

Blender to octanerender™ unofficial plug-in v1.x

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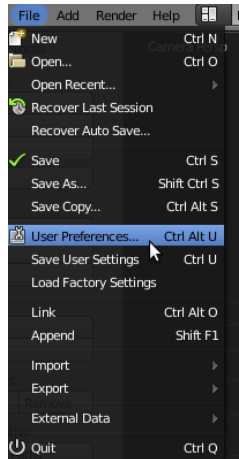
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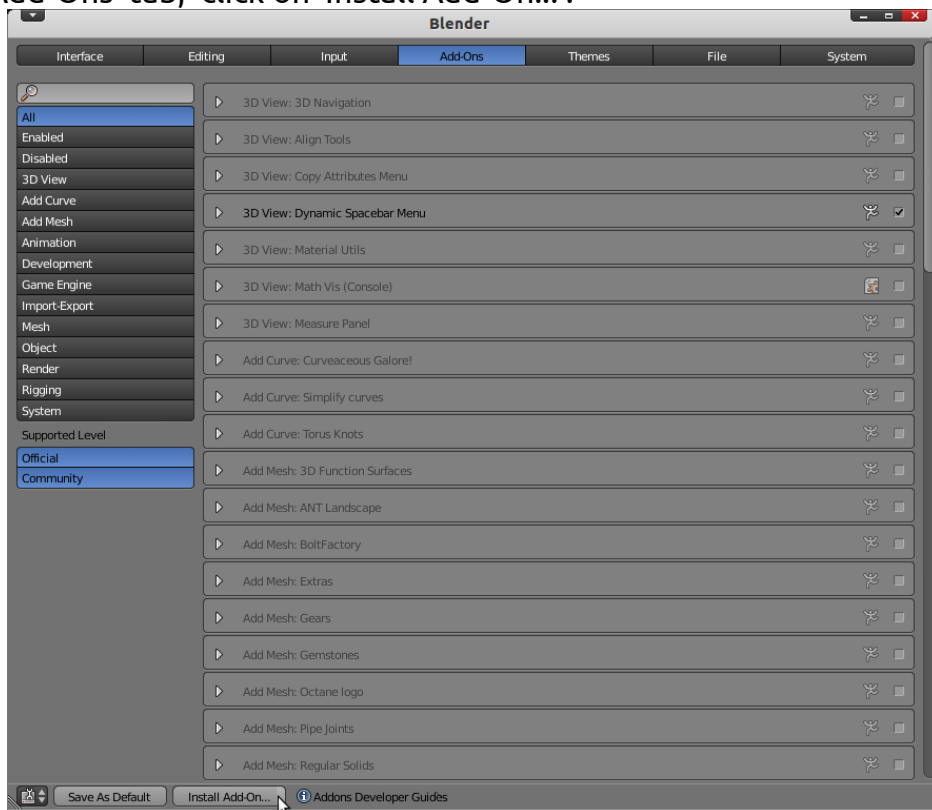
I. INSTALLATION OR UPGRADE

Before installing this Add-On you must ensure you're using a recent build of Blender, with svn number higher than 35208. **It will not work with 2.56a** from blender.org. You can get recent builds from www.graphical.org. Ubuntu users can setup an untrusted ppa source from here: <https://launchpad.net/~cheleb/+archive/blender-svn>.

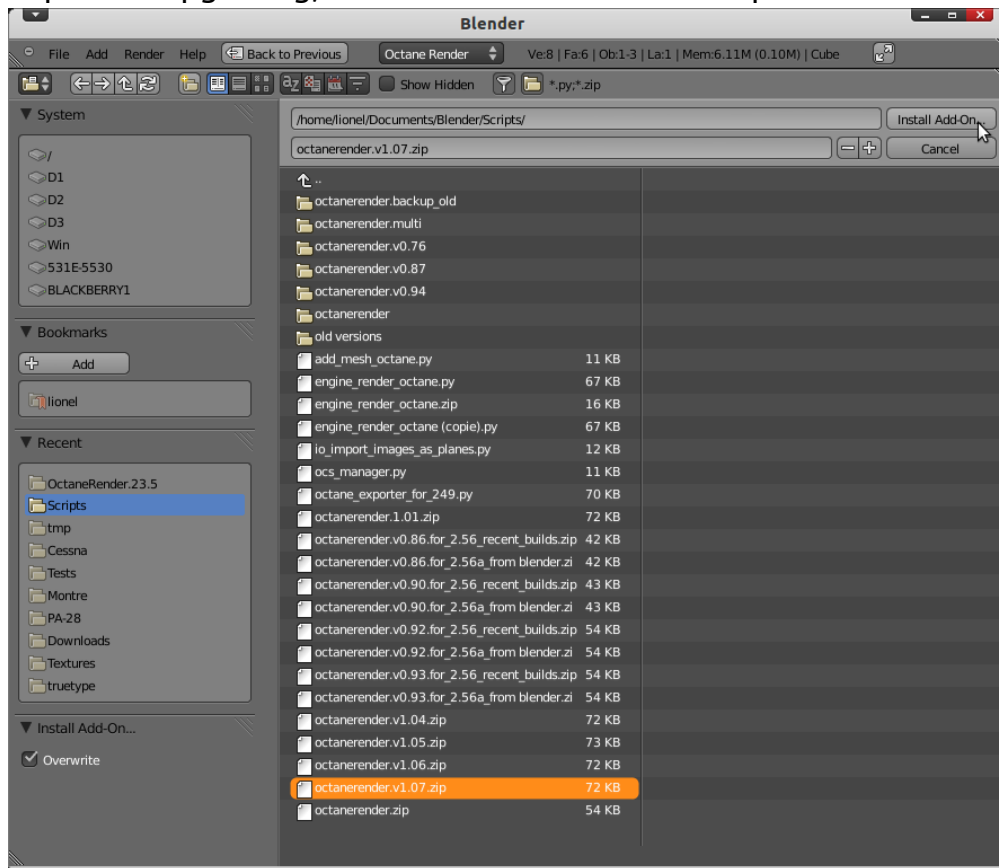
The plug-in should be installed or upgraded using the "User preferences..." panel from blender's file menu or the Ctrl-Alt-U shortcut.



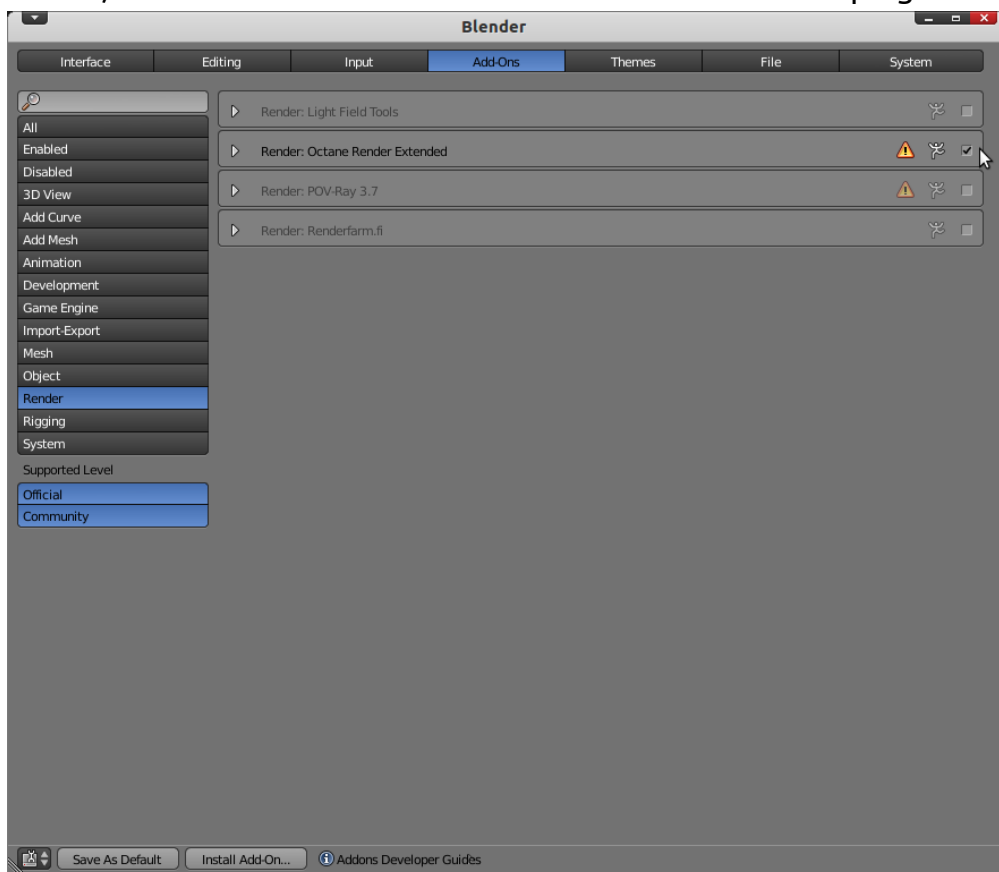
From the 'Add-Ons' tab, click on 'Install Add-On...':



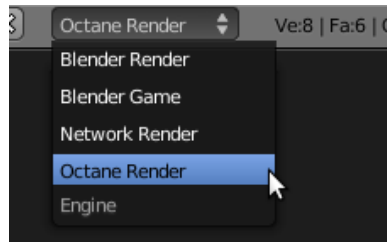
Select the zip file. If upgrading, ensure that the 'Overwrite' option is checked.



Once it's loaded, select 'Render' in the left column and activate the plug-in.

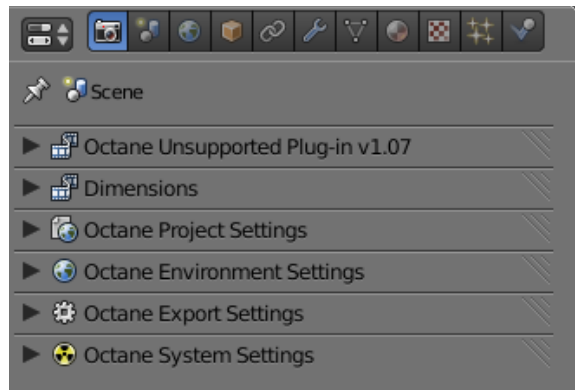


You can now return to your main screen and select 'Octane Render' from the drop-down menu right to 'Scene'. Blender may do that for you automatically. You can always switch between different render engines using this menu.



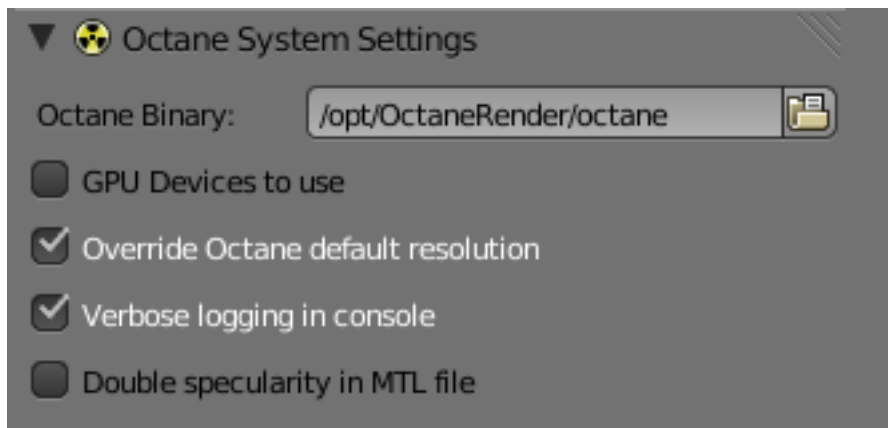
II. MAIN PANEL

The main panel is subdivided in different subpanels that can be re-arranged depending on your preferences. The default layout should look like the screenshot below :



- “Octane Unsupported Plugin v1.xx” is where you launch exports or renders .
- “Dimensions” is where you control screen size and animation frames.
- “Octane Project Settings” is for setting up path, name and units of project.
- “Octane Environment Settings” controls some exporter behavior.
- “Octane Export Settings” controls OBJ related export options
- “Octane System Settings” setups more 'static' options

II.a “Octane System Settings” subpanel



I recommend you first setup options in this panel and then save your user preferences. Doing this way, your default Blender scene will have the appropriate values. All settings are saved with the blend file at the moment. In future versions some of them may become global.

Octane Binary: you must select your octane binary, depending on where you installed it. The plugin will check that the file exists before starting render. I may contain spaces, but this is not recommended. Unicode characters are not supported. In the example above, 'OctaneRender' is the a link that I make always point to the latest version of Octane. This way I don't need to update my blend files everytime.

GPU devices to use: if you select this option you can provide a list of GPU indexes separated by spaces. Octane will then only use the GPU you selected.

Override Octane default resolution: it means the resolution of the render will use the settings from the 'Dimensions' panel instead of the default 1024x512. I recommend you always let this option activated.

Verbose logging in console: will generate lots of logs in the console if you started blender from command line. If you want to report problems with the plugin or faces crashes at export time you must activate this option, start blender from command line and copy the logs to document your issue. Please make your console wide enough for easy reading.

Double specularity in MTL file: by default Octane divides by 2 the RGB values of specular colors at import time. When activated, this option will double them to compensate Octane behaviour so the value you get are exactly the same as in Blender. This is only when exporting materials through MTL file.

II.b “Octane Unsupported Plugin v1.xx” subpanel



From this panel you can start rendering your image(s) using different modes:

Image: will export your scene and launch Octane.

- If the “Import render in Blender” option is checked, you must provide an output directory for the resulting image and define the number of samples to process before returning to Blender. Octane will start in quiet mode and exit upon completion.
- If the “Import render in Blender” option is not checked, Octane will be launched in foreground and will process up to 64000 samples.

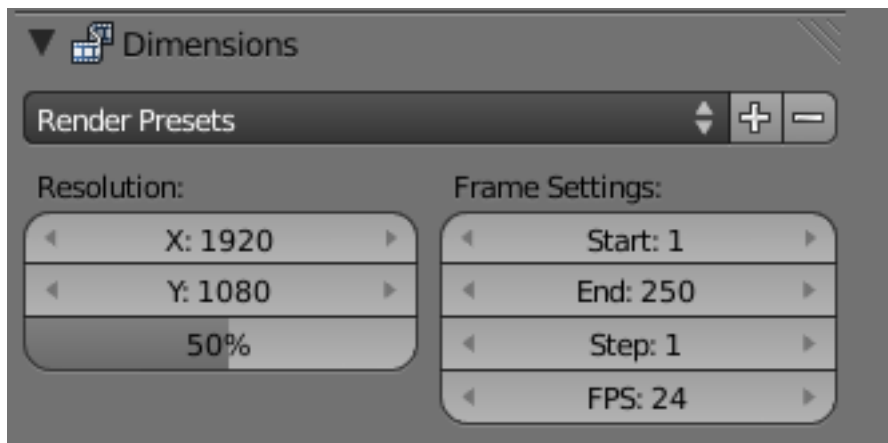
Export: will create OBJ and MTL files only, that you can later manually import into Octane. Note that it's quite different from blender's default OBJ exporter as it manages more object types (such as Text, Metaballs, etc...) and also outputs materials a more 'compatible' way.

Animation: will process all frames from the selected range. You must provide an output directory for the resulting images and select how many samples have to be processed for each frame. This setting can be animated with a keyframe if you want to increase or lower the number for specific frames.

As soon a a render is started, the plugin will generate next frame data so next render is immediately started, with no export delay.

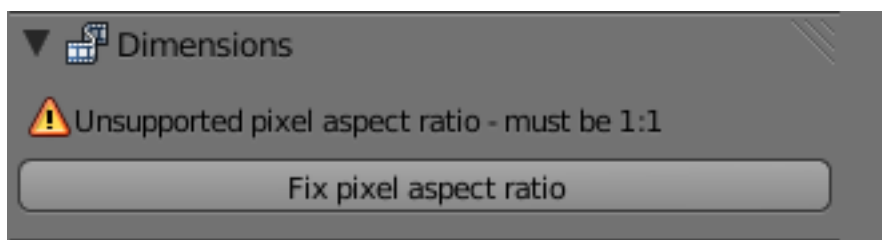
Fly: will process all frames from the selected range, but will only export mesh data for the first one. This used to allow saving time for static scenes but is now deprecated and may be removed in the future.

II.c “Dimensions” subpanel



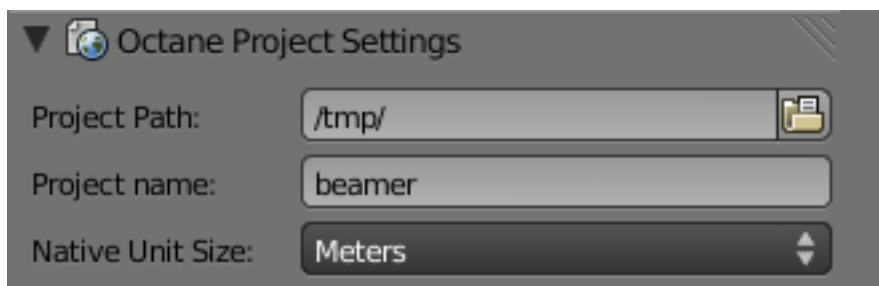
This is similar to the default Blender panel, with only settings that are relevant to Octane, except the FPS which is ignored by the plugin but can influence the game engine or the physics system.

If the X and/or Y pixel aspect ratio is modified by loading an existing scene or using a preset that produces non-square pixels, you'll get the following error:



Clicking on the 'Fix pixel aspect ratio' will turn it back to 1:1. doing this way ensures that the camera view from Blender always matches what you get in Octane.

II.d “Octane Project Settings” subpanel

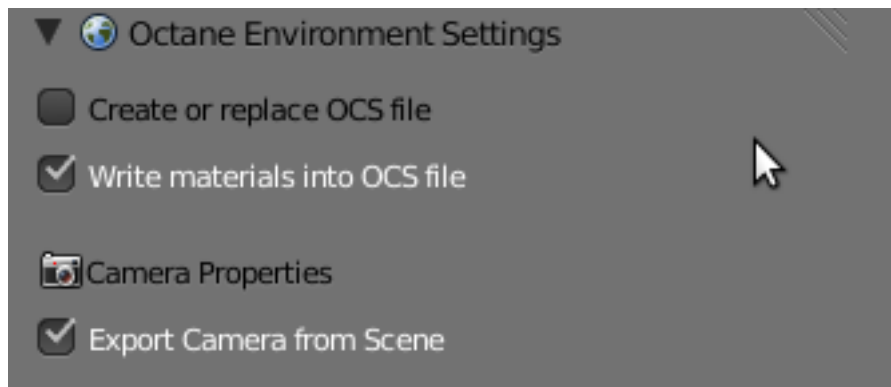


Project Path: this is the directory where the OBJ, MTL, OCS and images files will be created or copied. It cannot contain spaces or special characters. The plugin will check if it's an existing directory at export time.

Project Name: this is the base name of your project, and files will be created from it. In the example above, the OCS file will be beamer.ocs. It can contains spaces that will be replaced with “_” at export time. As usual, no special characters are allowed.

Native Unit Size: this is the arbitrary unit you have setup your scene with and it will be used to properly convert meshes, postions, etc... into Octane. The floor of the “material ball” scene in Octane has tiles of 4x4 cm that you can use as a reference.

II.e “Octane Environment Settings” subpanel



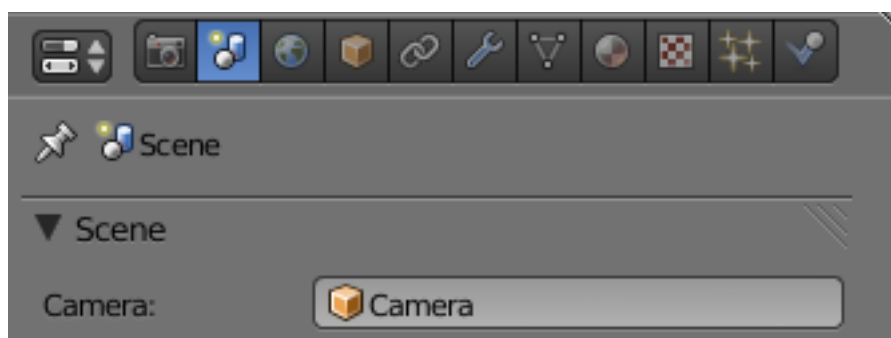
Create or replace OCS file: check this option to create or replace your existing ocs file, based on the project name you have setup. If the ocs doesn't exist, it will be created wheter this option is activated or not. Once you've done one export with this option on, it'll be automatically turned off. Be carefull if saving your blend file with this flag set.

Write materials into OCS file: you must properly understand what this option does before using it as there's a risk for altering your OCS files and making them unusable.

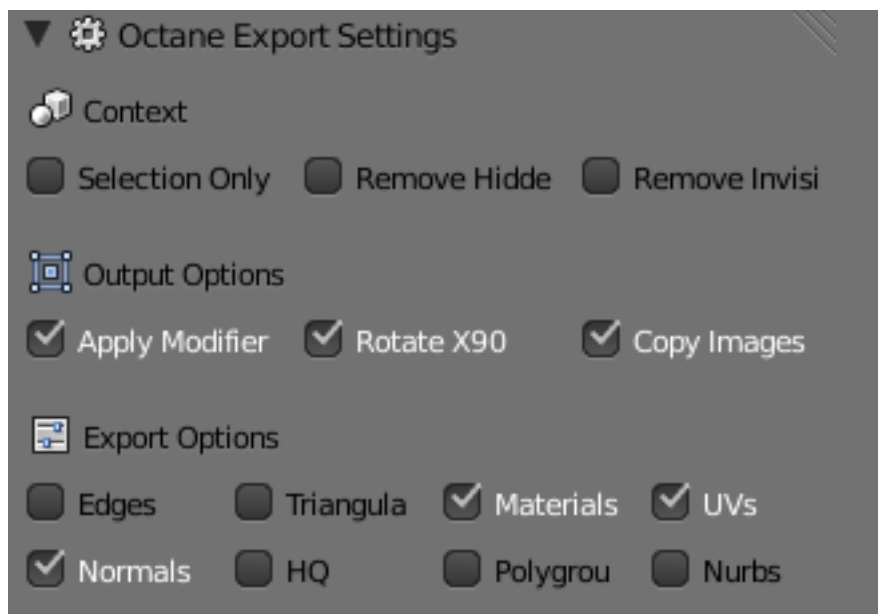
The default behaviour of Octane is to take materials from the MTL file if they don't already exist in the OCS file. If this is the case, they are simply ignored (since beta 2.43). Not only this prevent animating material properties, but the limitations of the MTL format don't allow getting an exact result at export time, or even get all types of materials supported by Octane (emission for instance cannot be exported using MTL).

By activating this option, you allow the plugin to replace all materials of the internal graph system of Octane with the materials you have defined in the Material custom panel, by directly editing the OCS file. “Internal graph” materials are the ones you manage only from the “Node Inspector” and that don't have their own node in the graph editor. Octane will properly relink your existing “external” materials, so this is where you must place them if you don't want them to be overwritten by the plugin.

Export Camera from Scene: will export all camera settings from the camera which is defined in the “Scene” panel of Blender. All options are given through command-line arguments.



II.f “Octane Export Settings” subpanel



Selection Only: if activated, only the selected object will be exported.

Remove Hidden: if activated, objects deselected for render in Blender's outliner will not be exported (camera icon deselected).



Remove Invisible: if activated, objects deselected for preview in Blender's outliner will not be exported (eye icon deselected).



Apply Modifier: will apply all Blender modifiers before exporting an object.

Rotate X90: will rotate the scene to match Octane display. Must be ON.

Copy Images: will copy images to the project directory. This is mandatory for animated (sequence) textures and anyway recommended default setting.

Other options are similar to the default OBJ exporter and should stay with their default settings.

III. World panel



All options here directly control equivalent settings in Octane. It's very important you understand how it works as activating any of these options will result in writing into the OCS file, which can lead to data loss or corruption.

The meaning of the various settings don't need to be explained here, please refer to Octane's documentation for more information.

If "Octane Mash Preview Kernel" or "Mesh Preview Environment" are checked, the plugin will try to update values in the OCS file, providing you have kept exactly the same names in Octane for those nodes. If they're not found, the plugin will safely ignore

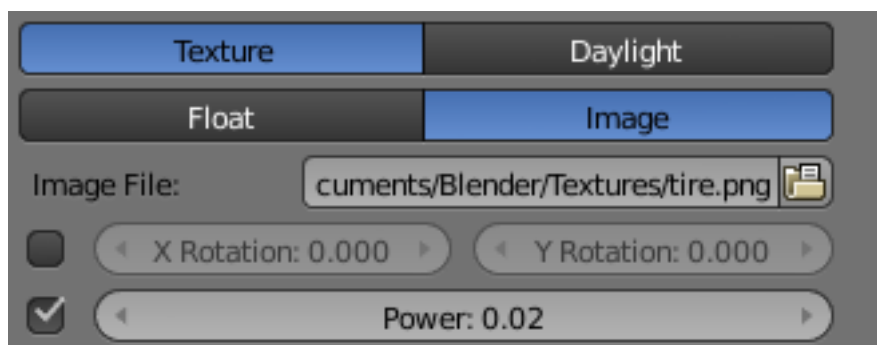
those settings and let your nodes untouched. Having multiple nodes with same name may give unpredictable results.

Switching from DL to PT, PT to DL, Texture to Daylight, Daylight to Texture, Float to Image or Image to Float will completely rewrite the child nodes with default values.

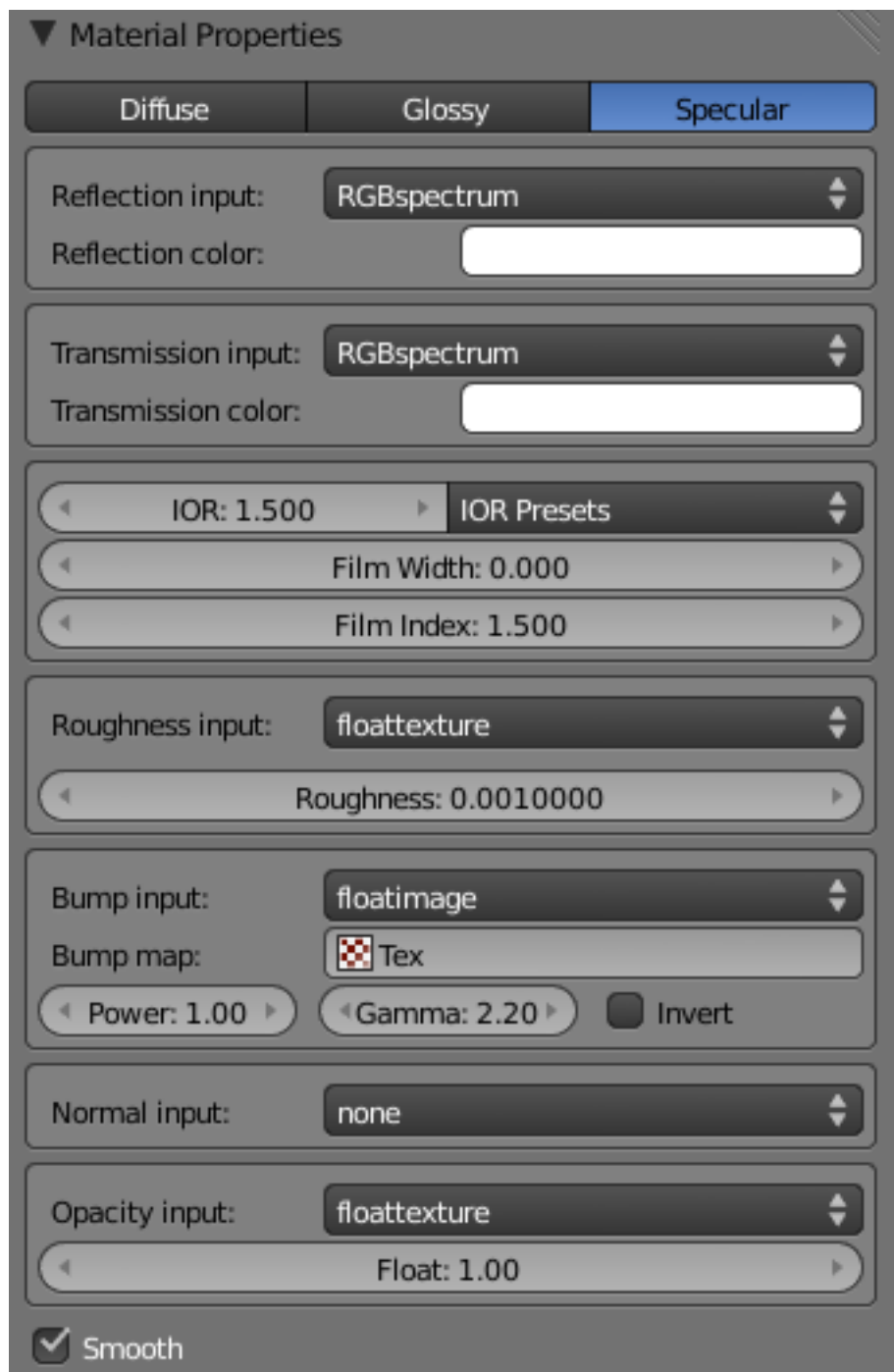
If those major settings stay untouched, the plugin will only update the non-greyed options, letting the others with their existing value from the OCS.

You can animate any value or type from Blender, although only some of them may be usefull. You could for instance switch from DL to PL in the middle of an animation, even if there's no interest for it. On the other hand, stuff such as turbidity, power, etc... can produce nice results in video.

Note that if using "Texture" + "Image" in the "Mesh Preview Environment", you have to provide a filename for the image, you cannot use Blender's texture panel. Other settings such as scale, power, etc... will use default values. A future relase may allow using textures from Blender for that.



IV. Material Panel



This custom material panel allows to fine tune materials from Blender before export to Octane. It supports a limited subset of features and is targeted to allow animation of materials (for instance, 'Bump input' only supports 'none' and 'floatimage'). As everything can be animated, you can even change a material type from the animation system as well as switching a parameter from 'none' to 'image'.

Those settings will only be taken in account if the appropriate option is enabled in the main panel. The only blender settings you can manage from here are Diffuse and

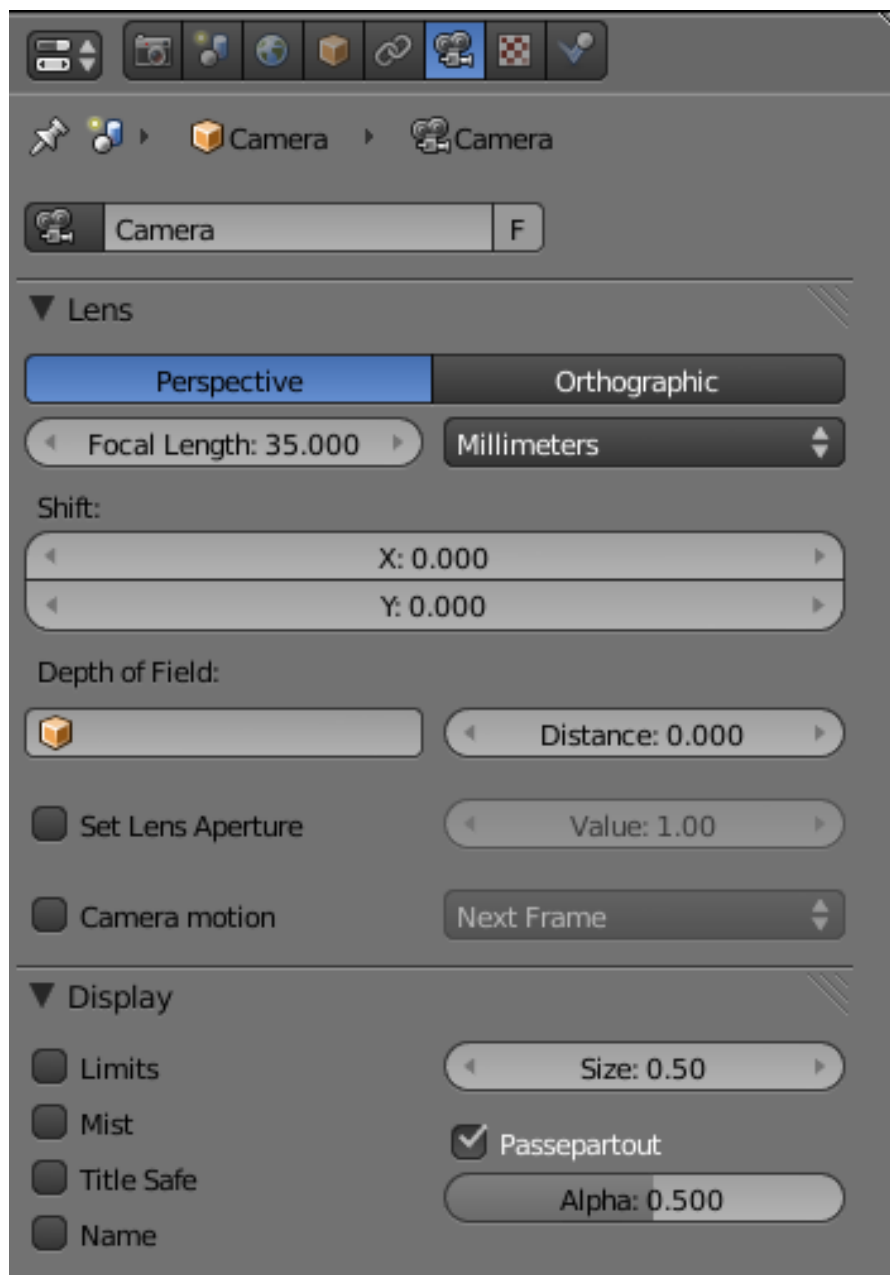
Specular colors. This is why the preview subpanel in blender may not even approximate the final render of the materials, especially if using an existing scene.

Important notes about textures: when selecting image, floatimage or alphaimage as an input source, you have to select a texture slot from a list and you **MUST** be aware of the following:

- the texture must be created using blender's texture panel.
- the texture must be assigned to any Blender channel such as diffuse or specular so it's not discarded by Blender when saving blend file.
- if not using OCS writes for the materials, then the plugin will try to export textures based on blender's channel.
- the only supported types are image file or sequence. Any other type will give unpredictable results or make the export fail.
- if type is sequence then the following settings are taken in account: 'Frames', 'Start', 'Offset' and 'Cyclic'. "Copy Images" option must be ON.
- only X and Y scale parameters of the texture are exported, Z scale and all other texture attributes are ignored.
- you must properly unwrap your mesh to UV.
- if you rename a texture, you must update the material(s) using it in order for the change to be taken in account.

If an object has no material or has a material with a badly defined or non-existing texture, the plugin may either fail at export time or just ignore this material depending on the exact problem. If this is latest case, the offending object will use the material from another one so you should be able to quickly identify it.

V. Camera panel



Only two options have been added to the default blender camera panel, and can also be animated:

- Set Lens aperture
- Camera motion

Note that camera settings are given through command-line arguments and don't affect the OBJ, MTL or OCS files. The latest is only updated by Octane itself when you save your project from there.

Lens Shift values may be modified at export time so what you see in Blender is what you get in Octane. This depends on the X/Y resolution.