

**Computer Graphics
Assignment 2 Report
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Files:

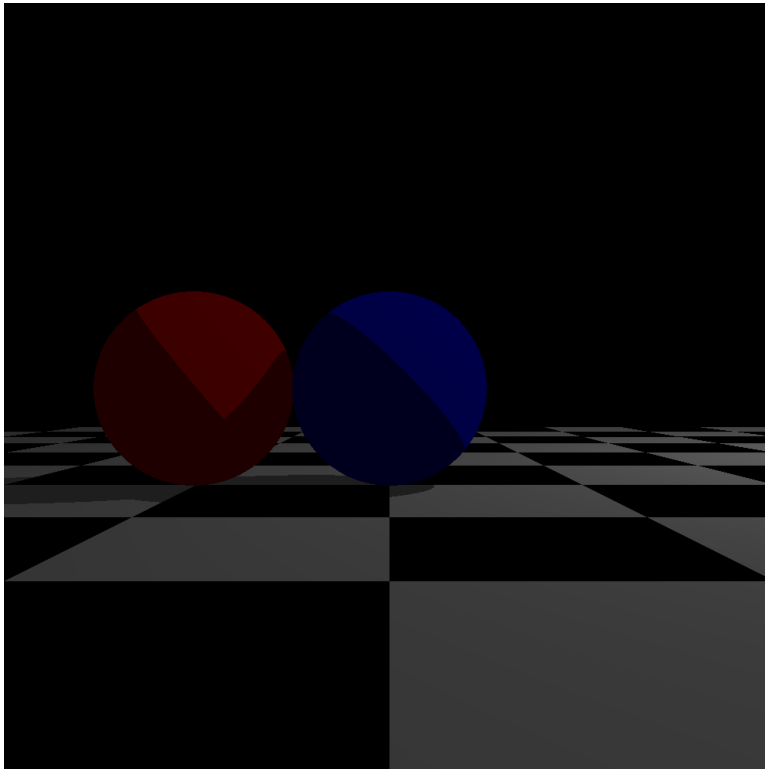
- 1) maths.h: Contains the models and the mathematical operations
- 2) main.cpp: Doing the ray tracing and shadowing and lighting algorithms
- 3) stb_image_write.h: Png encoder, it is copied from <https://github.com/nothings/stb>
- 4) result.mov: It is file of first homework. Contains a video with changing light position on a circle at x-z plane.
- 5) data/*: contains different examples, their images and inputs
- 6) a: executable for windows
- 7) video/*: frames of and example video

Running Parameters:

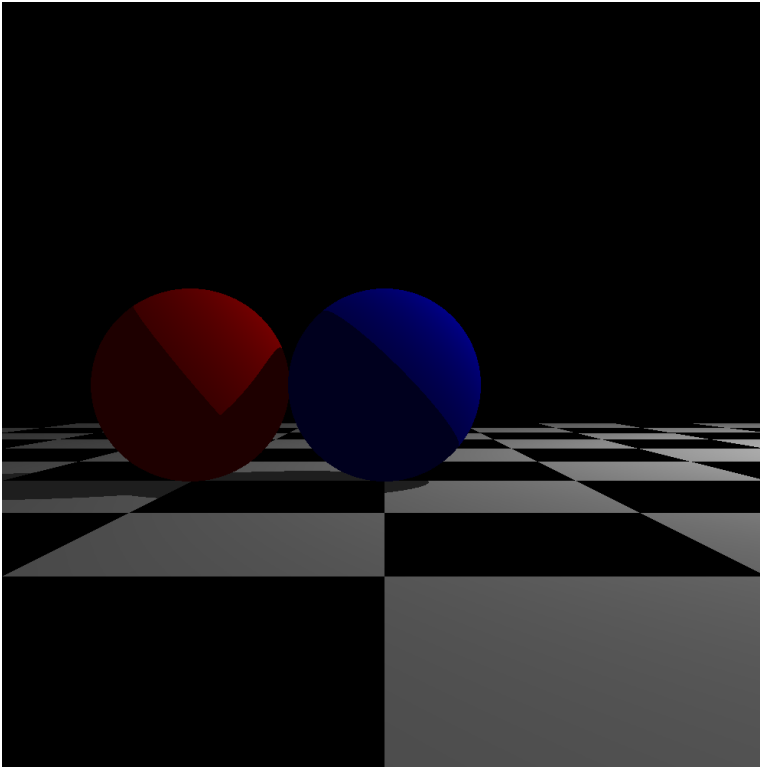
- 1) -a: use ambient term in lighting
- 2) -d: use diffuse term in lighting
- 3) -s: use specular term in lighting
- 4) -r: use reflection
- 5) -v: create video frames, changes light position and renders.
- 6) -f filename: get sphere positions from previously dumped file named filename.
- 7) -n x: x is the number of spheres in the environment, it is for random sphere generation.
- 8) -scenario a: a is the scenario number, it is for hardcoded scenarios. Now we have only one scenario.

Examples:

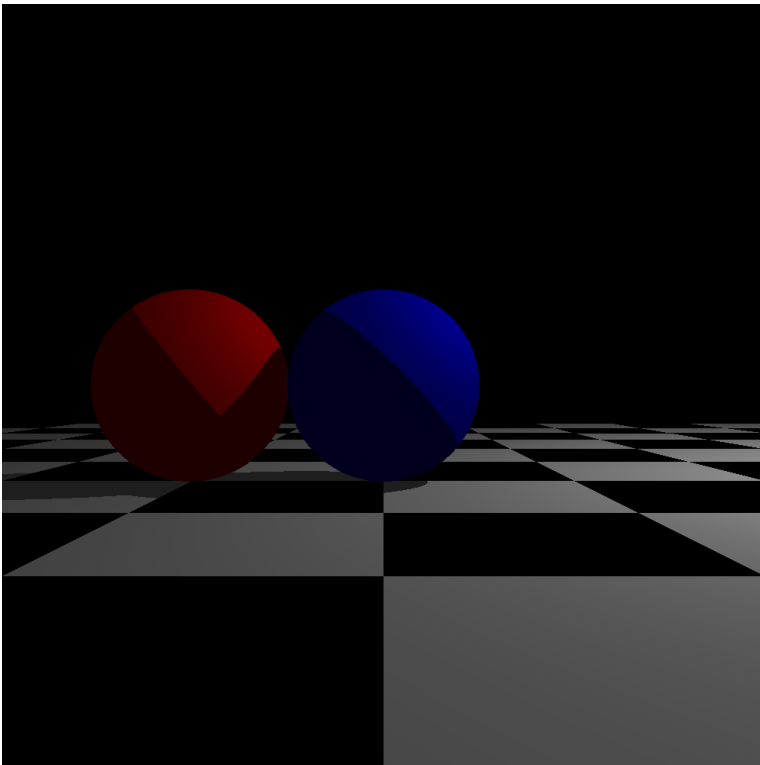
- 1) `./a -scenario 1 -a`



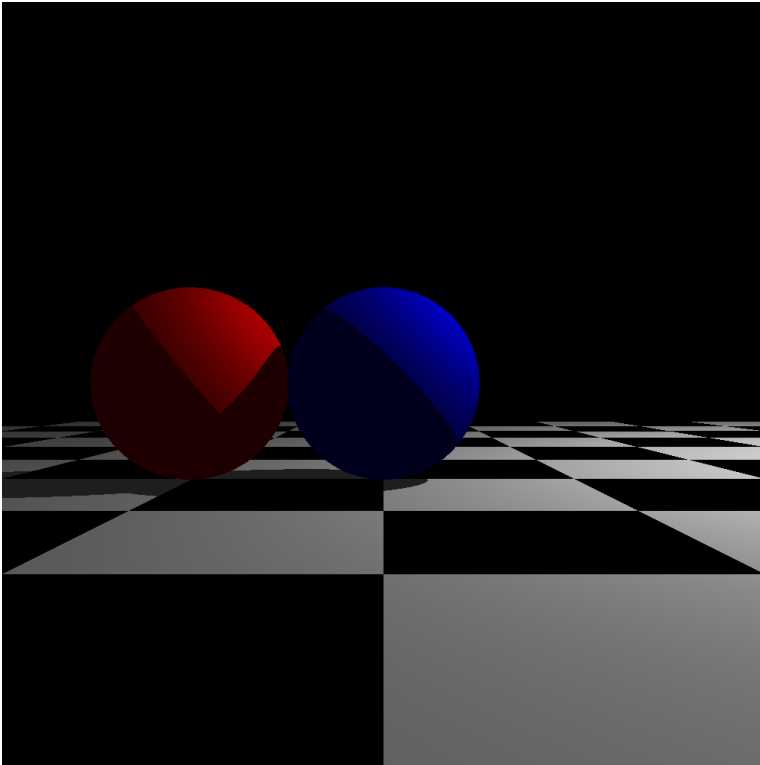
2) ./a -scenario 1 -a -d



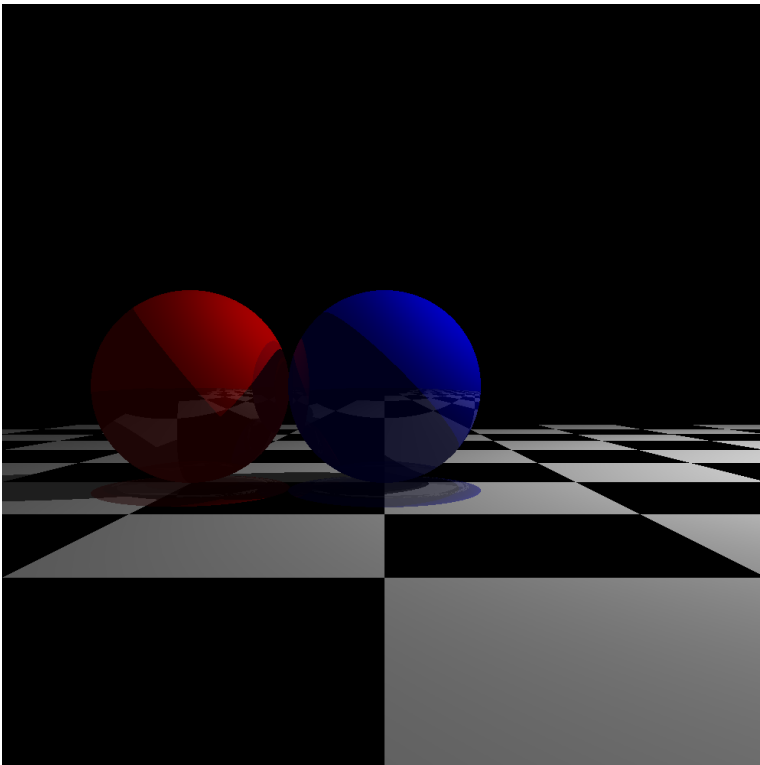
3) ./a -scenario 1 -a -s



4) ./a -scenario 1 -a -d -s



5) ./a -scenario 1 -a -d -s -r



6) Random

