Octane Sketchup Exporter

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Installation

Extract the files from the **Octane_1022l.zip** file into the ../Sketchup../Plugins/ folder, keeping the sub-folder structure for the files.

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** tool
OctaneDialog.html	The file that is used to make the webdialog for that tool
OctaneDialogStrap.png	The logo image for the above html file
OctaneHelp.pdf	This Help 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
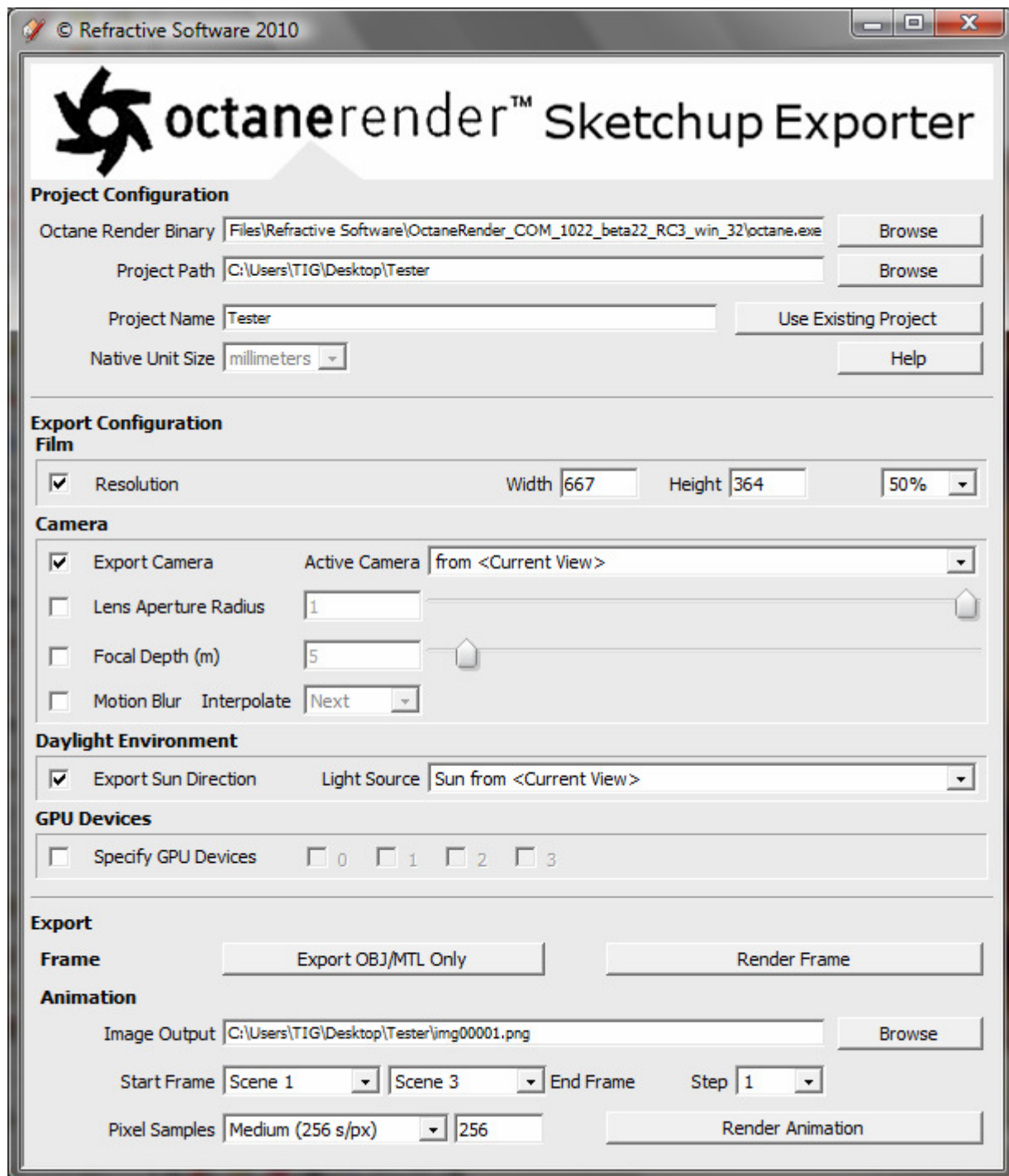
The first section is "**Project Configuration**".

On the 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 rendering parts of 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 used within the tool are automatically set to the units required by Octane – 'meters'.

To the right of this is a **Help** button that opens this file [**OctaneHelp.pdf**] - if it is found in the ../Plugins/Octane/ folder.

The second 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.
		Note that if this option is enabled *and* **Render Animation** is invoked then this selected Camera is ignored and each animation frame's Scene's Camera is used instead
	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 as it has no 'next/previous scene
		If there is no *'next'* scene then the first scene is used, if there is no *'previous'* scene then the last scene is used
		Note that if this option is enabled *and* **Render Animation** is invoked then the camera for the Scene next or previous to the animation frame's Scene will be used in each frame, if it is available
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 from <Current Scene>* and then any available *'Sun'* from the *'Scenes'*, listed in their order.

Note that if this option is enabled *and* **Render Animation** is invoked then in each animation frame that Scene's Sun will be used instead

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:

NOTE: it currently can cause Octane to hang on startup if enabled AND any number is checked 0-3 at all.***

Temporary Solution: try an if it hangs next time don't try to specify the GPU using these settings…

The third section - "**Export**" - lets you choose the type of render - **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*** required units 'meters', triangulated etc…

    Render Frame — Click this button to export the OBJ/MTL as above, and then automatically open ***Octane***.

It starts to render the file using the various export settings you have selected – the s/px is automatically set to *'Very High' 4096*. but you can stop the rendering at any time and/or change other Octane settings manually too.

or

Animation

    Image Output — This defaults to the **Project Path** set above, plus *img00001.png*, you can enter an alternative, or click the *Browse* button to select an existing file/folder. The output images will increment based on the image name – e.g. *img00001.png, img00002.png, img00003.png* etc

    Start/End Frames — These are listed in pull-downs from all of the available Scenes [Cameras], but only those Scenes marked in the Sketchup 'Scene Manager' to be 'included in animation' – i.e. without enclosing (…) in their tab label…

    Start Frame — Defaults to the first Scene, it can be any of the available Scenes except the last one.

    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. *Not yet implemented – always taken as '1'.*

    Pixel Samples — Defaults to *Medium (256 s/px),* choose from 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 frame-set specified

Note that the selected Scenes' Cameras, Motion-Blur and Light-Source are used if the respective **Export Configuration** options are 'checked' - their **Frame Render** specific Scene/Light-Source settings are ignored for this animation.

Other 'checked' configurations will also be used, e.g. *'Focal Depth'.*

This button's title changes to say '*Rendering Animation, Please Wait…*', and it is then disabled during the rendering loop.

To abort the rendering loop part way through close the '*cmd* window early ['*command'* on Mac]... On completion of the set of animation frames, or its early cancellation, the button becomes re-enabled and its title reverts to *'Render Animation'*.

***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].
c 20100614 Help button added to open OctaneHelp.pdf in Octane folder.
                 Animation Start/End/Step pull-downs linked and animation cmd
                methods fixed. 'Step' not implement yet [always = 1].
                All settings now remembered with Model.
d 20100614 Step now implemented in animation.
e 20100615 UI messages improved. Animation typo error corrected.
f 20100615 Naming of exported texture files now always mimics SUp's tw output.
g 20100616 Mac feedback addressed, somewhat.
h 20100616 Mac execution of command addressed with initial #!/bin/sh ?
i 20100618 Mac commands corrected. Other minor UI changes for all.
j 20100618 Mac command line escaping \"...\" finally sorted – partially.
k 20100621 Mac command execution fixed. Mac multi-app _anim \" fixed to ";
             _anim has own obj/mtl BUT now uses SAME ocs file.
l 20100629 Mac command execution still buggy - further fixes tried [bash].
             Link/Re-link of anim files resolved.

Known Issues:***

Selecting more GPUs that you have on your system can cause Octane to hang on startup.
Avoid using this option if it causes you problems... RS to advise…

The 'octane.cmd' and 'octane_anim.cmd' files [and also '_new_' files to make the
ocs's if needed] and [suffixed '.command' on Mac] are not currently auto-deleted from
the Project's Folder after execution - this is for debugging, as these files can
currently be edited to view/change the contents/actions and retest externally.

The non-transfer of [new/changed] materials' transparency/colors on re-render/_anim etc to be advised on
further by RS - it seems preset in Octane and unrelated to the exporter files themselves ?

This tool is working OK for PC AND possibly on the Mac [as of version-1022.l].

Feedback welcome…

TIG