Octane Sketchup Exporter

© TIG and Refractive Software

Installation

Extract the files from the **Octane.zip** file into the Sketchup Plugins folder, keeping the folder structure.

There should be the following:

In folder ../Plugins/

Octane_loader.rb	The file that loads the current script below
win32ole.so	A file needed by the PC version of the tool.

In folder ../Plugins/Octane/

|	
Octane_1022.rb	The script that sets up the **Octane Sketchup Exporter**
OctaneDialog.html	The file that is used to make the webdialog for that tool
OctaneDialogStrap.png	The logo for the above html file
Octane_10222b.pdf	This file

Usage

After installation and the restart of Sketchup you should have an additional menu item to run the tool

File > Octane…

Alternatively typing **octane** into the Ruby Console will also work…

The Dialog
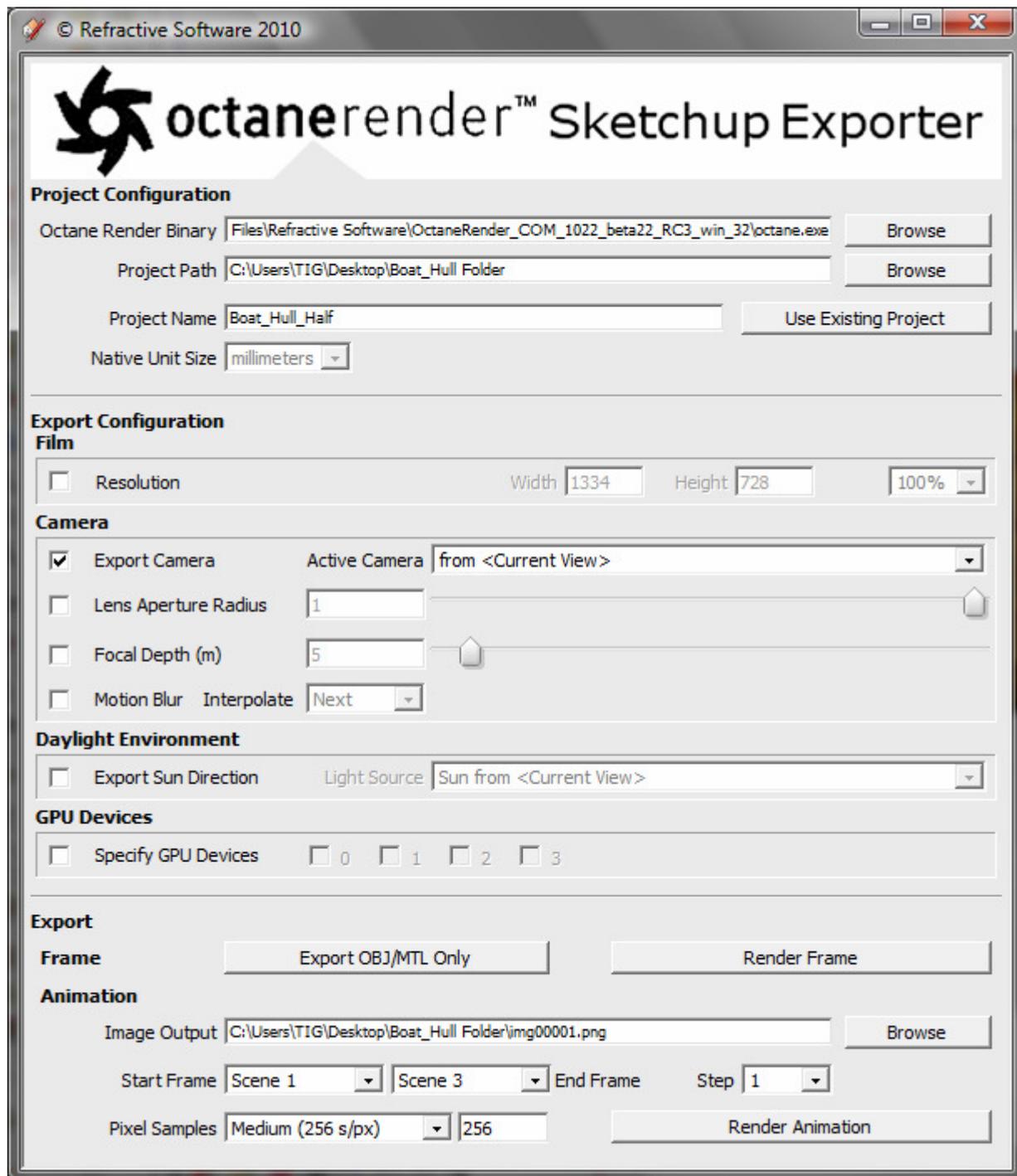
At first run you will be pressed to choose an **Octane Render Binary** file – the application that the tool will use to process the render. It will be remembered with Sketchup for any future sessions.

Should the specified Octane application become unavailable between sessions you are prompted for an alternative.

After the set up you can change to another Octane application by clicking the *Browse* button.

The **Project Path** initially defaults to the current model's folder – you can change this by clicking the *Browse* button at any time.

[because of the limitations of the Sketchup API you must select a file within the desired folder to choose that folder – or you can type in a valid path]. If you save the model when you close it, then this path is remembered with the model.

The **Project Name** initially defaults to the model's name, with any spaces replaced with an underscore: *my_model.skp* gives *my model* for the Octane *my_model.ocs* file], you can type in another name if required; if the .ocs file doesn't exist then it will be made if you run the tool. Alternatively, you can click on *Use Existing Project* button to find an existing .ocs file… then the **Project Path** and **Project Name** will be changed to suit that selection.

The dialog also shows the model's units settings – **Native Unit Size** – this is non-editable and is for information only [and to keep consistency with other exporters' UIs], since all dimensions within the tool are automatically set to the required units – 'meters'.

The next section, **Export Configuration** lets you choose what settings to use with the export [if any].

Film

Resolution		Initially disabled, if enabled you can change the following
	Width	The image width, defaults to the screen width
	Height	The image height, defaults to the screen height
	Percentage	The standards are *100%, 75%, 50%* and *25%* which are applied to the current width and height settings
		The other drop-down's option is *Reset* with reverts to the model's screen width and height

Camera

Export Camera		Initially enabled, you can change the following settings
	Active Camera	This defaults to *from <Current View>*
		Other options in the drop-down are *from <Current Scene>* and then any available 'Camera' from the '*Scenes*', listed in their order
	Lens Aperture Radius	Initially disabled, default=1, you can enter a value between 0 and 1 – e.g. 0.25, or use the slider to change it
	Focal Depth (m)	Initially disabled, default=5, you can enter any value >0, or use the slider for values up to 100, if >100 type in a value
	Motion Blur	Initially disabled, default=*Next,* choose *Next/Previous* – to blur between scenes in animations
		If the **Active Camera**=*from <Current View>* then **Motion Blur** is inoperable in the **Render Frame** mode
		If there is no next scene the first is used, if there is no previous scene the last is used

Daylight Environment

Export Sun Direction		Initially disabled, you can choose the following setting
	Light Source	This defaults to *Sun from <Current View>*
		Other options in the drop-down are Sun f*rom <Current Scene>* and then any available 'Sun' from the '*Scenes*', listed in their order

GPU Devices

Specify GPU Devices	Initially disabled, you can choose the following settings
	Default is 0 – choose from 0, 1, 2, 3 as the GPU[s] to use

The next section, **Export** lets you choose either

Frame

Export OBJ/MTL Only	Click this button to export the current model as OBJ/MTL to the path defined earlier [and if appropriate, any Textures into a folder with the same name + _*Textures*]. The OBJ file is set to **Octane's** units 'meters', triangulated etc…
Render Frame	Click this button to export the OBJ/MTL as above, then open **Octane** and start to render the file using the settings selected as detailed above

or

Animation

Image Output	This defaults to the **Project Path** set above, plus *img00001.png*, you can enter an alternative, or by click the *Browse* button to select an existing file/folder
Start/End Frames	These are listed in pull-downs as all of the available Scenes [Cameras], but without any of the Scenes marked in the Sketchup 'Scene Manager' to be 'excluded from the animation'…
Start Frame	Defaults to the first Scene, it can be any of the available Scenes – but if it's the last Scene then there will be no animation!
End Frame	Defaults to the Scene after the Start Frame's Scene [typically the second Scene], it can be any Scene later than the Start Frame's Scene.
Step	Defaults to 1, the available Steps are listed in a pull-down determined from the Start/End Frames selected.
Pixel Samples	Defaults to *Medium (256 s/px)*, choose for various setting or type in a Custom value in the box to the right – it must be at >= 1, but 8 is tiny!
Render Animation	Click this button to start the rendering of the frames specified, the selected Scenes' Cameras are used, but other selected configurations can also be used

***See 'Known Issues' below…

Version

1022.
a 20100611   First beta release.
b 20100613   Second beta release. Camera location swap y/z fixed. Sun location swap y/z fixed.
            Animations start-frame/end-frame/step from pull-down lists of available Scenes
            [i.e. without those 'excluded from animation' in the Scene Manager].

Known Issues***

The 'Octane Render Binary' not existing is trapped, and it is saved with
Sketchup, also the 'Project Path' and 'Project Name' are saved with the
Model, BUT currently all other settings are not - although these will be
added shortly, including...
Resolution 'checked', Width/Height/Percentage.
Export Camera 'checked', Active Camera onlt IF 'from Current View' or
'from Current Scene' - since the 'scene list' is dynamic.
Lens Aperture Radius 'checked', value.
Focal Depth 'checked', value.
Motion Blur 'checked', value [Next/Previous].
Export Sun Direction 'checked', Light Source only F 'Sun from Current View'
or 'Sun from Current Scene' - since the 'scene list' is dynamic.
Specify GPU Devices 'checked', any of the 4 values 'checked'.
The Exported OBJ/MTL/Textures files will map rotated textures etc, BUT NOT
map skewed textures beyond their rotation - solution = select a face [that
has its 'textures skewed using the 'Texture' + shear push-pin options'] and
right-click context-menu 'Make Unique Material' option to add a new
'skewed' material to the model; repeat for all faces with 'skewed textures'.
These will then export into the OBJ/MTL/Textures files successfully.
Also note that textures applied to Groups/Instances will come over for any
faces they have with the 'default-material', but the UVs mapping might not
be as expected.
Image Output value [filepath].
Start/End/Step values will not be saved since the 'scene list' is dynamic.
Pixel Samples setting / value.

The 'Project Name' [project].ocs file MUST exist, because the -n [new] cmd-line fails to make it, solution = make ocs separately by running Octane manually, then click 'Use Existing Project" to set it in the dialog.

The Start/End/Step options are not fully linked so you must manually ensure that the Start is before the End and that the Step is sensible - however, this is relatively unimportant because currently the 'Render Animation' option fails completely: Octane crashes and no -o images are made... the -e and -q cmd-line options fail to 'end' after rendering or be 'quite'. The animation cmd/command file needs changing to contain all of the looped render instructions, so that the cmd can be 'killed' by the dialog's 'Render Animation' button, which will have changes to say 'Rendering Scene N... [Cancel]', but this in unimplemented as the -o crash etc is to be resolved...

The 'octane.cmd' [working] and 'octane_anim.cmd' [not working] files [suffixed '.command' on Mac] are not currently auto-deleted from the Project's Folder after execution - this is for debugging.
These files can currently be edited to view/change the contents/actions.

This tool is not yet tested on Mac [as of version-1022.b].

Feedback welcome.

TIG