

Set Up Distributed Rendering

Distributed rendering is a technique for distributing a single render job within a single frame, across many computers in a network. There are different approaches to doing this, but the main concept is to reduce the render times by dividing different parts of the rendering pipeline and giving each participant different parts of the job. The most common way to do this is to divide the frame to be rendered into small regions (buckets), and give each machine to render a number of them; then get the results and combine them into the final image.

V-Ray supports DR. It divides the frame into regions and spreads them across the participants in the distributed rendering. This is done completely through TCP/IP protocol which is the standard protocol of the Internet and thus the most common protocol that is supported by the hardware. V-Ray itself does not need additional file or directory sharing (note that you may actually need some file/directory sharing for the bitmaps or other additional files used during rendering). The distribution management is divided into **Render Clients** and **Render Servers**.

Render Clients

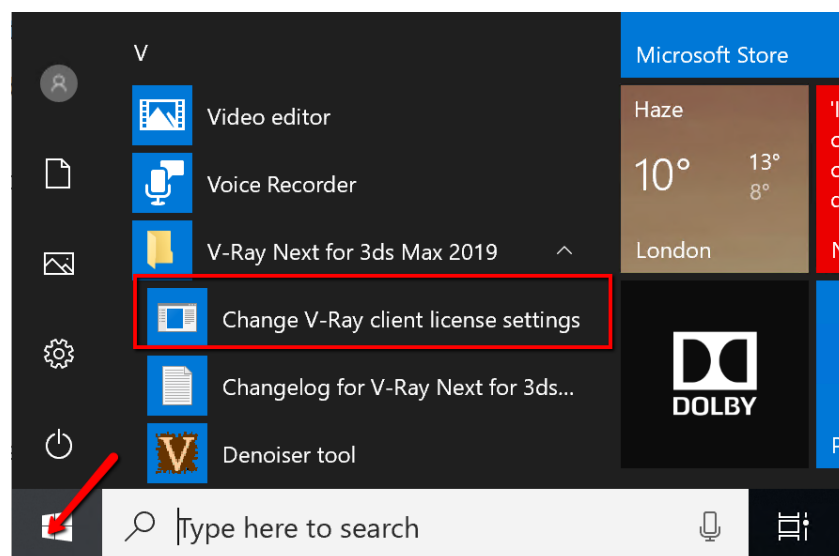
The render client is the computer that the user is currently using and from which the rendering is started. It divides the frame into rendering regions and spreads it across the **Render Servers**. It distributes data to the render servers for processing and collects the results.

Render Servers

A render server is a computer that is part of the so-called render farm - it requests render data from the render client, processes it and sends the result back.

Configuring the Render Servers

- Make sure that the Render Servers know where to obtain the V-Ray Render Node license from. You can use the Change V-Ray client license settings to enter the license server, from the **Windows Start Menu > V-Ray Next for 3ds Max 2019 > Change V-Ray client license settings**



- If you have multiple machines that hold licenses then you can also add an Alternate license server.

Chaos Group license server information

Primary license server:
 License server: 3dsmax
 Connection port: 30304

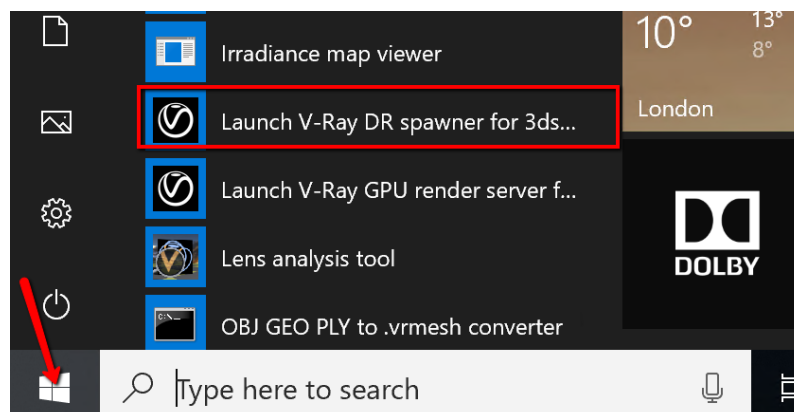
Alternate license server 1:
 License server:
 Connection port: 30304

Alternate license server 2:
 License server:
 Connection port: 30304

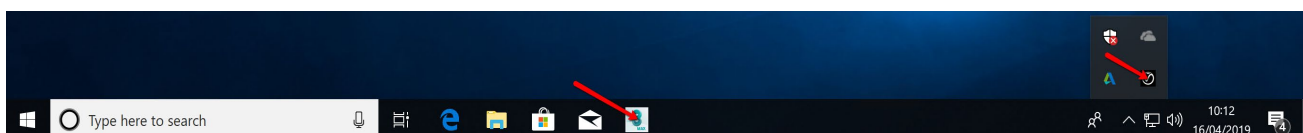
Online authorization settings:
 User name:
 Password:

OK Cancel

- Start the vrayspawnerXX.exe program from the **Windows Start Menu > V-Ray Next for 3ds Max 2019 > Launch V-Ray DR spawner for 3ds Max 2019**



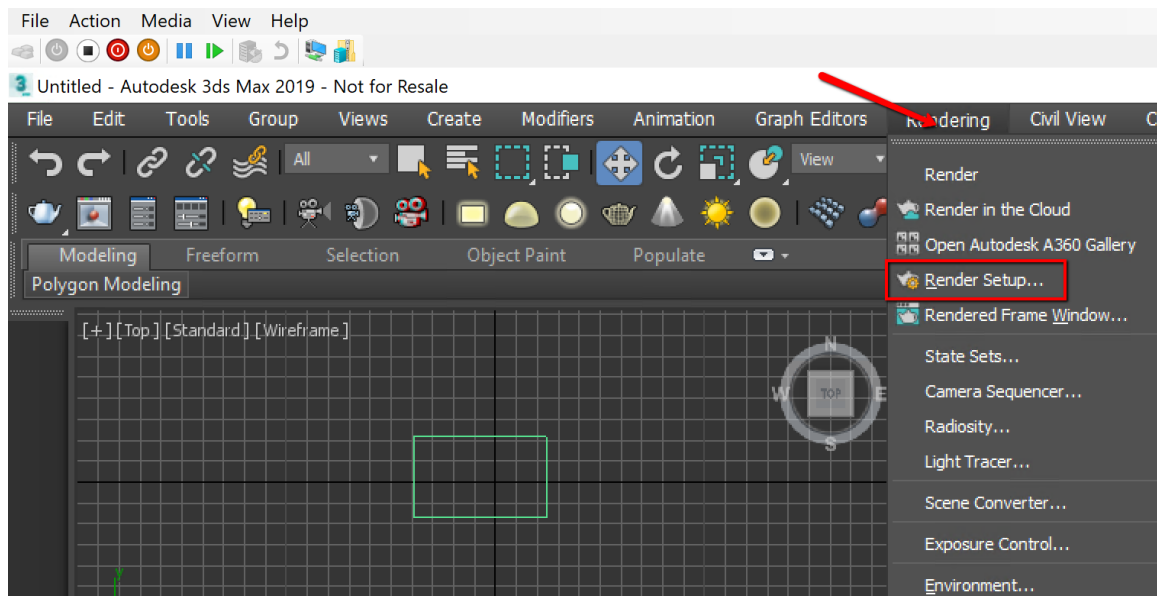
- It will automatically try to find the 3dsmax.exe file and start it in server mode. You should end up with 3ds Max minimised down in the task bar and the Spawner icon in the system tray.



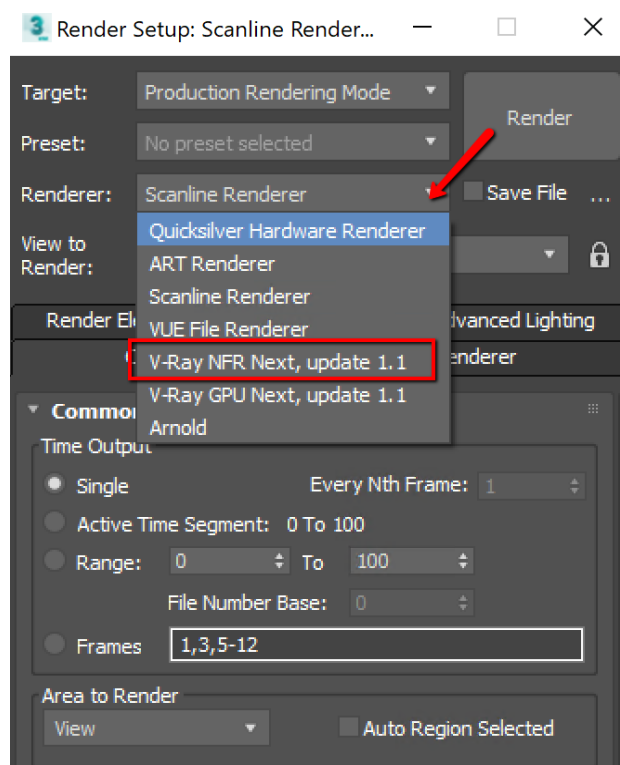
- Repeat this process for any Render Servers that are required.

Sending Jobs to the Render Servers from the Render Clients

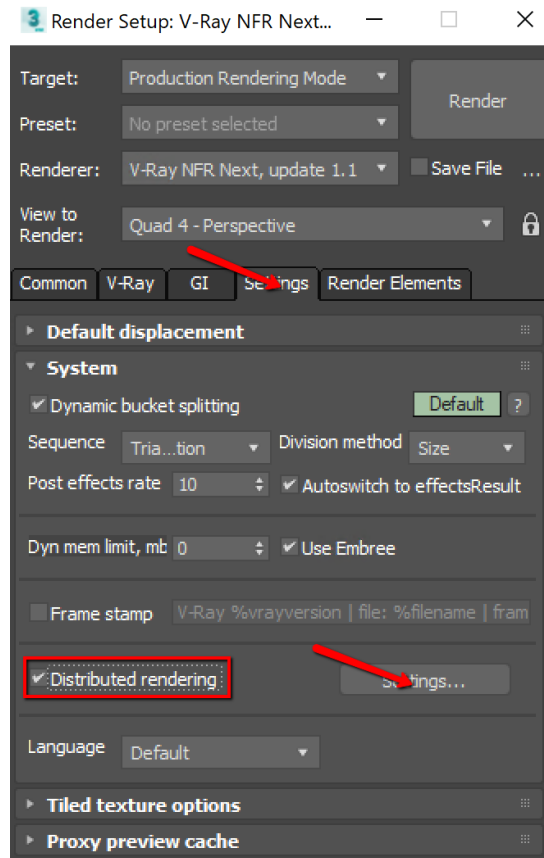
- With 3ds Max open and your scene loaded, choose V-Ray as your current renderer.



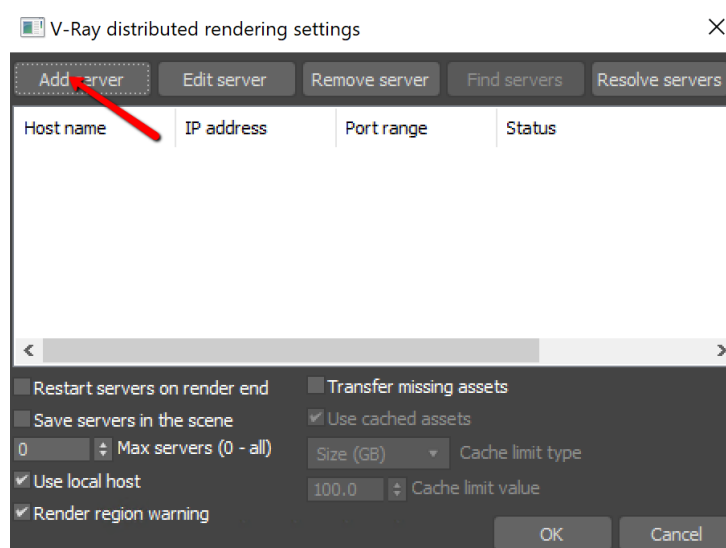
- Select V-Ray Next.



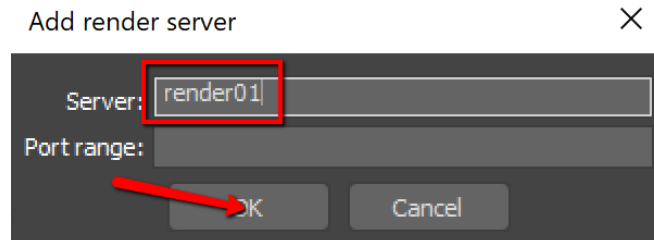
- From the V-Ray Settings Tab, select Distributed rendering and select Settings.



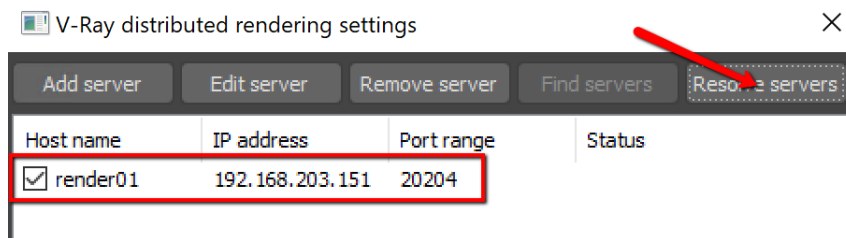
- Choose the Add server option to add in your Render Servers.



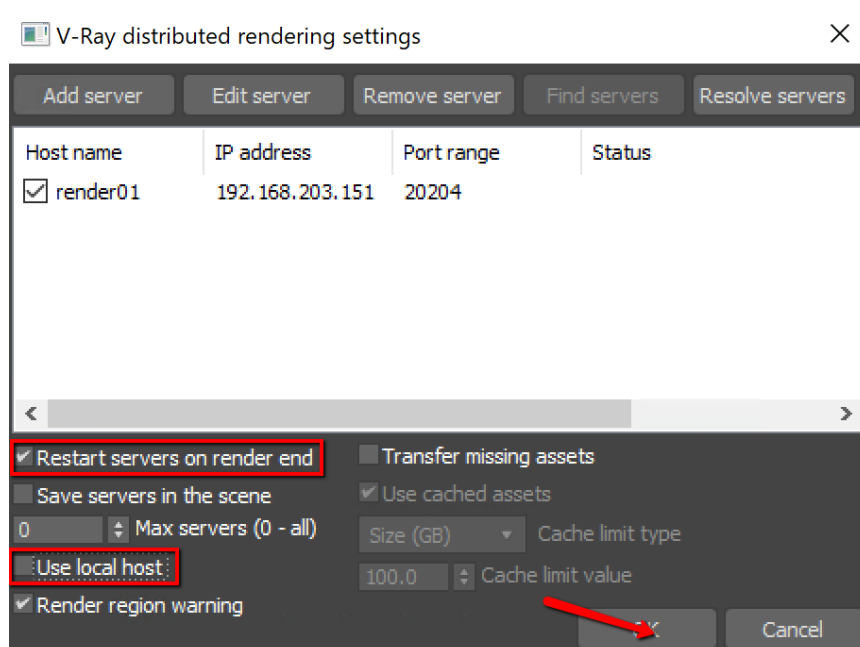
- Enter the hostname of the Render Servers and repeat until all present.



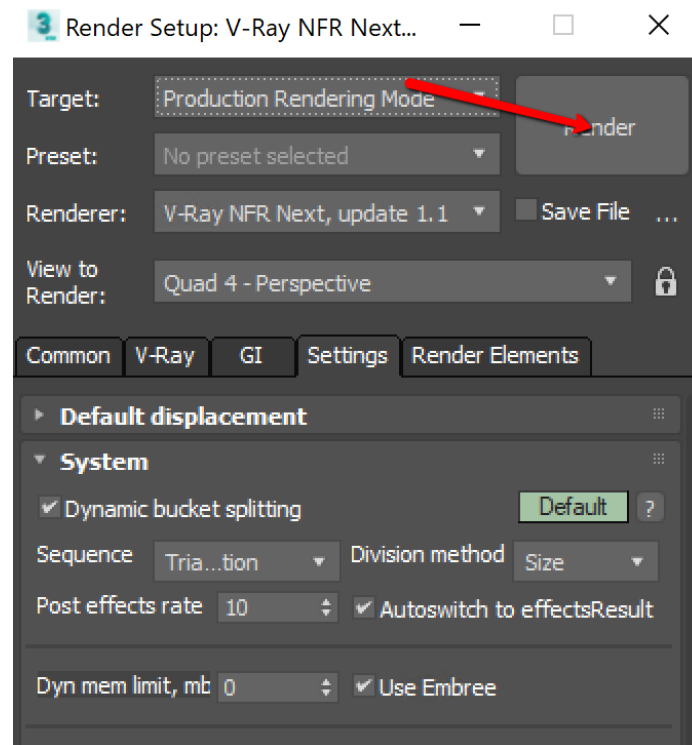
- They will appear in the list. You can check connectivity by selecting the Resolve Server option to display the IP Address.



- Check the option Restart servers on render end.
- Uncheck Use local host if you don't require the main machine to be used for rendering.



- Select the main Render button to start the render.



- At the start of the render in the V-Ray messages dialog you will see the Scene being loaded to the Render Servers.

