

Maps Copier Gatherer Renamer

(...and LIE Baker).

In brief, 5 Scripts are included:

- **V3DMC Check List Of Folders:** this allows you to have the list of the folders used by the image maps used by your selected surfaces, followed by a more detailed list of which maps are in each folder. A great utility if you want to share your content or pack it, and make sure no map has been forgotten in a folder which will not be packaged, also great to rapidly find these images if you want to edit them in photoshop or the free GIMP. This list is text editable, meaning that you can copy and paste it anywhere for your records, or that you copy and paste the text of a folder path in your explorer to access directly this folder.
- **V3DMC Maps Copier Gatherer Renamer:** this allows you to preview all the image maps of your selected surfaces (choose amongst 4 resolutions from 64x64 to 512x512 px), as well as which nodes surfaces and properties use these images. You can decide to change the name of a few of them and then copy them (either all the maps of your selection, or only the renamed ones) to a destination folder of your choice. This is your first choice: "copy all or only the renamed ones". For the copied maps you can keep or not the initial "Runtime/textures/..." hierarchy if it exists. And this is your second choice: add or not the existing "Runtime" hierarchy to the destination folder (Mac Users, please see additional remarks at the end of this document for the "runtime" case). You can finally decide to apply these copied maps or not, and if you apply them, if you apply them only to your selected surfaces, or to all the surfaces of the scene using these maps. This is your third choice: will the new maps be applied to surfaces, and which surfaces? In brief you have three choices to make via radio buttons (which maps, where they are placed, and if they are applied), and one button to click to process. In order to gain time, your choices are remembered for you next sessions as soon as you click on the button to launch a copy.
- **V3DMC Maps Renamer Only:** this allows you to preview all the image maps of your selected surfaces too, as in the previous script, but this time, you can rename the maps you want and they will be renamed **directly in their original folder**. An option, checked by default, allows you to keep the original file too in these original folders, take care to be perfectly sure of what you do if you uncheck it, let's say that unchecking this option is "allowed" for content creators mainly, when they develop or prepare their content for sharing. When this option is checked, the maps are copied and renamed in the original folder. When it is not, they "rename" the original images. This script is more dedicated to advanced users or content creators than to beginners.

- **V3DMC Number Of Maps Used:** will display a simple message with the number of maps used by your selected surfaces. The scripts can “display” the maps 120 per 120 maps (it can copy and gather more, even the ones which are not displayed, but you cannot rename these ones).
- **V3DMC Open Destination Folder:** this script will open the destination folder used during your latest “V3DMC Maps Copier Gatherer Renamer” session. This way you spend less time to browse if you want to edit the copied images in an image editing software.

A few fields of application of this script (but many more can exist)

- **Create backups or variations of texture sets :** You can create copies of maps in order to work safely on the new versions (create variations, change color, luminosity, contrast, add patterns, etc, etc), without damaging the original maps, materials or shader sets. Since these images were reapplied (if you checked this option) on the surfaces, *if you save a prop, a scene, a material preset or a shader preset, this prop, scene, material or shader preset now relies on the copies*. Then when you modify these copied images (this is when YOU work), either you did not exit your Daz Studio scene and you can do a simple “CTRL+I” or “Refresh images” to see the modifications directly in your scene, or you are in a new scene and you just have to load the material preset or shader preset corresponding to the copies you modified. You can this way optimize or create many variations/optimization of the original texture sets much faster and much more efficiently than by browsing to the original images, manually creating a copy and renaming them, by reloading them manually on the corresponding properties of surface, etc, etc... in brief, to optimize or create variations of texture sets, it is a huge time saver, since the copies of the image maps of a texture set are now gathered where you want and are already applied were they are supposed to be on the surfaces. If you want the new images to be in the original folder of the initial images, you can use the “V3DMC Maps Renamer Only” script, with the option “keep original” checked. If you want to gather them in another folder, rather use the “V3DMC Maps Copier Gatherer Renamer” instead. For each script, also make sure that you apply the new images to the surfaces of course.
- You can **rename maps “as if you renamed them directly on the surfaces”**.
- **You can check the list of folders used for the maps of all your selected surfaces** (using the script “List of all folders used”). This list can be copied/past to any software supporting text. If you are a PA packaging your content for a product or an artist gathering his personal content to share with someone, you should see one and only one folder, or only the folders you plan to include. Another additional script allows you to see how many images are used for a given selection of surfaces. Any path of this list can be copied and paste in your file explorer to access directly the corresponding folder.
- **You can gather your maps in a single runtime (or any folder) with the names you want.** For instance if you developed some textures but the images are still in your development folders with your development names, you simply have to use this script both to place them all in the same runtime folder, but also you can give them the name you want while you copy them.
- **You can bake your LIE where you want, with the names you want** (still one click via “V3DMC Maps Copier Gatherer Renamer”, detailed at the end, in “additional remarks”).

How do you use the scripts?

FIRST you must select all the *surfaces* for which you want to copy some maps of or all the maps. These surfaces can belong to one or several objects (nodes), it does not matter. Then you can launch the script. Selecting the nodes in the scene is not enough, since the script is made to be surface specific.

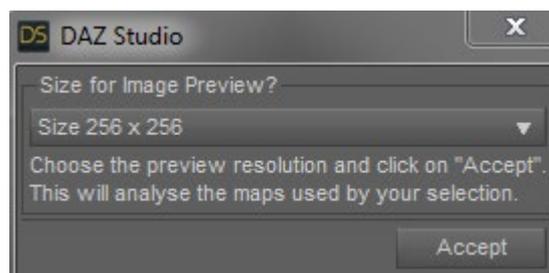
*If you want to select all the surfaces of the whole scene, or many surfaces, first select all the elements you want in the scene (in the Scene Tab, expand all if necessary), then, in the Surfaces Editor Tab, select all the SURFACES (use the SHIFT key if necessary). **The more image maps are included in the analysis step, the longer the interface will take to be fully created.** On my 7 years old computer it takes around 15 seconds for 150 images.*

WARNING: you are “somehow” limited to a selection/display of 120 maps, due to Daz Studio Interface limitation, since boxes do not seem to support more than 120 sub-boxes. A script has been added to determine how many maps are included in your selection before you launch the script. **Yet** even if the “additional” maps (above 120 maps) are not displayed, it will be possible for you to copy them to another folder (thanks to the options included), and apply the new versions of the maps, but you won’t be able to rename the ones you cannot see in the interface, since you cannot access the line-edit to enter the new name.

V3DMC Maps Copier Gatherer Renamer, Step 1: Define your options

1. Preview size:

When the script opens, you have a first popup allowing you to define the size of the preview for the maps. The best choices in my humble opinion is 64x64 or 128x128, but you can also choose 256x256 or 512x512.



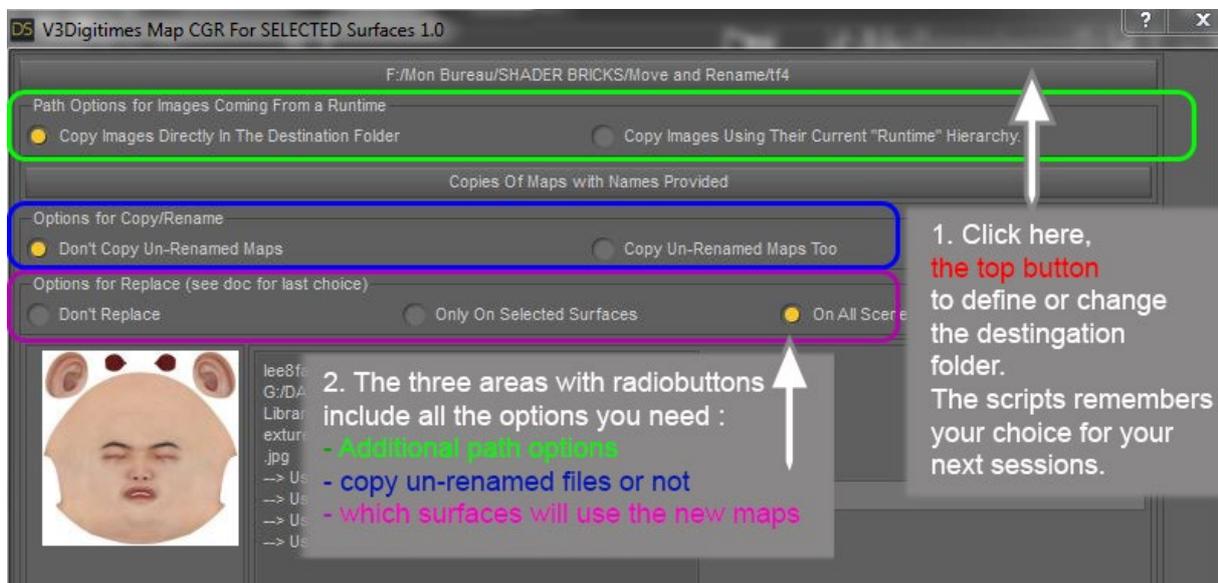
2. Destination Content Folder (Where do you copy?)

Once you made your choice, a new popup will appear, in which you will be able to see all the maps used by the selected surfaces in the left column, the information concerning the map (size, path) and which object(s) use(s) this map on which surface(s) and which property(-ies) in the middle column, and finally on the right, you have the possibility to define a new name for these maps. If you have a lot of surfaces, this interface may take a few seconds to appear, and you will see one or two “busy cursors” showing the script is still working. *You have less options for the “renamer only” script, since the destination path is automatically the original path, and the you cannot “rename un-renamed” maps, which limits the initial options.*

At the top of this interface, you can change the options for copying, renaming and applying the maps. For security reasons of your content, the maps cannot be renamed or copied directly “automatically” in their original content folder, unless you use the V3DMC Maps Renamer Only script which is dedicate to this purpose. I hesitated a lot for that, but this is safer to use this script if you are a content creator or an advanced user, because if you are a basic user you may pollute your runtimes accidentally this way.

Please also note that in theory there is an automatic overwrite protection in Daz Studio “copy” function. If a file with the same name exists in the destination folder, it will NEVER be overwritten. If a map using the same name is already seen in the destination folder, you can know that it was the case at the end of the process. This will be notified in the log file using this sentence “image: “the name of your image” already existed before the copy”.

Take care, with the “V3DMC Maps Renamer Only” script, do not uncheck the option “KEEP ORIGINAL”, unless you are perfectly aware of the consequences of your choice.



Using the first button at the top of the interface, you are asked to choose a destination folder for the copy. IDEALLY, the folder you choose is a mapped content folder, but it will also work if you choose any folder. If you need help to create and affect a folder as a new content folder, ask help (to me or others) on Daz Forums.

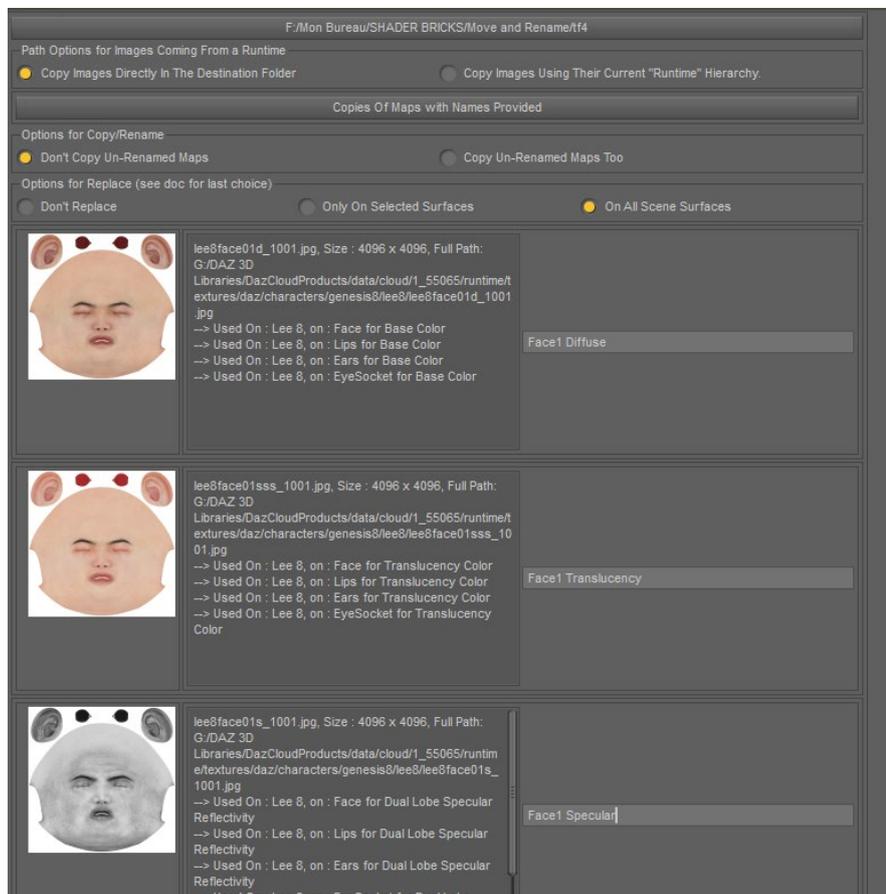
3. New name for the maps (rename)

When you enter a name in the text line, **you must not write the extension, but only the name.** If you decide to leave the new map names empty, you can anyway copy these maps if you want to (see next part).

What happens if the new name corresponds to an image already existing in the destination folder? The script will not replace the existing file, this will be skipped, uniquely based on how Daz Studio “copy” function works for files. There is no warranty it will be copied.

In order to avoid this, you can either change regularly the destination folder, or you can, if you are copying maps coming from a commercial product, use the option “use full sub-folder hierarchy”, in the

“Path Options for Images Coming From a Runtime” Box (recommended for general users, PA will decide what’s the best option for them).



Here in the example above, the maps will be copied “directly” under the destination folder (option 1 for the path, i.e. the “runtime/textures/” hierarchy is not included), with the names “Face1 Diffuse”, “Face1 Translucency”, “Face1 Specular” and will be applied to all the scene surfaces using these maps. The map which are not renamed – for which nothing is written in the line edit on the right of the image- will not be copied/applied (they would be only if you checked the option “Copy Un-Renamed Maps Too”).

4. Copies and rename options

With the default options, it copies only the renamed maps, i.e. the maps for which you enter a new name in the text line dedicated to this.

This can be changed in the “Options for Copy/Rename” Box, by change the option from “Don’t Copy Un-Renamed Maps” to “Copy Un-Renamed Maps”. In this case, the name used for the new copied maps will be the name of the original maps.

4.a. What do you copy?

If « Don't Copy Un-Rename Maps » is chosen, you will copy only the maps you renamed to the destination folder, i.e. only the maps with something written in the text line. The other maps will not be copied.

If "Copy Un-Renamed Maps Too" is chosen, all the maps of the selected surfaces will be copied, using either the name you write in the text line dedicated to this purpose, or their initial name if you did not enter a new name.

5. Apply copies or not? (Do you replace?)

In the "Options for Replace" Box, you can define what you want to do with the copied maps.

5.a. If you choose "Don't Replace", the maps which are copied are not applied to the surfaces/properties they were taken from. You just have a backup or a copy of the maps independent from your scene.

5.b. If you choose "Only Selected Surfaces", the maps which are copied are applied to the surfaces/properties they were taken from, only for the surfaces you selected when you launched the script.

5.c. If you choose "On All Scene Surfaces", the maps which are copied are applied to all the surfaces of the scene using these maps.

Step 2 : Proceed to copy

TO LAUNCH THE COPY/REPLACE/RENAME OPTIONS WITH YOUR CURRENT OPTION CONFIGURATION, YOU SIMPLY HAVE TO CLICK ON "Copies Of Maps with Names Provided". Each time you click on the button to copy/rename maps, then all the current options about path, copy and replace will become the default option for your next sessions.

V3DMC Maps Renamer Only:

This script is very similar to the "V3DMC Maps Copier Gatherer Renamer" except that this time you don't have the choice for the destination folder, which is automatically the initial folder, that you cannot process the unrenamed files (because you are here to rename only), and that you have an additional option to "KEEP ORIGINAL" file or not. PLEASE if you are not a content creator, keep this option checked unless you PERFECTLY know what you do by removing the original file (I think about beginners who may be forced to reinstall their product if they remove the original image maps).

Process Speed considerations

- copy of images without replacement on their original surface properties takes a minimum of 300 ms per image, because the script applies a 300 ms sleep between each image to make sure that the images have enough time to be copied. This is globally a fast process.
- copy or renaming of images with replacement can take longer, from 1 to a few seconds per image for two main reasons. Because, first reason, each time an image is reloaded on a property of a surface, it takes a few seconds for Daz Studio to process this change. This is a Daz Studio process independent from this script. The second reason for that is that the whole scene (if you choose the option to apply the maps on all the scene surfaces) or a part of the scene (your selection if you choose the option to apply the maps on selected surfaces) is re-analyzed in order to determine where to replace the maps. It seems that the process rate for LARGE selections, when you apply the new images on the surfaces is between 10 and 20 images per minute (renamed or not, copied, applied on all scene

surfaces). YET if you use smaller selections (less than 50 maps) then the process rate can go to more than 50 image per minute (because you analyze a smaller part of the scene). This is why it is recommended to avoid large selections (more than 200 maps), unless time is not a matter for you and you have to do something else during the process. Selections of 40/50 maps seem to be a nice compromise.

The idea is that the rate to copy/reapply the map goes down as the selection size increases. For 10 maps it is one second per map, for 60 maps you need 1min30 (1.5 second per image map), and for 100 maps you need 2min50 (1.7 second per image map), for 150 maps you need 4min52 (i.e. almost two second per maps), etc, etc... **In brief, the more maps you process during a same script session, the longer it takes per map, this is why it is more interesting to proceed by smaller groups of maps (objects) rather than big groups.**

Additional remarks :

1. **Undoable actions:** When you undo “V3DMC Maps Copier Gatherer Renamer” script, you can undo the fact that you applied the new maps, but the images created in the destination folder will remain in this folder (no destruction of the files created). You CANNOT undo “V3DMC Maps Renamer Only” IF you unchecked the option “KEEP ORIGINAL”, because if this option is unchecked the map you try to apply when you undo does not exist any longer. Otherwise you can undo it, but the created images (renamed) will still exist, whereas the surfaces will use their previous (original) maps. If the option “KEEP ORIGINAL” is unchecked, the possibility to undo the “Renamer Only” script does not exist in the undo stack (because the original maps do not exist any longer).
2. **If you work on LIE images**, don't use the renamer only, use the full “V3DMC Maps Copier Gatherer Renamer” script, because otherwise the new image will fall in the temp folder which is emptied at the end of a Daz Studio session. **On the contrary, using the “V3DMC Maps Copier Gatherer Renamer” will bake your images in the destination folder you chose, DIRECTLY under the destination folder** since there is no runtime hierarchy in LIE images which are initially located in the temp folder of your Daz Studio version. Consider this script as a LIE baker with the possibility to give a new name to the baked image (for the advanced uses who know that the initial names are d1, d2, d35, etc, etc). Save your scene before you launch the script since it generally triggers the initial baking of LIE in Daz Studio Temp folder.

If you want, for such LIE images, you can create a destination folder such as “My folder/runtime/textures/Copies/” and define it as the new destination folder to make sure that your baked images will fall in a recognized runtime hierarchy (of course if you add “My folder” to the list of Daz Studio Mapped content folders).

3. An additional 300 ms ‘sleep’ is added so that the computer has enough time to copy a map and reload the new map if necessary, on the surfaces, before launching the copy of the next map. Normally this is enough for most computers. In case this is not, please PM me on Daz Forums, or use the commercial thread dedicated to this project. How can you know this is not the case? Well Daz Studio will pop messages during the process telling that the map cannot be found.

4. **MAC USERS ONLY, WANTING TO SHARE CONTENT ONLY:** In the V3DMC Maps Copier Gatherer Renamer script, IF you check the option to use the “runtime/texture...” folder hierarchy, AND IF your initial content is installed in the cloud data folder (via smart content, not via dim or manual install), then your original runtime path may begin with “runtime” (using not “R” but “r” as the first letter). This **MAY** preventing Daz to see it as a real “Runtime” folder (the maps will be copied, seen, but in the material presets and props, the full absolute path may be used instead of the relative path, which is not an issue to use, but can be an issue to package a content). This is a supposition; I have no Mac to test. In this case you can create yourself your Runtime hierarchy with an “R” and copy the files using the script directly under this hierarchy if it is absolutely necessary for you to use the relative path and not the absolute path. This is not a big issue since the maps will be copied and renamed as you asked, applied if you wanted, will be valid, but their path may be seen as absolute and not relative.