

What is Gnome?

Gnomeward Bound!

There are those who can, quite happily, do all of their day to day tasks, working from nothing more than the command line starting and stopping services, monitoring processes, reading and writing email and even the creation of text documents. It's a case of what you are used to,

The desktop, for a lot of people, is their interface to the computer, rightly or wrongly. Taking such a fundamental position, it's not too surprising that there is great respect and consideration given over to deciding 'the best' desktop to use.

The Linux community is blessed by having a choice the users of other, lesser systems, are not so lucky. There are two major players, KDE and Gnome, as well as others, such as Enlightenment, who deserve a mention but are rarely seen as headline items in the packaging of the various distributions.

Here we are going to look at the Gnome desktop, the default desktop for Red Hat installations and some of the products that go with it.

Gnome – the desktop

In Linux's formative years, the KDE desktop was the leader of the pack. Based on the Qt toolkit, by TrollTech, development for KDE required a more restricted license than the GPL.

Red Hat did not value the restrictive licensing and refused to ship KDE with it's products, deciding instead to ship with a young upstart of a desktop system, Gnome. All this was back in 1998, much has changed since, especially with the licensing issues for the Qt development tools, but Red Hat have stood by their previous decision and have remained loyal to Gnome, sharing much of the responsibility and development.

The development ball was set in motion, but the creation of 'The Gnome Foundation' in 2000 was really to give it momentum. It is made of organizations and industrial leaders, including IBM, Sun, Compaq and the likes of Red Hat and VA Linux, who pledged allegiance and support for the Gnome project.

In this article we present highlights of the Gnome desktop and of Ximian, the company that grew up around it. **BY COLIN MURPHY**

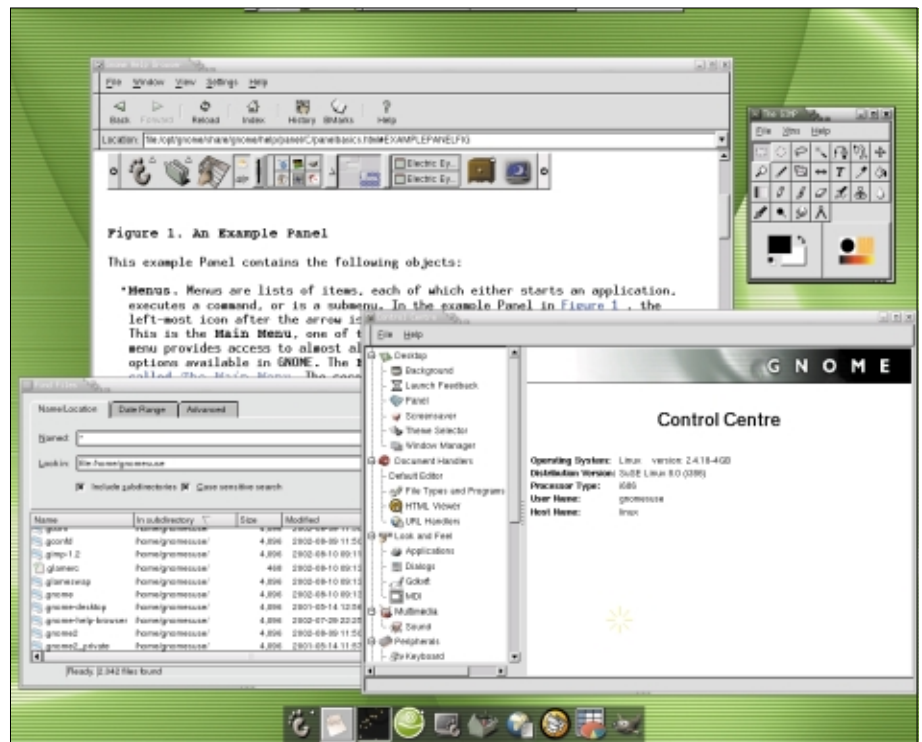


Figure 1: The default GNOME desktop from a SuSE 8 distribution

"Gnome continues to gain momentum, we needed a forum where the developers and corporate partners can come together to coordinate the continued development of Gnome. The support of these industry leaders will help us to achieve our dream of building a free, easy to use desktop environment that will be used by millions of people." said Miguel de Icaza, founder of the Gnome project.

The development of the desktop is not really enough, you need programs and applications to run on that desktop. Gnome can boast a broad range of applications that are designed to run on top of the desktop. They work with other desktops too, but some of these are so ubiquitous that you can easily forget their pedigree and what the 'g' in front of their name really stands for. Even if you do not, by default, use Gnome, it is very likely that you will have used at least one of these applications.

Galeon

Galeon is a web browser, and only a web browser, something the developers are very proud of. They value the principles of simplicity and compliance. It calls on the Mozilla rendering engine, but gives a much cleaner user interface, for both clarity and speed.

Grip

The Gnome ripping tool, used for taking track from audio CDs when you want to convert them into MP3 or Ogg Vorbis files for more convenient management on a computer. The Gnome site described it as a mature product.

Nautilus

This is the file browser that you will most likely use to look through and manage your files on the desktop. Customizable and themeable, this underpins the resolve of the Gnome developers to produce a



Figure 2: When you need to take tracks from an audio CD, Grip is the tool to use

coherent desktop. It has real power in the way developers of third party application can add to the range of features. In one instance, Nautilus has been configured to act as a front-end for the gPhoto program, which is another gnome application.

GnPan

gnPan is a network news reader, similar in design to programs like Agent and Gravity on MS Windows. The recent developments in gnPan have included the facility to download multi-part messages, including those encoded with 'y-enc' as well as the more traditional but bandwidth wasting 'uuEncode'. GnPan is also

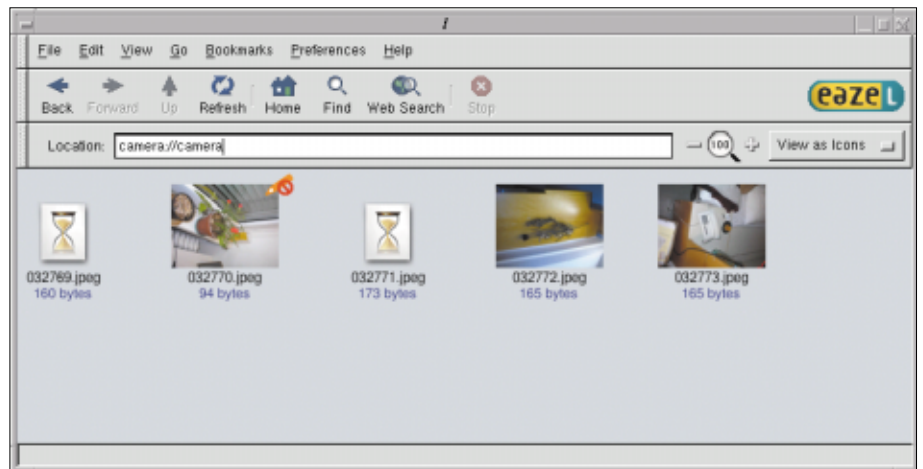


Figure 3: Highlighting its power and flexibility, here is nautilus being used as a front end to gPhoto

the only Unix newsreader to get a perfect score on the Good Net-Keeping Seal of Approval report.

Gnome 2

Gnome is about to make a big change. Gnome 2 is available for download, but, so far, no major distribution has yet included it.

Because of the long development cycle that the Gnome project has built around itself, the development team have been able to include a range of features that will improve the usability of the product, and also the performance. Time and effort have also been spent on improving ways to help with the development of applications, by building a powerful new framework for the developers to work in.

The graphical element of the desktop has had much work done on it. One of the most criticized points about the Linux desktop is the lack of antialiased fonts, which, in some cases, can make text unreadable, certainly unpleasant, to look at. Gnome 2 will put an end to this, but not at the expense of performance, the user will be able to configure how the antialiasing will work and even be able to limit its effect to certain sizes of fonts.

Gnome does have an annoying flicker, especially notable when dragging a side bar. This is to be cured in Gnome 2.

Enhancing the desktop icons has improved both their readability as well as functionality, giving visual clues to the status of the task attached to that icon. Eye candy, the somewhat unkind name

Improvements for Gnome 2

MENUS & PANEL

- Menus scroll when they get too big
- Smarter menus accommodate diagonal mouse movements
- Dialogs
- File selector will retain the original file name when changing directory
- New Run Program dialog with command completion
- Text fields include right-click menus for cutting, copying and pasting text

THEMES

- New stock icons and color palette
- Support for themeing of stock icons
- CD Player and login screens are now themeable
- Applications
- Redesigned and easier to use Search Tool
- Brand new lightweight help application, Yelp
- Control center applications for controlling Gnome 2 properties have been greatly simplified and reduced in number



Figure 4: Galeon with its clear and open user interface

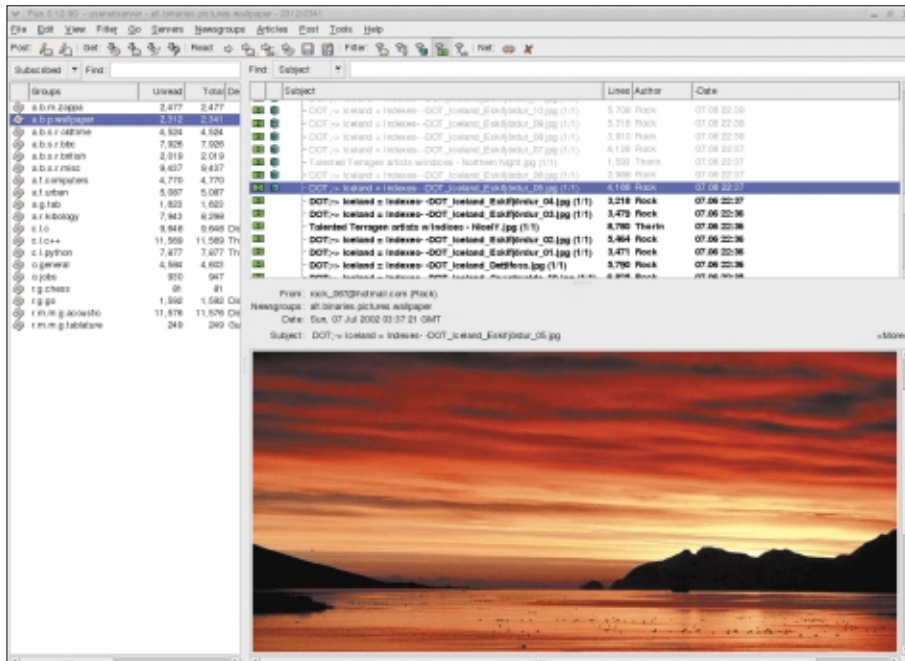


Figure 5: gnPan, Usenet news browser, viewing images made from multi-part messages

given to the efforts of the developers to give their product some instant wow! factor, is often belittled by the power user, who might see this as a waste of effort, even at the expense of performance. Eye candy does play an important part in the initial acceptance of a desktop, especially for new users. Gnome 2 will have more power to produce eye candy, if the user wishes it. Images will now be placed onto the desktop backgrounds with full alpha channel support, this will enable the use of transparent, and semi-transparent, icons and other desktop features.

There will be some people who might moan the loss of some function or feature, but the developers have realized that the rot was starting to steep in and decided to put their foot down, before it would go through the floor. You will now be able to see, at a glance, all of the necessary features that make a desktop worthwhile, rather than have to hunt and pick through myriad features, many of which you didn't even know what they did, let alone use.

With the realization of how cluttered Gnome had become for the user, they realized just who they were developing for. To prove Gnome's usefulness, it had to be used, not just developed. With this new approach in mind a set of Human Interface guidelines was drawn up, with the aim of making sure that the features and applications were consistent in their approach. For details see *developer.2*

gnome.org/projects/gup/hig/draft_hig/2/index.html

The more invisible the user interface is the more productive it will be. The user can get on with their work rather than get on and work the interface. They have also realized the need for the graphical shell, where everything a user needs to do can be done in the one place.

Speed, or lack of it, has been another criticism of Gnome, along with it being a memory hog. Work has been done on this too, a boon to users of lower spec systems. It has been reported that

Gnome 2 can be installed and run on a machine with a P2-233 processor and as little as 96MB of RAM. It should be noted that minimum suggested requirements for Gnome 2 are a P400 processor with at least 128MB of RAM.

The usability features are being made as widely accessible as possible, with Gnome drawing up another policy from the Gnome Accessibility Project.

Accessibility is enabling people with disabilities to participate in substantial life activities that include work and the use of services, products, and gaining information. Gnome Accessibility is defined as the suite of software services and support in Gnome that allows people to utilize all of the functionality of the Gnome user environment.

The last major feature to mention is the inclusion of the XML libraries, libxml2, providing access to a complete and standards compliant mark up language.

Because of the many and fundamental changes that need to be made to have Gnome 2 running on existing installations, people may prefer to wait until their distribution releases an upgrade.

It is possible for a user to try out the system for themselves, but it is not a 'friendly' upgrade path. The level of dependency on other packages and on new libraries proves to be the hardest hurdle to clear. Once you find a decent set of installation instructions you will have something to follow, and, thankfully, karubik.de/gig/2.0 has now appeared.

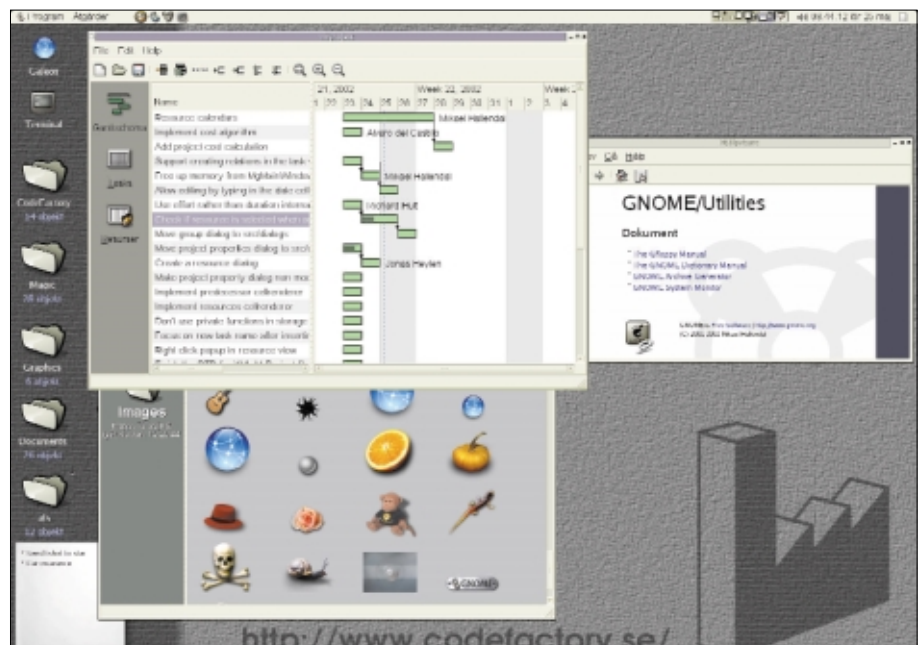


Figure 6: Gnome 2 desktop in action

Ximian background

Ximian grew from the success and the popularity of the Gnome project. Lots of talented architects and engineers were drawn to the efforts of this Open Source project, with its obvious commitment to Open Source ideals. The project was now developing more than just the desktop, more developers were coming on board producing essential desktop productivity applications for UNIX, Linux and other free systems.

The creation of Ximian, in October 1999, offered a unifying framework for the developers to build under, in order to help improve the tight integration between the desktop and application. It has also helped bring about other open source products, a development tool base for Gnome, and a range of user services to aid in installation and upgrade.

Ximian has also allowed others in the industry to adopt Gnome more readily as their desktop of choice. August 2000 saw the partnership form with companies like Sun Microsystems, IBM, Red Hat, HP, SuSE and others with the creation of the Gnome Foundation. This now allows for full co-operation and communication between some of the biggest players in the market. In turn, this allows for stronger and more robust development of core technologies vital to make Linux a competitive product. This is best highlighted by the recently announced Mono Project, a community initiative to develop an open source, Linux-based,

version of the Microsoft.NET development platform.

Range of products

Gnome still remains the core product of Ximian. Under the Ximian umbrella it can boast more than 500 software developers, of which more than 100 are full time, paid employees. The unpaid volunteer force is another example of the project's appeal to the Open Source community. Ximian engineers sit on the board of directors of the Gnome Foundation, and Ximian has a seat on the project's Advisory Board as well. The Advisory Board is comprised of leading computer manufacturers and software vendors, including IBM, Sun, HP, Red Hat, SuSE, and others.

Evolution

Ximian Evolution is an application offshoot from the Gnome tree.

Ximian Evolution is a very powerful information management application suitable for both personal and workgroup use. It allows you to bring together all of your day to day information needs, email, calendaring and meeting scheduling, contact management and online task lists. Evolution has a good set of features which will help you to organize your personal data into a convenient form. One unique feature is that of vFolder, which are virtual folders with which you can create and save powerful contextual views of your email messages. The value of your information is only realized when

you manage to pass it on to someone else, so, with Evolution you have powerful collaboration software that connects Linux and UNIX users to the more popular corporate communications architectures. You will find support for all of the most useful communication standards, allowing you to exchange data with users on different platforms. These include SMTP, SMTP/Authorized, POP, IMAP and others.

Migration is a big issue, and if you want to start using Evolution, you will want to make sure you can get at your old emails and alike. You will find that you can import mailboxes created with Netscape, Outlook Express, UNIX mbox, Eudora and other email managers.

There is also support for peer-to-peer calendaring, where you and your colleagues can share dates and times in a seamless fashion. This even works with other applications on different platforms, so long as they conform to the iCalendar standard, which happens to include Microsoft Exchange and Lotus Notes.

Addressbook details are handled by the popular LDAP protocol with support for vCard as well. This should ensure that exchanging personal information with other users is easy.

Connector

Ximian Connector builds on top of the usefulness of Evolution by giving you access to that most important of facilities – connection to the Microsoft Exchange 2000 servers. With Ximian Connector installed, Ximian Evolution will function exactly like an Exchange 2000 client, but without the crashes. This will then enable your users to access their email, personal and group calendars, address books and tasks lists from existing company Exchange 2000 servers. Therefore you have a route should you be looking to upgrade away from the Microsoft desktop but rely on access to Exchange.

Apt4rpm

A recent development that takes the worry and stress away from installing RPMs which, on installation, complain that they need some dependency fulfilled. Apt4rpm will, quietly, go away and resolve all of these dependency issues, downloading the required packages if need be. For Details please see linux01.gwdg.de/apt4rpm

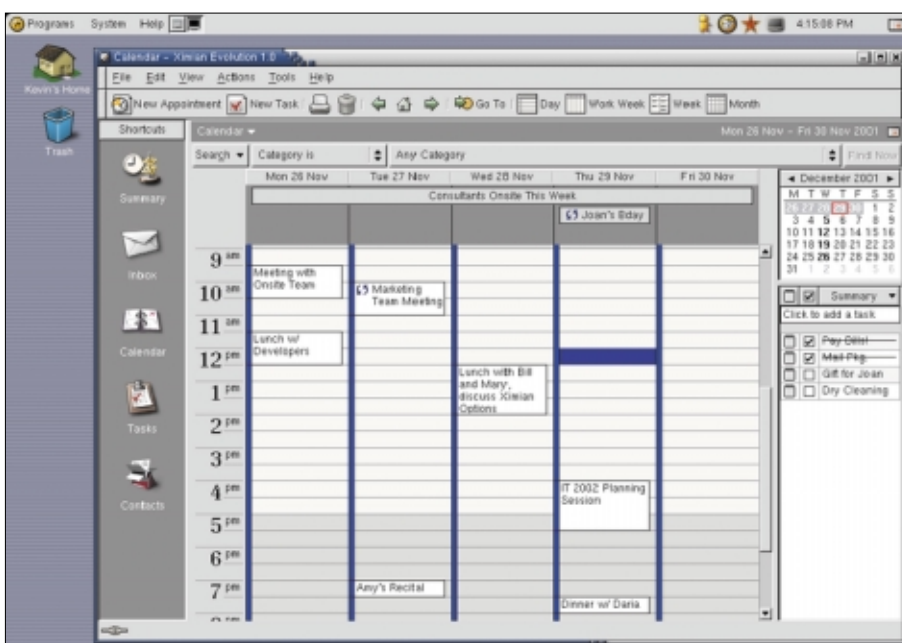


Figure 7: Ximian Evolution

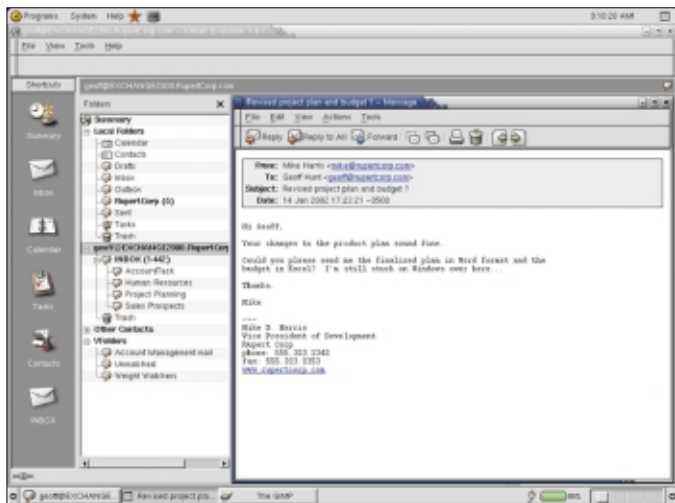


Figure 8: Ximian Connector showing folders

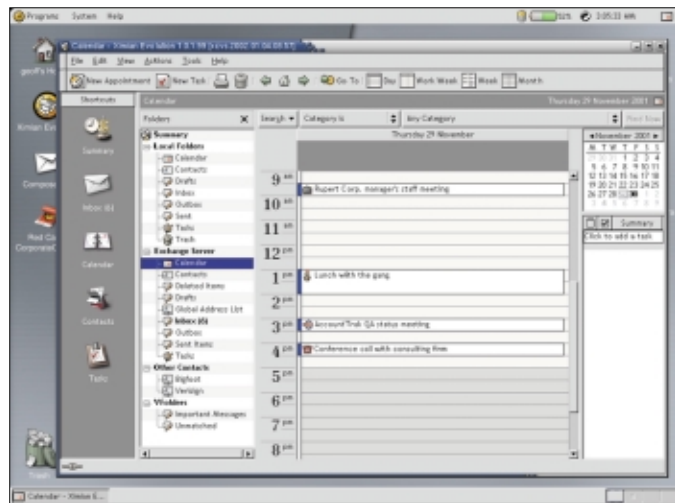


Figure 9: Ximian Connector calendar

Red Carpet

The developments for Linux can come quick and fast. New versions and new applications appear daily. The good side to this is we get lots of things to play with, the down side is that it can be a nightmare to administer, if your only concern is keeping up with the security patches. Ximian Red Carpet is a software management tool that will simplify and even automate all of the challenges faced by managing a Linux system, including version control, system updating and package conflict resolution.

If you have a fast connection to the internet then Red Carpet Express would be of interest to you. Here you are provided with high-bandwidth access to Ximian applications plus third party software for faster and automated installations and updates. Most appealing to update freaks and to lesser mortals who still like to see new applications as quickly as possible

The needs of the corporate user are somewhat different, with practical management systems being a priority. Red Carpet CorporateConnect provides a centralized updating function. This also includes the facility for administrators to distribute their own in-house applications to their users, with speed and efficiency, through the Red Carpet interface.

From an on-screen list of recently updated or added packages, the user can choose which ones to take, as well as having the option of removing any that are no longer serving their purpose. Red Carpet then controls and monitors the installation and manages any packages dependencies that might arise as a result.

Red Carpet offers various third party channels from which to take software updates from, in association with the Ximian Red Carpet Partner Program.

Ximian Desktop

With Ximian Desktop, you receive a tightly integrated package of Gnome applications with the Gnome desktop. It is a complete desktop package, and should be considered as a business solution for those looking for a unified corporate workstation. In the standard edition, which is available for download or for purchase on CD for convenience, you

receive all of the applications that make for a productive workstation. Office products such as AbiWord and Gnumeric will cater for your word and spreadsheet processing, Evolution will provide your email and information needs and Galeon will allow you to browse the internet.

For the corporate user, Ximian also provides a Professional Edition, which, most notably, includes Star Office 6.0 from Sun.

Support packages and structures are also available, ranging from web based 'community' support to 'Corporate Gold Support' which has telephone support and software maintenance agreements.

The future

The Ximian Desktop, which grew up from the Gnome project, makes for a complete desktop solution, which as some Linux critics would have you believe does not exist. Red Hat and other distributions are now realizing that Linux can offer a competitive and complete desktop solution, especially for their corporate customers and they are just starting to commit themselves to the support and the further development of this as a market leading product.

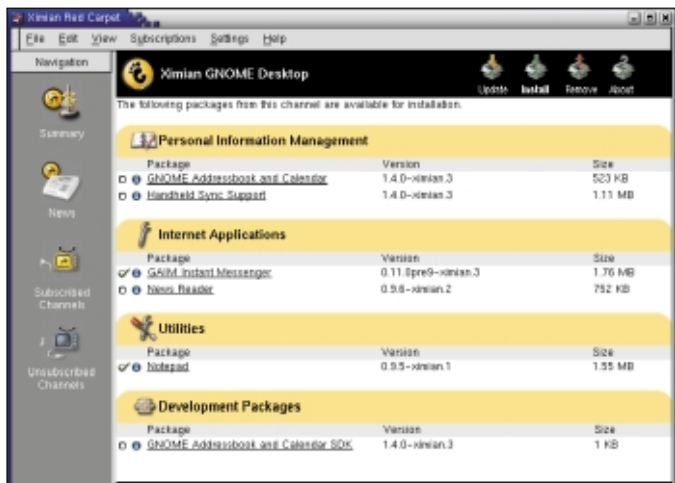


Figure 10: Red Carpet manages the installation and updating of software

Links to the projects

Gnome & Gnome 2: www.gnome.org
 Ximian: www.ximian.com
 Galeon: galeon.sourceforge.net
 gRip: www.nostatic.org/grip
 Nautilus: nautilus.eazel.com
 gPhoto2: www.gphoto.org
 GnPan: pan.rebelbase.com