Octane Sketchup Exporter

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Installation

Extract the files from the Octane_1022s.zip file into the ../Sketchup../Plugins/ folder, keeping the sub-folder structure for several of the files.

If you are unclear about where your *Plugins* folder might be then type [or copy+paste] this line into the *Window > Ruby Console*:

Sketchup.find_support_file("Plugins") + <enter>

Typically the PC path that is returned is:

C:/Program Files/Google/Google SketchUp 7/Plugins

Whilst typically the Mac path that is returned is:

Macintosh HD/Library/Application Support/Google Sketchup 7/SketchUp/Plugins

So there should be the following:

In the 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
	[since it does nothing on a Mac and could be discarded, on a Mac].
README.txt	This file can be discarded - it only explains the initial installation.

And in the folder ../Plugins/Octane/

Octane_1022.rb	The script that sets up the **Octane Render Sketchup Exporter** tool.
OctaneDialog.html	The file that is used to make the web-dialog for that tool.
OctaneDialogStrap.png	The logo image used by the html file above.
OctaneHelp.pdf	This Help file.

And in the folder ../Plugins/Octane/OctaneFolderBrowser/

folder_browser.html	A file that is used to make the special folder-browser dialog.
folder_browser.js	A file that is used to with the special folder-browser dialog.
folder_browser.css	A file that is used to with the special folder-browser dialog.
folder.png	The image used for the folder-icons in the special folder-browser dialog.
folderup.png	The image used for the folder-up-icon in the special folder-browser dialog.

Usage

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

File > Octane Render...

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.

On a PC it should be the **octane.exe** file, on a Mac it should be the **octane.app.**

Should the specified Octane binary file become unavailable between sessions you will be prompted to select 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.
A special folder-browser will open – select the desired folder.
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 *both* the **Project Path** *and* the **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 – i.e. '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 + _*Texture*s]. 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, with *img00001.png* - you can enter an alternative, or click the *Browse* button and a special folder-browser will open – select the desired folder. Again it will default to *img00001.png*. You can type in any image name here, after the folder separator (\ or /), but remember that it must have a 'numerical' ending so it can be incremented (like *anim9009.png*) and it must have a **.png** suffix.
	The output images in the animation sequence will all be saved into the *Image Output* folder; their names will increment based on the image-name format – 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 small – use these low settings for quick testing of animation frame-sets !
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 you can close the '*cmd*' window early [called '*command'* or '*terminal'* on a Mac]… On completion of the set of animation frame images, or its early cancellation, the button becomes re-enabled and its title reverts to *'Render Animation'* and it can be used again…

***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.
m 20100701 Mac executable path fixed.
n 20100702 file:/// used for Mac executable.
o 20100702 Further tweaks to Mac version for auto-execution of .commands.
p 20100706 Adjustments to Help file path for Mac. Install README added to zip.
            Menu name changed to 'Octane Render'. New ocs creation merged into
            first render. New 'folder_browser' added. Image_output path now
            correctly remembered with model.
q 20100709 General tidy up. MTL/Texture image-names now 'tied' to avoid SUp
           'locale' glitches, where Material Image's name can differ
           completely from the texturewriter's given name!
r 20100709 Folder Browser fail on non-existent folder fixed and other tidying.
           Error with MTL/image naming in some locales addressed.
           YUI slider js details revised.
s 20100710 All MTL's 'Ks' values zeroed.

Known Issues:***

The two 'sliders' used in the dialog need to load widgets for the yui slider, you need an Internet connection for these to be downloaded. Once loaded they should be cached and that connection is then not essential. Running the dialog initially without a connection might result in a java-script error popping up when you first open the dialog – answer yes when asked if you want to continue and it should then work OK without the sliders – it's obviously best to auto-install these yui slider widgets by being connected to the Internet at some time, to avoid this issue recurring…

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 further…

The 'octane.cmd' and 'octane_anim.cmd' files [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 any new materials' transparency on a re-linked render/_anim etc needs to be advised on further by RS. It seems preset in Octane and unrelated to the exporter's files themselves [obj/mtl] which do contain the new materials with all of their values correctly set. Clearly you don't want to overwrite any values of materials that were previously loaded, and which you might have subsequently changed in Octane itself: but on a re-link surely any newly added materials Octane finds should be used with their initial setting taken from the mtl-file– and not 'defaulted' as seems to occur now??

This tool is now working OK for PC AND the Mac [as of version-1022.o].

If you have an early version OS on PC – e.g. XP - please upgrade your Internet-Explorer to at least v7 – v8 recommended - earlier versions of IE can create java-script issues when run with Sketchup's web-dialogs…

Feedback welcome…

TIG