

SUBJECT CODE: CS 6620

SUBJECT: ADVANCED COMPUTER GRAPHICS II

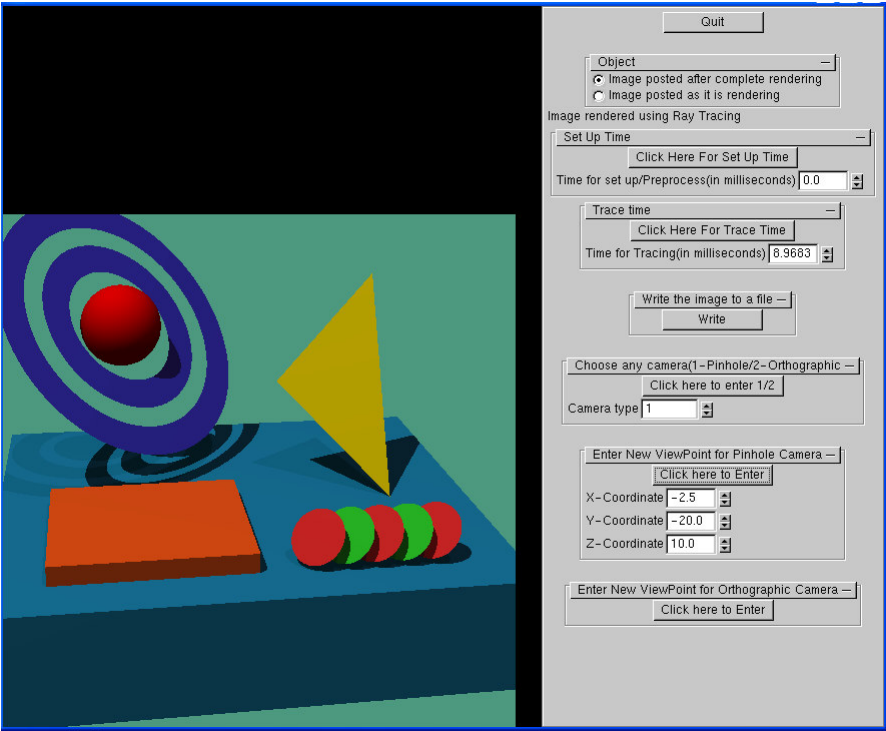
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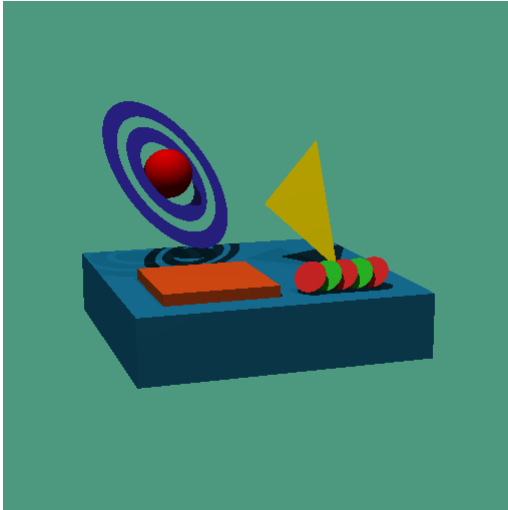
Unid: u0527667

PROGRAM 3

PART 1(Required Image1)



PART 1(Required Image2)

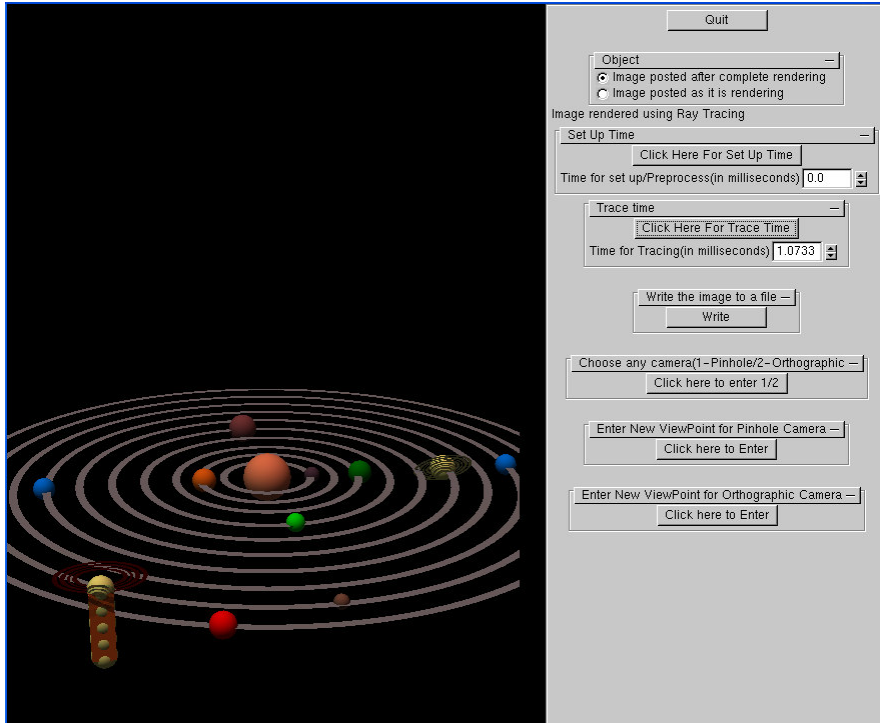


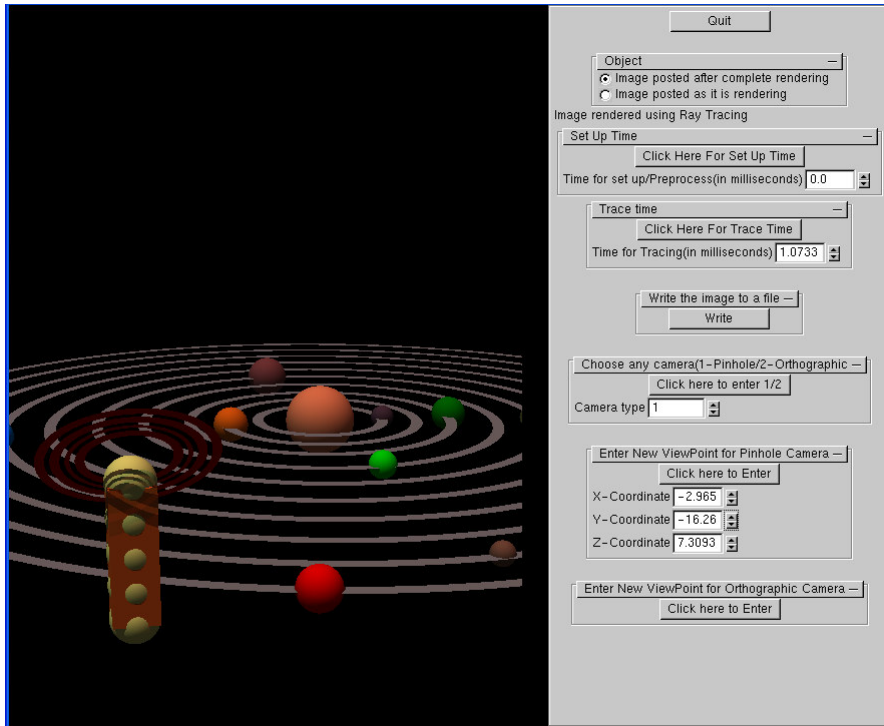
PART 2

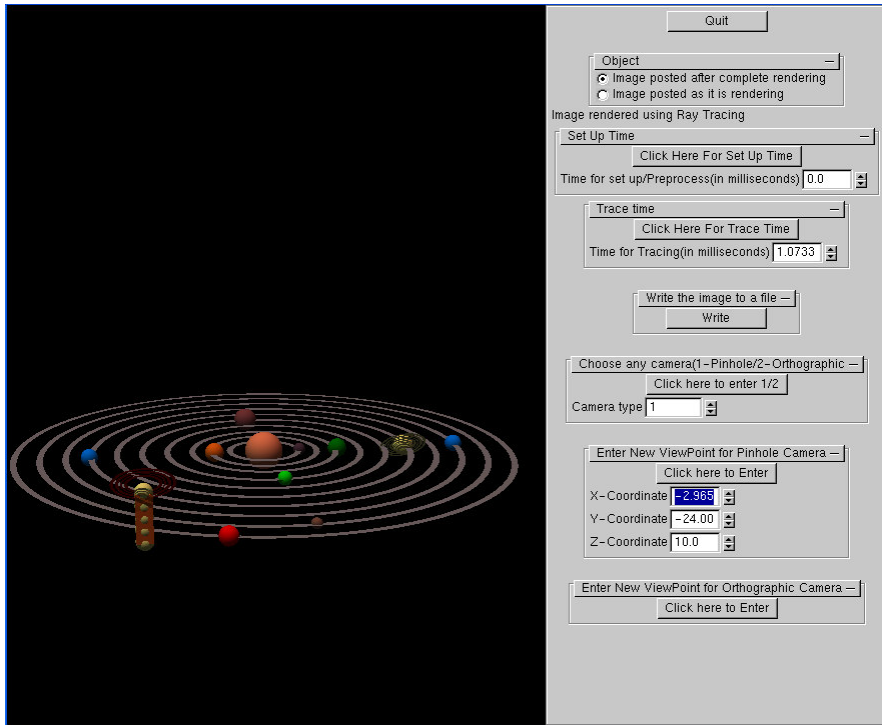
Link to my code: <http://www.cs.utah.edu/~leenak/Code3.txt>

PART 3(Creative Image(s))

- I started to think what would be better for my creative image part. Then I decided to do something useful and something that gives some kind of knowledge during the process.
- So I decided to create a 'Future Solar System' for my creative image part.
- I used spheres, rings and boxes for the work.
- I googled some sites to know relative sizes of the planets and their colors.
- I also created rings around the 'Saturn' planet to mimic reality.
- Then I placed each sphere and ring by calculating the relative positions and adjusting them as per the need.
- Then I created one more planet I mean 10th planet because the image was suppose to mimic future solar system. Who knows there may be more planets far away and might be explored in the future.
- Then I created a spaceship near the 10th planet to explore it farther by sending signals which are represented with rings :)
- I then colored the 'Mars'(fourth planet) to light green color to indicate that by then that planet might be fully explored and might be used for habitat.
- Calculating the positions and sizes was little bit hard.







PART 3(Description of my design choices)s

- For this assignment, I just created four more sub classes for boxes, ring, triangle and discs.
- I just created a very basic vector class during the first assignment with no member functions to calculate minimum vector or maximum vector between two vectors. So I had to hard code for the implementation of boxes.
- I just followed the slides for the implementation of the above primitives.
- I found implementaion of triangle little hard and complicated because of the need for the calculation of barycentric coordinates.Following the slides made the work better.