

# Optimizing a Chief Architect Plan for Export to the 3D Viewer

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The information in this article applies to:



## QUESTION

I would like to share a 3D Viewer model file of my drawing with a client that is using the Chief Architect 3D Viewer mobile app.

What settings or changes should I keep in mind before exporting the model?

## ANSWER

Starting with the Chief Architect X8 18.3 update, you can export 3D Viewer model files to share with clients using the free [Chief Architect 3D Viewer](https://www.chiefarchitect.com/products/3d-viewer/) (<https://www.chiefarchitect.com/products/3d-viewer/>) mobile app.

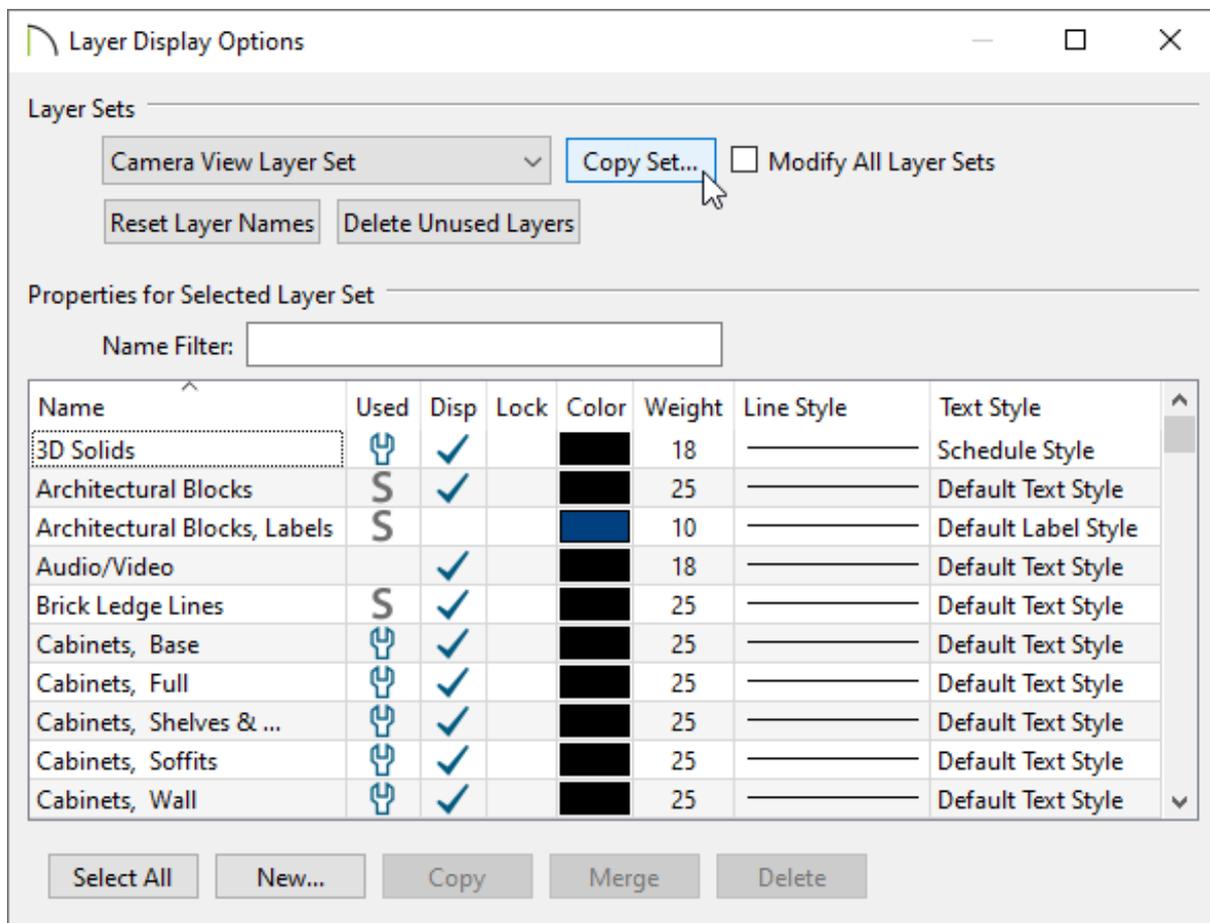
To ensure that your model can be opened on a variety of devices, it's a good idea to optimize your design before exporting. There are two ways to do this: by limiting the model's Surface Count, and by controlling its Texture Size, or the amount of memory required to load the model's material textures. You can find these metrics in the

Export 3D Viewer File dialog when you export a model. It's recommended to keep the Surface Count *below 500,000* and the Texture Size *below 50 MB*.

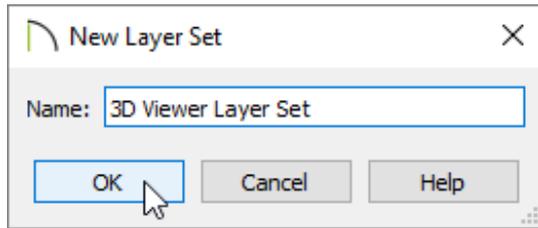
The easiest way to optimize a model for use in the Chief Architect 3D Viewer is to limit its Surface Count. You can do this by reducing the number of objects included in the model prior to exporting, by creating one or more custom layer sets in which unneeded layers are turned off.

## To create custom layer sets

1. In the plan you want to export, create a 3D camera view of the model by navigating to **3D> Create Perspective View> Perspective Full Overview** .
2. Select **Tools> Layer Settings> Display Options** .
3. Next to the drop-down which indicates the currently active layer set for the camera view, click the **Copy Set** button.



4. In the **New Layer Set** dialog, give the layer set a distinctive name, such as "3D Viewer Layer Set" and click **OK**.



5. Verify that this is the layer set now shown in the drop-down menu at the top of the dialog, and uncheck layers that will not be necessary and could add to the file size and complexity of the design.

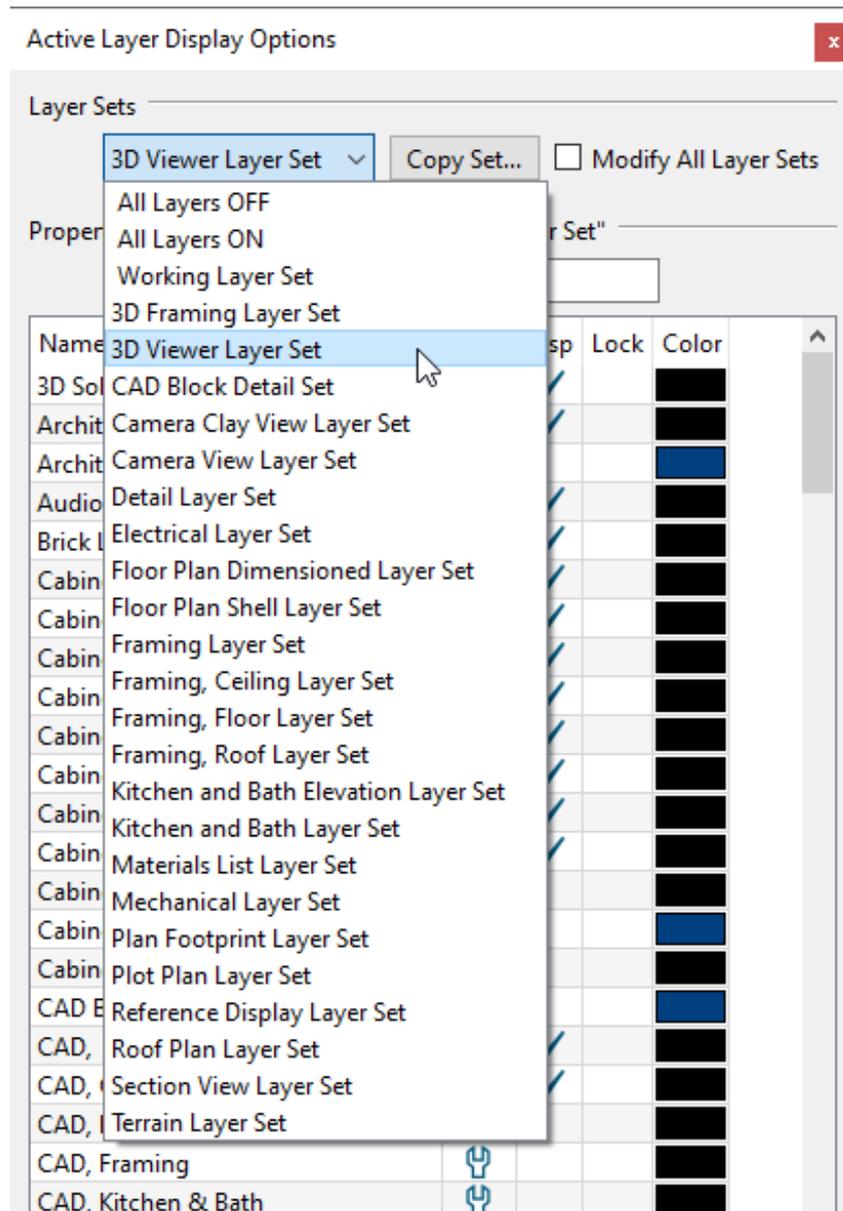
Consider setting up several layer sets with varying complexity, in case your client's mobile device is unable to view more detailed models. Please see the "Understanding Layer Sets" resource in the [Related Articles](#) section below for more information.

6. Layers that should be considered for turning off in this custom layer set include all of the framing layers not related to decks, all of the terrain, road, plants, fence and exterior related layers.

**Note:** Symbols like cars, chandeliers, 3D plants as well as objects with many curved surfaces often have higher surface counts. Either turn off the millwork, fixtures, and furniture layers, which will turn off the display for a majority of these objects, or you can create one or more custom layers for specific objects which you can turn off in your custom layer set.

7. When you're finished customizing your new layer set, click **OK** to apply your changes and return to the camera view.
8. If the camera view did not switch to using the newly created layer set, use the **Active Layer Display Options**  window, which is displayed on the right side of

your screen, to select the "3D Viewer Layer Set" from the list drop-down.



Another way to optimize a 3D model for export is to control its Texture Size. Materials often use texture images to create a sense of realism, but if your plan uses custom materials with high-resolution image files as textures, some mobile devices will have trouble loading them. To avoid this, create copies of these files at a lower resolution using photo editing software and replace them before the export.

If you make extensive use of custom materials with high-resolution textures, consider using File> Save As to create a copy of your plan specifically for exporting to the 3D Viewer so that your main working plan is not affected by these changes.

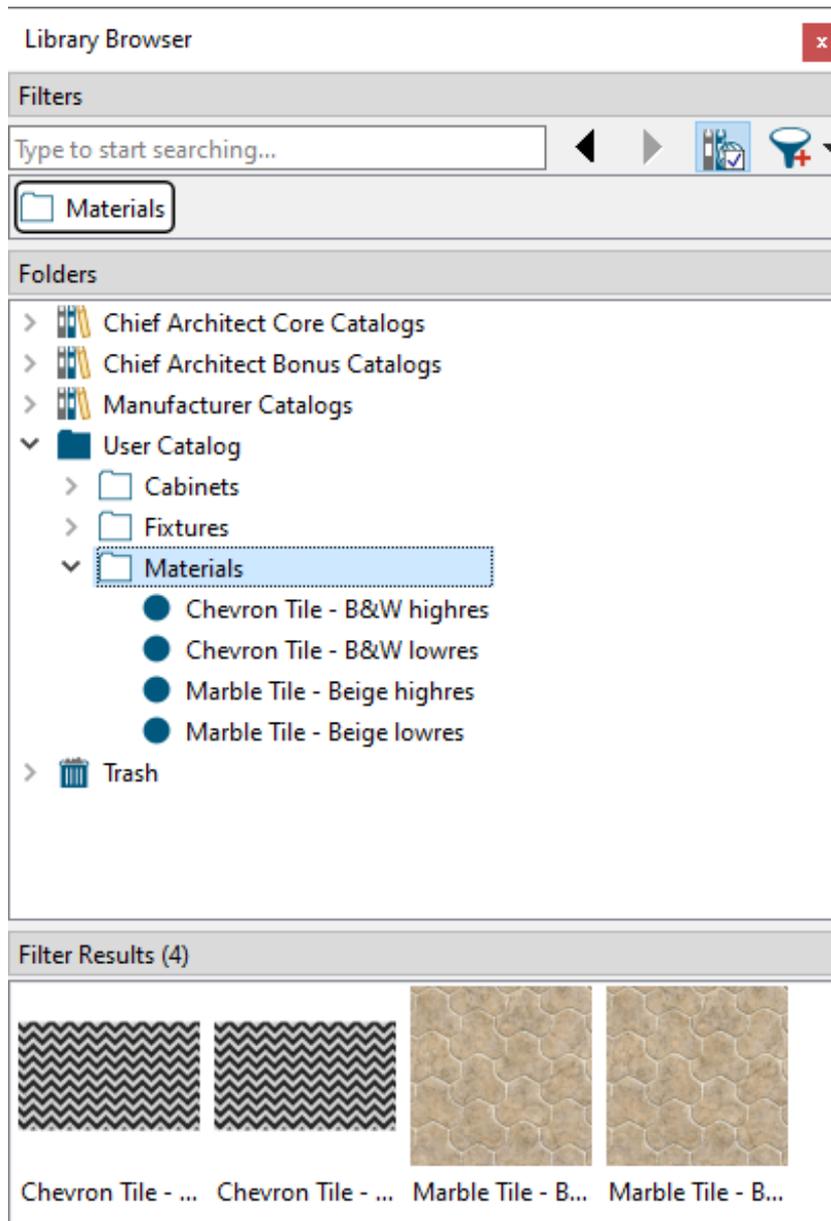
**Note:** If you have not created any custom materials or if your 3D Viewer Model's Texture Size is less than 50 MB, then the next section does not apply.

## To replace a custom high-resolution material in a plan

1. First, use photo editing software to make a copy of the high-resolution texture file. Resize the copy, add a descriptor such as "lowres" to the end of its file name, and save it to the same location as the original image.

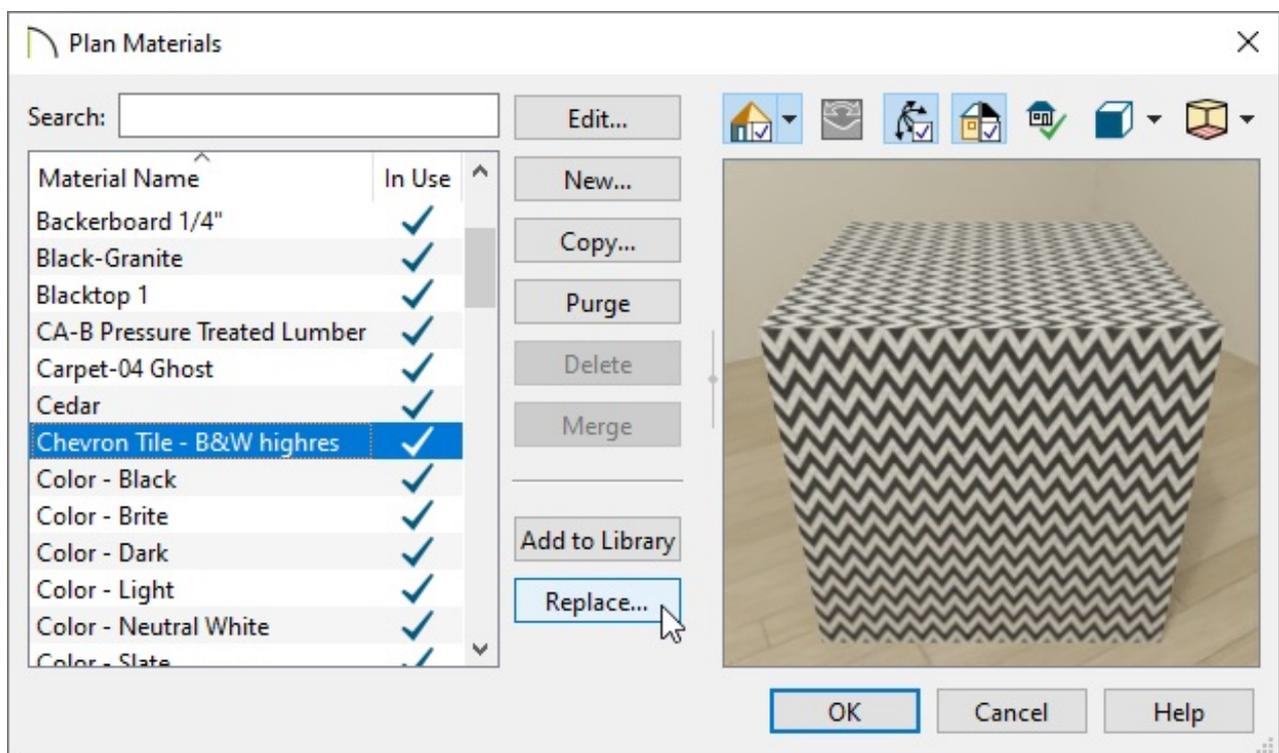
512 x 512 pixels is a good size for square texture images.

2. Next, create a new material in the User Catalog of the **Library Browser** that references the low-resolution texture you just created.



- Give your new material a short, descriptive name.
- In the above example, the high- and low-resolution materials are saved in the same library folder and are distinguished by a short suffix at the end of their names. However, you can organize your own materials however you wish.

3. Select **3D> Materials> Plan Materials**  to open the **Plan Materials** dialog.
4. Locate the custom material that is currently referencing the high-resolution texture, click on its Material Name in the list, then click the **Replace** button.



5. In the **Select Library Object** dialog, browse to the User Catalog, select the low-resolution version of the material, then click **OK**.
6. Repeat this process for any other custom materials in your plan.

#### Related Articles

- [Creating a New Material \(/support/article/KB-00767/creating-a-new-material.html\)](/support/article/KB-00767/creating-a-new-material.html)
- [Displaying the Active Layer Set Control on the Toolbar or in the ALDO](#)

[\(/support/article/KB-03122/displaying-the-active-layer-set-control-on-the-toolbar-or-in-the-aldo.html\)](/support/article/KB-03122/displaying-the-active-layer-set-control-on-the-toolbar-or-in-the-aldo.html)

[Understanding Layer Sets \(/support/article/KB-00765/understanding-layer-sets.html\)](/support/article/KB-00765/understanding-layer-sets.html)

[Viewing, Managing, and Sharing 3D Viewer Models \(/support/article/KB-03068/viewing-managing-and-sharing-3d-viewer-models.html\)](/support/article/KB-03068/viewing-managing-and-sharing-3d-viewer-models.html)



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