


# Diagnostics

Special care has been taken with providing users with excellent diagnostic tools in PRMan. A section of stats pages with relevant statistics for rendering has been added. In addition, a modern Javascript-based view of stats files is included for viewing stats from renders. Many web browsers can read this file by dragging and dropping the file into an empty browser window.

 A render must complete in order to get the completed xml file.

OverviewTimeMemoryRaytracingIntegrationShadingLightingTextureGeometryFrame

Performance

Time: 1:57:58.35

Memory: 2408.73 MB

Threads: 24

Utilization: 93.27%

Time

Raytracing - 100490.21 s

Lighting - 79964.50 s

Shading (RIS) - 36660.42 s

Other Timers - 0.47 s

Memory

Plugins - 1096.98 MB

Ray Tracing - 387.34 MB

Grids - 161.25 MB

Other Memory - 130.23 MB

Geometry - 69.69 MB

Texture 2D - 64.05 MB

Render time heatmap

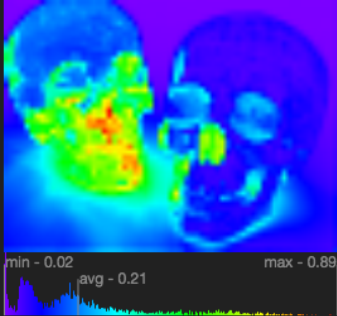


Image and Samples

Resolution: 1024 x 768

Channels: rgba

AOVs: 0

Samples: min - 64, max - 4096

4096.00 avg

Pixel Variance: 0

Rendered: 7/11/2016 1:12:49 PM

Build ID:

Integrator

Name: PxrVCM

Max Path Length: 15

Bxdf Samples: 1

Light Samples: 1

Raytracing

Ray Type	# Rays	Per Pixel	% Total
directlight	4,129,643,696	5251.11	45.98%
transmission	2,015,041,700	2562.26	22.44%
indirect	1,974,484,950	2510.69	21.99%
camera	861,306,728	1095.21	9.59%
Totals	8,980,477,074	11419.27	

Shading

Time: 36660.42 s

Memory: 32.09 MB

Points/Shader Invoke: 12.10

Lighting

Material Eval Time: 4170.31 s

Light Sample Time: 75794.19 s

Photon Sample Time: 277.82 s

Texture

2D Cache Use: 3.13%

2D Cache Hit Rate: 0.00%

2D Filter Time: 0.00 s

Ptex Cache Use: 0.00%

Ptex Cache Hit Rate: 0.00%

Ptex Filter Time: 0.00 s

Geometry

RIB Polygon Count: 19,138

Tessellated Poly Count: 3,110,200

Procedurals: 8

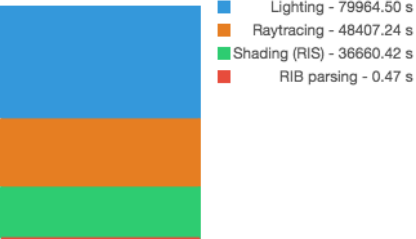
Tessellation Cache Mem: 306.00 MB

[Expert View](#)

XML Stats Overview Page

This system for viewing stats files decouples the viewing of statistics files from XML data and allows users to easily customize the way they view the data.

Timer	Time spent ▾	% Total ▾
+ Lighting	79964.50 s	50.47%
+ Raytracing	48407.24 s	30.55%
+ Shading (RIS)	36660.42 s	23.14%
+ RIB parsing	0.47 s	0.00%
Unaccounted	-6590.49 s	-4.16%
CPU Time total	158442.15 s	100.0%



CPU Utilization Estimate ( CPU time = 158442.15 s / 24 Threads ) / ( Clock time = 7078.35 s ) = 93.27% Utilization.

Expert View

Ray Tracing Statistics

Debugging

At the developer level, PRMan also provides specialized integrators for debugging:

- [PxrDirectLighting](#)
- [PxrDefault](#)
- [PxrDebugShadingContext](#)
- [PxrValidateBxdf](#)