

# Gnomogram

# JOLLY LITTLE

# HAT MAN

This month  
Gnomogram takes a  
look at Gnumeric,  
File Roller,  
Truevision and the  
GNOME 2.0 Alpha  
release



## GNOME 2.0 Alpha

Almost on schedule, the Alpha version of GNOME 2.0 has now been let loose on the world under the name "Rolig Liten Hattgubbe". The name comes from Swedish and means something like "jolly little hat man" – but the only people who will have fun with this version are programmers and passionate testers.

The latter should take a look at GNOME news and consider installing GNOME 2.0 with a different *—prefix* than GNOME 1, because otherwise GNOME 1 programs will be overwritten. However the purely GNOME 2.0 libraries can be installed in

parallel with the latest GNOME 1.4 libraries.

Anyone wanting to test GNOME 2.0, without at the same time turning your entire system on its head, can take a little look at the GNOME developer site, into the development of GNOME 2.0. Also, the modifications visible to the user have been summarised at

<http://www106.pair.com/rhp/gnome-2-new.html>. One particularly nice feature here is the new stock icons, which are already being used in some programs such as Evolution, as well as the new version of GDM.

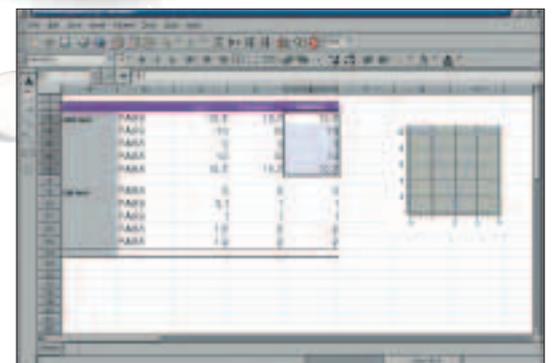
## Gnumeric

Gnumeric, the second software package to be developed at Ximian (creators of Evolution), has now reached the magical version number 1.0. Despite intensive tests, however, yet another bug managed to creep in shortly before the release, which was promptly fixed in version 1.0.1. This means that now, after around three and a half years of development, there is a first-class spreadsheet available, which has nothing to fear from the competition.

As with Evolution, one can immediately see Gnumeric's similarity to its Microsoft equivalent. Every Excel user should feel at home in a very short time – especially since Excel documents can be both imported and exported. In addition to Excel, Gnumeric also gets on with Import Applixware, Lotus 123 and numerous other formats. Unfortunately, though, you will have to go without Excel

documents, unless you are prepared to compile Gnumeric with support for the still very primitive GNOME-Basic. The developers of GNOME-Basic affirm, by the way, that macroviruses in GNOME-Basic simply could not exist – only time will tell if they are right.

For a long time the greatest point of criticism about Gnumeric was the lack of and/or highly unstable support for graphs. This problem has now been solved with the aid of the program Guppi. This tool, which specialises in graphs, provides its services via Bonobo and can be embedded in a document



By using Gnumeric's Autoformat substantial charts can be produced rapidly

## Libraries required:

**Gnumeric:** libxml >= 1.8.14, libole2 >= 0.2.4, Optional: bonobo >= 1.0.9, gb 0.0.17, gda >= 0.2.92, guile >= 1.5, guppi >= 0.40.0

**Truevision:** gtkglarea

**Fileroller:** gdk-pixbuf >= 0.9.x, Oaf >= 0.6.5, Bonobo >= 1.0, Gnome VFS >= 1.0

without any problem. Other data types, such as images, can also be embedded in the same way; for the latter the Bonobo component of the image viewer Eye of GNOME is required.

There are a wide variety of ways to analyse data – Gnumeric offers functions from correlation analysis to the histogram. By using a target and/or solution search, initial values can be manipulated automatically so that a function outputs a specified value. Also useful is the option of defining complex filters. To do this, values and criteria are specified in the document, which Gnumeric applies one against the other. Unfortunately, many of the functions described are anything but self-explanatory – so it is worthwhile, in any case, taking a look in the Gnumeric documentation, which goes way beyond the usual Readme.

## Truevision

Truevision is a program for creating 3D scenes, similar to the well-known Windows 3D modeller Moray. Like Moray, Truevision does not calculate the finished 3D scene itself, but hands it over to the raytracer POV-Ray. As the name Raytracer suggests, POV-Ray calculates the path of rays of light through a scene, so as to achieve a near-photo-realistic image. But since it would be unbelievably time-consuming to simulate all the rays of light, virtual lines of sight are emitted from the camera. Where these strike an object, further rays are sent out in turn, in order to determine the illumination of the strike point. Together with other techniques such as Radiosity – a “run” of the objects with each other based on diffuse light – POV-Ray is thus able to calculate astounding images.

All POV-Ray scenes are based on a range of objects, which can be created in the Create dialog of Truevision. Here, in addition to simple forms such as spheres or cylinders, can also be found various lights and atmospheric effects such as mist. Unfortunately some of the more complex POV-Ray objects such as blobs, prisms or the Julia fractal are still lacking – but no doubt these will follow in the subsequent versions.

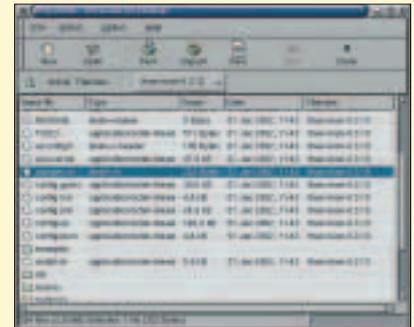
Already in this version, it is possible to create beautiful scenes without 3D fractals. The most important resources for this are the CSG operators (Constructive Solid Geometry), with the aid of which several simple objects can be linked, as with Boolean operators. So a new object is created from several objects or their intersection.

In order to keep perspective with complex scenes, it is also possible to create layers from several objects, which can be scaled and moved around as a single entity. Also, by modifying the co-ordinates, this movement can of course also be done by mouse in one of the views. When doing so it can be useful that Truevision, in addition to the grid view, also

## File Roller

With the aid of File Roller archives can be simply created and unpacked in any conceivable format. Apart from the nice surfaces File Roller also has something else to make it better than its predecessors, such as Gtar – i.e. it's possible to look at lots of files directly from the program.

To do this, File Roller searches with Oaf for a suitable Bonobo component, which is started in a new window. If no suitable component is found, the text viewer is used. Files can be



File Roller when viewing the Truevision archive

displayed in the main window both listed in directories or completely. The program is also able, in the Add dialog, to add sub-directories recursively and offers the usual features such as skipping backup files and symbolic links.

offers a preview via OpenGL.

Just as important as the object itself is the texture assigned to it. Truevision comes with a comprehensive collection of textures in a separate package (Truevision-Extramat). In the case of almost all surfaces there is a preview – if not, this can be computed in the material editor. The individual characteristics of what are sometimes highly complicated textures are shown, as in Moray, in a tree view. To understand all the options, it's also worthwhile at this point taking a look in the POV-Ray documentation.

One option that is completely lacking in Truevision is animation, and it is not exactly simple to create animations under POV-Ray anyway. Often individual scenes are quite enough to occupy the computer for some time. Anyone who has several computers, though, has the option of getting them to work together with the PVM patch.

## URLs

GNOME 2.0 news	<a href="http://news.gnome.org/gnome-news/1011293794/index_html">http://news.gnome.org/gnome-news/1011293794/index_html</a>
Info for GNOME 2.0 testers	<a href="http://news.gnome.org/gnome-news/1011290700/index_html">http://news.gnome.org/gnome-news/1011290700/index_html</a>
GNOME Developer's Site	<a href="http://developer.gnome.org/dotplan/">http://developer.gnome.org/dotplan/</a>
What's new in GNOME 2.0	<a href="http://www106.pair.com/rhp/gnome-2-new.html">http://www106.pair.com/rhp/gnome-2-new.html</a>
Gnumeric homepage	<a href="http://www.gnome.org/projects/gnumeric/">http://www.gnome.org/projects/gnumeric/</a>
GNOME-Basic homepage	<a href="http://www.gnome.org/gb/">http://www.gnome.org/gb/</a>
Truevision homepage	<a href="http://truevision.sourceforge.net">http://truevision.sourceforge.net</a>
POV-Ray homepage	<a href="http://www.povray.org">http://www.povray.org</a>
POV-Ray documentation	<a href="http://www.povray.org/ftp/pub/povray/Official/Docs/">http://www.povray.org/ftp/pub/povray/Official/Docs/</a>
PVM patch for POV-Ray	<a href="http://www-mddsp.enel.ualgary.ca/People/adilger/povray/pvmpov.html">http://www-mddsp.enel.ualgary.ca/People/adilger/povray/pvmpov.html</a>
File Roller	<a href="http://fileroller.sourceforge.net">http://fileroller.sourceforge.net</a>