



PassPort Documentation:

for LightWave 3D 9.3.1
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Before Installing:

This tool pushes the limits of what LightWave was intended to do, so it has to enforce a few setup concepts with LW. Here is a list of things to make sure you have in place before using.

- LightWave need to have scanned your install directory's plugin folder for plugins.
- LightWave 9.3.1 (and Universal Binary on Mac)
- Content directory needs to be set according to the LightWave documentation.

Also, using passes in LW requires some shifts in workflow. For example, to test-render a single frame of a pass, you'll need to use the PassPort Editor's command to test-render. And when it comes time to final render, the same is true.

Installation:

This consists of 2 files, *PassPort_MC.lsc* and *PassPort.lsc*, which need to be installed via the *Utilities >> Add Plugins* or *Utilities >> Edit Plugins >> Add Plugins/Scan Directory*.

PassPort can then be mapped to a keyboard or menu shortcut, or can be run as a Master Plugin: *Utilities >> Master Plugins >> Add Layout or Scene Master >> PassPort_MC*.

Usage:

Preferences Panel

PassPort needs some basic necessary information to be input via it's preference panel. This panel can be brought up by highlighting the PassPort Editor and hitting the lowercase **o** key, or by choosing *File... >> Preferences...*

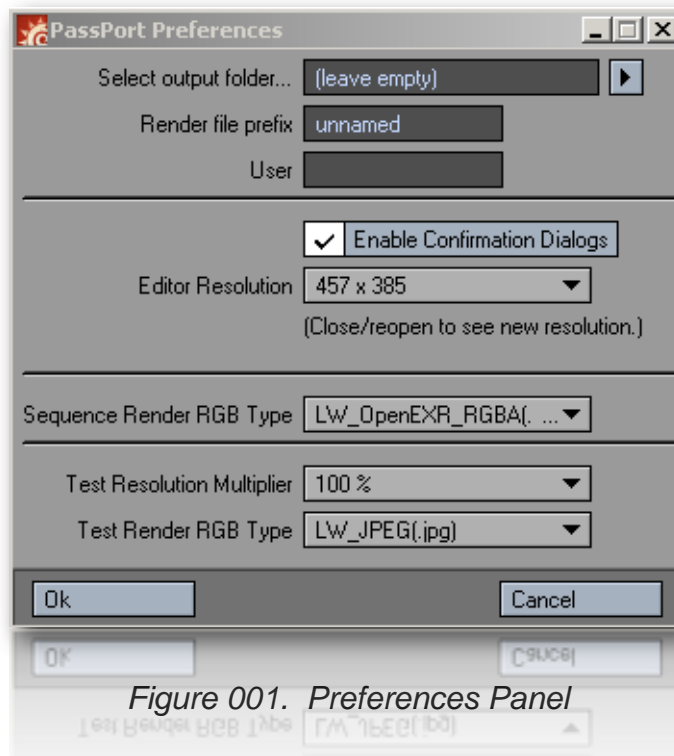


Figure 001. Preferences Panel

For the output folder, use the browse button to choose a folder for where the frames will be written on render. This serves the same function as LightWave's render output location, but the name is derived from the Render file prefix and the User field. Be sure to leave the parentheses and the words *(leave empty)* in the output folder field.

Enable confirmation dialogs lets you get the usual "Are you sure..." prompt before doing anything drastic. Uncheck to remove these for faster operation.

On Mac, *Enable auto close/reopen* tells PassPort that when it needs to be closed and reopened to update it's contents, to do it automatically. This is less stable, but more convenient.

Editor resolution is the size of the PassPort Editor window. You can also quickly scroll through these sizes after the Editor is open by using the plus (+) and minus(-) keys.

The next several options are render settings. When you render a whole sequence, the first RGB type you choose will be used for the sequence render. For rendering single frames though, you may want to render at half size, and with a jpeg or tga format instead. So you can choose to use the *Test Resolution Multiplier* and *Test Render RGB Type* for this.

Main Interface

On run, the main interface pops up. Its non-modal, so you can close and reopen at will.

The main interface consist of top items, 2 listboxes, and bottom items.

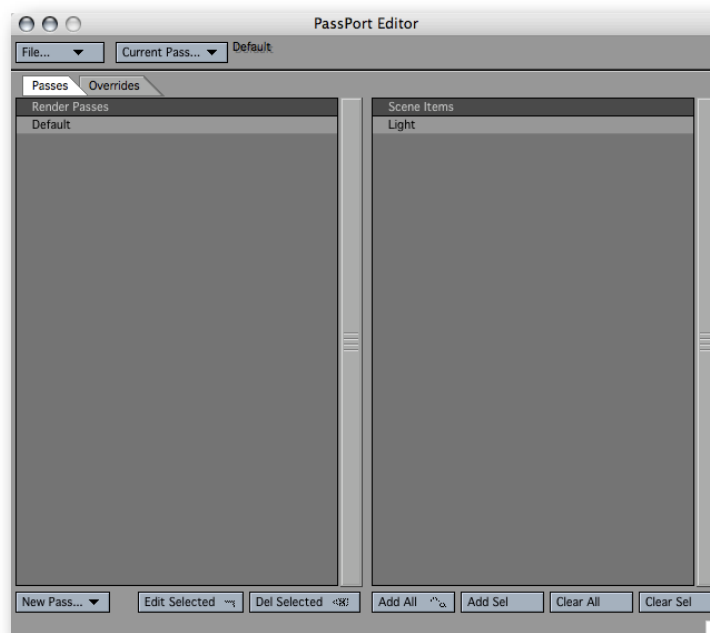


Figure 002. PassPort Editor

The *File...* pulldown is how preferences are changed, passes are exported as scenes, and renders are accomplished. You'll use this to render test frames, render full individual passes, and render all the passes in one go. Items that have quick-keys have the correct quick-key combination on the right. This is true throughout the interface.

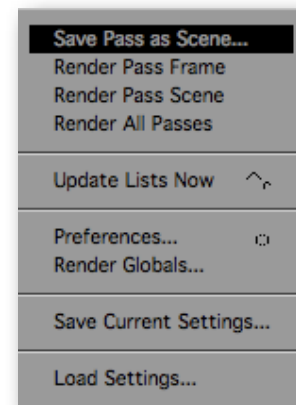


Figure 003. The *File...* pulldown

Beside this is the pulldown for selection the current pass. The pass selected here will be the one that renders. Also, override assignments (in the overrides tab) are pass specific. So assignments for one pass will be different with a different pass chosen in the *Current Pass...* pulldown.

Bottom items correspond to the listbox above them. Those on the left are for the left listbox (either passes or overrides, depending on which tab is selected), and those on the right are for the right listbox. Under the right listbox, you'll find quick methods of adding and removing multiple items to each pass or override assignment. *Add All* is self explanatory. *Add Sel* gets the item(s) selected in Layout and adds only those object to the existing assignments. The *Clear All* and *Clear Sel* functions are obviously inverse of the add buttons.

Working with passes

If you've ever had to create an object copy just for a data pass, then had to create a copy of the scene for all your object copies, then you know how difficult a multi-pass workflow is in LightWave.

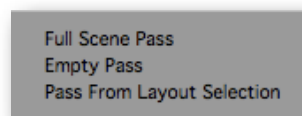


Figure 004. The *New Pass...* pulldown

Now, with this tool, these problems disappear. There's no need to have 10 copies of an object for your data passes (even if they have different surfaces), nor is there need for scene copies where a light is left out, or an object was

unnneeded for that scene. Simply create a new pass, and you've got a new rendered output. You can assign as many or as few objects and lights from your scene to that rendered output as you like. And it's all contained within one scene file.

When it comes time to render, just use the PassPort Editor to render the sequence. If you've got access to a render farm, choose *Save Pass as Scene...* and that pass will be used to create a standard LightWave scene file (free of any reference to the PassPort Editor) that you can submit to your render farm at will.

The method is simple. Select a pass, then select an object or light on the right listbox. That newly highlighted object is now a part of the selected pass. CTRL click the item again to remove it from the pass.

Working with overrides

Here's where the real power of the PassPort Editor comes in. In each pass, you can specify a combination of Overrides that change an item's properties or appearance, but just for that pass. So if you're doing a shadow pass, you can have the shadow casting objects Unseen By Camera, even though that is not the case in the LightWave scene.

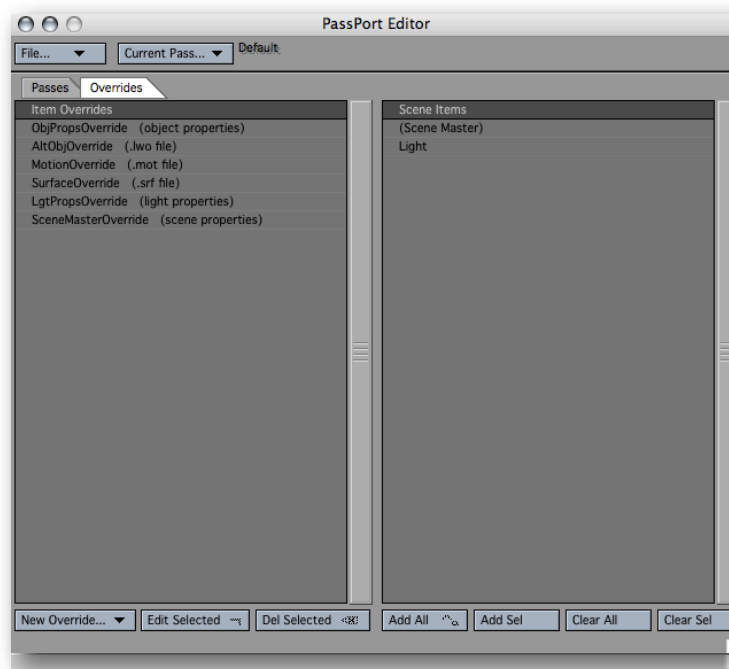


Figure 005. The Overrides Tab

There are seven types of overrides. When applied, these will override any parameter they cover. In other words, if the parameter exists in any state in the overrides, the override parameter will be used instead of the native LightWave parameter. Also, there's a bit of common sense in working with these. The PassPort Editor won't prevent you from as-

signing an *Alternative Object...* override to a light. But it won't affect the render since a light is, well a light,

and not an object. So the overrides to use on objects exclusively are *Object Properties*, *Alternative Object...*, *Surface File...*, and *Light Exclusions*.

The override that uses lights exclusively is the *Light Properties* override.

The *Motion File...* override will work on both objects and lights, and the

Scene Master override will only work when assigned to the (Scene Master) item in the items listbox. This override is for changing scene specific settings for individual passes. Finally, the *Light Exclusions* override allows you to specify per-pass light exclusions. Assigning it to an object will exclude that object from any lights in the override settings in that pass.

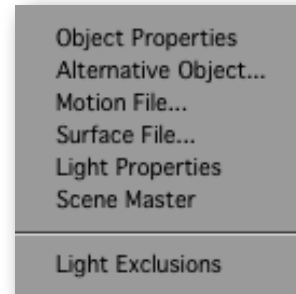
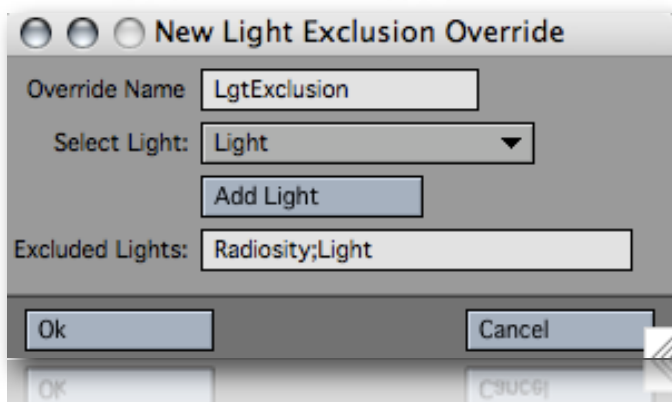
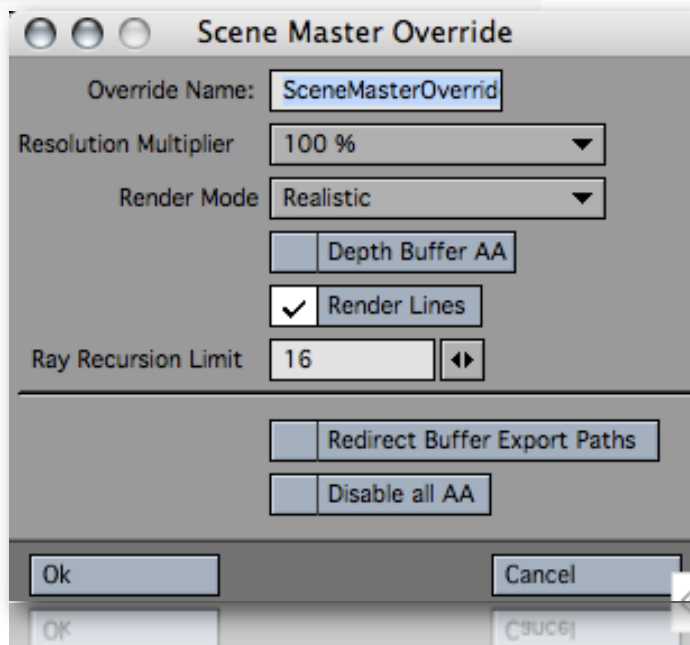
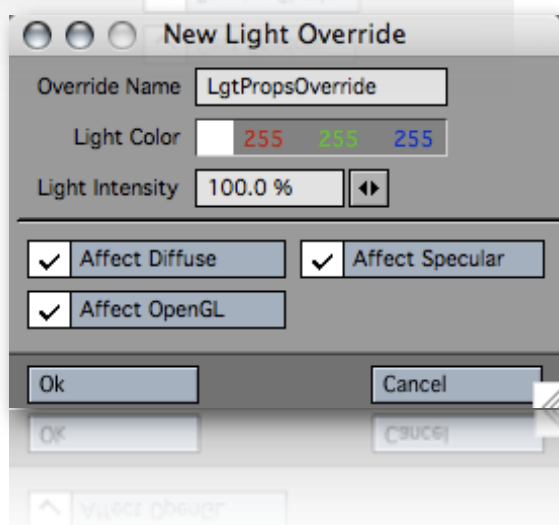
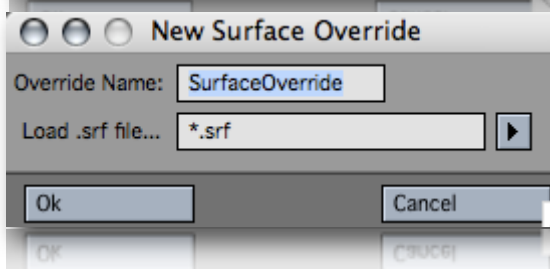
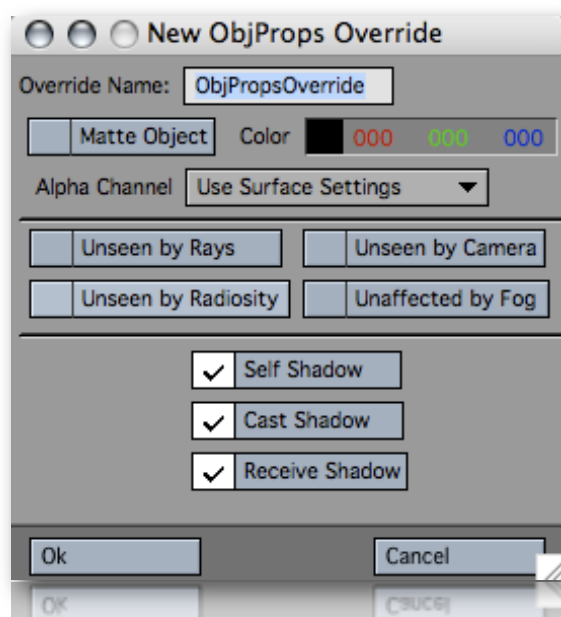


Figure 006. The New Override... pulldown

The *Light Exclusions* override is unique in that it can be assigned in addition to another override. So if you want to use a surface override AND a light exclusion override, you'd simply have the surface override higher in the overrides listbox and assign both to an object. If you ever find that the light exclusion is higher in the listbox than another override (and therefore preventing it's stack-ability), simply hit **Page Down** on your keyboard to move the selected override to the bottom of the listbox.



Troubleshooting:

Overrides cannot be stacked on an object in a pass (with the exception of the *Light Exclusions* override). For example, you cannot apply both a motion override and a surface override to the same object in the same pass.

Also, the quick-keys very rarely get confused after pass creation or editing and then they think you've hit the delete key (and therefore try to delete a pass/override). As of now, the only way to prevent this is to keep the confirmation prompts enabled in the preferences and cancel the pass deletion when it asks.