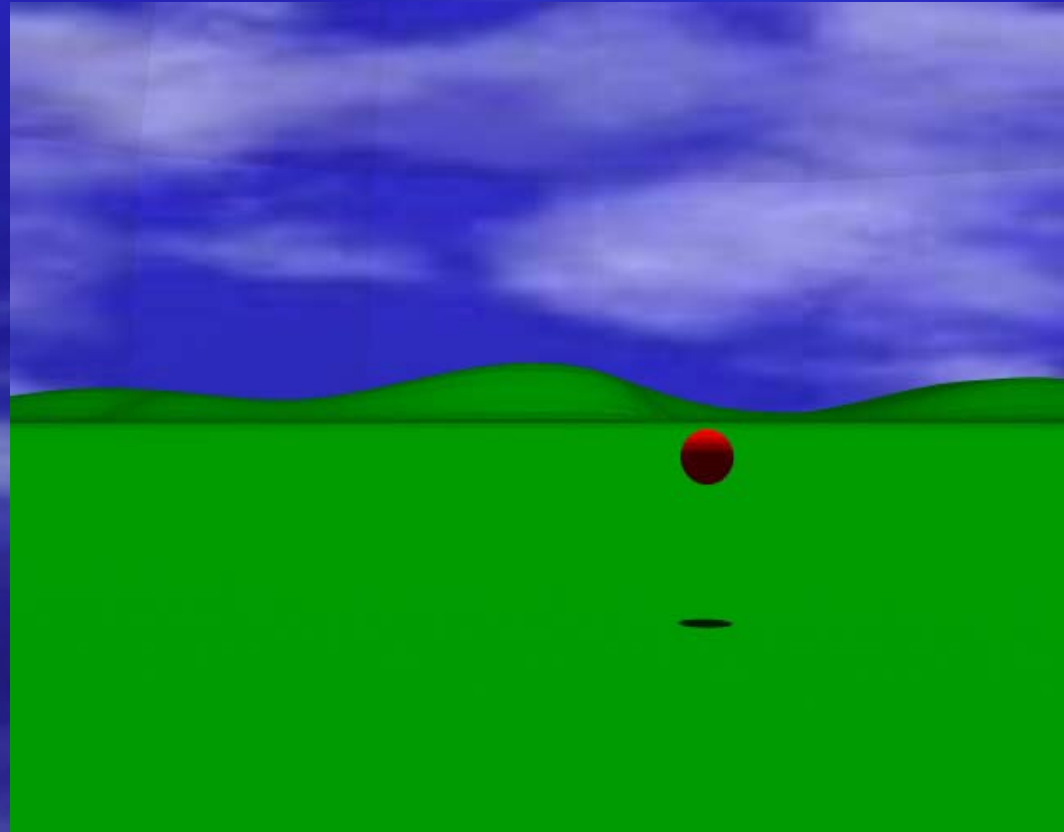
- What is Skytracer?
- Why use Skytracer?
- How do I use Skytracer?
- Skytracer vs. Skytracer 2

What is Skytracer?

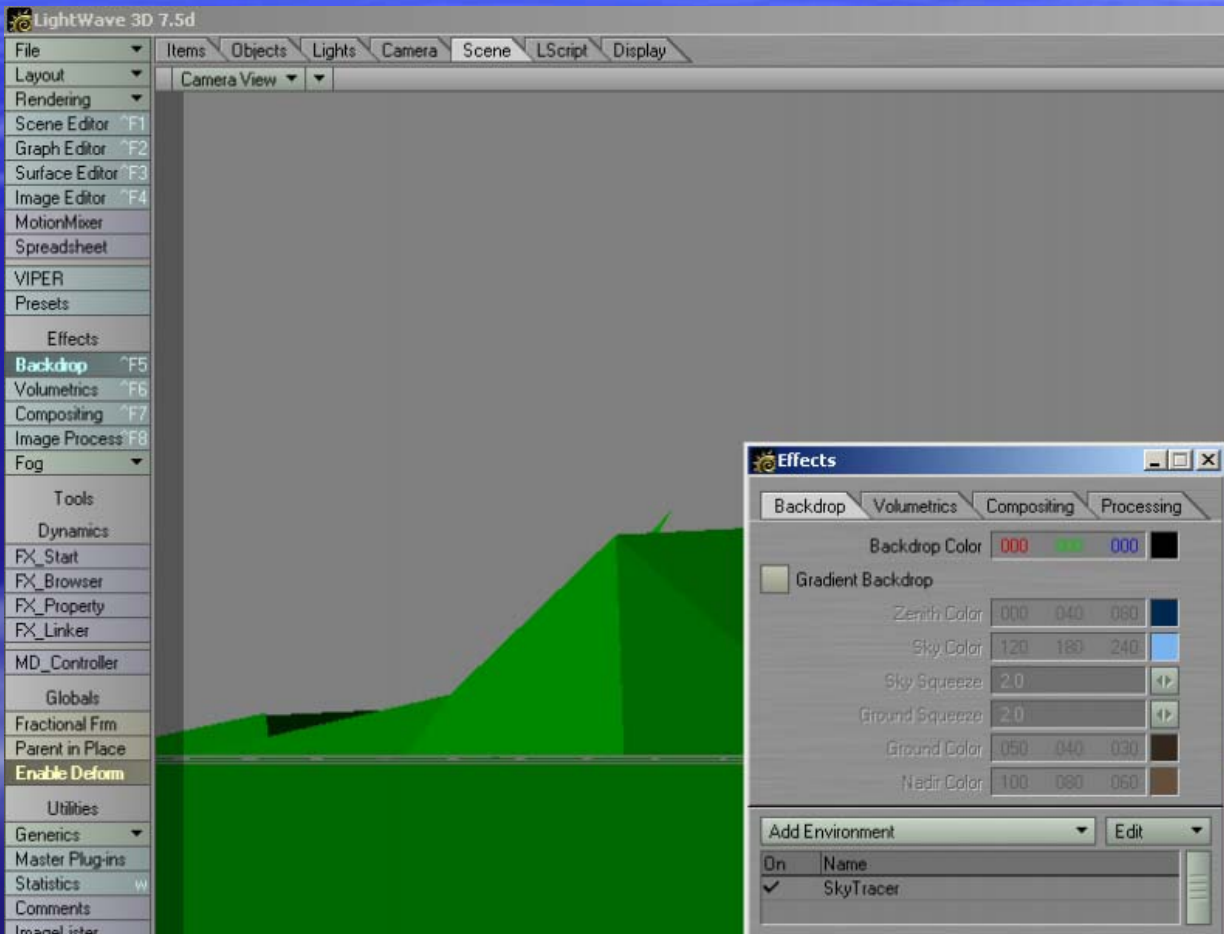
- Built in sub-program of Lightwave
- Simulates real world environmental effects
- Realistic sky features with “relative” ease

Why use Skytracer?

- Better than a skydome
- Quick, “easy” realistic sky



How to use Skytracer



1) Load objects into Layout

Effects [-] [□] [X]

Backdrop | Volumetrics | Compositing | Processing

Backdrop Color

Gradient Backdrop

Zenith Color

Sky Color

Sky Squeeze

Ground Squeeze

Ground Color

Nadir Color

Add Environment ▾ Edit ▾

On	Name
✓	SkyTracer

1) Load objects into Layout

2) Setup your camera and secondary lighting

Effects

Backdrop Volumetrics Compositing Processing

Backdrop Color 000 000 000

Gradient Backdrop

Zenith Color 000 040 080

Sky Color 120 180 240

Sky Squeeze 2.0

Ground Squeeze 2.0

Ground Color 050 040 030

Nadir Color 100 080 060

Add Environment ▾ Edit ▾

On	Name
✓	SkyTracer

3) select the Scene tab

4) Under the Effects menu select Backdrop

Effects

Backdrop Volumetrics Compositing Processing

Backdrop Color

Gradient Backdrop

Zenith Color

Sky Color

Sky Squeeze

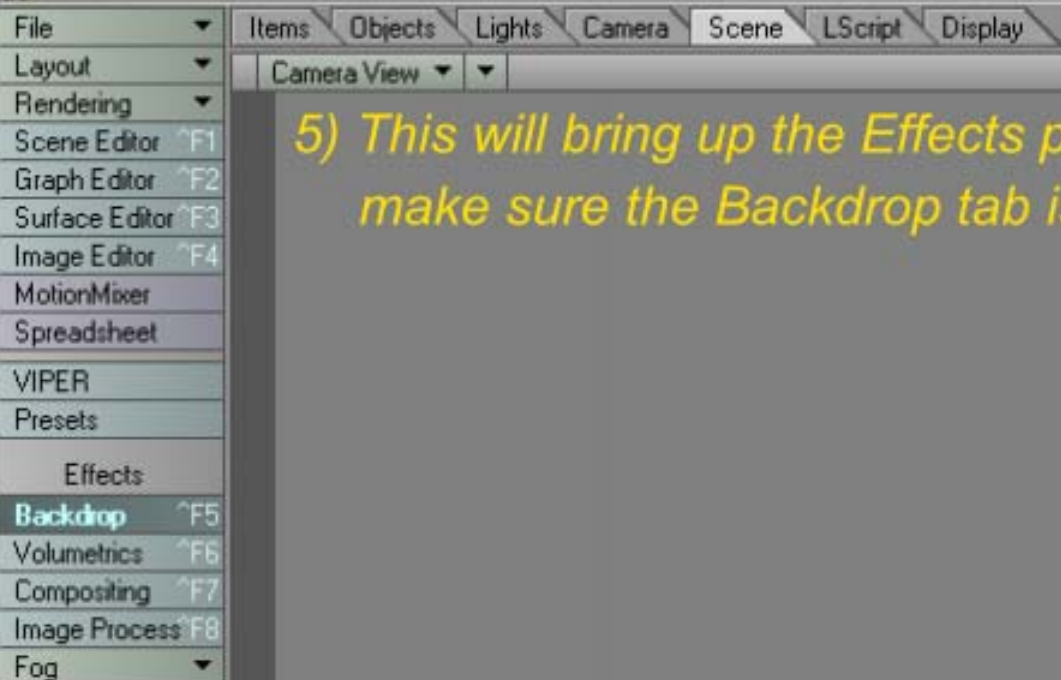
Ground Squeeze

Ground Color

Nadir Color

Add Environment ▾ Edit ▾

On	Name
✓	SkyTracer



5) This will bring up the Effects popup Window
make sure the Backdrop tab is selected



6) Click on the "Add Environment" drop down menu

7) Select Skytracer from the drop down menu



8) Double click on the word Skytracer



The screenshot shows the 'Effects' panel in LightWave 3D. The 'Backdrop' tab is selected. The panel contains the following settings:

Property	Value	Color
Backdrop Color	000 000 000	Black
Gradient Backdrop		
Zenith Color	000 040 080	Dark Blue
Sky Color	120 180 240	Light Blue
Sky Squeeze	2.0	
Ground Squeeze	2.0	
Ground Color	050 040 030	Dark Brown
Nadir Color	100 080 060	Medium Brown

At the bottom of the panel, there is a list of environments. The 'SkyTracer' environment is checked and circled in blue. The 'Add Environment' dropdown is set to 'None'.

- Rendering
- Scene Editor ^F1
- Graph Editor ^F2
- Surface Editor ^F3
- Image Editor ^F4
- MotionMixer
- Spreadsheet
- VIPER
- Presets
- Effects
- Backdrop ^F5
- Volumetrics ^F6
- Compositing ^F7
- Image Process ^F8
- Fog
- Tools
- Dynamics
- FX_Start
- FX_Browser
- FX_Property
- FX_Linker
- MD_Controller
- Globals
- Fractional Frm
- Parent in Place
- Enable Deform**
- Utilities
- Generics
- Master Plug-ins
- Statistics w
- Comments
- ImageLister

SkyTracer -- v1.1

Load Settings Save Settings About

Render Warp Images

Global Controls:
 Enable SkyTracer
 Dissolve (%) 0

Render Controls:
 No Antialiasing Render 1/2 Res.
 Overwrite Backdrop
 Volumetric Shadows
 Gain 100
 Contrast 0



Use Z-Buffer REFRESH
 Draft Mode
 Ctrl key aborts preview

Ground Level -1.0 Earth Radius(km) 6300.0

Atmosphere:		Haze:	
Quality	10	Quality	10
Thickness (km)	100	Thickness (m)	1000
Luminosity	100	Luminosity	10
Opacity	90	Opacity	0
Falloff	120	Falloff	0

Cloud Edit: Layer 1 Layer 2
 On Off Shadow (%) 100

Parent (none)
 Type: Cumulonimbus

Grain	20	Cover (%)	25
Altitude (m)	1000	Contrast	200
Big Scale (km)	10	Luminosity	15
Small Scale (m)	100	Opacity	80

Light1 Light
 Type: Sun Moon H -136
 Flare Intensity 100 P 33
 Flare Size 20 Flare Streaks 10
 Boost 1 Color Shift 1

Light2 (none)
 Type: Sun Moon H 0
 Flare Intensity 50 P 0
 Flare Size 10 Flare Streaks 2
 Boost 1 Color Shift 0

OK Cancel

Double clicking skytracer brings up the skytracer window

SkyTracer -- v1.1

Load Settings Save Settings About

Ground Level -1.0 Earth Radius(km) 6300.0

Render Warp Images

Global Controls:

 Enable SkyTracer

Dissolve (%) 0

Render Controls:

 No Antialiasing Render 1/2 Res. Overwrite Backdrop Volumetric Shadows

Gain 100

Contrast 0

Preview:

 Use Z-Buffer REFRESH Draft Mode

Ctrl key aborts preview

OK

Cancel

Atmosphere:		Haze:	
Quality	10	Quality	10
Thickness (km)	100	Thickness (m)	1000
Luminosity	100	Luminosity	10
Opacity	90	Opacity	0
Falloff	120	Falloff	0

 Cloud Edit: Layer 1 Layer 2
 On Off Shadow (%) 100

Parent (none)

Type: Cumulonimbus

Grain	20	Cover (%)	25
Altitude (m)	1000	Contrast	200
Big Scale (km)	10	Luminosity	15
Small Scale (m)	100	Opacity	80

Light1 Light

Type:	Sun	Moon	H	-136
Flare Intensity	100	P	33	
Flare Size	20	Flare Streaks	10	
Boost	1	Color Shift	1	

Light2 (none)

Type:	Sun	Moon	H	0
Flare Intensity	50	P	0	
Flare Size	10	Flare Streaks	2	
Boost	1	Color Shift	0	

Ground level is the height skytracer will start to render your sky at

Earth Radius effects the height of your sun, clouds

We will leave both at the default values

SkyTracer -- v1.1

Load Settings Save Settings About

Render Warp Images

Global Controls:

 Enable SkyTracer

Dissolve (%) 0

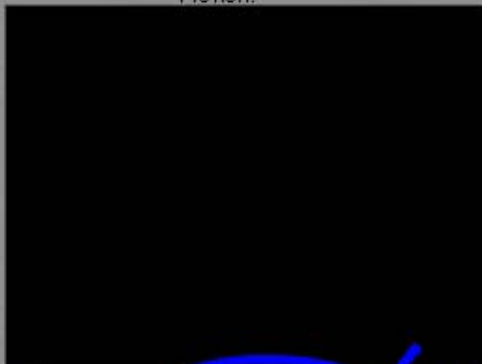
Render Controls:

 No Antialiasing Render 1/2 Res. Overwrite Backdrop Volumetric Shadows

Gain 100

Contrast 0

Preview:

 Use Z-Buffer

REFRESH

 Draft Mode

Ctrl key aborts preview

OK

Cancel

Ground Level -1.0 Earth Radius(km) 6300.0

Atmosphere:

Quality 10

Thickness (km) 100

Luminosity 100

Opacity 90

Falloff 120

Haze:

Quality 10

Thickness (m) 1000

Luminosity 10

Opacity 0

Falloff 0

Cloud Edit: Layer 1 Layer 2

On Off

Shadow (%) 100

Parent (none)

Type: Cumulonimbus

Grain 20

Altitude (m) 1000

Big Scale (km) 10

Small Scale (m) 100

Cover (%) 25

Contrast 25

Luminosity 15

Opacity 80

Light1 Light

Type: Sun Moon

H -136

Flare Intensity 100

Flare Size 20

Boost 1

Flare Streaks 10

Color Shift 1

Light2 (none)

Type: Sun Moon

H 0

Flare Intensity 50

Flare Size 10

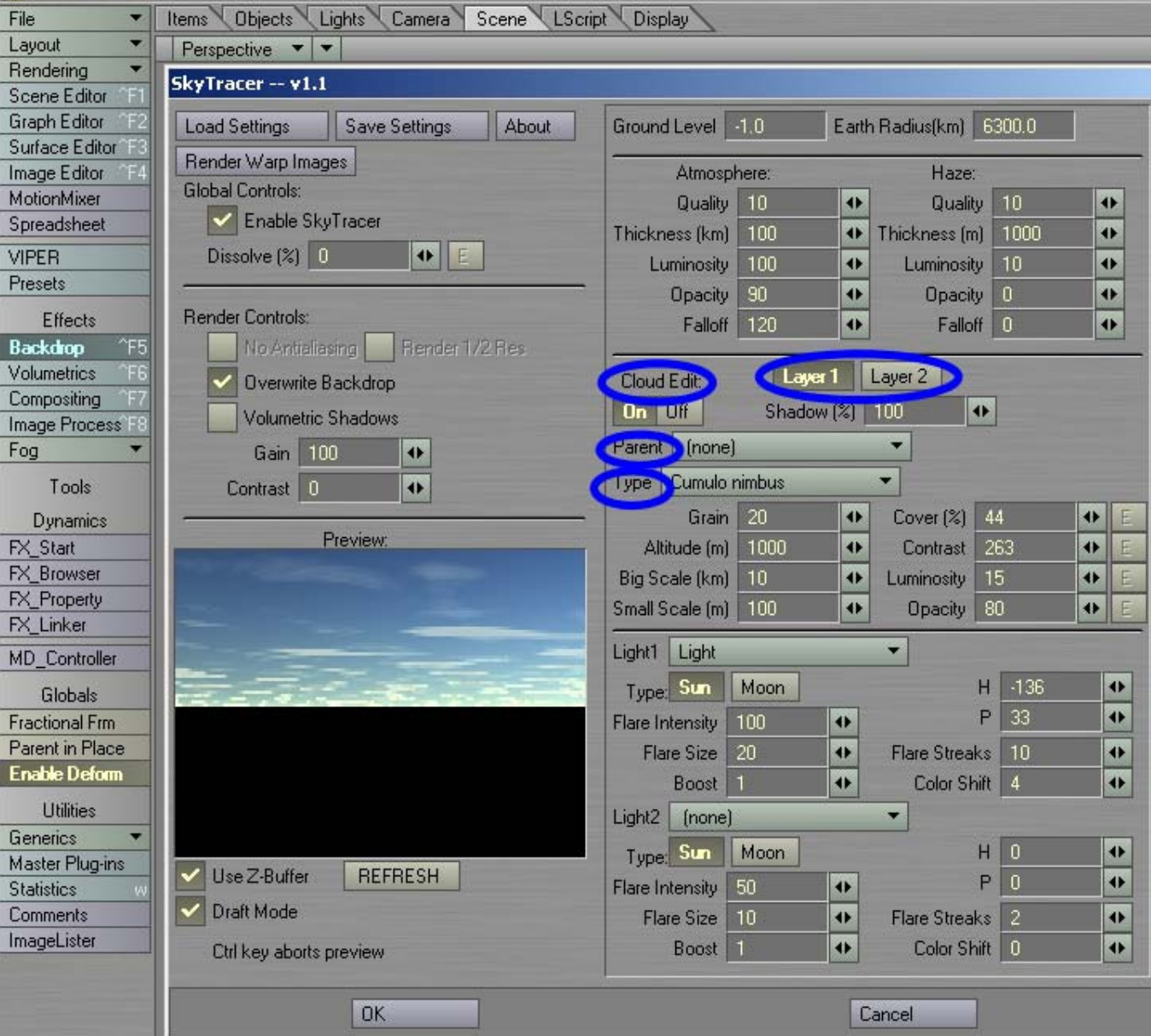
Boost 1

Flare Streaks 2

Color Shift 0

Atmosphere and Haze both effect the "air quality" of your sky. You can adjust both however you like

To see how their values effect your sky just click on the "REFRESH" tab this generates a quick preview of how your sky will look



Cloud Edit allows you to have 2 layers of clouds. To edit them just click the Cloud Edit box from Off to On.

The Parent drop down menu lets you scale your clouds relative to an object

You also have 3 different types of clouds to choose from, and you can also edit the eight listed attributes. To see how they effect your sky just click on the REFRESH button

File ▾ Items Objects Lights Camera Scene LScript Display ▾

Layout ▾ Perspective ▾ ▾

Rendering ▾

Scene Editor ^F1

Graph Editor ^F2

Surface Editor ^F3

Image Editor ^F4

MotionMixer

Spreadsheet

VIPER

Presets

Effects

Backdrop ^F5

Volumetrics ^F6

Compositing ^F7

Image Process ^F8

Fog ▾

Tools

Dynamics

FX_Start

FX_Browser

FX_Property

FX_Linker

MD_Controller

Globals

Fractional Frm

Parent in Place

Enable Deform

Utilities

Generics ▾

Master Plug-ins

Statistics w

Comments

ImageLister

SkyTracer -- v1.1

Load Settings Save Settings About

Render Warp Images

Global Controls:

Enable SkyTracer

Dissolve (%) 0

Render Controls:

No Antialiasing Render 1/2 Res


Overwrite Backdrop

Volumetric Shadows

Gain 100

Contrast 0

Preview:



Ground Level -1.0 Earth Radius(km) 6300.0

Atmosphere: Haze:

Quality 10 Quality 10

Thickness (km) 100 Thickness (m) 1000

Luminosity 100 Luminosity 10

Opacity 90 Opacity 0

Falloff 120 Falloff 0

Cloud Edit: Layer 1 Layer 2

On Off Shadow (%) 100

Parent (none)

Type Cumulo nimbus

Grain 20 Cover (%) 44

Altitude (m) 1000 Contrast 263

Big Scale (km) 10 Luminosity 15

Small Scale (m) 100 Opacity 80

Light Light

Type Sun Moon H -136

Flare Intensity 100 P 33

Flare Size 20 Flare Streaks 10

Boost 1 Color Shift 4

Light2 (none)

Type Sun Moon H 0

Flare Intensity 50 P 0

Flare Size 10 Flare Streaks 2

Boost 1 Color Shift 0

Use Z-Buffer REFRESH

Draft Mode

Ctrl key aborts preview

OK Cancel

The Light editor allows for two separate light sources (in case you want multiple suns or moons). The type button allows you to set the light property to either sun or moon. The drop down Light1 /Light2 menu lets you pick which light will function as your suns/moons

The 7 attribute buttons effect how your light source will look in the scene (again you can push the REFRESH button to see a preview of your sky, however your light source will not be visible in the preview

File Items Objects Lights Camera Scene LScript Display

Layout Perspective

Rendering

Scene Editor ^{F1}

Graph Editor ^{F2}

Surface Editor ^{F3}

Image Editor ^{F4}

MotionMixer

Spreadsheet

VIPER

Presets

Effects

Backdrop ^{F5}

Volumetrics ^{F6}

Compositing ^{F7}

Image Process ^{F8}

Fog

Tools

Dynamics

FX_Start

FX_Browser

FX_Property

FX_Linker

MD_Controller

Globals

Fractional Frm

Parent in Place

Enable Deform

Utilities

Generics

Master Plug-ins

Statistics ^w

Comments

ImageLister

SkyTracer -- v1.1

Load Settings Save Settings About

Render Warp Images

Global Controls:

Enable SkyTracer

Dissolve (%) 0

Render Controls:

No Antialiasing Render 1/2 Res


Overwrite Backdrop

Volumetric Shadows

Gain 100

Contrast 0

Preview:



Ctrl key aborts preview

Ground Level -1.0 Earth Radius(km) 6300.0

Atmosphere:

Quality 10 Thickness (km) 100 Luminosity 100 Opacity 90 Falloff 120

Haze:

Quality 10 Thickness (m) 1000 Luminosity 10 Opacity 0 Falloff 0

Cloud Edit: Layer 1 Layer 2

On Off Shadow (%) 100

Parent (none)

Type Cumulo nimbus

Grain 20 Altitude (m) 1000 Big Scale (km) 10 Small Scale (m) 100

Cover (%) 44 Contrast 263 Luminosity 15 Opacity 80

Light1 Light

Type: Sun Moon H -136 P 33

Flare Intensity 100 Flare Size 20 Boost 1 Flare Streaks 10 Color Shift 4

Light2 (none)

Type: Sun Moon H 0 P 0

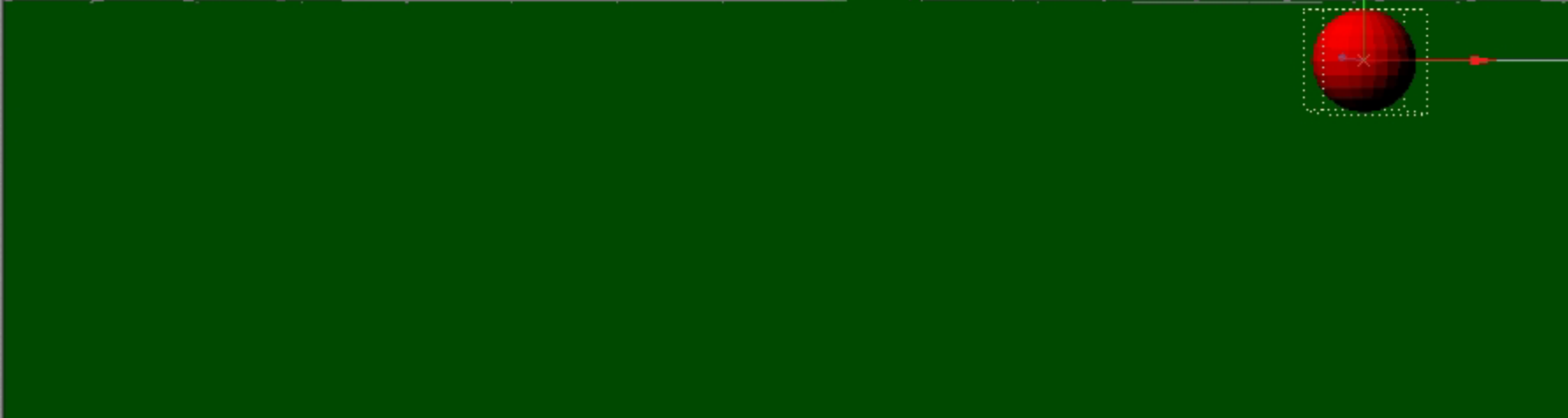
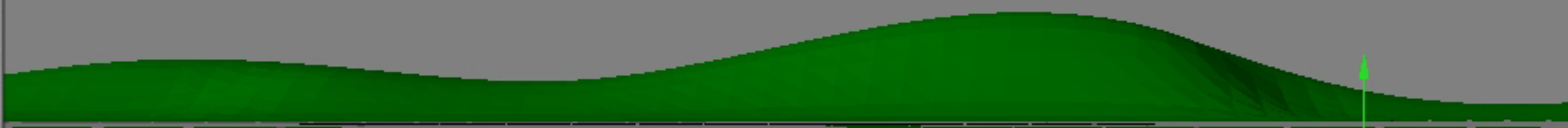
Flare Intensity 50 Flare Size 10 Boost 1 Flare Streaks 2 Color Shift 0

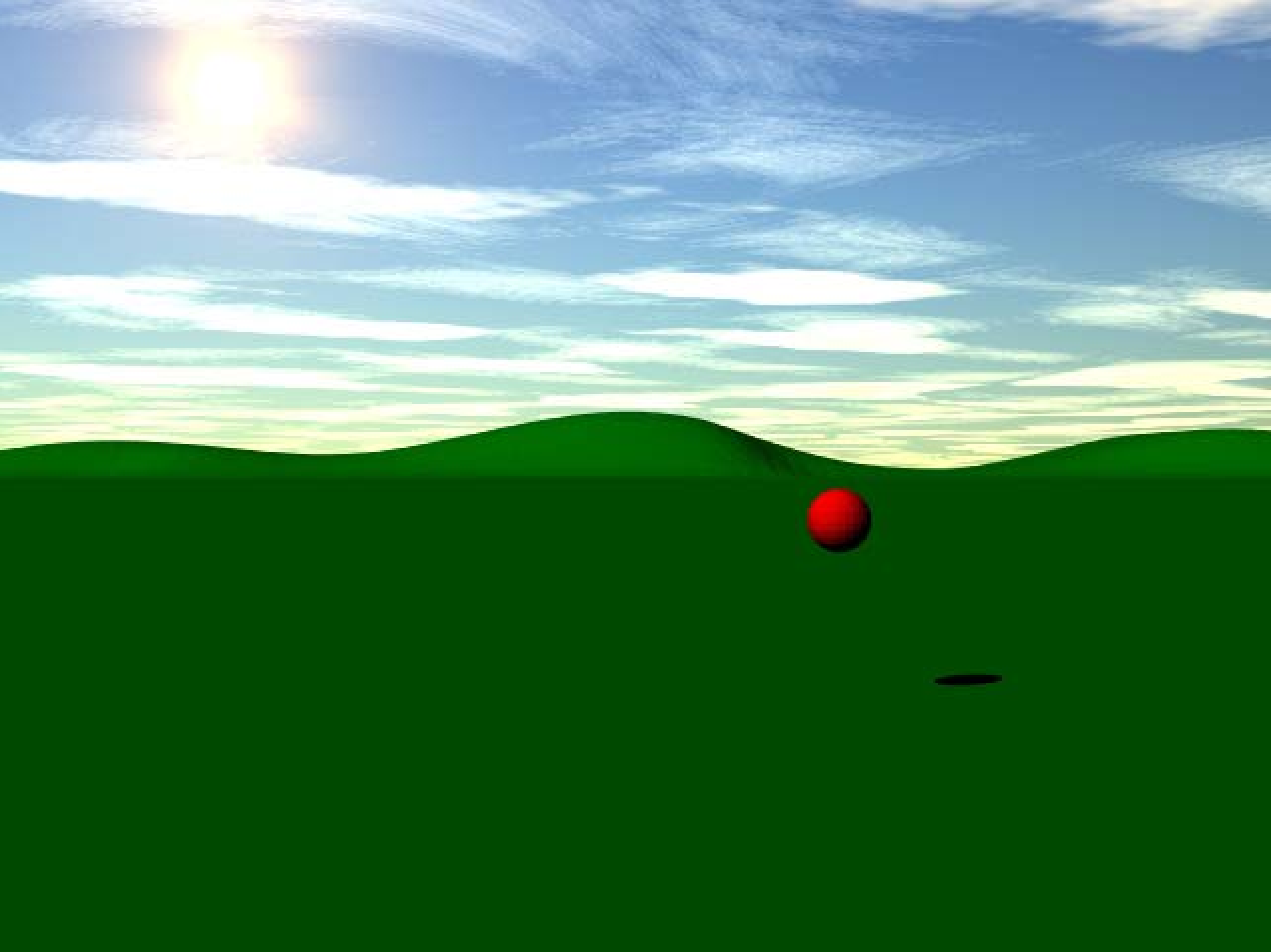
OK Cancel

Once you tweak all the attributes and are happy with the preview you're ready to jump out of Skytracer for a test render. Just click the OK button

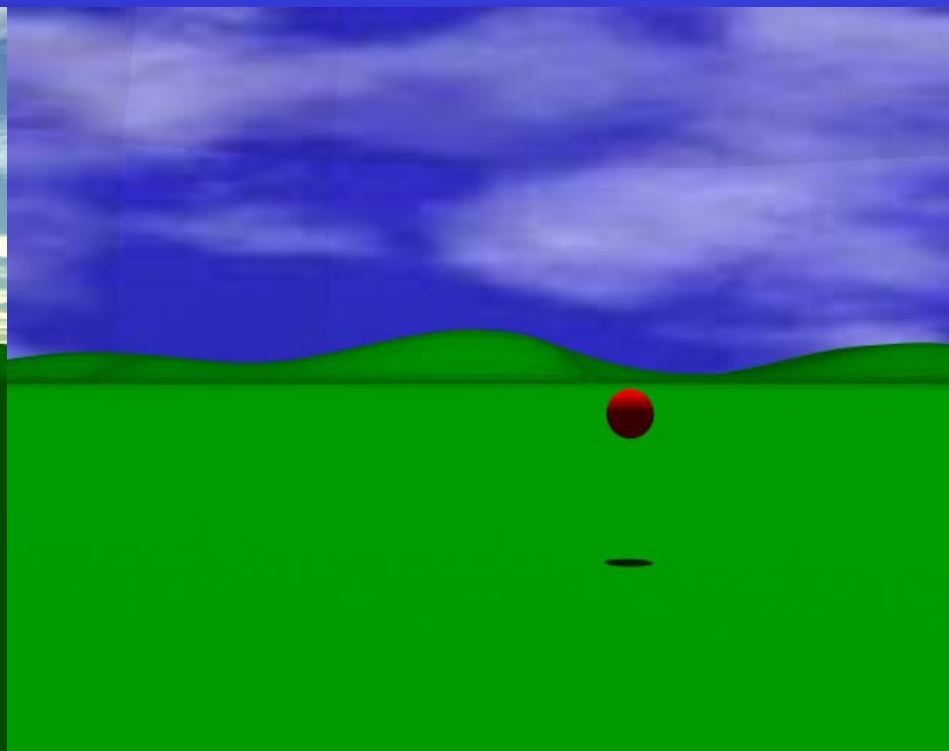
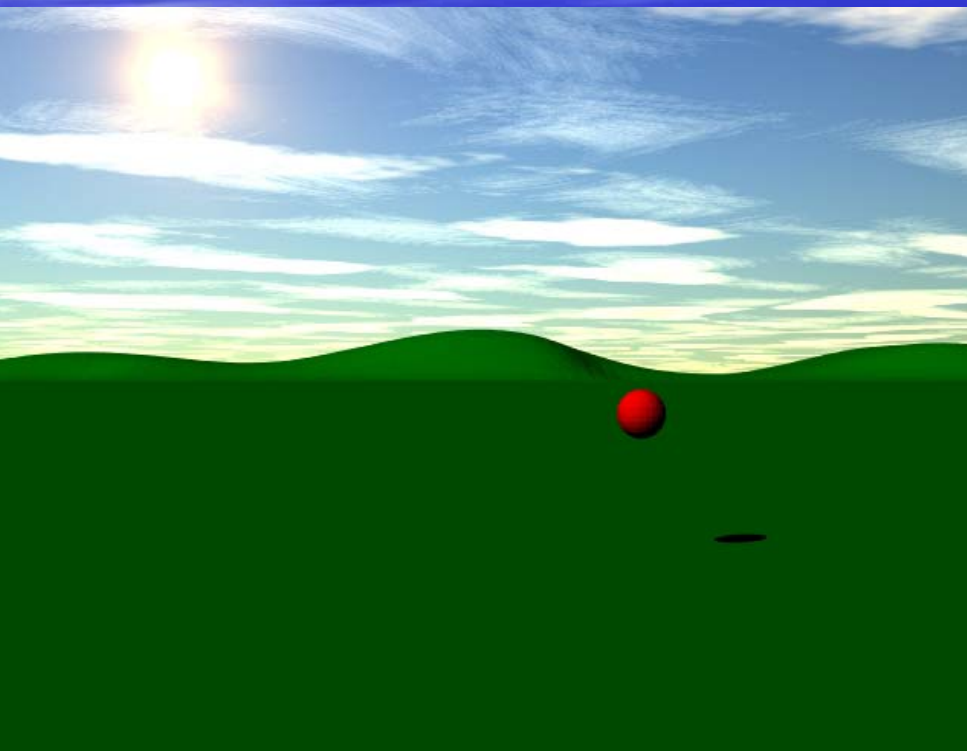
- ut
- dering
- ne Editor ^F1
- h Editor ^F2
- nce Editor ^F3
- e Editor ^F4
- onMixer
- adsheet
- R
- ets
- Effects
- drop ^F5
- metrics ^F6
- ositioning ^F7
- e Process ^F8
- Tools
- ynamics
- Start
- rowser
- Property
- inker
- Controller
- Globals
- ional Frm
- ent in Place
- le Deform**
- Utilities
- erics
- er Plug-ins
- stics w
- ments
- eLster

Now your ready for a render





Lets compare



Skytracer vs. Skytracer2

- Skytracer2 has more options
- Clunky interface (lots of non-intuitive stuff)
- Difficulties positioning sun/moon
- Newer = less existing resources

Conclusion

- Now you know:
- What Skytracer is
- How to find it
- How to use it
- Why you should use it
- Any questions?
- Thanks for your time!