Cinema 4D r22/s22 : Simple Deadline Job Submission

You must install the Deadline Client application on your local laptop or desktop computer before you can render with Deadline and Cinema 4D. See:

Preparing To Use Deadline MacOS
or
Preparing To Use Deadline Windows 10

The DMA Support Tutorials page has information about Deadline use at DMA.

For assistance with rendering, please contact Israel Gutierrez: issag@arts.ucla.edu

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quick guide

1. Set up your Cinema 4D Desktop workspace
    a. all files should be saved locally in your 'Desktop/Deadline Renders/username' folder
2. Set local paths in your Cinema 4D project
    a. any linked media needs to be in your Cinema 4D project "tex" folder and should be linked locally inside the Cinema 4D project (i.e. "mytexture.png")
    b. render output path should be to a local folder in your Desktop render folder (i.e. "./frames/prefixname")
3. Copy your files to cloud.dma.ucla.edu
    a. make sure your files go into a folder with your username that matches what you created in your "Desktop/Deadline Renders/" folder
4. Open Deadline Monitor
5. Submit render job to Deadline through Monitor
    a. submit->3D->Cinema 4D
    b. name your job, be descriptive and include your dma username
    c. select the cinema4d_r22 group
    d. select your local Cinema 4D file
    e. set version to 22
    f. indicate a frame range, such as 1-150
    g. click submit
6. View render status in Deadline
7. Download your files from cloud.dma.ucla.edu

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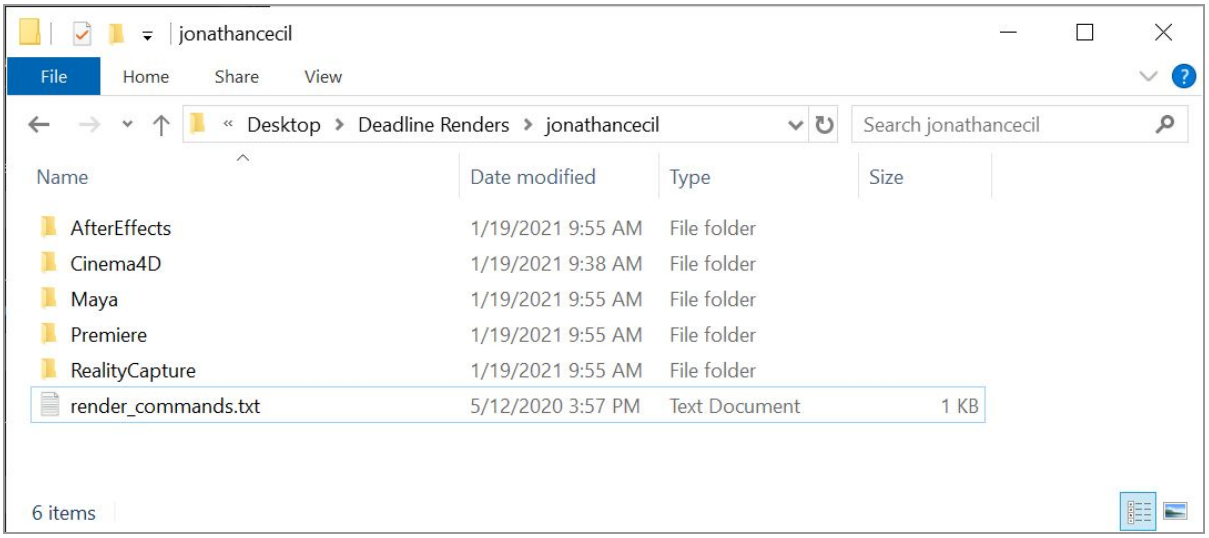
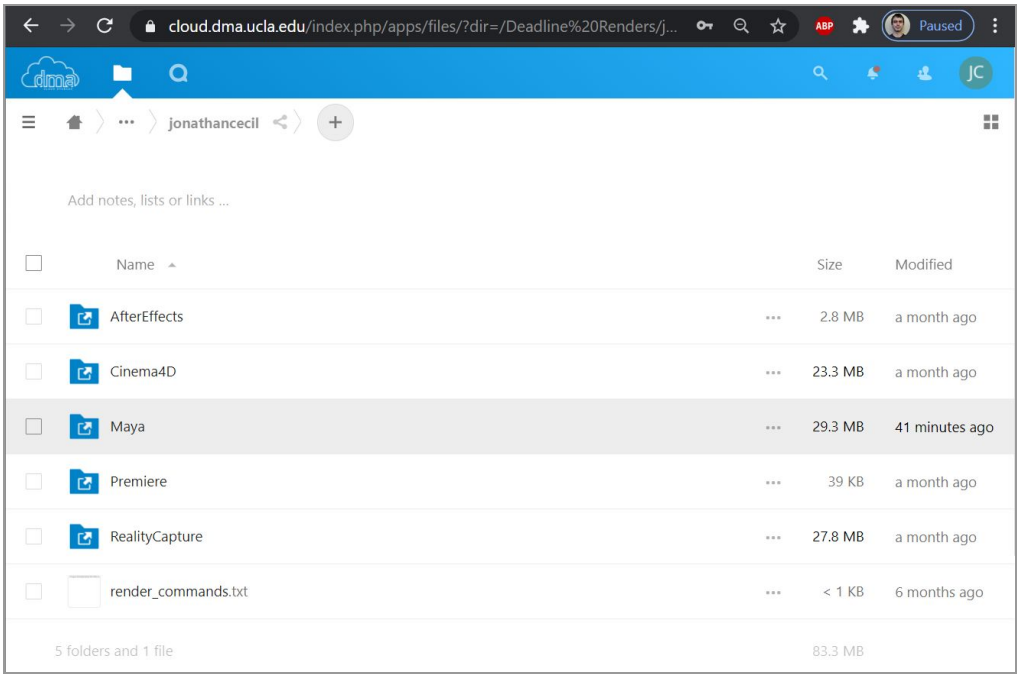
1. **Set up your Cinema 4D Desktop workspace**

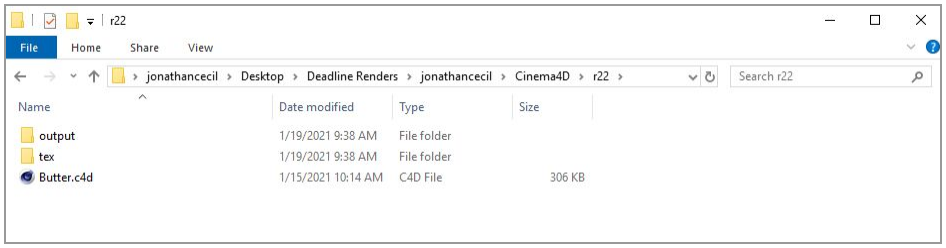
To render in Deadline, your Cinema 4D project space and all associated files need to be in your “Desktop/Deadline Renders/user” folder. Any media or files referenced by Cinema 4D outside this folder will cause a render error after being sent to Deadline. It is useful to organize your render folder by program name. Such as:



Notice the DMA user name (jonathancecil) is the name of the folder inside the ‘Desktop/Deadline Renders’ folder. You’ll use your DMA user name.
Your DMA cloud file structure needs to match exactly:



You should create a subfolder for each of your projects. For this example, the project folder is called ‘r22’. The folder hierarchy looks like this:



And the cloud.dma file and folder structure is identical. If you want to output your frames to a subfolder, as will happen with this render job, make sure the folder path is correct inside your project space. The output folder must be inside your folder:

“Desktop/Deadline Renders/yourDMAusernamehere”

If you try to render frames to a location outside of that path, your Deadline job will fail.

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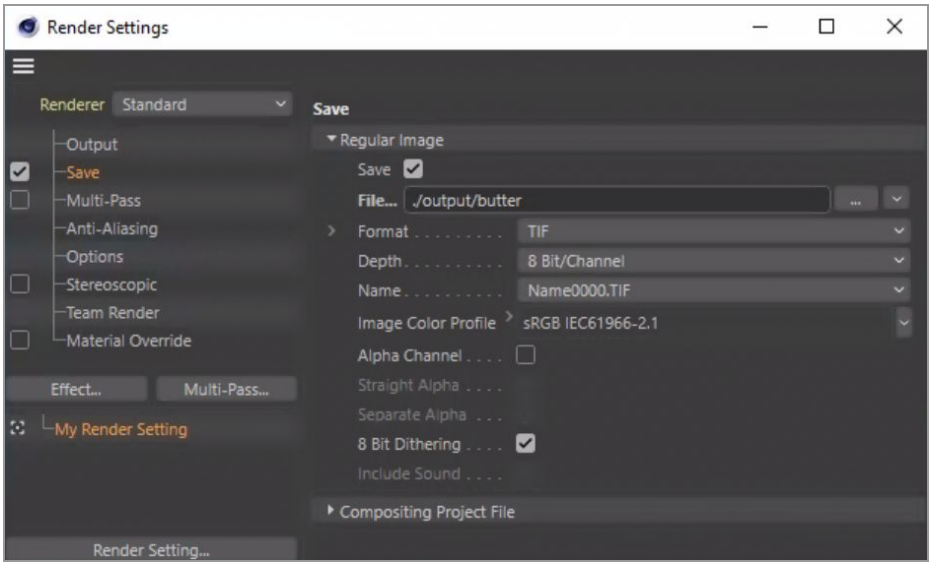
2. Set local paths in your Cinema 4D project

You should open your Cinema 4D project file and set the image output folder. In my case, I’ll set the output to

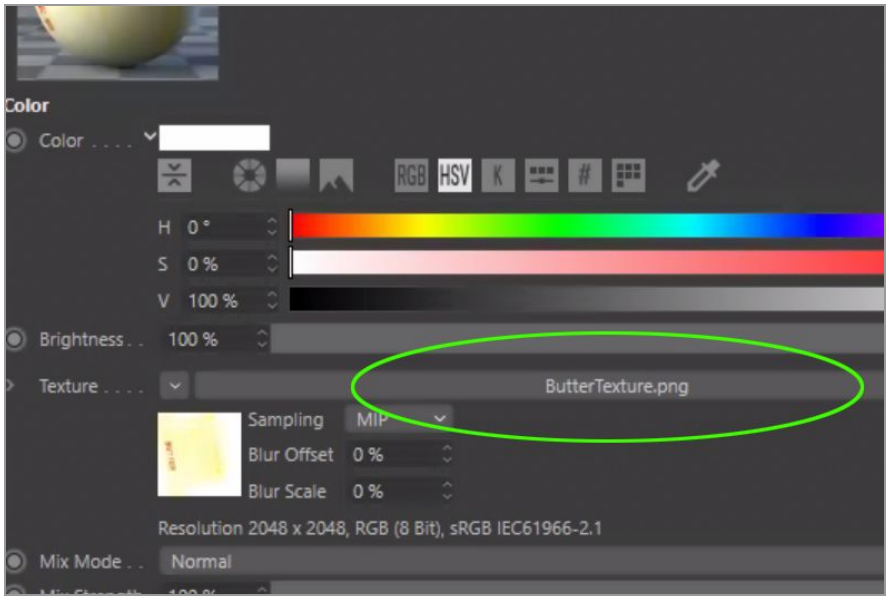
“./output/butter”

It’s important that the image path begin with a period. Check the output path by opening the Cinema 4D render settings: click the dropdown menu Render->Edit Render Settings . The render output path is indicated in the Save panel of the “Render Settings” window.



All textures and linked media files need to be located within the project folder. Texture files should be located in the “tex” folder. Additionally, make sure that the texture file locations in Cinema 4D use relative links rather than absolute links.

If you click on your textures in the Material Manager (usually located lower left), any linked image file locations will be shown in the Attribute Manager (usually located lower right). If the file name only is indicated on the Texture line, then your file is relatively linked:



If the file name begins with text that indicates an absolute location, such as “C:\Users\jonathancecil\Desktop\Deadline Renders\Cinema4D\r22\tex\ButterTexture.png”, then you must choose File->Save Project with Assets… This should turn all your absolute texture paths to relative ones.

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3. **Copy your files to cloud.dma.ucla.edu**

After you have finished editing and saving your Cinema 4D project on your local “Desktop/Deadline Renders/yourDMAusername” folder, you must transfer your Cinema 4D workspace to cloud.dma.ucla.edu. Make sure to put it in the same folder as you have it in the local. Now it will be in two places, local on your computer and remote in the cloud. Also make sure that your render output folder, textures, source images, movies, and all project subfolders are present in your cloud.dma workspace. **Hint: you can drag an entire folder into the cloud window and all sub-folders will be uploaded.**

We have configured our Deadline render manager to replace your local file locations with the network file locations. This is a complex process and can result in errors, so please reach out our Render Wrangler (issage@arts.ucla.edu) for help if you think you are having problems with file path mappings.

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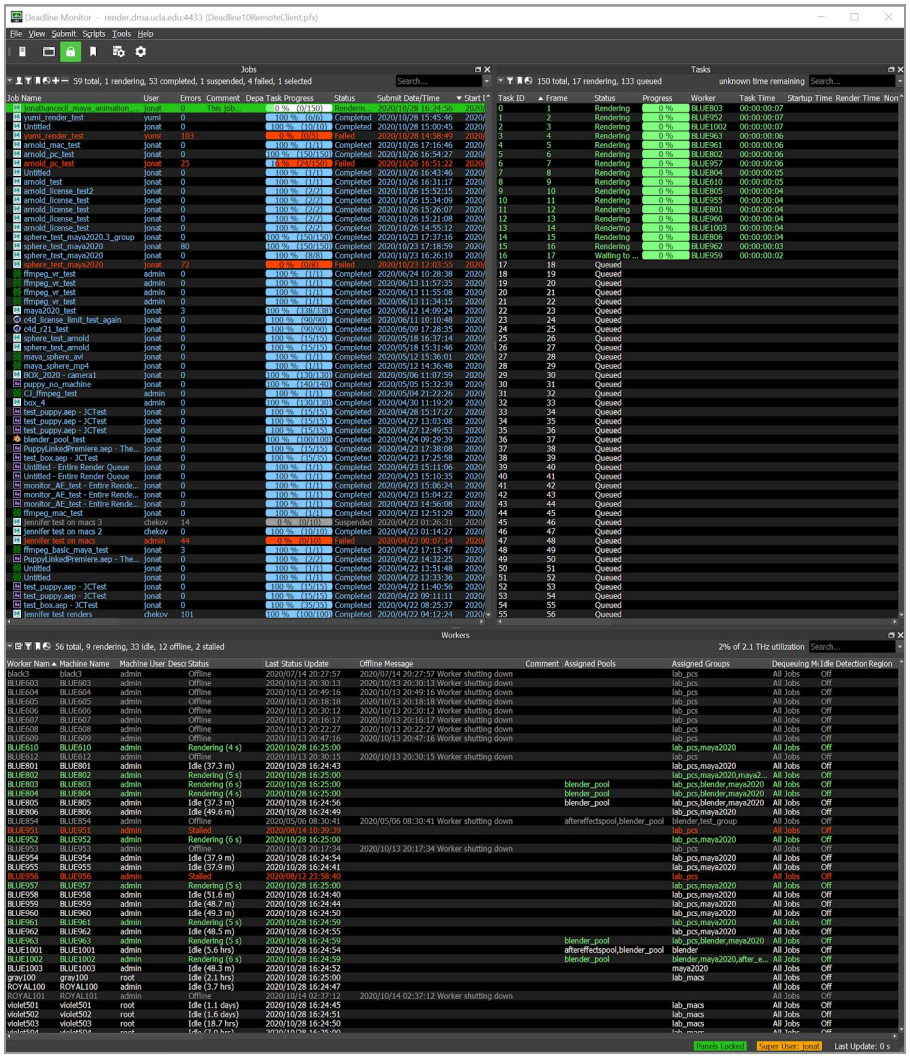
4. Open Deadline Monitor

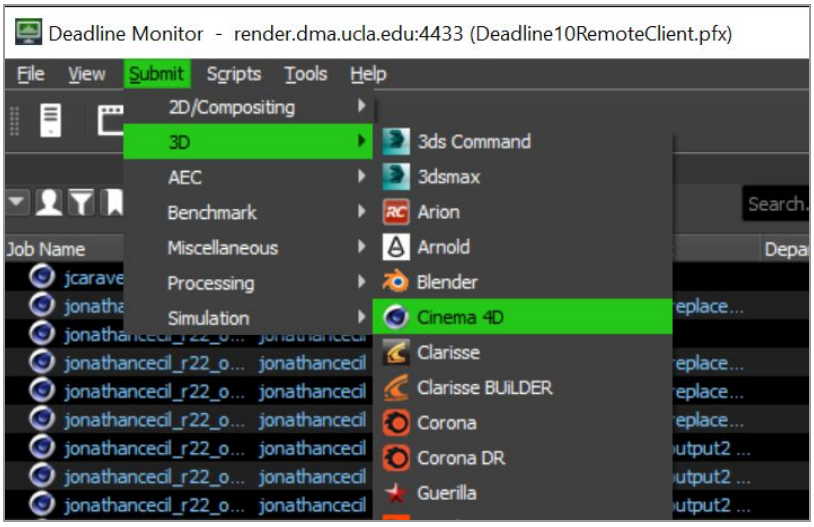
The Deadline Monitor connects you to the rendering system at DMA. On Mac, start this up by doing a Spotlight Search for DeadlineMonitor10 and clicking the app to make it go. On PC, you can find the Deadline Monitor in the Start menu under Thinkbox -> Deadline Monitor 10. Start the application and you'll see something that looks like this:



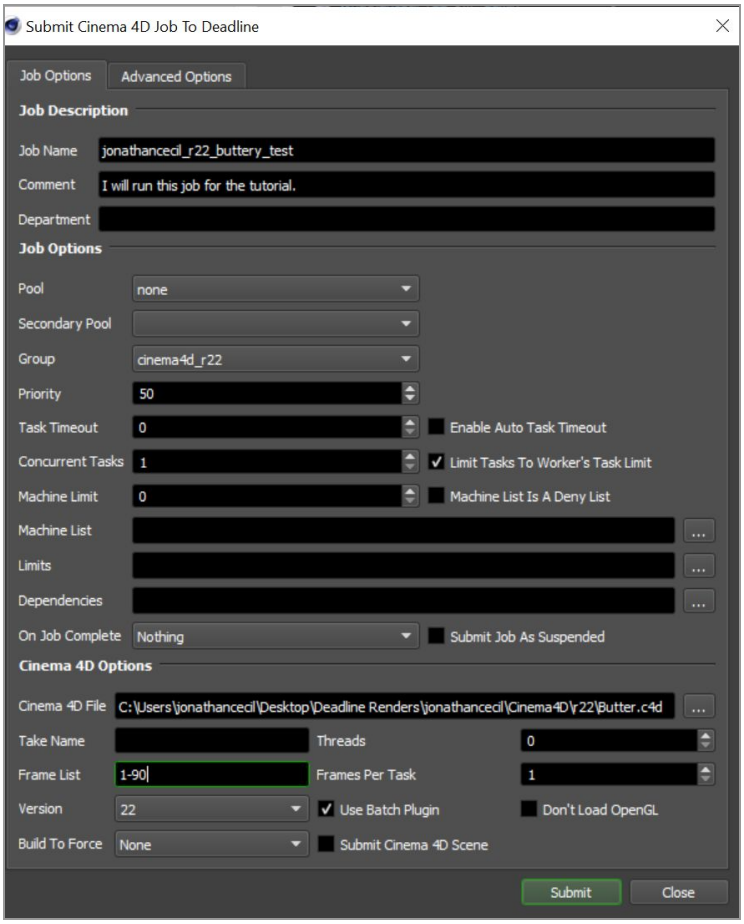
The window is divided into three main sections: jobs, tasks, and workers. The 'Jobs' section lists all jobs regardless of status: completed, running, or queued. The 'Tasks' section shows individual tasks associated with each 'Job'. Finally, the 'Workers' section lists all the render nodes we have in Broad along with their status. This info is very helpful to determine the status of the rendering system, but it's safe to ignore it for now. The important element for rendering jobs is the "Submit" menu at the top of the window.

4. Submit the render job to Deadline

Open the Cinema 4D job submission window by clicking the menu Submit -> 3D -> Cinema 4D.



When you click it will bring up the Cinema 4D submission window. Be advised that it will be pre-populated with any previous data. Here's what my completed job submission looks like this:



Job name: give your job a descriptive name that includes your dma user name. All jobs go into a single list in the Deadline Monitor, so if you need help, our DMA Render Wrangler (Israel) will need a way to track down which job is yours.

Comment: put anything you believe will be helpful here. This makes no difference for the render. Be respectful.

Group: choose the cinema4D_r22 from the dropdown. This will ensure that all machines used to render your file are configured properly.

Cinema 4D File: point this to the local Cinema 4D file you are rendering. **Note: if you submitted a previous job, a popup window will ask if you want to add this file or copy over the old. Click 'No' to send just the selected file to render.**

Frame List: set the frame range to match your animation. Using 10 for your frame list will result in Cinema 4D rendering frame number 10. To render a range of frames from 1 to 1200, enter a value of 1-1200

Frames Per Task: this is the number of frames that each machine will render before picking up a new task. It's useful to have this set to more than 1, but maybe less than 10. 5 is a good place to start.

Version: use 22, this corresponds to your local version of Cinema 4D.

Leave the other settings as shown. This should be enough to render simple scenes.

Once you have everything set, click on the Submit button at the bottom of the window. This starts the rendering of your file on the DMA lab computers once there are computers available to render on.

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5. View the render status in Deadline Monitor

After you submit, your job will appear in the 'Jobs' list in the Deadline Monitor. While running, your task will be green, and if you click on it, you will see the individual render nodes processing your job. Blue means successful completion. Red means there was a problem. If your job turns red and see many errors listed, you can right click on the job and choose "View Job Reports". This will give the error messages from every render node. They can be a little tricky to decipher, so don't spend too much time sifting through error logs, just reach out for help!