

Test results

Requirement 1 Testing Specification: JSON Input Processing:

JSON Reading Tests:

- jsonFileExistsTest: passed
- jsonFileContentValidationTest: passed

Integration Generation Tests:

- sceneObjectCreationTest: passed
- sceneComplexityTest: passed

Requirement 2 Testing Specification: Rendering Performance:

Rendering Time Tests:

- basicSceneRenderingTest: passed
- standardSceneRenderingTest: passed

Load Testing:

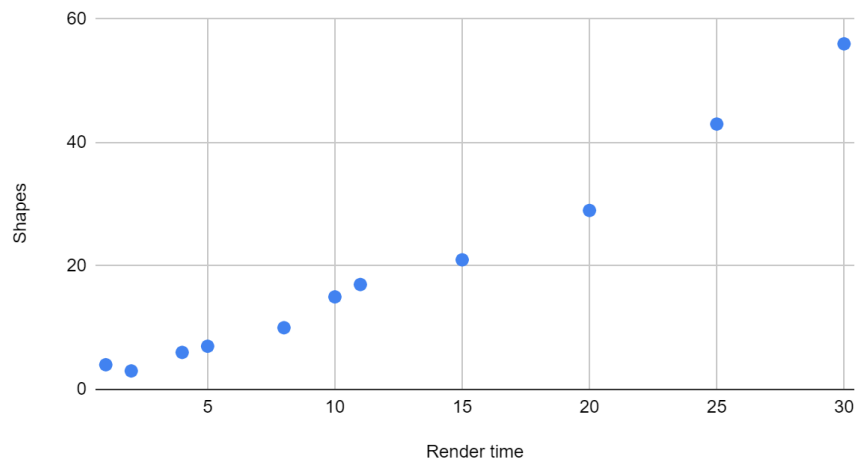
Findings from the load tests are not totally conclusive to performance since other systems might be more or less optimized. Shapes and light sources added to the scenes were randomly generated. For testing the number of shapes, only one light source was used and when testing the light sources a scene with 8 shapes was used. By graphing the results it appears that the render time scales linearly with increasing the scene complexity in both lighting and shape count.

Shapes vs render time

All tests done with 1 light source

Render time	Shapes
4	6
1	4
2	3
5	7
8	10
10	15
11	17
15	21
20	29
25	43
30	56

Shapes vs. Render time



Lights vs render time

All tests done with 8 shapes

Render time	Lights
2	1
4	2
9	3
11	4
13	5
16	6
20	7
22	8
25	9
27	10
31	11

Lights vs. Render time

