



SU2SF *SketchUp* **PLUGIN**

USER GUIDE

Version 1.0 – July 2007
D. Bur

This plugin was:

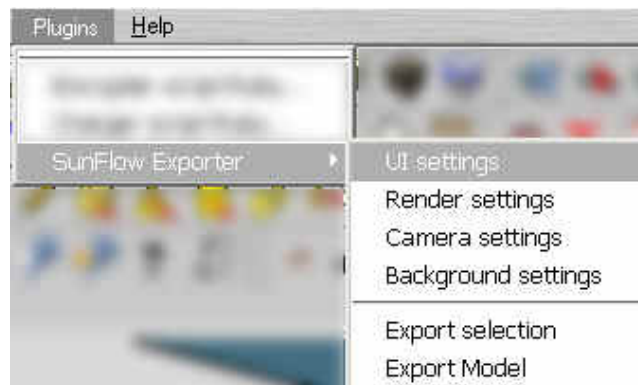
- Written by Tony Wooster, though not quite done yet, 24 MAR 07
- Edited by dandruff, added glass, transparent and phong support as well as the different sizes of output picture, 9 MAY 07
- Edited by D. Bur: added 2 UI modes, added dialog boxes for setting up your render: camera types, background, render and global illumination settings.

1. Installation:

Move su2sf.rb in your Plugins folder. Re-start SU.

2. Usage:

Go to the Plugins menu, you should have a « Sunflow Exporter item.
There are three options to set your parameters before exporting your model:



Select your interface first: choose "Regular" or "Advanced" in the UI item:



Standard will use less detailed dialog boxes and more default values will be used.
Advanced will give you access to all the parameters within dialog boxes to fine tune your render.

You can whether set all parameters before exporting your model, or set some parameters, or use default values without setting any parameter. Default values are listed at the end of this document.

2.1. Render settings:

They are intended to set image size, illumination algorithm, antialiasing and ray-tracing values.
Select "Render settings" from the Sunflow Exporter menu, the following dialog box will pop-up:

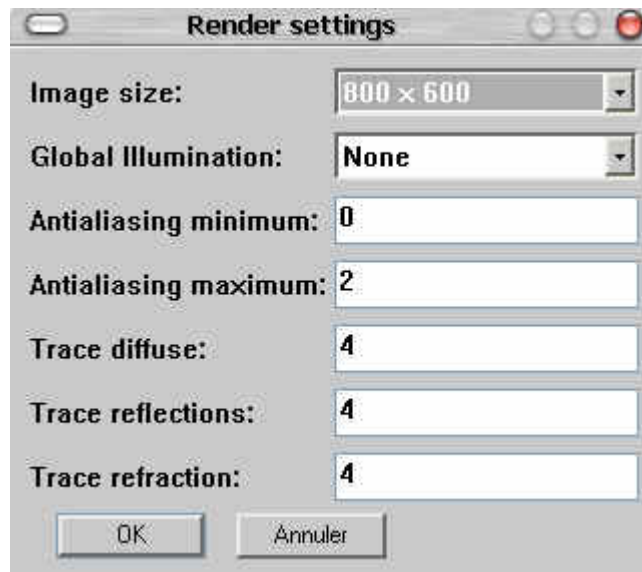


Image size:

Select the output image size in the list, or select "Sketchup window". In this case, the width and length of the current viewport will be used to determine the image size and the aspect ratio is automatically calculated. (Units: pixels)

Global illumination:

Select "None" for a render without GI, or select a GI algorithm in the list. For each of them, default parameters will be used. Of course you can tweak the exported file before loading it in Sunflow, to finely tune your render.

Antialiasing minimum and maximum:

Set low and high values of AA. If minimum is -1, no AA is performed.

Trace diffuse:

Set maximum depth in diffuse shaders for ray tracing.

Trace reflection:

Set maximum depth in reflecting shaders for ray tracing.

Trace refraction:

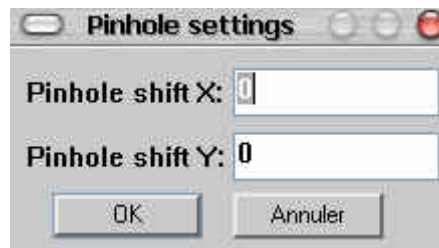
Set maximum depth in transparent shaders for ray tracing.

2.2. Camera settings:

Sunflow has four camera types: Pinhole, thinlens, spherical, and fisheye. The common camera type is pinhole. Select "Camera settings" from the Sunflow Exporter menu, the following dialog box will pop-up:

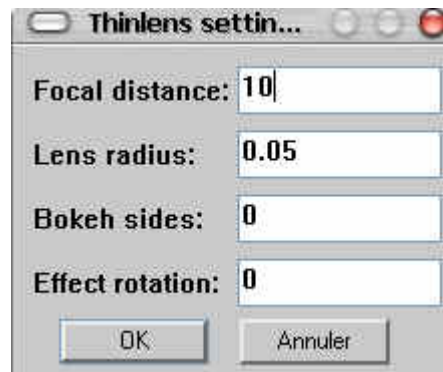


When the pinhole camera type is selected, the following dialog box will pop-up:



This sets the camera shifting. It basically takes the perspective shot you have and shifts the view in the x or y without ruining the perspective. (Units: meters)

When the thinlens camera type is selected, the following dialog box will pop-up:



Focal distance:

Sets the focal distance, thus the depth of field of the camera. This is the distance starting from the camera to the camera target within which the objects will not be blurred. (Units: meters).

Lens radius:

Blurs the image more when set to high values.

Bokeh sides:

Number of sides for the bokeh effects. Will only be used if not zero.

Effect rotation:

Angle for the bokeh effects. Will only be used if bokeh sides is not zero.

Spherical and fisheye cameras don't have any additional parameters.

2.3. Background settings:

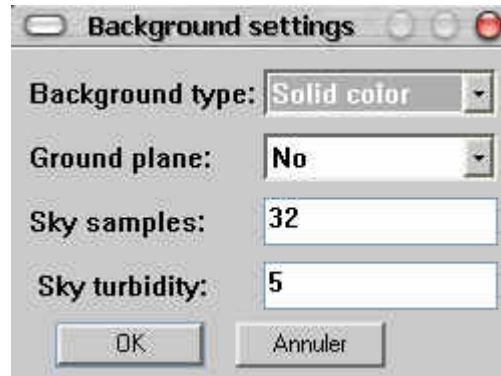
Background includes the ground plane and all pixels of the sky in the image.

Background type:

Select "Solid color" or "Sky".

If Solid color is selected, the color of your solid background color in SketchUp will be used (default: White, when not set in SketchUp). Selecting this option replaces the sky illumination by a directionnal lighting source, based on your shadows settings.

If Sky is selected, an hemisphere is set around the scene and a sunsky light is used, based on your shadows settings. Sky samples and Sky turbidity parameters are used only if this option is selected.



2.4. Export selection:

To export the current selection of your model, select the objects to export first, then select this item. Type a name for the output file (file extension must be ".sc").

2. 5. Export model:

To export the whole model, no matter if objects are selected, simply select this item and type a name for the output file (file extension must be ".sc").

3. Default values:

If you don't set any parameter, these values will be used:

Interface Defaults

UI: Standard

Render Defaults

AA minimum: 0

AA maximum: 2

Filter Mitchell

GI: None

Trace diffuse: 4

Trace reflections: 4

Trace refractions: 4

Image size: 800 x 600

Camera Defaults

Camera type: Pinhole

Pinhole shift x: 0

Pinhole shift y: 0

Focal distance: 10

Lens radius: 0.05
Bokeh sides: 0
Bokeh rotation: 0

Background Defaults

Background type: Solid color
Ground plane: no
Sky samples: 32
Sky turbidity: 5

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