# Submitting Jobs to Render in Chaos Cloud

This page provides information on the process of submitting render jobs to Chaos Cloud rendering.

Chaos Cloud rendering requires the installation of the Chaos Cloud client application. *For more information, see the Installation of Chaos Cloud client page.*

## Overview

You can submit render jobs to Chaos Cloud rendering either directly from your host 3D platform through the Chaos Cloud client or manually through any command line interface.

Your Credits Balance is now displayed on each Chaos Cloud portal page. It is visible in the top right corner next to the login information.

If you add a new version of a job that already exists within Chaos Cloud rendering, its upload is much quicker than the initial upload. Chaos Cloud rendering compares every new job and its assets to the existing ones, and if there is a match, the client app uploads only the changes. This is useful when you make a new iteration of an existing scene and/or are working in a team. It is useful to keep your jobs in Chaos Cloud rendering while you are still working on them.

If the job fails to upload for some reason, please consider uploading the scene(s) again, as it may take significantly less time. The parts of the scene which were previously uploaded will not be uploaded to Chaos Cloud again.

Chaos Cloud supports very large scenes – the total size of the .vrscene file and the files referenced by it can be up to 2 TB. The maximum output resolution is 4 gigapixels.

## Submitting Render Jobs Through Host Applications

Depending on the platform you use, there is a **Render in Chaos Cloud** button that automatically sends and loads the scene in Chaos Cloud rendering.

For more information on how to run a render job on Chaos Cloud rendering from V-Ray for 3ds Max, click here.

For more information on how to run a render job on Chaos Cloud rendering from V-Ray for Maya, click here.

For more information on how to run a render job on Chaos Cloud rendering from V-Ray for Modo, click here.

For more information on how to run a render job on Chaos Cloud rendering from V-Ray for Revit, click here.

For more information on how to run a render job on Chaos Cloud rendering from V-Ray for SketchUp, click here.

For more information on how to run a render job on Chaos Cloud rendering from V-Ray for Rhino, click here.

For more information on how to run a render job on Chaos Cloud rendering from V-Ray for Houdini, click here.

For more information on how to run a render job on Chaos Cloud rendering from V-Ray for Cinema 4D, click here.

For more information on how to run a render job on Chaos Cloud rendering from V-Ray for Blender, click here.

For more information on how to run a render job on Chaos Cloud rendering from V-Ray for Unreal, click here.

Once the scene is successfully analyzed, you have to finalize some of the settings of the render job before it starts rendering in Chaos Cloud rendering.

# Submit jc

Select project

Cloud Project

Name

VRay_Animation_project

Resolution (px)

Match scene

Width (px)

640

Height (px)

480

Aspect

Pict

## ⌄ Output naming

\<name\>

VRay_Animation_project

\<render element\>

Render element

\<####\>

4

Output type

Render mode

Output format

Frames range

0-10,15-16,20,22

Frames

1

○ CUDA CPU Override

Please note, when you enable the CUDA CPU Override
machine without GPU hardware and will render with C
significantly longer time to complete rendering.

○ Upload only

By enabling the Upload only option the job will be uplc
stay Paused till it's manually resumed.

💡 **Quick tip**

To check if the output meets your expectations, cor

To check if the output meets your expectations, sub
a still image, and a small frame range if your scene

Cancel     Sub

*Submitting an animation*

# Submit jo

Select project

Cloud Project

Name

VRay_Image_project

Resolution (px)

Match scene

Width (px)

1820

Height (px)

1024

Aspect

Wid

## ⌄ Output naming

\<name\>

VRay_Image_project

\<render element\>

Render element

Output type

Render mode

Output format

Job credit limit

0

*Submitting a still image*

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 rendering generates an EXR image beside the JPG one.

If you have enabled the **Include additional JPG output** toggle in the Options page, Chaos Cloud rendering generates an additional high-quality JPG file for your output at no extra cost. * - see the **Known Issues** section for a disclaimer.

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 rendering.

Note that the supported output image formats by Chaos Cloud rendering, regardless of the host application, are: *.png, *.bmp, *.tga, *.hdr, *.sgi, *. rgb, *. rgba, *.jpg, *.jpeg, *.exr, *.pic, *.tif, *.tiff and *.vrimg.

When rendering animations, **Frame Range** and **Frame Step** parameters appear.

**Frame range** – Specifies a frame range to be rendered. You can specify non-sequential animation frames, e.g. 1-3,7,9,12-15.

**Frame step** – Specifies a frame step in the frame range for rendering. For example, writing *8* in the Frame step box will render every eighth frame, hence the eighth, the sixteenth, the twenty-fourth, etc. Note that the first frame is always rendered.

---

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

---

By enabling the **Upload only** option, the job is uploaded to Chaos Cloud rendering, but it stays **Paused** until manually resumed.

---

The Chaos Scans material library is hosted in Chaos Cloud rendering and is kept up-to-date. This means that Chaos Scans materials do not have to be uploaded each time, making scene submission significantly faster.

---

When ready, click the **Submit** button. When you are presented with the following message, your render job is submitted successfully, and it will start rendering in the cloud. If there are available resources in the cloud, Chaos Cloud will start rendering immediately. Otherwise, your job will join a queue and will automatically start to render 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.

## Known Issues

---

When the **Include additional JPG output** option is disabled, this is not reflected in the Submit and Clone job screens. This does not mean that the option is still active. This is a known issue which will be fixed.

## Render Engine Overrides

When rendering a V-Ray GPU job, the CUDA CPU Override option allows you to override the render engine to render with CUDA on CPU only. This can be useful when:

- there is no GPU hardware available to render the V-Ray GPU job
- the 16 GB of memory, available on the GPU hardware that Chaos Cloud rendering uses are not enough for the job to render

When Chaos Cloud rendering detects that there is no GPU hardware available, it shows a warning that asks you whether you want to wait for GPU hardware and gives you an option to use another command which:

- Stops the rendering of the current job
- Clones the current job and sets the **CUDA CPU Override** option to **ON** so the job renders only on CPU

When the job is rendered, you can see whether it is a V-Ray GPU or a V-Ray job in the Job Details. If it is a V-Ray GPU job, Chaos Cloud rendering shows whether it has rendered only on CPU.

| State |
| --- |
| **Completed** |

Download size

**153 KB**

Resolution

**640** × **480** px

Render mode

**Bucket**

Noise threshold

**0.01**

Samples limit

**5041**

Submitted

**11/12/2020, 11:08:20 AM**

Render engine

**V-Ray GPU CUDA 5.00.05**

CUDA CPU Override ⓘ

Render time

**1** min **1** sec

Output naming

**bucket_gpu.<render element>**

Spent credits

**0.009**

Job credit limit

**Off**

## Output Naming Convention

Upon job submission, you can choose the naming convention of the output file(s). You can find the following options in the Output naming panel:

**<name>** – Specifies the main name of the output.

**<render element>** – Specifies the position of the render element(s) in the naming convention, if there are such.

**<###>** – Specifies the padding of the frame's number. This option is available only for animated jobs.

Using the arrows, you can move the position of each name component to customize the output name(s).

## Submitting Render Jobs Through the Chaos Cloud Standalone Application

Jobs can also be submitted easily through the Standalone Chaos Cloud rendering application in one of two ways. To do so, you will first need to have your scene exported as a .vrscene file from your host platform.

For more information on how to export a .vrscene file from V-Ray for 3ds Max, click here.

For more information on how to export a .vrscene file from V-Ray for Maya, click here.

For more information on how to export a .vrscene file from V-Ray for SketchUp, click here.

For more information on how to export a .vrscene file from V-Ray for Rhino, click here.

For more information on how to export a .vrscene file from V-Ray for Revit, click here.

For more information on how to export a .vrscene file from V-Ray for Cinema 4D, click here.

For more information on how to export a .vrscene file from V-Ray for Houdini, click here.

For more information on how to export a .vrscene file from V-Ray for Unreal, click here.

**1)** Navigate to the location of c**cloud.exe** or ccloud and launch it:

> **Windows** – %appdata%\Chaos Group\Cloud\Client\ccloud.exe
> **macOS** –**/Applications/ChaosGroup/Cloud/Client/ccloud**
> **Linux** – $HOME/.ChaosGroup/vcloud/client/ccloud.bin

Chaos Cloud rendering will automatically start in your web browser and prompt you to submit a .vrscene file.

# Select scene

Select a V-Ray scene file (a .vrscene) in order to submit it to the Chaos Cloud Rendering.

**Select V-Ray Scene**

© 2023 Chaos Software EOOD. Chaos Cloud Rendering Client 1.20.6

Use the **Select V-Ray Scene** button to open the operating system's native file locator and locate the .vrscene file.

After you select a .vrscene file for rendering, you are presented with the **Submit job** window from the previous section. Set the final render settings and click **Submit**.

**2)** The Chaos Cloud client application also integrates with Windows context menu upon installation. If you are using Windows OS, you can submit jobs directly by right-clicking on a .vrscene file.
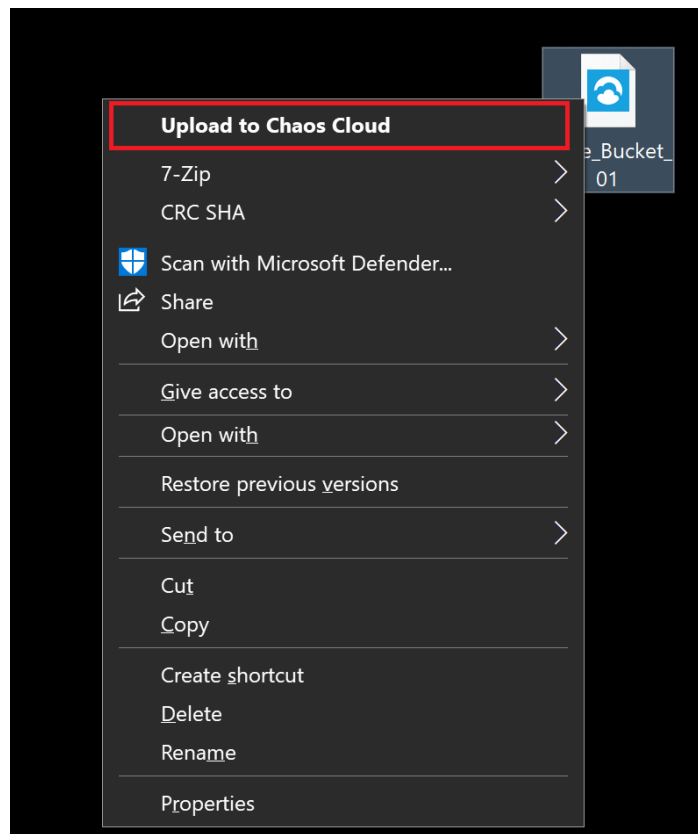
This method only works if the Chaos Cloud client app is the default application associated with .vrscene files. If you can't see the command, it might be because some other software is set as the default one.

## Submitting Render Jobs Through the Chaos Cloud Application (Command Line)

Another way of submitting jobs through the Chaos Cloud Application is by using command line interface. To use the interface, you first need to have your scene exported as a .vrscene file from your host platform.

For more information on how to export a .vrscene file from V-Ray for 3ds Max, click here.

For more information on how to export a .vrscene file from V-Ray for Maya, click here.

For more information on how to export a .vrscene file from V-Ray for SketchUp, click here.

For more information on how to export a .vrscene file from V-Ray for Rhino, click here.

For more information on how to export a .vrscene file from V-Ray for Revit, click here.

For more information on how to export a .vrscene file from V-Ray for Cinema 4D, click here.

For more information on how to export a .vrscene file from V-Ray for Houdini, click here.

For more information on how to export a .vrscene file from V-Ray for Unreal, click here.

To submit jobs through the Chaos Cloud Application by using the command line interface, run the following command with c**cloud** or **ccloud.exe**:

```
ccloud job submit --sceneFile="path to .vrscene file"
```

This command will only work if you have selected a project as your Default Project from the web-interface of Chaos Cloud. If you haven't, then the project name must also be specified, with the addition of the following command:

```
ccloud job submit --sceneFile="path to .vrscene file" --project="name of Chaos Cloud Project"
```

Keep in mind that **ccloud** is not added automatically to the system path. You need to navigate to its location, depending on the OS of your choice. By default:

> **Windows** – %appdata%\Chaos Group\Cloud\Client\ccloud.exe
> **macOS** –**/Applications/ChaosGroup/Cloud/Client/ccloud**
> **Linux** – $HOME/.ChaosGroup/vcloud/client/ccloud.bin

This is one of the possible ways of operating Chaos Cloud rendering through command line interface. For a full list of commands, see Managing render jobs in Chaos Cloud rendering or run the "help" command with **ccloud** or **ccloud.exe**.

## 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.