REAL RAY TRACER VERSION 2.0 JAN 3 1993 COPYRIGHT C. PROBERT 250 SPRINGDALE BLVD TORONTO, ON M4C1Z9 CANADA

THIS PROGRAM IS NOT TO BE SOLD FOR PROFIT

THIS PROGRAM IS SHAREWARE. IF YOU LIKE IT PLEASE SEND \$5

CHANGES FROM PREVIOUS VERSION:

- faster
- more object types
- can enter exact coordinates
- can save configurations for producing page flipping animations

HOW TO USE MY PROGRAM (READ_ME.DOC)

ADD MENU

The first screen you see shows a side view and top view of an empty room with no walls, floor or ceiling. You will then proceed to add objects to the room positioning them in 3-D using both the front and top view using the ADD menu.

You can add a floor, ceiling and walls if you wish. The object types which can be added are sphere, clyinder, hollow cylinder, cone and cuboid.

For each item added the colour can be selected by clicking on the palette and the transparency/reflectivity adjusted by a slider. To make an object completely mirror-like it must have colour black and maximum shiny. For complete transparency use black and maximum c-thru.

After all objects are added, up to 3 light sources can be positioned.

A floor can be tiled with the colour selected and black.

DELETE MENU

Any of the objects and lights already added can be deleted

from the scene.

EDIT MENU

Any object in the scene can be edited for colour,reflectivity and transparency by clicking/dragging the characteristic to be changed.

A different palette can be chosen - based on red, green or blue.

OPTIONS MENU

The default is no ambient light which gives the most dramatic pictures. Low or high ambient light can be added to the scene.

Perspective can be deepened to give faster vanishing points.

The viewpoint can be changed from straight-on to from an angle above or/and an angle from either side.

START MENU

GO starts creating the picture which may take several hours to create. The more objects/lights/relective objects/ transparent objects there are the longer it takes. The first process is a sample of pixels to establish the exposure. After this the final picture is made dot by dot. ESC will terminate the picture early. Suggest you switch off the monitor and leave it running overnight

XYZ allows you to change the x,y,z coordinates for each object and light in the picture. This is used when making composite objects and you want the exact position, eg all in one vertical line.

CEL allows you to save the picture configuration in a file and identify any objects you might like to change when you load the file later. This is useful for making page flipping animations where each picture is a ray tracing but with objects slightly displaced. This allows you to

ANI allows you to load a configuration file previously saved using CEL. You can change the position of the desired moving objects to make a new picture for a page flipping animation.

FILE MENU

You can VIEW the picture again, SAVE the picture as a DEGAS PI1 file, or use NEW to erase the existing picture and create a

new scene. or QUIT to end the program.