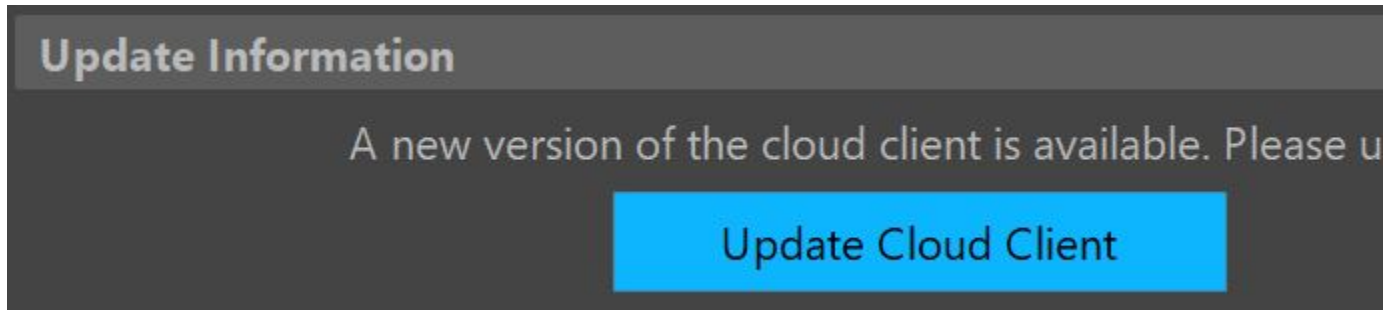# Chaos Cloud

This page provides information about submitting render jobs to Chaos Cloud from V-Ray for Maya.

Overview

Submitting render jobs to Chaos Cloud can be done easily and directly from V-Ray for Maya's interface. This page walks you through the steps of doing so.

We recommend updating the **Cloud App** to **1.15.2**. An update button is available inside Maya's interface.

Chaos Cloud requires the installation of the Chaos Cloud client application. For more information, please visit the Installation of Chaos Cloud Rendering Client App page.
If you add a new version of a job you have already submitted, its upload will be much quicker than the initial upload. Chaos Cloud compares every new job to the existing ones, and if there is a match the client app will upload only the changes. This is useful when you make a new iteration of an existing scene and is why it is recommended to keep your jobs in Chaos Cloud while you are still working on them.

Submitting Render Jobs

V-Ray for Maya provides in-built integration with Chaos Cloud, allowing you to submit render jobs to the cloud directly from Maya, using the dedicated **Render in Chaos Cloud** button. The button is located on the V-Ray Shelf and can also be found in the V-Ray Menu.
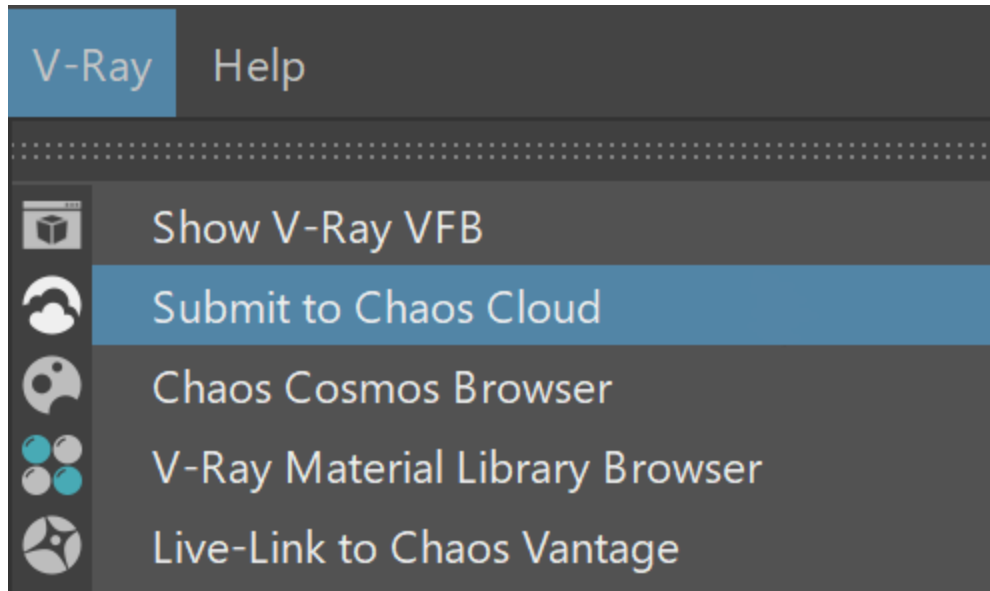
Clicking on the ![icon] button will open the **Submit to Chaos Cloud** window.
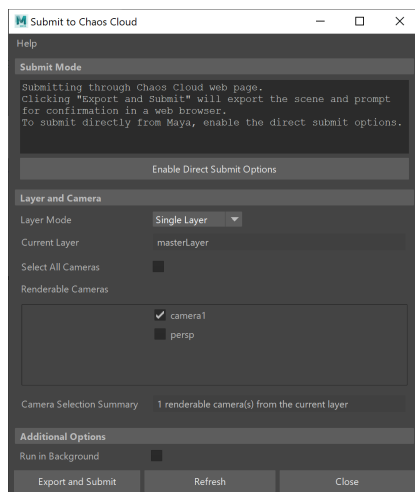
Submit to Chaos Cloud

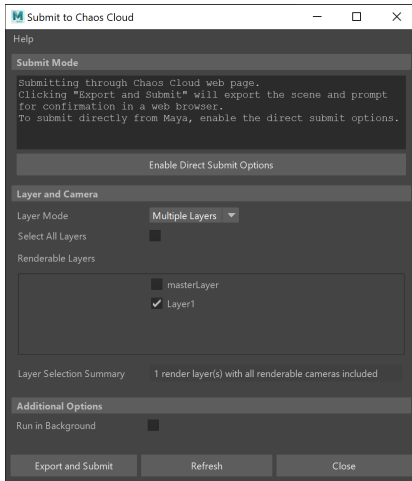The **Submit to Chaos Cloud** window allows you to choose how to submit your scene to Chaos Cloud.

Two layer modes are available - Single Layer and Multiple Layers, giving you the option to Batch Render in Chaos Cloud.

Clicking on **Export and Submit** will export the scene and submit it to the cloud for rendering. You will be prompted to finalize some of the settings for the render job in the Chaos Cloud Client App before it starts rendering in Chaos Cloud.

Otherwise, you can choose to do all final settings directly in the Submit to Chaos Cloud window and then submit the scene to Chaos Cloud with the **Enable Direct Submit Options** button.

Single Layer Mode inferface

Multiple Layers Mode interface

Layer Mode Options

Keep in mind that you cannot add renerable cameras and/or layers to the render list, after submitting your choice from the **Submit to Chaos Cloud** window.

Layer Mode - Determines whether one or multiple layers are rendered. Some options vary depending on the mode.

> **Single Layer** - Renders only the visible layer in Maya, with the option to render one or multiple cameras at the same time.
>
> > **Current Layer** - Displays which layer is rendered. Make a different layer visible and click on Refresh at the bottom of the window to switch layers.
> >
> > **Select All Cameras** - When enabled, selects all renderable cameras to be submitted to Chaos Cloud.
> >
> > **Renderable Cameras**- Lists all available renderable cameras in the selected layer of the scene. Allows for manual selection and exclusion of one or more cameras from the render. In the case where one layer and one camera are present in the scene, no changes need to be made to this section.
>
> **Multiple Layers** - Allows for one or multiple layers to be rendered simultaneously.
>
> > **Select All Layers** - When enabled, selects all layers in the scene to be submitted to Chaos Cloud.
> >
> > **Renderable Layers** - Lists all renderable layers in the scene. Allows for manual selection and exclusion of one or more layers from the render. If a layer from the scene is missing in this list, it needs to be made renderable.

Additional Options

Run in Background – When enabled, exporting to Chaos Cloud is done in the background and does not interfere with Maya's other processes. This means that you can continue working in Maya while the scene is exported. This option is only available for **Windows**. The cloud export progress can be tracked through the Maya Script Editor and mayaRenderLog.txt.

Refresh – Forces a refresh of the Submit to Chaos Cloud window. If any changes to the scene or the Chaos Cloud account are made, it is recommended to refresh the window so that they can be reflected in it.

Close – Closes the Submit to Chaos Cloud window.

Enable Direct Submit Options

If you enable the **Direct Submit Options**, you can skip the Chaos Cloud client app and directly submit to render in Chaos Cloud. However, if you are not logged in, you have to visit the Chaos Cloud website prior to rendering. Clicking on the **Login** button redirects you to the Chaos Cloud website, where you have to enter your credentials. No render can begin, if you are not logged in.

If you are already logged in, the **Manage Login** button takes you to your Chaos Cloud account, where you can make changes, if needed.

The **Upload only** option is available only when submitting through the Chaos Cloud client app. Batch rendering produces a large number of jobs, which are remotely rendered simultaneously on up to 100 machines. This costs Cloud Credits and takes time. Enabling **Upload only** gives you an opportunity for extra inspection of the jobs, ensuring that no resources are wasted.

Logged in preview

Not logged in preview

The **Cloud Projects List** allows you to select a project to which the render job is submitted. The render cannot start, if no project is selected.

Abort on Warnings – When enabled, the scene will not be submitted to Chaos Cloud if there are any warnings during the scene processing, such as missing textures or other assets.

Run in Background – When enabled, exporting to Chaos Cloud is done in the background and does not interfere with Maya's other processes. This means that you can continue editing while the scene is exported. This option is only available for **Windows**.

Refresh – Forces a refresh of the Submit to Chaos Cloud window. If any changes to the scene or the Chaos Cloud account are made, it is recommended to refresh the window so that they can be reflected in it.

Close – Closes the Submit to Chaos Cloud window.

Export and Submit

If you disable the **Direct Submit Options**, you are prompted to finalize some of the settings for rendering in the Chaos Cloud client app. Different information is displayed depending on whether a **Single Layer** or **Multiple Layers** job is exported. *For a more in-depth tutorial on exporting Single and/or Multiple layers jobs, visit* Batch Rendering with Chaos Cloud.

When you disable the **Direct Submit Options**, rendering goes through an extra step in the Chaos Cloud client app, allowing the job to be reviewed and changes to be made, without needing to export the scene a second time.

Output and Render

The cost for rendering a job can be limited by using the **Job Credit Limit** setting. For more information, see the Credit Limit section.

If there are free resources in the cloud, Chaos Cloud will start rendering your job immediately. If there are no free resources, your job will join a queue and will start rendering automatically when resources become available.

Clicking on **View Job** redirects you to the Projects tab of Chaos Cloud. There you can monitor the status of your render jobs, download them, organize them in projects, resubmit, or delete them. For more detailed information on these topics, see the Managing render jobs in Chaos Cloud page.

The output image types that you are able to download by rendering in Chaos Cloud are **JPG** and the file type you have specified in the settings of your scene. These settings are customized in the 3D application you use for designing your scene. If you don't specify anything in the 3D application, Chaos Cloud generates an **EXR** image beside the JPG one.

When submitting a render job requesting **TIFF** and/or **TGA** images as a result, the results might be unexpected as not all TIFF and TGA settings are exported to Chaos Cloud.

The supported output image formats by Chaos Cloud regardless of the host application are the following: *.png, *.bmp, *.tga, *.hdr, *.sgi, *.rgb, *.rgba, *.jpg, *.jpeg, *.exr, *.pic, *.tif, *.tiff and *.vrimg.
Alternatively, render jobs can also be submitted through the Standalone Chaos Cloud application and any command-line interface. For more information please visit the Submitting render jobs to Chaos Cloud page.

Additional Render Settings

In the Common tab of the Render settings resides an additional option when submitting a scene to the cloud.

To override an enabled render region in the VFB, you can use the **Disable region for batch and Chaos Cloud** option from the Render View rollout.

Footnotes

- ○ .vrimg is a Chaos proprietary file format used by the V-Ray Frame Buffer to store the rendered image incrementally (bucket by bucket) while rendering in full floating-point format, with all available render elements. It is used as a render output but it is not recommended to use it as a texture file format. VRIMG contains metadata, i.e. render statistics. It supports dynamic bucket size.