

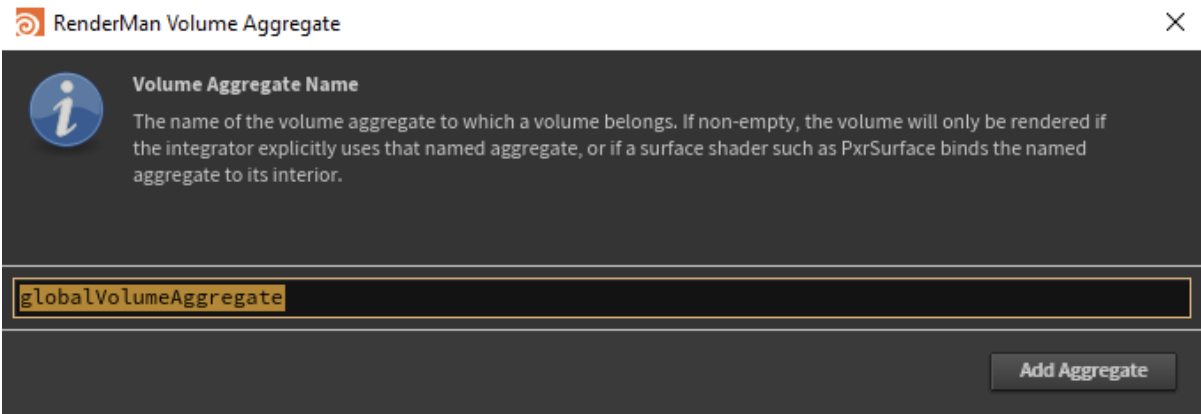
# Aggregate Volumes

[Aggregate Volumes](#) can decrease the render time for volumes by combining them into a single structure for the renderer to process. To get started with aggregate volumes in RfH, there are two steps: setting the aggregate name on the volume geometries and specifying a matching aggregate name in the integrator.

## Step One: Group volumes into aggregates

First, select the OBJ nodes containing the volumes you want to be grouped in an aggregate. You can then use the "Aggregate" shelf tool on the RenderMan shelf, the "aggregate Volume" menu tool in the RenderMan menu, or you can manually add the ri\_volume\_aggregate rendering parameter to the OBJ.

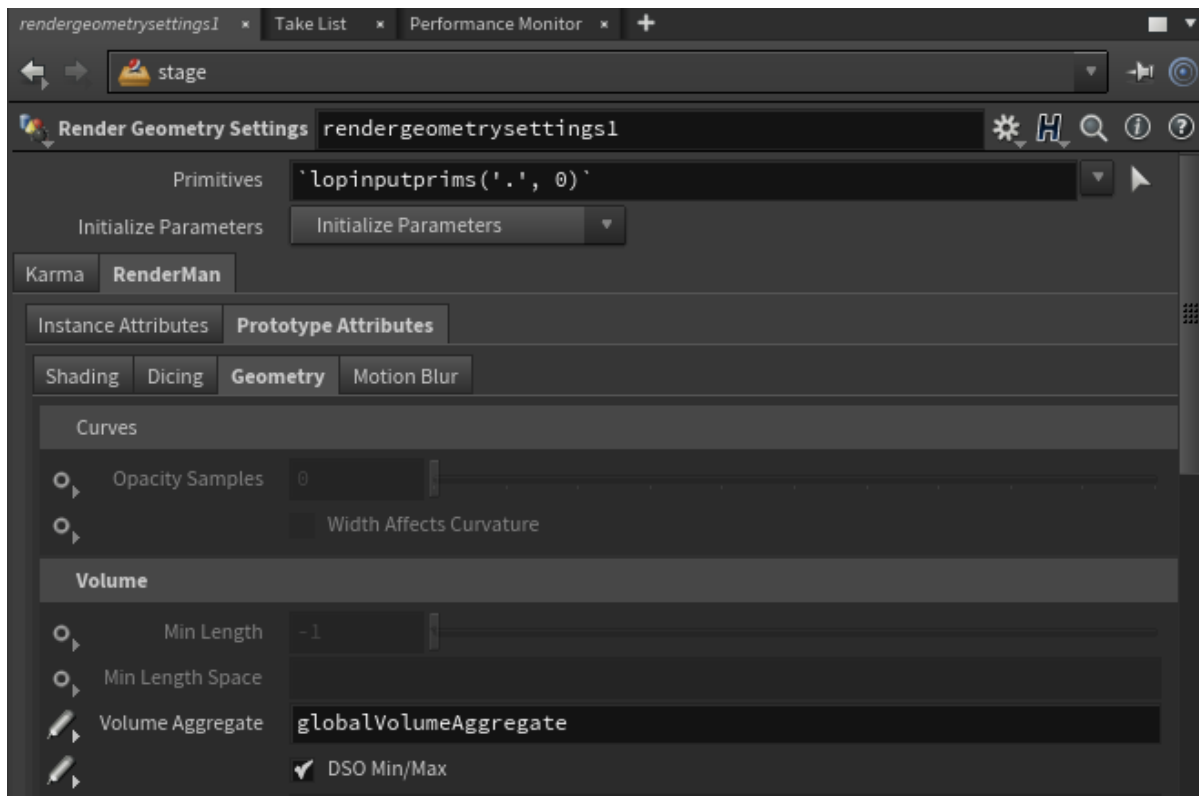
If you use either of the aggregate tools, you will get a popup asking you to specify the name of the aggregate. By default this is globalVolumeAggregate. When you accept, the tool will add ri\_volume\_aggregate and ri\_volume\_dsominmax to your obj with the given aggregate name.



You may instead want to specify volume aggregates on the Geometry level. To do this, you will need to add a primitive attribute called ri\_volume\_aggregate. If ri\_volume\_aggregate is set as both an object parameter and a geometry attribute, the geometry attribute value will be used.

| Scene View x Animation Editor x Render View x Composite View x Motion FX View x Geometry Spreadsheet x |         |                       |                     |  |
|--------------------------------------------------------------------------------------------------------|---------|-----------------------|---------------------|--|
| obj aggregate_volumes                                                                                  |         |                       |                     |  |
| Node: primi... Group: View Intrin                                                                      |         |                       |                     |  |
|                                                                                                        | name    | ri_volume_aggregate   | ri_volume_dsominmax |  |
| 0                                                                                                      | density | globalVolumeAggregate | 1                   |  |
| 1                                                                                                      | density | globalVolumeAggregate | 1                   |  |
| 2                                                                                                      | density | globalVolumeAggregate | 1                   |  |
| 3                                                                                                      | density | globalVolumeAggregate | 1                   |  |
| 4                                                                                                      | density | globalVolumeAggregate | 1                   |  |
| 5                                                                                                      | density | globalVolumeAggregate | 1                   |  |
| 6                                                                                                      | density | globalVolumeAggregate | 1                   |  |
| 7                                                                                                      | density | globalVolumeAggregate | 1                   |  |
| 8                                                                                                      | density | globalVolumeAggregate | 1                   |  |
| 9                                                                                                      | density | globalVolumeAggregate | 1                   |  |
| 10                                                                                                     | density | globalVolumeAggregate | 1                   |  |
| 11                                                                                                     | density | globalVolumeAggregate | 1                   |  |
| 12                                                                                                     | density | globalVolumeAggregate | 1                   |  |
| 13                                                                                                     | density | globalVolumeAggregate | 1                   |  |
| 14                                                                                                     | density | globalVolumeAggregate | 1                   |  |
| 15                                                                                                     | density | globalVolumeAggregate | 1                   |  |

There are no custom tools for setting up volume aggregates in Solaris. You must add the setting with the Geometry Render Setting LOP.



## Step Two: Specify volume aggregate name in the integrator

PxrPathTracer has four parameters related to aggregate volumes. In the simple case, you'll only need to set the global "Volume Aggregate" parameter. But since the standard visibility attributes don't work within a volume aggregate, you may run into cases where you need to specify separate aggregate names for each type of visibility (camera, indirect, and transmission). These can be specified in the other three override parameters.



If a volume aggregate name has not been specified to the integrator, any volumes that are part of a volume aggregate will not render

PxrPathTracer

pxrpathtracer1

H

Max Indirect Bounces

8

Continuation Depth

-1

Stochastic Opacity De...

0

Sample Mode

bxdf

Light Samples

1

BXDF Samples

1

Indirect Samples

1

☐ Allow Caustics

☐ Accumulate Opacity

☐ RIS path guiding

Russian Roulette

Indirect Clamping

Aggregate Volumes

Volume Aggregate Na...

globalVolumeAggregate

Camera Aggregate Ov...

Indirect Aggregate Ov...

Transmission Aggrega...

☐ Joint Sampling