

GNOME System Tools

The history of an app

Richard Smedley looks at the unlikely life of a system tool, and why you may soon realise that you need this application to handle all of your system configurations. **BY RICHARD SMEDLEY**

Of course few apps appear ready-formed out of the ether, and indispensable to users far-and-wide. Most apps develop gradually. GNOME System Tools has had a particularly long development path.

Helixcode, now known as Ximian, was the main commercial support for GNOME before Sun stepped in. The Helix Setup Tools app was their great effort at a desktop configuration tool to simplify the admin tasks that every desktop Unix user faces.

Ximian Setup Tools acquired its name as Helixcode evolved further up the monkey tree, and the developers mooted Ximian System Tools in 2001 as a less misleading name. Carlos Garnacho became the (re-named) GNOME System Tools (G-S-T) maintainer and G-S-T continues to fight for an official place in GNOME.

The G-S-T is a fully integrated set of tools for administration of a *nix system. They are useful to anyone from a new user to experienced system administrators, aiming to reduce the chore of day-to-day system management. Even when you're using a friendly graphical desktop, seemingly basic tasks like setting the system time, changing the

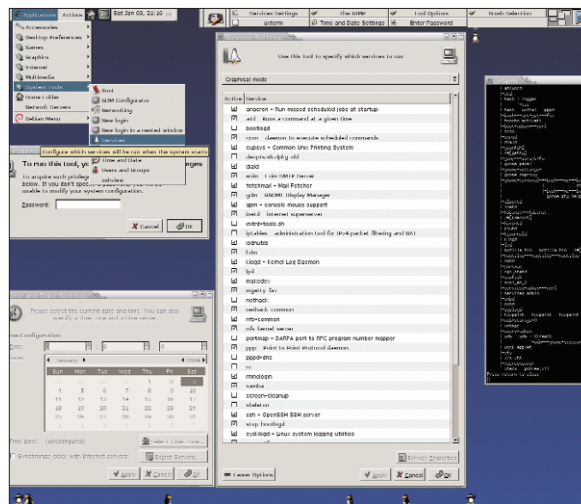


Figure 1: The great GUI leveller: Start up of services is made as simple as altering the settings for time and date.

network setup, importing and exporting network shared filesystems and configuring swap partitions requires editing configuration files by hand, and the exact procedure varies between different operating systems and distributions.

It should be said here, that this kind of thing is usually done much more quickly from the command line by someone who knows what she's doing – the purpose of G-S-T is both to make this sort of config task simpler to those not familiar with every aspect of their system *and* to provide a consistent interface to those

wanting to manage their workstation without jumping through all of the hoops demanded by other GUI solutions.

Structure

This structure is well thought out, being for each tool a single universal front-end which produces configuration information in XML format and passes it to a back-end specific to the underlying operating system. The front-end integrates with the style of the GNOME Control Center tools. It is written for GNOME, but KDE developers have mooted their own version.

The back-end, which is written in Perl, interprets the XML configuration instructions and applies them to the specific operating system. The developers claim this gives three advantages:

- The tools work on multiple platforms, but still use the native configuration systems of the host operating system. There is no new configuration system to learn, and the GNOME System Tools do not interfere with the operation of other configuration methods.
- XML configuration profiles can be archived, permitting the “undo” feature.
- XML configuration profiles can be generated on one system and exported to another, allowing an administrator to change settings for an entire workgroup at once.

Installation

Head off to <http://www.gnome.org/projects/gst/> to find the thing, if you don't have a recent version on your distro discs. At the time of writing you will find 0.31.0 “A brick in the sky” is the most recent version. Support is claimed for all recent versions of Red Hat and

A developer's passing

Of course it goes without saying that since the developers started giving their releases pet names, popularity and quality have increased substantially ;-)

The GNOME System Tools version 0.27.0 “A pint of Guinness”

The GNOME System Tools version 0.28.0 “Juggling knives”

The GNOME System Tools version 0.29.0 “Where's my hack??”

The GNOME System Tools version 0.30.0 “Dedicated to Chema Celorio”

The GNOME System Tools version 0.31.0 “A brick in the sky”

Chema Celorio, who ran Ximian's Mexico City office, died in a sky-diving accident in November. As well as starting GNOME-love (to bring along new GNOME developers) and hacking G-S-T, he was involved in a number of core GNOME projects – including gedit; gnome-print; gnumeric; the sticky-keys applet; and the compiling FAQ. His energy, enthusiasm and warmth are greatly missed by the GNOME community.

Debian, and Fedora Core 1, as well as some testing of Suse, Gentoo and Slackware:

```
ncftp ftp://ftp.gnome.
org/pub/GNOME/sources/
gnome-system-tools/
0.31/get_gnome-system-
tools-0.31.0.tar.bz2
bye
```

Compiling is the usual:

```
tar jxvf gnome-system-
tools-0.31.0.tar.bz2
cd gnome-system-tools-
0.31.0
./configure
make
make install
```

As usual, `./configure -help` will give you hints on useful environment variables, such as `--enable-FEATURE` and `--with-PACKAGE`. `make check` is an option after “make” – to run any self-tests available. Follow “make install” with “make clean” to remove the object files from the source tree. (make distclean will remove the files generated by `./configure` – useful if you want to compile the package again for another machine).

A package is available for Mandrake Cooker on RPMfind. Debian users can apt-get install from the Unstable release – 0.31 should be on the servers by the time that you read this.

Config sans complexity

Firing up from GNOME is a simple case of pulling down the Applications menu (see Figure 1), going to System Tools and selecting from among the options one of the five configuration choices put there by the current release of G-S-T.

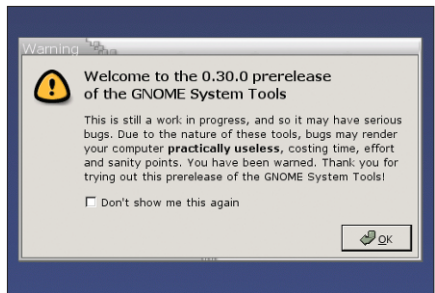


Figure 2: As a pre-release (Alpha) piece of software, G-S-T is kind enough to warn you of the dangers involved in early adoption.

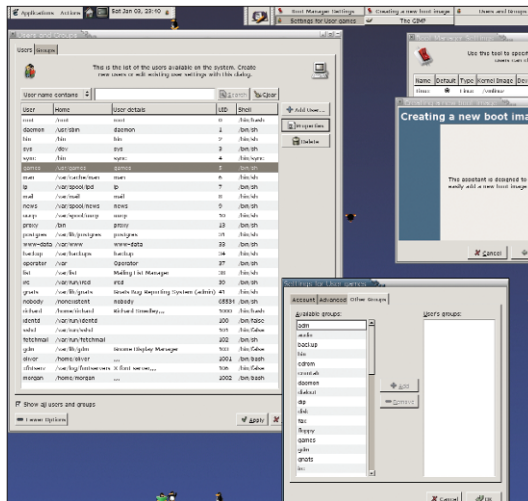


Figure 3: Adding users to groups such as audio may be just the solution to your permissions problem.

Even a complete GUI-phobe such as this writer can come to little harm from a straightforward set of discrete options such as this, backed up by a back-end that really does its job, and doesn't mess up your system (I will spare the blushes of the GUI-config tools that are not so well-behaved – as I am sure that most readers can name and shame them without any assistance from Linux Magazine).

The current options are:

- Services – Interfaces with the init scripts to set which services run at which runlevel. To avoid confusion for the newbie, these levels are simply named “Text mode”, “Graphical mode” and “Rebooting the system”. For each service a box may be called up for tweaking, or simply to start or stop the service.

Backup system

Every time a tool from G-S-T modifies your system configuration files it makes backups of those files. The backups are rotated (for nine levels in total), and the backup made the first time the tool was run is kept forever. This means that you can revert your system configuration to the point before you ever ran a GNOME System Tool.

The backup path is `/var/cache/setup-tools-backends/backup/<tool>/<id>/`. In this directory, you'll find a complete snapshot of the files that were modified. The original directory structure leading up to these files is also kept. `<id>` runs from 1-9, and when the first backup is rotated out, it is kept in a special catalogue called “First”, which is never touched again.

- Network – A well thought out interface to various network settings which, as well as offering options for Network Profiles, is divided into: Hosts (“How this computer is identified”), which also includes settings for identifying your machine to Windows boxes on the network (Samba server and workgroup name); Connections (“How to access other computers”), which allows you to add and configure network devices; DNS (“How the names of other computers are found”), which is an interface on to `/etc/resolv.conf`; and (after clicking the “More Options” button) Hosts (“Aliases of other computers”), which enables you to set and edit aliases and IP addresses on different devices and, yes, it does include IPv6.

- Time – Change the current date and time, select a timezone (useful for jet-setters and their PowerBooks) or even select a time server from the dropdown list (though you will first need to enable NTP support yourself – the scope of this tool is currently to change what you already have on the system).

- Users – Allows creation of new user accounts (including the option of randomly generating a new password (by default set to just six digits of mixed-case alphanumeric characters) and changing the details of existing users (home directory, shell, UID, groups). A click on “More Options” brings up every account held on the system by any process, in addition to the human user accounts shown already by default. The list can be searched by ID, group or username. See Figure 3.

- Boot – This interface works with GRUB, Lilo or Yaboot and enables all the main settings to be edited.

Get trying it, and don't forget http://bugzilla.gnome.org/enter_bug.cgi?product=gnome-system-tools

If you hang on for GNOME 2.6 you may well find most of G-S-T in the default desktop – if you would really like to see it there, go and help the project. ■

INFO

Want to help GNOME? Then just click here: <http://www.gnome.org/start/2.3/helping.html>