

This month's files include a ray tracing software package and accessories, as well as a security program to protect your disks from prying eyes.

POV

Personally, I have always been fascinated by ray tracing software. The idea that my personal computer can create photo-realistic images that have no basis in reality still amazes me. Persistence Of Vision is a multi-platform ray tracing package that is copyrighted freeware. This means that the authors retain copyright ownership of the program, but no fee is requested. Versions of the POV program are available for IBM compatibles and Macintosh, in addition to the Amiga version. POV is based on an earlier program named DKBTrace, and is the product of a large programming team headed by Chris Young.

Two separate versions of the POV program itself are included in the distribution archive, one for systems with a math co-processor, and one for systems without. Also included are sample scenes and the data files used to construct them. The

output from the program is saved to a file in either the program's own format, or TARGA format. Images can be displayed in HAM6, HAM8, HAME, or Firecracker modes. Utilities are included to convert the POV format files to Amiga IFF24, and Amiga HAM6 files. You can also convert TARGA files to POV or GIF formats for transportability to other systems.

Scenes to be rendered are generated from a text file whose format bears a striking resemblance to the C programming language. Figure 1 is a 24 bit rendering of one of the sample scenes, and Listing 1 is a portion of the text file that generated the scene. Objects such as light sources and the camera (your view point), are pre-defined items for which you specify characteristics. These characteristics include such things as position, size, or color, and are usually defined with a series of numbers. More complex objects are built using so-called primitive shapes, such as spheres, planes, and cylinders positioned and joined by the program. Also included are more complex primitives, and textures that can be

mapped onto the surface of an object. Any text editor that will save plain ASCII text can be used to edit or create scene files. There are more than 100 of these files included in the distribution archive that you can experiment with.

POV by itself is not for the Shell-challenged user as everything is command line driven. If you are a confirmed Shell-hater see the next file for salvation. The documentation files run close to 200 pages, covering everything from setting up the software to the theory of ray tracing itself, and a suggested reading list for those who want to know more.

POV requires Workbench 1.3 or higher, and will run simple files on a system with only 1 megabyte of memory. Currently POV is at version 2.2.

PovPanel

If the thought of trying to control all of the complicated aspects of POV through command lines that can include over 29 switches and modifiers, not to mention filenames and paths, gives you nightmares, then read on. Colin Bell has developed a graphical control panel for the POV raytracer called PovPanel, which is currently at version 1.3 (Figure 2). When started, this nifty program opens its own window, and through various Intuition gadgets, allows the user mouse-control of POV's features.

PovPanel is shareware, the requested fee is a minuscule \$5, and will save you hours of typing command line parameters if you use POV very much. The distribution archive also includes a small documentation file to get you up and running in very short order.

LockIt!

Figure 1: A 24 bit rendering of one of the sample scenes using Persistence Of Vision





Figure 2: A graphical control panel for the Persistence Of Vision raytracer called PovPanel is currently at version 1.3

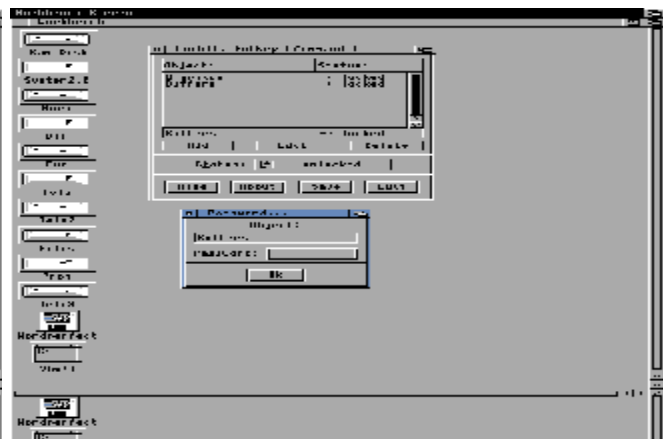


Figure 3: LockIt! from Andreas Linneman is a program that allows you to lock individual files or entire drawers.

Chances are excellent that there are files on your Amiga that you would rather keep private. Unless you live alone, there is always the possibility that someone else using your system may accidentally or otherwise find these files. How would you like to come home and find all of your business correspondence erased through someone's carelessness? The solution is to lock the files/drawers you want to keep private. LockIt! (Figure 3) from Andreas Linneman is a program that allows you to accomplish just this.

Once installed, individual files or entire drawers can be locked. Unlocking requires you to access LockIt!, select the item you wish to unlock (or lock) from a list and type in the correct password. Every item in the control list can have its own password to allow different users access to different files depending on their needs.

While the documentation points out that this is far from absolute security, it should provide a suitable deterrent to the casual file snooper. LockIt! is freeware, and requires Workbench 2.0 or higher.

Where to look

I found the POV files on all 4 systems that I frequent, CompuServe, GENie, Portal, and Delphi. The file sizes vary somewhat from system to system, due to different combinations of files and documentation being uploaded. On CompuServe, look in the AmigaArts section for the files POV.LHA, and POV.PAN.LHA. GENie has file #21218, POVAMI.LZH, which is the executables, and file #21217, POVDOC.LZH which are the documentation files. PovPanel can be found as file #23625, POV.PAN.LHA. The main program archive is 298,240 bytes, the docs are 218,112 bytes, and PovPanel is 12,672 bytes. These sizes are for the files on GENie. Download times

at 2400bps for these files will be approximately 25, 18, and 1 minutes respectively. GENie also lists several sample scenes and utilities available for POV. Delphi has the POV2.2 archive, as well as a couple of older versions. Portal has the largest collection of POV files, including a version for the A4000. Use POV as a keyword to search for related files.

LockIt! I found only on GENie, as file #22870, LOCKIT.LHA. It is 18,432 bytes, and should take about a minute and a half at 2400bps.

Where to find me

R.Hays5	on GENie
RHAYS	on Delphi
72764,2066	on CompuServe
Rob Hays	on Portal
InterNet users, the quickest response will probably occur if you use:	
R.HAYS5@GENIE.GEIS.COM	

For U.S.Mail: Rob Hays, P.O.Box 194, Bloomington, IN 47402, Please include a SASE if you need a personal reply.

If you run an Amiga specific BBS, send me the information callers will need to access your system. Phone number(s), modem speeds, software settings, etc. As a service to the Amiga community I will include the information I receive in this column from time to time. Send the info to any of the addresses above.

That is all for now. Since the next issue is December, I will start listing some of the BBS information that has been forwarded to me. This will let everyone who gets a new modem for Christmas put it to immediate use. See you on line!

.AC.

Listing

```
#include "shapes.inc"
#include "colors.inc"
#include "textures.inc"

camera{
  location <59, 20, -48>
  direction <0, 0, 1>
  up <0, 1, 0>
  right <4/3, 0, 0>
  look_at <0, 0, 1>
}

light_source { <800, 600, -200> colour White }

#declare Pawn=union{
  sphere { <0, 7, 0>, 1.5 }

  sphere { <0, 0, 0>, 1
    scale <1.2, 0.3, 1.2>
    translate 5.5*y
  }

  intersection{
    plane { y, 5.5 }
    object {
      Hyperboloid_Y
      translate 5*y
      scale <0.5, 1, 0.5>
    }
    plane { -y, -2.5 }
  }

  sphere { <0, 0, 0>, 1
    scale <2, 0.5, 2>
    translate <0, 2.3, 0>
  }

  intersection{
    sphere { <0, 0, 0>, 2.5 }
    plane { -y, 0 }
  }
}

#declare Rock=union{
  intersection{
    union {
      plane { +x, -0.5 }
      plane { -x, -0.5 }
      plane { y, 9 }
    }
  }

  union {
    plane { +z, -0.5 }
    plane { -z, -0.5 }
  }
}
```

You May Also Write to:
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 c/o Amazing Computing
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 Fall River, MA 02722-2140