

GNOME User's Guide



G · N · O · M · E

GNOME User's Guide Documentation Team

GNOME User's Guide

by GNOME User's Guide Documentation Team

Copyright © 1999 by Red Hat Software and David A. Wheeler

This document can be freely redistributed according to the terms of the GNU General Public License.

Revision History

Revision 1.0.6 -- 8,9,1999

Table of Contents

1. An Introduction to GNOME	6
What is GNOME	6
About This Guide.....	6
2. GNOME Quick Start	7
GNOME Quick Start	7
3. Window Managers and GNOME	10
About Window Managers.....	10
Changing Window Managers.....	10
4. Using the GNOME Panel	11
Introduction	11
The Basics	11
Using the Main Menu	11
Hiding the Panel.....	11
Moving and Adding Panels.....	12
Adding Applications and Applets to the Panel.....	12
Adding Application Launchers	13
Grouping Items with Drawers.....	13
Adding Applets	14
Running Applications.....	15
Logging Out of GNOME.....	15
5. The GNOME Desktop	17
Introduction	17
Using the Desktop	17
Desktop Areas.....	18
Other Desktop Menus	18
6. The GNOME File Manager	20
Introduction	20
Moving Around the GNOME File Manager	21
Selecting Files.....	21
Copying and Moving Files	22
Renaming Files	23
Launching Applications From the GNOME File Manager	24
File Properties and Actions.....	25
Changing Your Preferences in The File Manager	26
File Display	26
Confirmation	27
VFS.....	28
Caching	29
Desktop	30
Custom View	31
Menu Guide to the GNOME File Manager	32
A Drag and Drop Tour of GNOME	34
7. Configuring the Panel	36
Introduction	36
Global Panel Properties	36
Animation Tab.....	36
Launcher icon Tab.....	37
Drawer icon Tab.....	37
Menu icon Tab	38
Logout Icon Tab	38
Miscellaneous Tab.....	38

This Panel Properties	39
Edge Panel Tab	40
Background Tab	40
8. Editing the Main Menu	42
Introduction	42
Configuring the Main Menu	42
Using the Menu Editor	43
Adding a New Menu Item	43
Drag and Drop in the Main Menu	44
9. The GNOME Control Center.....	45
Introduction	45
Desktop Capplets	45
The Background Properties Capplet.....	45
The Screensaver Capplet	46
Theme Selector	47
Window Manager Capplet.....	48
Default Editor	50
GNOME Mime Types	50
Multimedia Capplets	51
Keyboard Bell.....	51
The Sound Capplet.....	52
Peripherals.....	53
The Keyboard Properties Capplet.....	53
The Mouse Properties Capplet	54
Session Manager.....	54
User Interface Options.....	56
Application Defaults	56
Dialogs.....	57
MDI.....	58
10. A Word About Session Management.....	60
Introduction	60
Resetting the GNOME Session.....	60
11. Panel Applets.....	62
Introduction	62
Amusements	62
Monitors	62
Battery Monitor.....	62
Battery Charge Monitor.....	62
CPU/MEM Usage Monitor.....	62
CPULoad Applet	63
MEMLoad Applet.....	63
SWAPLoad Applet	64
Multimedia.....	64
CD Player Applet.....	64
Mixer Applet	65
Network.....	65
MailCheck Applet.....	65
WebControl Applet.....	66
Modem Lights Applet.....	66
Utility	66
Clock Applet.....	66
Printer Applet.....	66
Drive Mount Applet.....	67
GNOME Pager	68
Quicklaunch Applet.....	70

12. GNOME CD Player	71
Introduction	71
Using the GNOME CD Player.....	71
13. The GNOME Calendar	74
Introduction	74
Setting Up the GNOME Calendar	74
Using the GNOME Calendar.....	75
The Day View	76
The Week View.....	77
The Month View	78
The Year View.....	78
Making a New Appointment	79
14. GNOME User's Guide Documentation Team	81
Writers.....	81
Editors	81
A. GNU General Public License	82

Chapter 1. An Introduction to GNOME

What is GNOME

GNOME is a user-friendly desktop environment that enables users to easily use and configure their computers. GNOME includes a panel (for starting applications and displaying status), a desktop (where data and applications can be placed), a set of standard desktop tools and applications, and a set of conventions that make it easy for applications to cooperate and be consistent with each other. Users of other operating systems or environments should feel right at home using the powerful graphics-driven environment GNOME provides.

GNOME is completely open source (free software), with freely available source code developed by hundreds of programmers around the world. If you would like to learn more about the GNOME project please visit the GNOME web site at <http://www.gnome.org>.

GNOME has a number of advantages for users. GNOME makes it easy to use and configure applications without using text-only interfaces.

GNOME is highly configurable, enabling you to set your desktop the way you want it to look and feel. GNOME's session manager remembers previous settings, so once you've set things the way you like they'll stay that way. GNOME supports many human languages, and you can add more without changing the software. GNOME even supports several Drag and Drop protocols for maximum interoperability with applications that aren't GNOME-compliant.

GNOME also has a number of advantages for developers, which indirectly also help users. Developers don't need to purchase an expensive software license to make their commercial application GNOME compliant. In fact, GNOME is vendor neutral - no component of the interface is controlled solely by one company or restricted from modification and redistribution. GNOME applications can be developed in a variety of computer languages, so you're not stuck with a single language. GNOME uses the Common Object Request Broker Architecture (CORBA) to allow software components to inter-operate seamlessly, regardless of the computer language in which they are implemented, or even what machine they are running on. Finally, GNOME runs on a number of Unix-like operating systems, including Linux.

GNOME is an acronym for the GNU Network Object Model Environment, so GNOME is a part of the larger GNU project. The GNU Project started in 1984 to develop a completely free Unix-like operating system. If you'd like to learn more about the GNU project you can read about it at <http://www.gnu.org>.

About This Guide

This users guide is designed to help you find your way around GNOME with ease. Both new and experienced computer users can benefit from this guide. If you're new to GNOME, or even computers, you'll gain an idea of how to use your desktop. If you're an advanced computer user trying out GNOME, you can work with expert tips, which will help you to become familiar with GNOME.

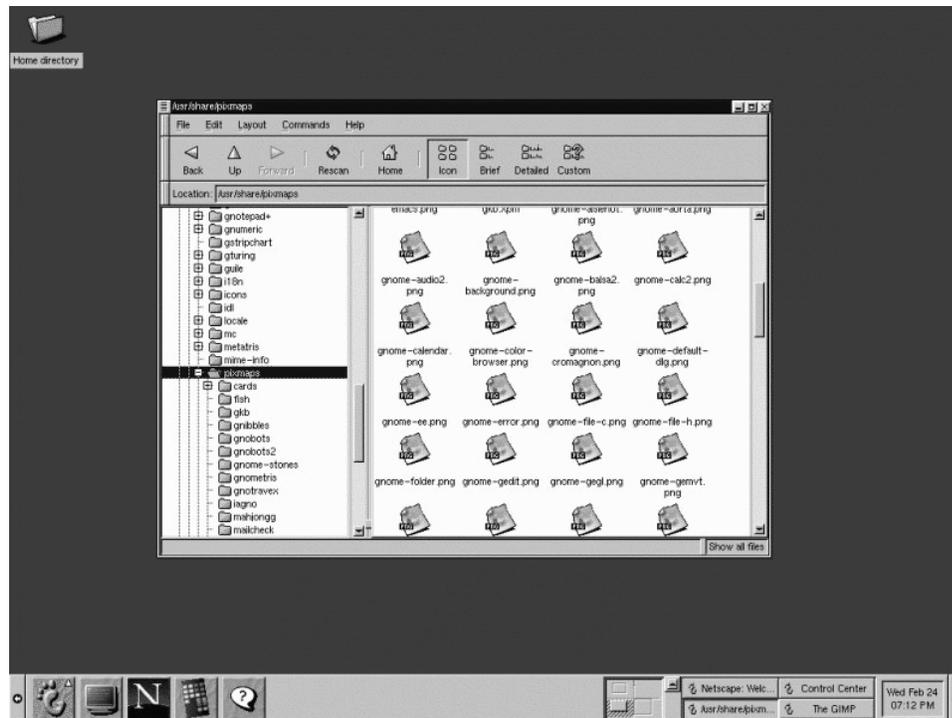
Although this was written originally in English, there are many translations of the guide available now or in the near future. If you would like to have this guide in another language you should check your operating system distribution or visit the GNOME Web Site (<http://www.gnome.org>) to find out more information on translation.

Chapter 2. GNOME Quick Start

GNOME Quick Start

Figure 2-1 shows an example of GNOME running. GNOME is very configurable, so your screen may look quite different.

Figure 1. Sample GNOME Display.



The long bar at the bottom of *Figure 2-1* is a GNOME Panel, which contains a collection of useful panel applets and menus. Panel applets are tiny programs designed to be placed in a panel, for example, the clock applet on the far right shows the current time. The arrows on each side of the panel hide (and unhide) the panel.

The button in the panel containing a stylized foot is the Main Menu Button. Just click on the Main Menu Button and you'll see a menu of pre-loaded applications and actions, including a logout command.

The rest of the screen space is called the "Desktop." Just place on your desktop the items you use most often and you can double-click on an item (with the left mouse button) to use it:

- If the item is a program, that program will start.
- If it's data, the appropriate program will be start up with that data loaded.
- If it's a directory, the file manager application will start and show the contents of that directory. Your desktop will probably have a folder icon labeled "Home"

directory". Double-clicking on it will start a file manager at your home directory.

The file manager application lets you manipulate your files. The left side of its window shows directories, and the right side shows the selected directory's contents:

- To move the file or directory, just drag and drop it.
- To copy a file, hold down the **CTRL** key while dragging.
- To run a program or edit a data file, double-click it.
- To perform other operations on a file (such as rename or delete), select it using the right mouse button.
- To select more than one item at a time, click on the items after the first one while holding down the **SHIFT** key.

You can easily move or copy files between directories by starting two file manager applications, each one showing a different directory. If you want to put a file on your desktop, simply drag it from the file manager onto the desktop. In fact, dragging and dropping items onto other items generally "does the right thing" in GNOME, making it easy to get work done.

GNOME is very configurable; for example, you can have multiple panels (horizontal and vertical), choose what goes in them, and have them hide automatically. There are many panel applets you can include in your panel. You can also change how the screen looks; later portions of this document tell you how.

GNOME follows several UNIX conventions you should be aware of. The left mouse button is used to select and drag items. The right mouse button brings up a menu for the selected object (if a menu applies). Most UNIX mice have 3 buttons, and the middle button is used to paste text (if in a text area) or to move things. If you only have two buttons, press the left and right buttons simultaneously to simulate the middle button. To copy text, use the left button to drag across the text you want to copy, move to the place you want the text to be, and press the middle button.

When an application window is displayed, there will be some buttons in its borders for controlling the window. These include buttons to minimize, maximize, and close the window. Their appearance can be configured and is controlled by a component called the "window manager."

Two examples of border styles are the Clean style (*Figure 2-2*) and the ICE style (*Figure 2-3*):

- In the Clean border style, the underscore means minimize, the square means maximize (use the whole screen), and the X button means close the window.
- In the ICE style, the X button will close the window. Clicking the arrow with the left mouse button minimizes the window, while clicking with the right mouse button shows a menu of other options.

Figure 2. Clean Border Style



Figure 3. ICE Border Style



If you are using a default installation of GNOME you may notice that minimizing a window actually causes that window to disappear from your desktop. To regain that window you may use the GNOME Pager, which is located on the Panel. The Pager will show you which tasks are running and where they are on your desktops. You will find the application you minimized in the task list on the right side of the GNOME Pager. Press the button for that application and it will return to your desktop.

Figure 4. The GNOME Pager



You may read more about the GNOME Pager in the section called *GNOME Pager* in Chapter 11.

The following sections go into more detail, describing each component of the system.

Chapter 3. Window Managers and GNOME

About Window Managers

The window manager is the piece of software that controls the windows in the X window environment. The placement, borders, and decorations of any window are managed by the window manager. This is very different from many other operating systems, and the way GNOME deals with window managers is different from other desktop environments.

As stated earlier in this guide, GNOME is not dependent on any one window manager. This means that major parts of your desktop environment will not change when you decide to switch window managers. GNOME works with the window manager to give you the easiest work environment you can have. GNOME does not worry about window placement but gets information from the window manager about their placement. The GNOME Pager will only work with a GNOME compliant window manager as will drag and drop on the desktop.

At the time of this version of the GNOME User's Guide the Enlightenment Window Manager is the only window manager that is 100% compliant. There are many other window managers that are partially compliant or are being modified to meet compliance.

Some of the window managers that have partial to full compliance at the time of this version of the GNOME User's Guide are:

- Enlightenment - <http://www.enlightenment.org>
- Icewm - <http://www.kiss.uni-lj.si/~k4fr0235/icewm/>
- Window Maker - <http://www.windowmaker.org>
- FVWM - <http://www.fvwm.org/>
- AfterStep - <http://www.afterstep.org/>

There are a host of newer window managers being developed that will work with GNOME. You can find a list of these on the GNOME Software Map (<http://www.gnome.org/applist/>).

Changing Window Managers

At any time you may change the window manager you are using by utilizing the Window Manager Capplet in the GNOME Control Center. You may read more about this Capplet in the section called *Window Manager Capplet* in Chapter 9

IMPORTANT: Keep in mind that the window manager you choose to use may not be compliant with GNOME and you may not benefit from some of the GNOME features if you use it.

Chapter 4. Using the GNOME Panel

Introduction

The Panel is the heart of the GNOME interface and acts as a repository for all of your system applications, applets, and the Main Menu. The Panel is also designed to be highly configurable. The Panel gives you a place that always contains menus and applications as you want them to be.

The Basics

Using the GNOME Panel is very simple and will come easily to anyone who has used a graphical based operating system. You may add new panels, add applications to the panel, and add various applets. All of these functions and more will be described in this section.

Using the Main Menu

To start using any pre-loaded application click on the **Main Menu Button**. The Main Menu has the picture of the stylized foot and on first use is on the bottom left of the screen. You should release the mouse after pressing the **Main Menu** button so that you can take advantage of other mouse-activated features in the Main Menu such as right mouse clicks and drag and drop from the menu.

Figure 5. The Main Menu Button



The Main Menu is the starting point for all of the applications on your system. Later in this manual you will learn how to customize the Main Menu to suit your work environment, but for now you can use the menu that is established when you install GNOME. The Main Menu works like any other menu you might have used in other graphical desktop environments. Simply press the **Main Menu** Button and select from the menu that pops up from the button.

Hiding the Panel

At any time you may hide the GNOME Panel by pressing the **Hide Button**

Figure 6. The Hide Button



This will hide the GNOME Panel in the direction of the arrow on the **Hide Button**. There are hide buttons on both sides of a Panel so you can hide it in either direction.

You may decide that you want the Panel to hide on its own when you are not using it. This can be a helpful function if you are unable to run your system in a high resolution. You can find out how to auto hide the Panel in Chapter 7.

Moving and Adding Panels

Any Panel you have on your desktop can be moved by using the middle mouse button, or by simultaneously pressing the left and right mouse buttons, to drag the panel to the desired edge of your screen. If you do not have a middle mouse button and did not configure your mouse to emulate a middle button you may also move a Panel by changing its location in the Panel Configuration dialog. You can read more about this in Chapter 7 of this documentation.

You may also add a new Panel to your desktop by selecting the **Add New Panel** from the **Main Menu** | **Panel** menu. You will be given a choice of Edge or Corner Panels. Both of these Panel types are described below.

- **Edge Panel** - An Edge Panel is exactly like the main Panel that starts up with GNOME. By selecting this type of panel you may add a new Panel to another edge of your screen to give yourself more functionality.
- **Corner Panel** - The Corner Panel is a small Panel that will not stretch across the entire edge of the screen it is on. The Corner Panel will, however, stretch to the extent needed to display the icons and applets it contains. The hide buttons work just a bit differently with Corner Panels. The hide button closest to the edge of your screen will hide the Panel as usual but the other hide button will send the whole panel to the opposite edge. When the latter move is made it will not hide the Panel since it is changing the side of the screen it resides on. If you want to hide it you will have to press the hide button once again.

At any time you can change the current panel to the opposite type by selecting either the **Convert to edge panel** or the **Convert to corner panel** from the pop-up menu. The selection that is available depends on which type of panel you right mouse click on. The selection displayed will be the opposite of the current panel.

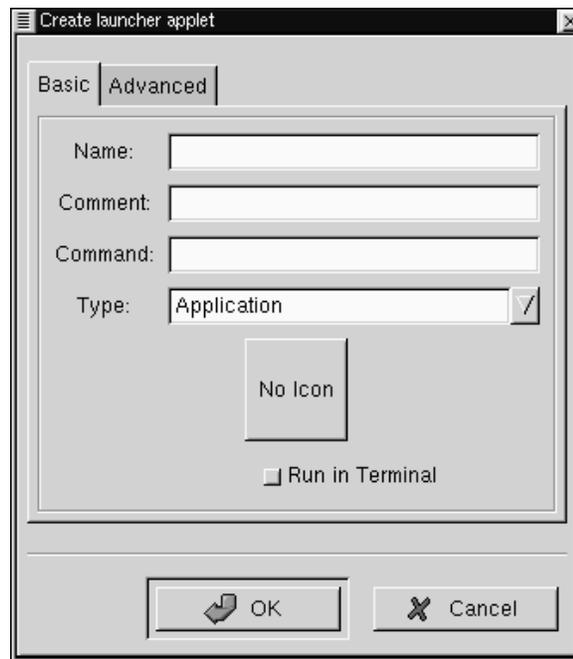
Adding Applications and Applets to the Panel

Adding Application Launchers

If you would like to add an Application Launcher (an icon that starts a particular application) to the Panel, right mouse click the Panel and select **Add New Launcher** from the **pop-up**

After selecting the **Add New Launcher** menu item you will see a dialog which will allow you to set the properties for the application launcher you wish to add.

Figure 7. The Create Launcher Dialog



In the Create launcher applet dialog you may add a name for your launcher, a comment, the command line to launch the application, and define the application type. You may also press the icon button and choose an icon to represent the application from the icon picker. If no icon is chosen a default icon will be used.

Another, quicker method of adding an application launcher to the Panel is to go into the Main Menu and right mouse click on an application menu item. You will be given another menu selection which contains **Add this launcher to Panel**. If you select this menu item it will automatically add a launcher for that application to the Panel in which you invoked the Main Menu. At this point you may right mouse click on the launcher and select the **Properties** menu item to change any options for that launcher.

Grouping Items with Drawers

If you would like to group a subset of applications together you may use a Drawer. A Drawer is simply a small menu-like button that sits on your panel that groups

application launchers together is one place. Once you have placed a Drawer on the Panel you may click on it to raise the menu of applications and click again to lower them.

Figure 8. An open Drawer



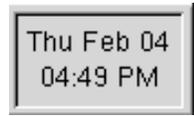
There are a couple of ways to place a Drawer on your Panel. First you may right mouse click on the Panel and select the **Add drawer** from the **pop-up** menu. Second, if you want a whole subset of menus from the Main Menu to become a drawer you may right mouse click on the title bar of that menu and select the **Add this as drawer to panel** from the **pop-up** menu.

You can add menus to your panel in the same way you add Drawers. Menus are very similar to Drawers except that they do not use large icons to represent application launchers, instead they use a style similar to the Main Menu, i.e. small icons and the application name. You may add a menu by right mouse clicking on the title bar of a menu and select the **Add this as menu to panel** from the **pop-up** menu. You may also add system directories to the Panel as menus by dragging a directory out of the GNOME File Manager and dropping it on the Panel.

Adding Applets

There are many applets which you can add to the Panel as well. Applets are small applications which can perform tasks within the Panel itself. There are many applets you can add to the Panel and these are covered in more detail in Chapter 11 of this manual. As an example of how to add an applet you can add another clock applet to your Panel. To add the clock applet to your Panel:

- Right mouse click on the Panel
- From the **pop-up** menu choose the **Add new applet** menu item.
- This will bring up more levels of **pop-up** menus.
- Choose the **Utility | Clock** menu item.
- The Clock will be added to your Panel.

Figure 9. The Clock Applet

To remove the clock applet you added you can right mouse click on the clock and select **Remove from panel** from the **pop-up** menu.

Running Applications

There are many ways to launch applications within GNOME. Remember that one of GNOME's strong points is that it allows you to start and control applications with an easy-to-use graphical interface. There are many ways to start the applications you wish to use:

As you saw in the previous section you may use the Main Menu to find applications which have been pre-loaded or you provided using the Menu Editor. You can read more about the Menu Editor in the Chapter 8.

You may also add application launchers from the Panel, which was covered in the section called *Adding Application Launchers*.

If you are using the GNOME File Manager, you may double click on any executable file and it will run.

You may use the GNOME Run program to launch any application. To use it select the **Run program** menu item from the **Main Menu**. This will launch a simple dialog that allows you to type in the command for launching the application. For example, if you wish to start the `EMACS` editor and it is not in a menu or on your panel you may select the GNOME Run Program and type **emacs** in the text box on the dialog.

Logging Out of GNOME

GNOME has a couple of helpful methods for Logging out. You may either use the **Logout** menu item or the **Logout** button.

The **Logout** menu item is the bottom menu item in the **Main Menu**. Simply select the **Logout** menu item and you will be prompted on whether you would like to log out or not. Select **Yes** and your GNOME session will end.

If you would like, you may add the **Logout** button to the Panel. This is just another method for logging out. It provides no functionality beyond providing a pretty button. To add the **Logout** button to the Panel, right mouse click on the Panel and select the **Add logout button** menu item from the **pop-up** menu. Once the button is there you may press it to log out.

NOTE: If you are running a window manager that is GNOME compliant, the logout feature will quit the window manager as well as GNOME. If you are running a non-compliant window manager you will have to end that window manager yourself.

The Logout dialog will display when you log out of GNOME. This dialog will ask you whether or not you really want to log out. It also provides you with different methods of quitting GNOME.

You have three choices on how to quit GNOME. You may *Logout* which will simply take you to a terminal; *Halt*, which will shut down the whole system; or *Reboot*, which will reboot the whole system.

If you do not want to log out you may press the **No** button and you will be returned to your GNOME session.

Figure 10. The Logout Dialog



Within the Logout Dialog there is one option you may choose before you leave GNOME.

If you would like to save your current setup, you may select the *Save current setup* checkbox. This will save those programs you have open, and the configuration of your Panel.

Chapter 5. The GNOME Desktop

Introduction

The GNOME Desktop provides the functionality of any traditional operating system desktop. You can drag files, programs and directory folders to the desktop; you can also drag those items back into GNOME-compliant applications.

IMPORTANT: The GNOME Desktop is actually provided by a backend process in the GNOME File Manager. If, for any reason, that backend process has stopped running you may start the GNOME File Manager again and your desktop will be restored. Even if you do have to do this you do not need to keep the GNOME File Manager window open to enable the desktop.

Using the Desktop

Using the Desktop is as simple as dragging items you wish to use routinely to the desktop. The default desktop will include a folder of your home directory (`/home/[user name]`). By default the GNOME File Manager window will also appear for you to access other areas of your system.

To utilize drag and drop you need to be using either a GNOME compliant application or a Motif application. GNOME is compliant with Motif drag and drop so you will find it works with many applications you already have installed.

All items that are stored on your desktop are located in the following directory:

```
$/home/[user name]/.gnome-desktop/
```

This is helpful to remember when you want your desktop to contain an item for which you can not utilize drag and drop.

Once you have started GNOME you will notice that any drives you have connected to your system will be shown on your desktop with the appropriate icons. You may mount and access these drives utilizing these icons.

IMPORTANT: You must have permission to mount the device shown on your desktop before you can utilize these icons. If you do not have mount permission someone with root access such as your system administrator can give it as follows.

Giving mount access to ordinary users can be done quite easily if you have *linuxconf* installed on your machine. Just select the drive you want to access in the *Access local drive* section. In the *Options* tab select the *User Mountable* option. Your drive will now be mountable by users.

If *linuxconf* is not available someone with root access must edit the */etc/fstab* file to include user access. This is done by adding the user attribute to the drive. For Example:

If your *fstab* file contains a line like this:

```
/dev/cdrom /mnt/cdrom iso9660 exec,dev,ro,noauto 0 0
```

Add "user" to the fourth column:

```
/dev/cdrom /mnt/cdrom iso9660 user,exec,dev,ro,noauto 0 0
```

Depending on your system and work environment, there could be some security risks in permitting users to mount disks. Please consult your system administrator before taking this action.

Once you have permission to mount a drive you may right mouse click on the drive icon on your desktop. This will bring up a small pop-up menu.

You may select **Mount device** to mount it and **Eject device** to eject it. Once it is mounted you may either double-click it or choose **Open** from the pop-up menu to open and GNOME File Manager window viewing the contents of the device.

If you are missing any drives that might have been added to your machine you may right mouse click on an empty space on the desktop and choose the **Recreate Desktop Shortcuts** menu item from the **pop-up** menu.

Desktop Areas

Desktop areas allow you to keep a well organized system when you have many tasks to perform at one time. Just like adding a new desk when you have too much material to fit on one, desktop areas allow you to move to another area to launch more programs.

GNOME is aware of desktop areas even though they are controlled by another software program called the 'window manager'. You can set the number of desktop areas within the configuration of the window manager you are using. If you are using the default window manager or your window manager has a graphical configuration tool you may be able to launch it from the Window Manager Capplet. You may read more about this Capplet in the section called *Window Manager Capplet* in Chapter 9

IMPORTANT: Most window managers will give you the option of having multiple desktops, which are different from desktop areas. Desktop areas are virtual extensions of one desktop whereas multiple desktops are actually separate.

The default setup of GNOME is to use desktop areas with only one desktop. The reason for this is with some applications, such as those which use Motif, users can experience problems with some drag and drop functionality across desktops.

Other Desktop Menus

There are a few desktop menus you may use in GNOME. These menus are accessed by making a right-button mouse click on any clean space on the desktop. This will bring up a **pop-up** menu which contains a few items:

- **New | Terminal** - This launches a new GNOME Terminal window that will automatically navigate to the `~/ .gnome-desktop` directory.
- **New | Directory** - This creates a new directory on your desktop into which you can place files: a convenient way to clean up your desktop.

- **New | Launcher** - This allows you to place a new application launcher on the desktop. When selected, this menu item will launch an **Application Launcher** dialog that allows you to specify which application and its properties.
- **New | [application]** - Some applications may put items for you in the **New** menu. For example, the Gnumeric spreadsheet will put a **New Gnumeric Spreadsheet** menu item in the **New** menu so you can start up a new spreadsheet easily.
- **Arrange Icons** - This automatically arranges your desktop icons.
- **Create New Window** - This launches a new GNOME File Manager window displaying your Home directory.
- **Recreate Desktop Shortcuts** - This rescans the mountable devices on your machine and display an icon for any new device it might find. It also reloads any desktop items your distribution places on the desktop by default.
- **Rescan Desktop** - This rescans the files in your `~/ .gnome-desktop` directory. Any new files found will be placed on the desktop as icons.

Chapter 6. The GNOME File Manager

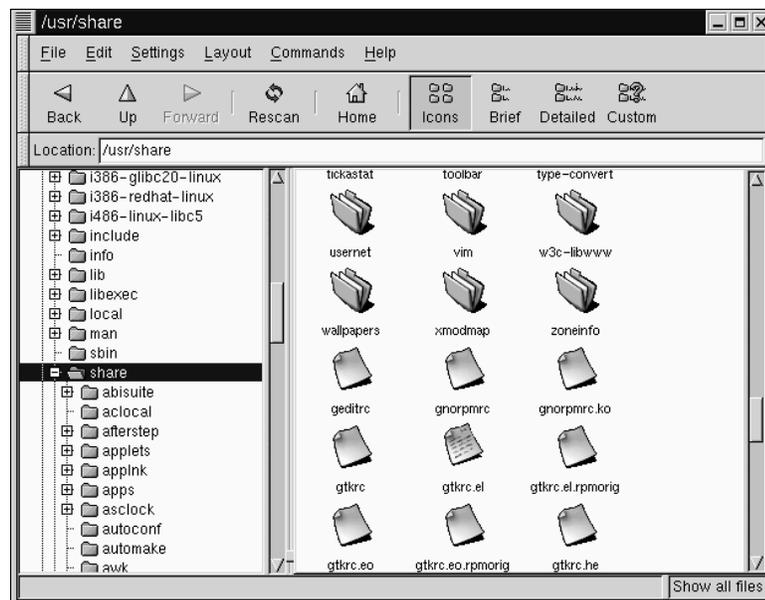
Introduction

GNOME includes a file manager that allows you to manipulate the files on your system in a comfortable, powerful, graphical environment. This File Manager is known as GMC for GNU Midnight Commander. GMC is based on the Midnight Commander file manager which can be run in a terminal.

Midnight Commander has long been known for its power and ease of use. GMC has taken the power and ease of use from MC and added the GNOME graphical frontend.

As mentioned in the previous chapter, the GNOME File Manager provides the desktop functionality for GNOME. The GNOME File Manager also provides a place to manipulate files on your system by using the GNOME File Manager window.

Figure 11. GNU Midnight Commander - The GNOME File Manager



There are two main windows within the GNOME File Manager. On the left is the tree view, which represents all of the directories on your system by their hierarchical position. On the right is the directory window, which will show you the contents of the directory which you have selected in the tree view.

To select a directory in the tree view simply use a single mouse click. This will change the main directory view, showing the files in the directory you have chosen. If there is a plus sign to the left of a directory name in the tree window, you may click on it to show subdirectories. At this point the plus sign will have changed to a minus sign. If you click on the minus sign, the subdirectories once again become hidden in the tree view and the plus sign reappears.

The directory window has a few viewing options you may wish to take advantage of: the icon view and and three list views, brief, detailed, and custom.

The Icon view is the default view and will display large icons for each file. The Brief view shows the files and directories in a list. The Detailed view expands this list to include information about the files. The Custom view is a list view that allows you to select the information you want to view about files.

In the Brief, Detailed, and Custom views if you click on one of the information titles on the top of the window it will sort the files according to that information. For example, if you want to find the largest files in the directory you can click on the Size title and the files will be sorted by size from largest to smallest. One more click on the Size title will change the sorting from smallest to largest.

Moving Around the GNOME File Manager

Above the tree and main file windows in the GNOME File Manager there is a Location text box.

Within this text box you can type the path location of the file in which you would like to view in the main window.

The GNOME File Manager is also equipped to view FTP sites. To view an FTP site you will need to be connected to the Internet either through a dial up account or a network. Type the FTP address in Location text box using and the GNOME File Manager will attempt to connect to the site.

Make sure you type in FTP addresses in the following manner:

```
ftp://[site address]
```

Above to the Location text box are navigation buttons you might wish to use. These buttons with the arrow icons allow you to move within the directories adjacent to the one you are in. The left button will take you to the previous directory you were in, the middle button will take you up one level in the directory hierarchy, and the right button will take you to the next directory if you have just moved backwards.

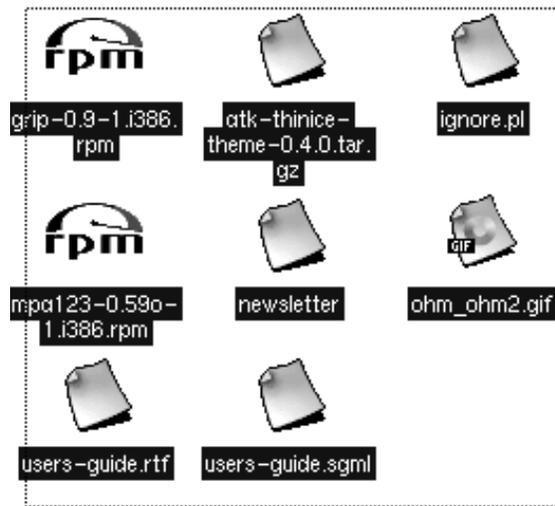
TIP: You can open a secondary window by using your middle mouse button on any directory. Press the middle mouse button (or both left and right mouse buttons if you have emulation) on a directory in the main window and a new window will open showing the contents of the directory you clicked on.

Selecting Files

Selecting files is done with your mouse by clicking on the file or files in the GNOME File Manager. The file that is selected will then highlight to show you that it has been selected.

There are a couple of ways to select more than one file. One way is to use the "rubber band" select by clicking and dragging the mouse cursor around several files. This action will produce a small dotted line, the "rubber band", to show you the area in which files will be selected.

Figure 12. "Rubber Band Select"



If you wish to be more selective about the files you are choosing, or the files you need do not reside next to one another, you may use the **CTRL** key to keep the files you have selected while you are selecting more. This works by selecting a file, pressing and holding the **CTRL** key and selecting another file. While the **CTRL** key is pressed you will be able to add to the "list" of files that are selected. Once you have selected multiple files by either method you may copy or move the files.

You may also select all files in a directory by selecting the **Select All** menu item from the **Edit** menu.

You may also filter your selection by using the **Select Files** menu item in the **Edit** menu. Using **Select Files** will display a simple dialog which will allow you to type in criteria for your selection. In this field, the symbol ***** is interpreted as a wildcard, E.g., it matches any string. For example, if you would like to select all files in the directory that start with the letter **D**, you can type **D*** (note that filenames in Unix are case-sensitive).

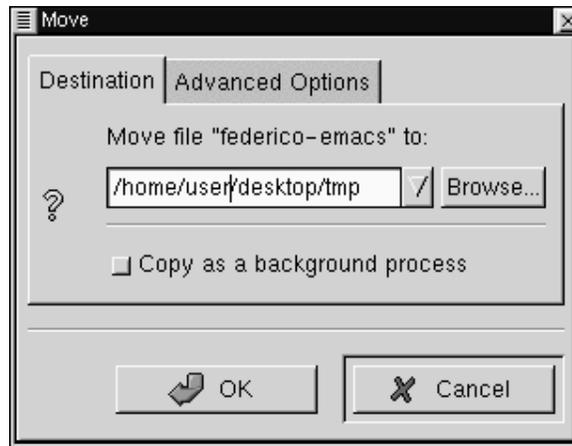
Copying and Moving Files

The default action for dragging and dropping files between the GNOME File Manager and the desktop is to move them. But you can also use drag and drop to copy a file by pressing the **SHIFT** key while dragging the file(s). You can also drag a file within the file manager to another directory. Select the file in the main window and drag it to the desired directory in the tree window. Note, however, that when dragging to the tree window the default action is to copy the file. As you drag the file to the tree window, you will see a plus sign appear to remind you that the file will be copied. You can also use drag and drop to copy directories the same way as you did for files. Again note the plus sign signifying that the directory will be copied not moved.

You may also bring up a menu which lets you decide what action to perform with a drag by using the middle mouse button to drag a file or pressing the **ALT** Key while

dragging a file. Once you release the drag you will get a pop-up menu which contains the options Copy, Move, Link, and Cancel Drag.

Figure 13. The Move Dialog



To use the move dialog you simply type in the path where you wish to move the file. If you want to rename the file you may type the new name of the file in the path string. The Copy dialog looks and works exactly the same way as the Move/rename dialog.

If the file you are moving is a symbolic link — that is, a virtual link to where the file actually resides (called a shortcut in some other operating systems) — you may select the *Advanced Options* tab and select *Preserve symlinks*. Selecting this will make sure the link is preserved despite the move.

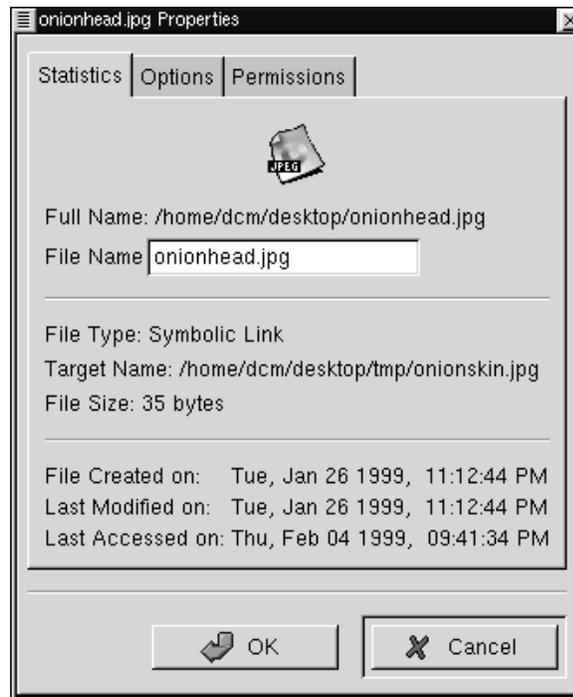
It is recommended that you use this method of moving a symbolic link.

Renaming Files

Renaming files in the GNOME File Manager window or on the desktop can be achieved in two ways.

One method of renaming a file is to right mouse click on the file and choose the **Properties** menu item from the **pop-up** menu. In the Filename text box you may type in the new name as you wish it to appear.

Figure 14. File Properties



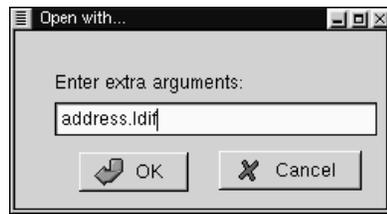
A shortcut method to rename a file is to slowly double click on the filename in the icon view or on the desktop. Make sure the double-click is slow so you do not launch the file but you simply highlight and then click again. At this point the name of the file will enter into the editing mode, your mouse cursor will change to an editing line, and you can type in the new name. Once the name is as you would like it to be you may press the **Enter** key to end the editing process.

Launching Applications From the GNOME File Manager

The GNOME File Manager allows you to launch applications from the main window by simply double clicking your mouse on a file which has an application associated with it. You can change the way file types are handled by reading the section called *GNOME Mime Types* in Chapter 9

If the file does not have an associated application you can right mouse click on the file and select **Open with** from the **pop-up** menu. This will bring up a dialog which that you to define the application which will launch the file. For example, if you want to edit a file names test.txt with `EMACS` (a popular text editor) you can right mouse click on test.txt and choose **Open with**. When you get the Open with dialog box simply type in emacs in front of the test.txt file name. When you press **OK** `EMACS` will open the file.

Figure 15. The Open With Dialog

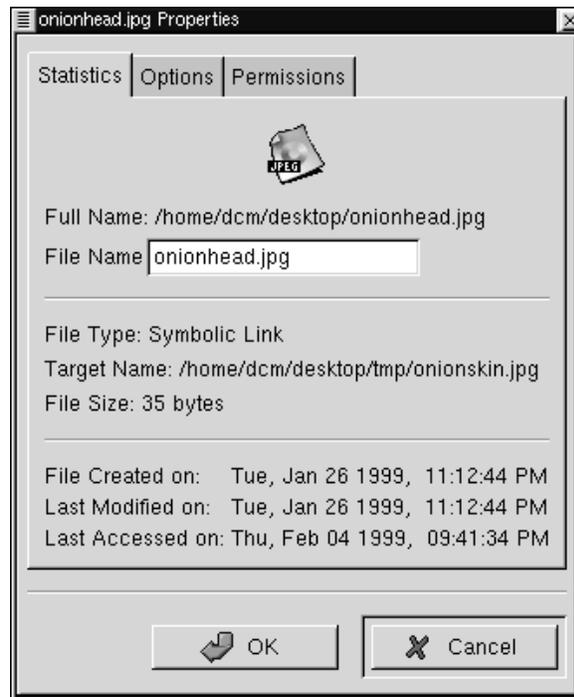


File Properties and Actions

For any file in the main file display you may right mouse click on it and choose a variety of properties and actions for it from the **pop-up** menu:

- **Open** - This will open the file with the default application associated with it. You may read more about editing these associations in the section called *GNOME Mime Types* in Chapter 9.
- **Open With** - You may open a file with any application using this menu item. You may read more about this in the section called *Launching Applications From the GNOME File Manager*.
- **View** - This will view the file with a basic text viewer.
- **Edit** - This will launch an editor to edit the file. The editor launched is determined by the application associated with that file type. You may read more about editing this association in the section called *GNOME Mime Types* in Chapter 9.
- **Copy** - This will copy the file to the clipboard so that it can be pasted elsewhere.
- **Delete** - This will delete the file.
- **Move** - This will bring up the *Move* dialog, which will allow you to move the file. You can read more about this dialog and moving files in the section called *Copying and Moving Files*.
- **Symlink** - Symlink allows you to create a symbolic link of the file you have selected in another directory. When you select Symlink you will see a dialog which allows you to type in the directory and filename that you wish to be the symbolic link to the file. This link will be a "shortcut" to the selected file.
- **Properties** - The Properties menu item will launch the Properties dialog. The Properties dialog allows you to edit and view the properties for the selected file. The Properties dialog consists of three tabs, Statistics, Options, and Permissions.

Figure 16. File Properties



- *Statistics* - This tab will show you the file information including the name, type, size, and history. You may change the name of the file in the *File Name* text box.
- *Options* - This tab will allow you to change the action options for the file. You can define how to open, view, and edit the file. If you need to open it in a terminal window you may select the *Needs terminal to run* checkbox.

NOTE: If you bring up the Properties dialog from an icon on the desktop you will be able to change the icon for that file in the *Options* tab.

- *Permissions* - This tab allows you to change the permissions and ownership of a file if you have access to do so. You may select Read, Write, and Exec permissions for the User, Group, and Others. You may also set the UID, GID and Sticky as well as define who owns the file.

Changing Your Preferences in The File Manager

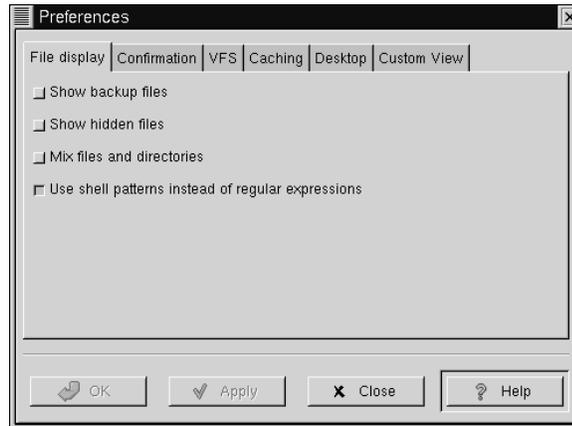
There are many settings you can configure for the GNOME File Manager.

These settings may be accessed from the *GMC Preferences* dialog. You may launch this dialog by selecting the **Preferences** menu item from the **Settings** menu.

The *GMC Preferences* dialog is divided into Five major sections: *File Display*, *Confirmation*, *VFS*, *Caching*, *Desktop*, and *Custom View*.

File Display

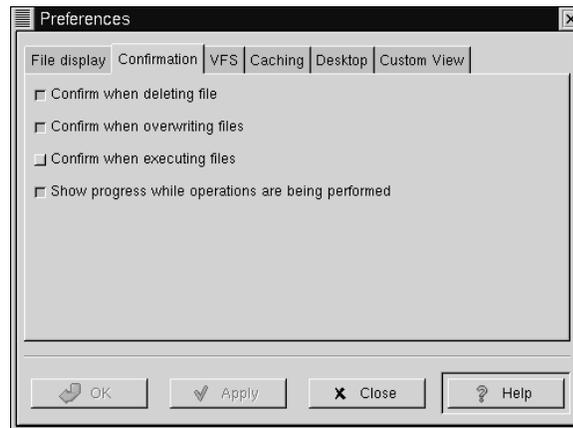
Figure 17. File Display Preferences



- The *File Display* tab allows you to change the way files are displayed in GMC.
 - *Show backup files* - This will show any backup file that might be on your system.
 - *Show hidden files* - This will show all "dot files" or files that begin with a dot. These files typically include configuration files and directories.
 - *Mix files and directories* - This option will display files and directories in the order you sort them instead of always having directories shown above files.
 - *Use shell patterns instead of regular expressions* - This option is for advanced users only. If you are unfamiliar with Regular Expressions you should not use this option. If you are familiar with how to create regular expressions you may select this option to use them in your sorts and filters.

Confirmation

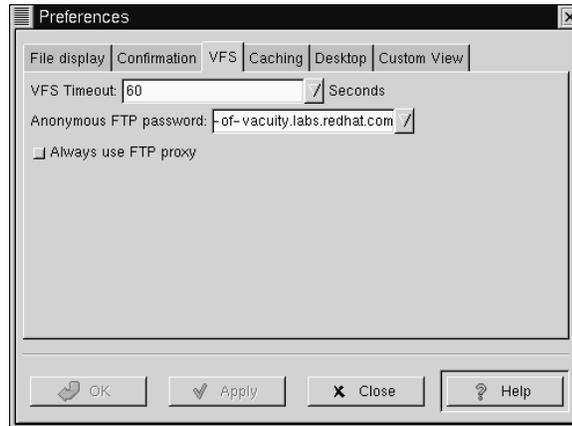
Figure 18. Confirmation Preferences



- This tab allows you to change which functions ask for your confirmation before continuing.
 - *Confirm when deleting file* - This will bring up a confirmation screen before deleting a file.
 - *Confirm when overwriting files* - This will bring up a confirmation screen before overwriting a file.
 - *Confirm when executing files* - This will bring up a confirmation screen before executing a file.
 - *Show progress while operations are being performed* - This will bring up a progress bar while certain operations are being performed such as copying, moving, deleting, etc.

VFS

Figure 19. VFS Preferences



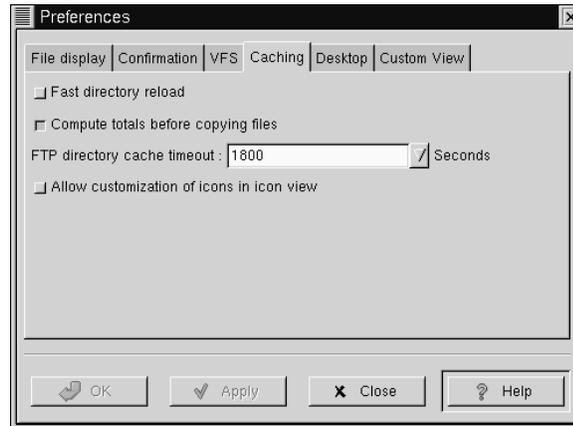
- This tab allows you to configure the options for your Virtual File System. The Virtual File System allows you to manipulate files that are not located on your local file system. There are different version of the VFS including ftpfs and tarfs. The ftpfs allows you to work on FTP sites while the tarfs gives you access inside .tar files.

NOTE: The .tar file is the standard UNIX archive format

- *VFS Timeout* - This will determine how long you will be connected to any VFS without activity. The timeout is measured in seconds.
- *Anonymous FTP password* - This allows you to set a password for logging into anonymous FTP sites. Usually you will want to make this your email address.
- *Always use FTP proxy* - If you need to use a proxy to connect to FTP sites you will want to enable this.

Caching

Figure 20. Caching Preferences



- This tab allows you to configure items that will enhance the speed of GMC by using caching.
- *Fast directory reload* - This option will store directory information in cache so that it can load faster.

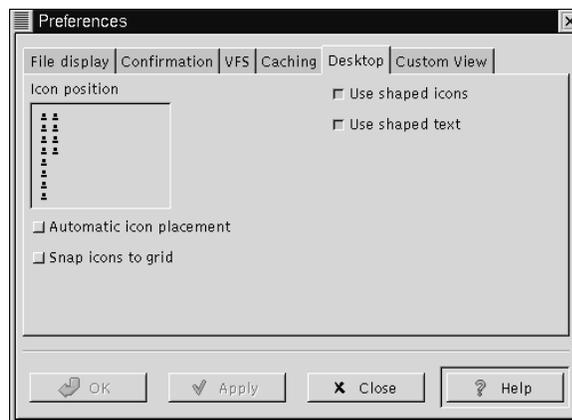
IMPORTANT: If you enable the *Fast directory reload* you may experience problems with not seeing new files that have been added to directories.

- *Compute totals before copying files* - This will make GMC determine the number of files you are copying before it performs the task so that it can give you information about the process as its happening.
- *FTP directory cache timeout* - This option will keep recently visited FTP site information in cache for the amount of time you specify. The time is measured in seconds.
- *Allow customization of icons in icon view* - This will allow you to change the icons in the icon view by right mouse clicking on them and selecting the **Properties** menu item. You can always change the icons of items that are on your desktop but you can only change the icons in the icon view with this option turned on.

IMPORTANT: Turning on the *Allow customization of icons in icon view* function may result in a slower system.

Desktop

As you learned before, the GNOME desktop is controlled by the GNOME File Manager. The Desktop Dialog allows you to change the settings of the desktop.

Figure 21. The Desktop Dialog

Icon placement - This small window allows you to determine where your desktop icons will be placed by default. To change the location of the icons simply click your mouse button in the window near the edge you would like the icons to appear. The small sample icons will move with your mouse clicks to show you where the default placement will be.

Use shaped icons - This option is turned on by default. If for some reason you have an older display, a strange X server setup, or any other graphic display problem, you may select this to make the desktop icons non-transparent.

Use shaped text - This option is turned on by default. Like the shaped icons above you may choose to have non-transparent text labels with your icons.

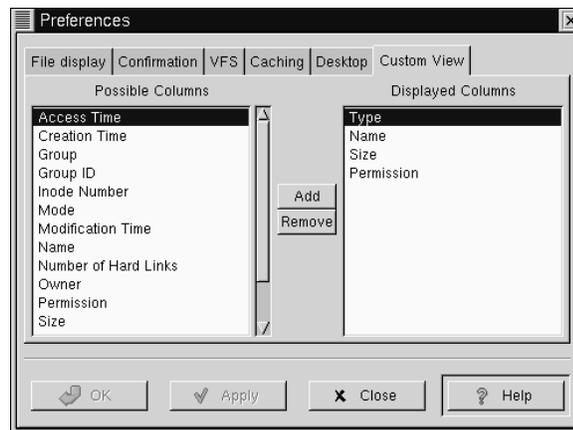
Auto icon placement - This will automatically arrange icons on your desktop for you. If you would rather place the icons manually you should turn this off.

Snap icons to grid - This will keep all of your icons in line when you move them to keep a clean desktop. It creates a grid that the icons will automatically move to when you release it after dragging.

Custom View

The Custom View dialog allows you to set the way you would like the Custom View to look in the GNOME File Manager.

Figure 22. The Custom View Dialog



There are two main columns in the *Custom View*, the *Possible Columns* and the *Displayed Columns*.

The *Possible Columns* list includes all of the information types that can be displayed. If you would like to include one, you may press the **Add** button and it will be added to the *Displayed Columns* list.

The *Displayed Columns* list shows you the current information types that will be included in your Custom View. If you wish to remove any you may press the **Remove** button.

If you would like to re-arrange the items in the *Displayed Columns* list you may drag them to the desired location with your mouse.

Menu Guide to the GNOME File Manager

In this section each menu item in the GNOME File Manager will be described.

Tip: All menus in the GNOME File Manager are enabled with the tear-away feature. If you would like any menu to "float" on the desktop in its own window simply select the perforation line at the top of the menu.

- **File** - The File Menu contains items associated with files and higher level activity.
- **Create New Window** - This will open a new File Manager Window.
- **New | Terminal** - This launches a new GNOME Terminal window that will automatically navigate to the directory displayed in the main window view.
- **New | Directory** - This creates a new directory in the directory displayed in the main window view.
- **New | [application]** - Some applications may put items for you in the **New** menu. For example, the Gnumeric spreadsheet will put a **New Gnumeric Spread-**

sheet menu item in the **New** menu so you can a new spreadsheet in the directory displayed in the main window view.

- **Open** - This will open the file you have selected with your mouse cursor.
 - **Copy** - This will launch the Copy dialog to enable you to copy the selected file to a destination you choose.
 - **Delete** - This will delete the file you have selected.
 - **Move** - This will launch the Move/rename dialog to enable you to rename the selected file or move it to a destination you choose.
 - **Show directory sizes** - This option will determine the size of your directories and display it in the Detail or Custom views. Depending on the size of your directories, this could take a while to display and may tax your system when viewing large directories.
 - **Close this Window** - This will close the GNOME File Manager window you are currently running.
- **Edit** - The Edit menu contains items that are associated with editing and selecting files.
 - **Select All** - This will select all of the files in the main window.
 - **Select Files** - This will launch a simple dialog box which will allow you to specify a selection pattern. For Example, if you wish to select all files beginning with the letter D you can simple type D* and press OK.
 - **Invert Selection** - This will invert the current selection. For example, if you have 7 files selected in a directory with 10 files, selecting Invert Selection will select the three remaining files and unselect the 7 files that were previously selected.
 - **Search** - This toggles on the "completion" search for the File Manager. Once it is turned on the status bar at the bottom of the window displays the word "Search:" and allows you to start typing. If you are searching for a file named "GNU" in the directory displayed in the main window view typing "G" will move the selection to the first file or directory beginning with "G". Typing "GN" move the selection to the first file beginning with "GN", and so on. You may also toggle this feature on by pressing **CTRL-S**. To end the search you may select the file or directory or simply navigate away from the file with the arrow keys or your mouse.
 - **Rescan Directory** - This will rescan the current directory in case the files in the directory have changed.
 - **Settings** - This contains the Preferences menu item.
 - **Preferences** - This will launch the Preferences dialog so that you can customize the GNOME File Manager.
 - **Layout** - This menu contains items that are associated with the layout in GNOME File Manager.
 - **Sort By** - This will launch a dialog box which will allow you to select how you wish the files to be sorted in the current directory. You may sort by one of the following:

Name

File Type
 Size
 Time Last Accessed
 Time Last Modified
 Time Last Changed

- **Filter View** - This will bring up a simple dialog which allows you to view only files with names matching a pattern. For example, if you wish to only view files in the directory that start with the letter D you can type D* into the dialog and press OK. If you wish to see all files again you will need to launch the Filter View dialog again and clear the dialog or type in a *.
- **Icon View** - Selecting this will display the files in the main window as large icons.
- **Partial View** - Selecting this will display the files in the main window as a list with only file names.
- **Full View** - Selecting this will display the files in the main window as a list with all file information.
- **Custom View** - The **Custom View** menu item switches the main window to the Custom View which is a list view displaying the information about your files that you specify. To customize the Custom view you will need to use the *Custom View Editor* in the *Preferences* dialog. You may read more about the *Preferences* dialog in the section called *Changing Your Preferences in The File Manager*.
- **Commands** - The Command menu contains items that are commands to run on files in the GNOME File Manager.
 - **Find File** - Find File brings up a dialog which allows you to search for particular files on your system.
 - **Edit mime types** - This option will launch the GNOME Control Center Caplet that allows you to edit Mime Types for GNOME. Mime types determine, among other things, what application will handle particular file types. You can read more about mime types in the section called *GNOME Mime Types* in Chapter 9
 - **Run Command** - This menu item allows you to run a command from GMC.
 - **Run Command in panel** - This menu item lets you run preloaded commands or commands you specify within the directory that you are currently in. Such commands might be to find SUID or SGID programs, etc.
 - **Exit** - This will allow you to exit the GNOME File Manager.

IMPORTANT: This will exit all GNOME File Manager processes which include the GNOME Desktop. If you exit you will lose all functionality on your desktop. This action is not recommended. If you wish to close the current window, use the **File/Close** button.

A Drag and Drop Tour of GNOME

There are many tips and tricks to the Desktop in GNOME. The Drag and Drop functionality extends to many areas of GNOME making it easy to interconnect GNOME in many interesting ways. Below is a series of tips and tricks to using GNOME Drag and Drop. This is a good tour of GNOME and will show you how to utilize GNOME to its fullest extent.

- Drag a Color onto the Panel - Whenever you have a color selector displayed you may drag a color from the selected color bar to the Panel and it will change the Panel to that color.
- Drag a Pixmap to the Background Selector - If you would like to change the background to an image, you can drag that image from your GNOME File Manager to the Monitor Image in the Background Capplet of the Control Center and it will change to that image.
- Drag to an Application - Many GNOME compliant applications will accept drag and drop. If you would like to open a file in Gnumeric, a GNOME compliant spreadsheet application, you may simply drag the file from the GNOME File Manager onto Gnumeric and it will open the file. The same is true for applications built using Motif. You may drag a saved URL onto Netscape 4x and it will open the URL. This can be very useful if you are working within the GNOME File Manager and wish to quickly open a file.
- Adding an Application Launcher to the Panel - If you would like to add an application launcher to the Panel you may drag and drop any executable file from the GNOME File Manager, or the Desktop, onto the Panel. This will display the Create Launcher applet dialog box which will allow you to select a name and an icon for that launcher.
- Dragging Files - There are many ways to use drag and drop to help you manage your system. You can open two GNOME File Manager windows selecting two different directories then drag files between the two windows to copy, move, or link files. You can drag files from the File Manager to the desktop to make it more accessible. Use the middle mouse button or the right and left mouse buttons together and Drag a directory folder to the desktop. Choose the link option from the pop-up menu to make a link to the desktop. This will give you a quick way to launch the File Manager to that directory.
- Dragging Directories - You can drag a directory out of the GNOME File Manger and place it on the Panel. This will create a new menu which allows you easy access to the files in that directory.
- You may drag any sub menu from the Main Menu to the panel and a new menu launcher is added to the panel. This allows easier access to that sub-set of menus.

Chapter 7. Configuring the Panel

Introduction

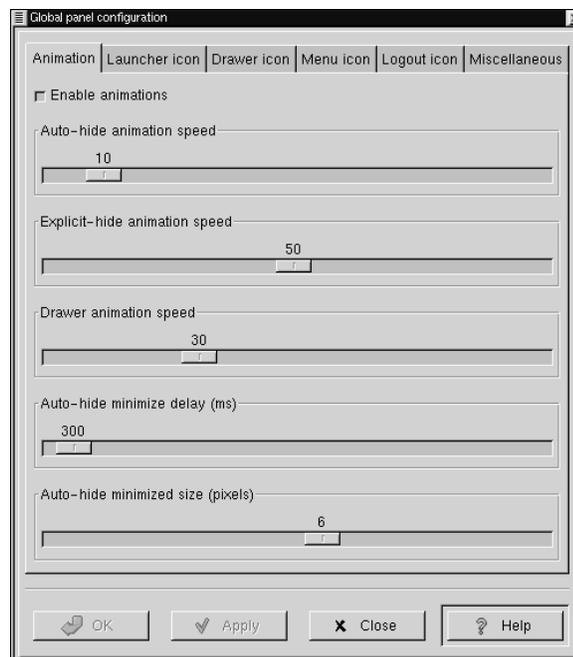
The GNOME Panel is highly configurable and comes equipped with many graphical tools to help you do the configuration. In this section you will learn how to configure any GNOME Panel the way you would like it.

Global Panel Properties

To start configuring the GNOME panel right click on the panel and select the **Global Properties** menu item. You may also press the **Main Menu** button and select the **Panel | Global Properties** menu item.

This will bring the Global Panel Configuration dialog up. With this dialog you can set properties that will affect all Panels you use now and any panels you add in the future.

Figure 23. The Global Panel Configuration Dialog



The Global Panel Configuration Dialog contains six tabs which help you configure the global properties of the GNOME Panel: Animation, Launcher Icon, Drawer Icon, Menu Icon, and Miscellaneous. Each of these tabs is explained below.

Animation Tab

- *Enable animations* - This allows the animations configurable on this tab to be visible. The animations must be enabled to use the other features of this tab. The default position is on.
- *Auto-Hide Animation Speed* - If you have the panel hiding automatically this will control how fast it occurs.
- *Explicit-Hide Animation Speed* - This controls the hide speed when you press the Panel's Hide Button.
- *Drawer Animation Speed* - If you use a Drawer panel this will control how fast the drawer menu will raise.
- *Auto-Hide Minimize Delay(ms)* - If you have the Panel set to minimize automatically this will allow you to control how much time passes before it minimizes. The Panel will start the time count once the mouse is no longer over it. It will appear again when the mouse is passed over the portion of the Panel that remains visible. This time is measured in milliseconds.
- *Auto-Hide Minimized Size(pixels)* - If you have the Panel hiding automatically this determines the number of pixels that will show while the Panel is minimized.

Launcher icon Tab

- *Tiles enabled* - This checkbox will enable background tiles for all icons on the Panel.
- *Tile filename (up)* - This is the name and path of the image file you wish to use for the tile in the up position (inactive, not pressed) You may press the **Browse** button to search for the file. Launcher tiles must be enabled to access this option.
- *Tile filename (down)* - This is the name and path of the image file you wish to use for the tile in the down position (active, pressed). You may press the **Browse** button to search for the file. Launcher tiles must be enabled to access this option.
- *Border width (tile only)* - This determines the width of the border around an icon. This is very useful if you have an icon that would normally cover up a tile. You can set the border to a smaller size and still be able to see your tile.
- *Depth (displacement when pressed)* - This determines the depth an icon will displace when pressed. Launcher tiles must be enabled to access this option.

Drawer icon Tab

- *Tiles enabled* - This checkbox will enable background tiles for all drawers on the Panel.
- *Tile filename (up)* - This is the name and path of the image file you wish to use for the tile in the up position(inactive, not pressed) You may press the **Browse** button to search for the file. Drawer tiles must be enabled to access this option.
- *Tile filename (down)* - This is the name and path of the image file you wish to use for the tile in the down position(active, pressed) You may press the **Browse** button to search for the file. Drawer tiles must be enabled to access this option.

- *Border width (tile only)* - This determines the width of the border around a tile. Drawer tiles must be enabled to access this option.
- *Depth (displacement when pressed)* - This determines the depth a tile will displace when pressed. Drawer tiles must be enabled to access this option.

Menu icon Tab

- *Tiles enabled* - This checkbox will enable background tiles for the **Main Menu** button on the Panel.
- *Tile filename (up)* - This is the name and path of the image file you wish to use for the tile in the up position (inactive, not pressed) You may press the **Browse** button to search for the file. Menu tiles must be enabled to access this option.
- *Tile filename (down)* - This is the name and path of the image file you wish to use for the tile in the down position (active, pressed) You may press the **Browse** button to search for the file. Menu tiles must be enabled to access this option.
- *Border width (tile only)* - This determines the width of the border around a tile. Menu tiles must be enabled to access this option.
- *Depth (displacement when pressed)* - This determines the depth a tile will displace when pressed. Menu tiles must be enabled to access this option.

Logout Icon Tab

- *Tiles enabled* - This checkbox will enable background tiles for all Logout buttons on the Panel.
- *Tile filename (up)* - This is the name and path of the image file you wish to use for the tile in the up position (inactive, not pressed) You may press the **Browse** button to search for the file. Logout button tiles must be enabled to access this option.
- *Tile filename (down)* - This is the name and path of the image file you wish to use for the tile in the down position (active, pressed) You may press the **Browse** button to search for the file. Logout button tiles must be enabled to access this option.
- *Border width (tile only)* - This determines the width of the border around a tile. Logout button tiles must be enabled to access this option.
- *Depth (displacement when pressed)* - This determines the depth a tile will displace when pressed. Logout button tiles must be enabled to access this option.

Miscellaneous Tab

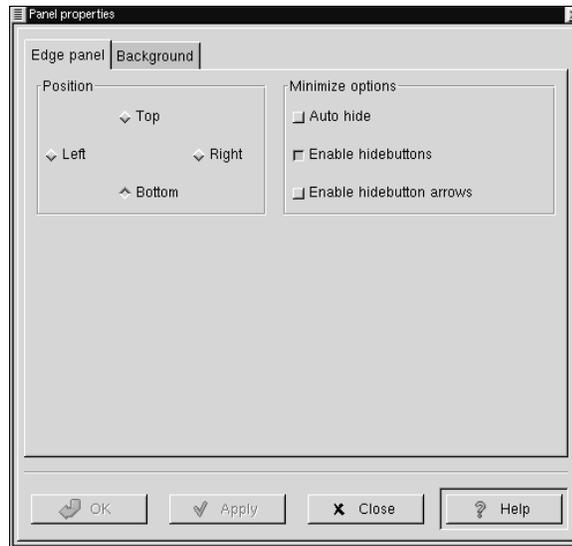
- *Tooltips enabled* - This enables tooltips for items on the panel. Tooltips are pop-up help dialogs that appear when your mouse is over an element on the panel.
- *Show Small Icons* - This will show small icons in the Main Menu.
- *Show ... buttons* - This will enable three small dots to appear on Main Menu items that launch dialogs.

- *Show popup menus outside of panels* - When this button is on it allows popup menus to appear away from the Panel. When toggled off, the popups will appear over the Panel. This can be useful on smaller screens or cluttered desktops.
- *Keep menus in memory* - This will keep your menus in memory so that they do not rescan for added items. This can increase the speed of GNOME, but may also result in you missing new items added to your menu.
- *Switched movement* - This allows launcher buttons on the panel to switch places with other icons when being moved.
- *Free Movement (doesn't disturb other applets)* - This feature locks the arrangement of your icons on the Panel (except the one you are moving). This is a good feature to use if you like the way your icons are arranged.
- *Prompt before logout* - This will bring up a yes/no dialog that asks you if you would really like to log out.
- *Raise panels on mouse-over* - If you are using a window manager that is not GNOME compliant it will not understand its relationship with the Panel. This can cause your Panel to be covered by applications. If you enable this feature you can have the Panel automatically raise when your mouse is over it.
- *Keep panel below windows* - If you are using a GNOME compliant window manager the window manager will understand its relationship with the Panel. If you choose this feature the window manager and GNOME will allow applications to appear over the Panel. This can be useful on smaller screens.
- *Close drawer if a launcher inside it is pressed* - By default drawers will remain open when you select an item within one. This can be annoying as the drawer will remain open until you close it with a mouse click. With this option selected drawers will close automatically when you select any item within one.
- *Applet padding* - This changes the amount of space (padding) between icons and applets.

This Panel Properties

Each Panel's properties can be configured individually. To change the configuration of the active Panel, right mouse click on the Panel and select the **This panel properties** menu item from the **pop-up** menu. You may also press the **Main Menu** button and select the **Panel | This panel properties** menu item.

This will bring up the Panel properties dialog box. In this box you can change the properties for the active Panel.

Figure 24. This Panel Properties Dialog

The Panel properties dialog contains two tabs to help you set the active Panel properties: Edge Panel and Background. Both of these tabs are explained below. If you have converted the panel to a corner panel, which is accomplished by selecting this item in the main menu, a Corner Panel tab will replace the Edge Panel tab.

Edge Panel Tab

- *Position* - This changes the position of the Panel on the screen. You may select either Top, Right, Left or Bottom. The Panel will change position once you have pressed the **Apply** button.
- *Minimize Options* - The options here will enable you to either Explicitly hide the Panel yourself using the hide buttons or have it Auto Hide when the mouse is not over the Panel. If you choose to Auto Hide you might want to Disable the hide buttons here as well. You may also disable the hide button arrows graphics on the Panel as well.

Background Tab

- *Background* - These options allow you to change the background of the Panel itself. You may choose, if you wish, to have the standard, Pixmap, or Color background. The standard look for the Panel is determined by the GTK theme you are running at the time. The Pixmap option allows you to choose an image to tile or scale to the Panel. The Color option allows you to specify a particular color for the Panel.

IMPORTANT: An easier way to change the background of your panel is to drag and drop an image file from the GNOME File Manager onto the Panel. This will automatically change the background of the panel to that image.

- *Image file* - If you wish to have a Pixmap for the background of your Panel this section of the dialog is where you choose which image to use. If you press the **Browse** button you can search for the file you want to use.
- *Scale image to fit panel* - This allows a background image to scale to the size of the panel. If it is not checked, images will tile to the panel.
- *Background color* - If you choose to have your Panel one color this button will launch a dialog which allows you to specify which color to use.

Chapter 8. Editing the Main Menu

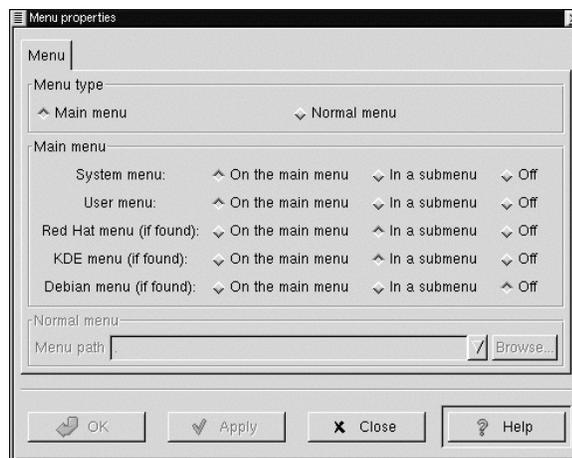
Introduction

The Main Menu is a repository for your applications and can be found on the Panel. The Main Menu is preloaded with GNOME but is can be configured to fit your work habits. The Main Menu is broken up into two main subdirectories: the System menus and the User menus. The Menu Editor is available for you to add new applications to the Main Menu but you can not add applications to the System menus if you are not system administrator (root). In this section you will learn how to configure the Main Menu with applications you wish to use everyday.

Configuring the Main Menu

If you want to change properties of the Main Menu or any other menu you have on your Panel you may right click on the menu button and select **Properties**. This will launch the *Menu properties* dialog.

Figure 25. Menu Properties Dialog



The first selection item in the *Menu properties* dialog is the *Menu type*. This will allow you to choose for each item below whether it should be directly in the Main Menu, moved to a submenu of the Main Menu, or removed from the Main Menu entirely.

The other choices in the *Menu properties* dialog are sub-menu selections for Main Menus. These selections allow you to choose what is in your Main Menu which you can have in the Main Menu, in a submenu, or off:

- System Menus - These are the menu items that are the default applications that come with GNOME.
- User Menu - This contains any menu items you added for your user account using the Menu Editor.

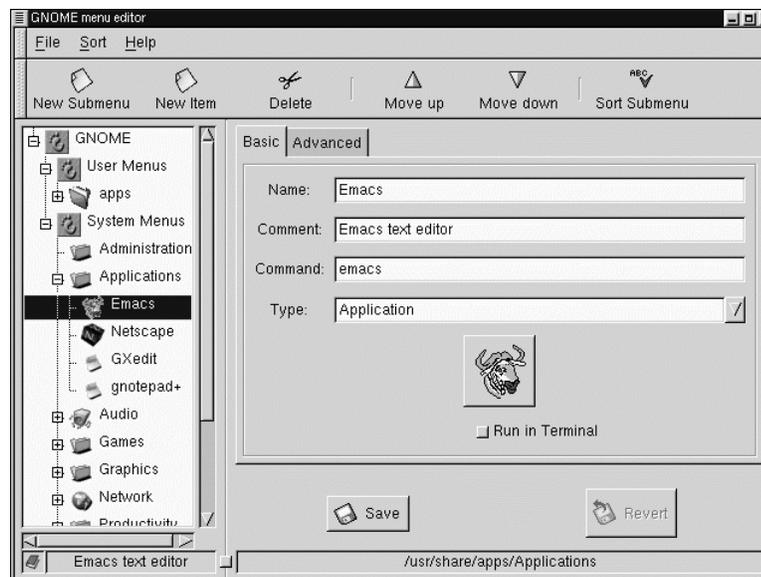
- Another Level Menu - If you are using the Red Hat Linux distribution this is the set of applications that ship with it by default.
- KDE Menu - If you are a user of the K Desktop Environment, you may choose to include the applications included in the KDE menus.
- Debian Menu - If you are using the Debian Linux distribution, this is the set of applications that ship with it by default.

Using the Menu Editor

The Menu Editor is a configuration tool for the Main Menu. It is very useful in setting up your system to your requirements. The Menu Editor is started by clicking on the Main Menu Launcher and selecting **Settings | Menu editor** from the **Main Menu**.

This will launch the Menu Editor.

Figure 26. The Menu Editor



The Menu Editor is divided into two main panels. The left side contains the menu in its default state. The right side contains a tabbed dialog that allows you to add new applications to the menu.

On the left side in the menu tree you will notice that there are two main menu lists, one for User Menus and one for System Menus. The User Menus are for the current user and the System Menus are for all users on the system. The prepackaged applications are all located in the System Menus.

Within the menu list on the left side you may open and close folders and see what is in your current menu by clicking on the small plus signs beside the menus.

Adding a New Menu Item

If you want to add a new menu item press the **New Item** button on the toolbar. A new menu item will be added to the highlighted menu is. If you do not have a menu highlighted, it will be placed at the top of the menu tree. Select the new item and type in the information for the item in the dialog on the right. Once the information is complete press the **Save** button and the new menu item will be inserted at the highlighted location on the left side menu tree. You may then move the menu item by pressing the up or down buttons on the toolbar. You may also move the menu item by dragging it with your left mouse button.

IMPORTANT: Keep in mind that you can not change the System menus unless you are logged in as root. An ordinary user can only add to, delete from, and edit the User Menus.

Drag and Drop in the Main Menu

In the Menu Editor - The Menu Editor supports drag and drop functionality, which will make your work easier. You may drag applications to the folders you wish them to reside in or re-arrange you folders completely.

To the Panel - If you would like to place a menu item onto the Panel, you can drag and drop from the menu to the Panel and it will place a launcher there with all the appropriate properties set for you. If you prefer not to use drag and drop you may also right click on the menu item and choose the **Add this launcher to panel** from the **pop-up** menu.

Chapter 9. The GNOME Control Center

Introduction

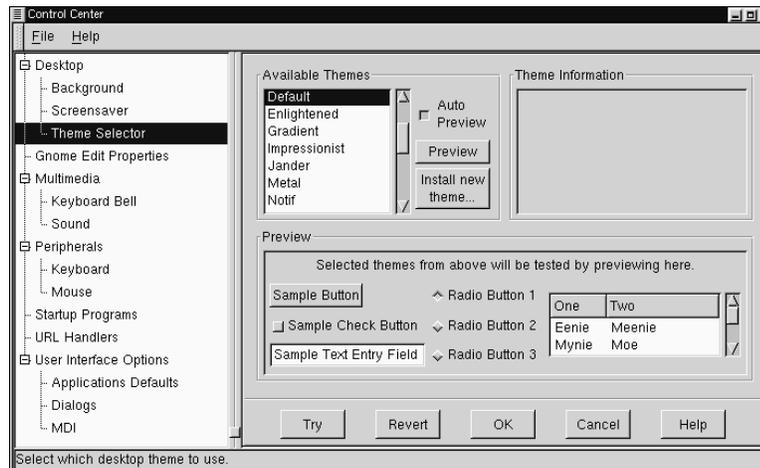
The GNOME Control Center allows you to configure various parts of your system using a collection of tools called "capplets". These capplets may be associated with the core set of GNOME applications or other applications for which the developers have written capplets.

Your Control Center may contain more capplets than are documented here depending on the applications installed on your system.

The Control Center is divided into two main sections, the menu of configurable capplets and the main work space.

Working with the Control Center simply requires you to select a capplet from the menu on the left and double click on it. Once this is done, the workspace will change, allowing you to configure the item.

Figure 27. The GNOME Control Center



You may start the Control Center one of two ways. To launch the Control Center without any particular active capplet select the **Control Center** menu item from the **Settings** submenu in the Main Menu.

If you know which capplet you would like to edit you may start that capplet by selecting the correct menu item in the **Control Center** menu.

Desktop Capplets

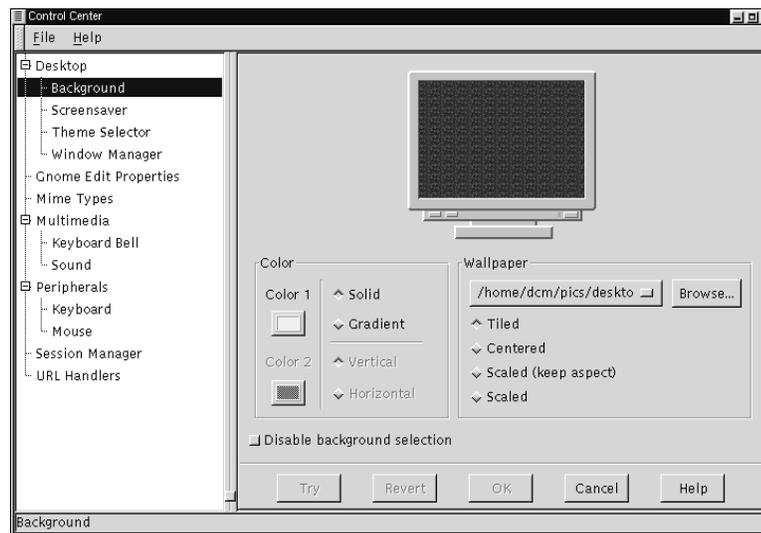
The Background Properties Capplet

The properties for your background image can be set here by either selecting a color or an image. If you select a color you have the option of having Solid or Gradient colors. If you choose to have Gradient colors you may choose between a Vertical or Horizontal gradient and choose the second color for the gradient to end on.

If you decide to have an image as wallpaper you may browse for the image you wish to use. Once you have found your image you need to decide whether you would like to have the image tiled across the screen, centered, scaled up while keeping the same aspect, or simply scaled up to fit the screen. Once you have changed your background properties you may press the **Try** button at the bottom of the Control Center to make the change.

If you would like to set the background by any other means you may disable this caplet by selecting *Disable background selection*.

Figure 28. The Background Properties Caplet



The Screensaver Caplet

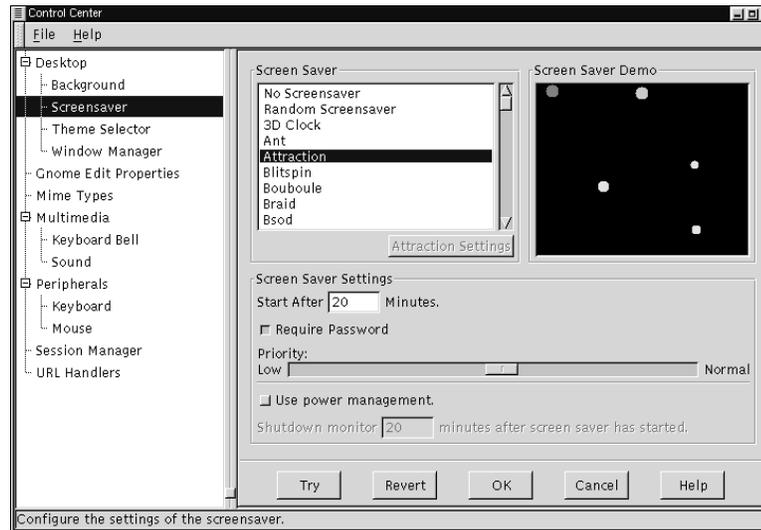
In this caplet you can change your xscreensaver properties. This caplet contains a list of available screen savers you may choose and a demo screen. Below these two dialogs you will see a set of tools that allow you to change the settings for the global screen saver properties. If the screen saver you choose has particular settings you can change those by pressing the **Settings** button that appears below the Screen Saver list.

Global Screen Saver settings - In this section of the caplet you can change the time, password, and power management properties. You can decide how long you would like the screen saver to wait before starting by typing the number of minutes in the *Start After* text box. If you would like a password to return to your desktop click the **Require Password** button. Your account login password is the password set for the screen saver.

You are also given the option of using power management – if your monitor is capable of it. You may set the time to wait before the monitor is shut off by typing the

time in the *Shutdown monitor* text box.

Figure 29. The Screensaver Properties Capplet



Theme Selector

The Appearances capplets contains the Theme Selector which allows you to select which GTK theme you would like to run.

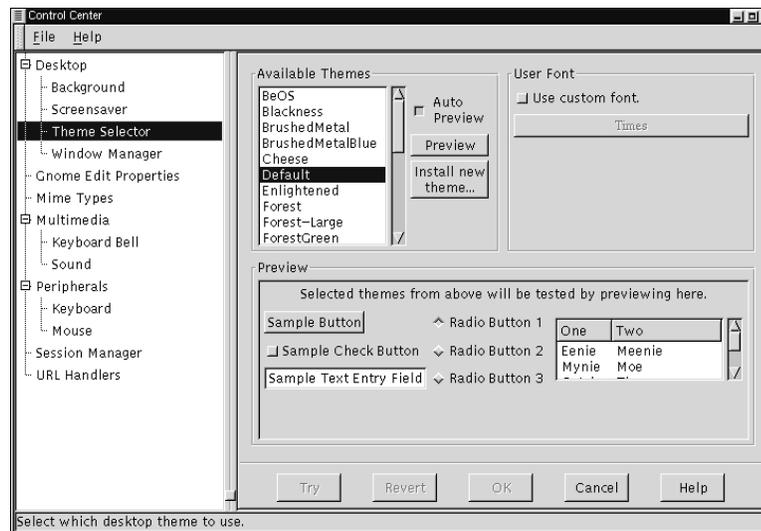
GTK themes are coordinated settings that allow the GTK widget set to change its look and feel. The widget set is the set of tools that provide buttons, scrollbars, checkboxes, etc. to applications. GNOME compliant applications use the GTK tool set so most of your GNOME applications will change their look and feel if you change the GTK theme.

To change your GTK theme select a theme from the Available Themes list on the left side of the main workspace. If you have Auto Preview selected you will be able to see what the theme looks like in the preview window below. If you like the theme press the **Try** button on the bottom of the GNOME Control Center to install it.

There are a few GTK themes that come loaded with GNOME when you install it. If you would like more themes you can check resources on the Internet like <http://gtk.themes.org>. Once you have found and downloaded a theme you like, press the **Install new theme** button. This will launch a file browser that allows you to find the theme you have just downloaded. The theme files should be in a **tar.gz** or **.tgz** format (otherwise known as a "tarball"). Once you have found the file press the **OK** and gnome will install the theme for you automatically. Now you can look in the Available Themes list for the theme you have installed.

Once the theme has been unpacked into the `.themes` directory it will be listed in the available themes window the next time you start the GNOME Control Center.

Figure 30. The Theme Selector Capplet

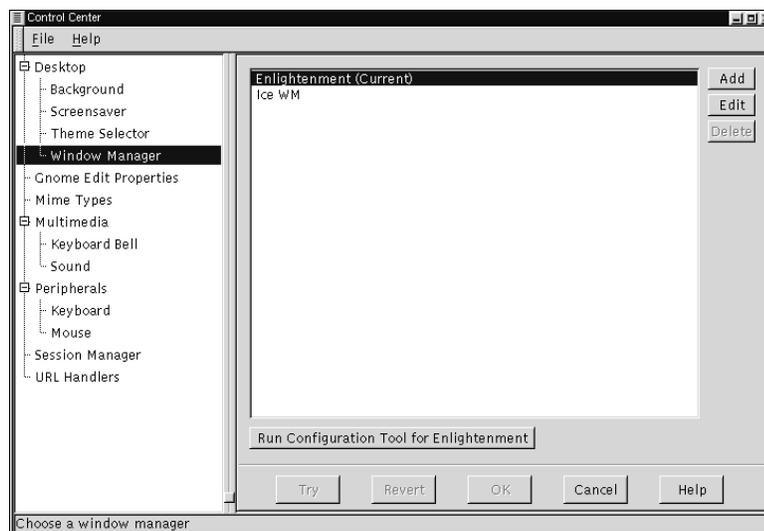


If you would like to change the font used in the current theme you may do so by selecting the *Use custom font* checkbox and selecting the font from the font button below it. This will bring up a font selection dialog that allows you to specify the font, its style, and size.

Window Manager Capplet

Because GNOME is not dependent on any one window manager this capplet allows you to select which window manager you wish to use. The Window Manager capplet does not determine which window managers you have available but allows you to define what, and where they are.

Figure 31. Window Manager Capplet



The Window Manager capplet has a main list of the window managers that you can currently select from. Whichever window manager is active is notated by the word "Current".

If you wish to add a new window manager to the main list you may press the **Add** button. This will launch the *Add New Window Manager* dialog.

Figure 32. Add New Window Manager



In the *Add New Window Manager* dialog you may specify the name you wish to give the window manager, the command to launch that window manager, and the command to launch any configuration tool that might be available for that window manager.

If you know that the window manager is fully GNOME compliant and can be session managed you may select the *Window manager is session managed* button. If you are unsure you should check the documentation of your window manager.

Press **OK** when you are done.

Once you have finished adding your new window manager you will see it appear in the main list of window managers. If you need to change any of the properties you

set in the *Add New Window Manager* dialog you may select the window manager from the main list with your mouse and press the **Edit** button.

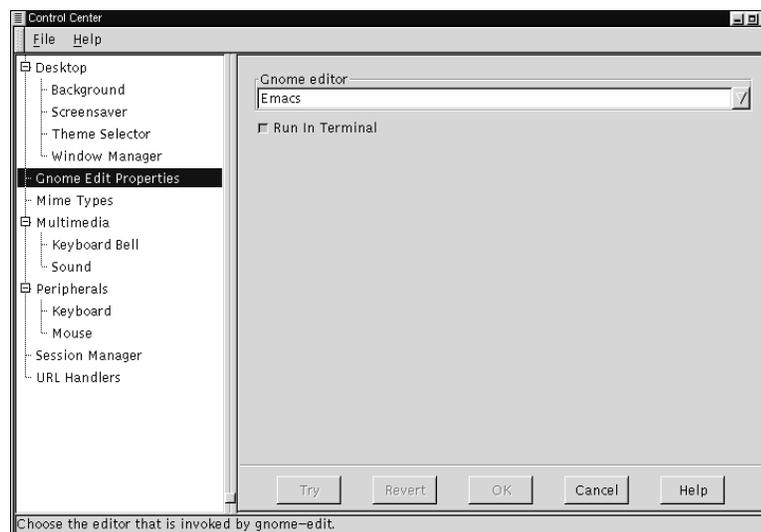
You may also delete any window manager in the main list by selecting it with your mouse and pressing the **Delete** button.

If you are ready to switch the current window manager you may select the manager you wish to run from the main list and press the **Try** button. If you would like to run the configuration tool, make sure the manager you want to configure is selected and press the **Run Configuration Tool for [window manager name]** button.

Default Editor

The Default Editor Capplet allows you to select which editor will be your default editor while using GNOME. This will allow applications like the GNOME File Manager to launch the correct editor when you try to open files associated with editing. All popular editors available are included in the selection list. This Capplet is very similar to the Mime Type Capplet but is used in association with certain applications.

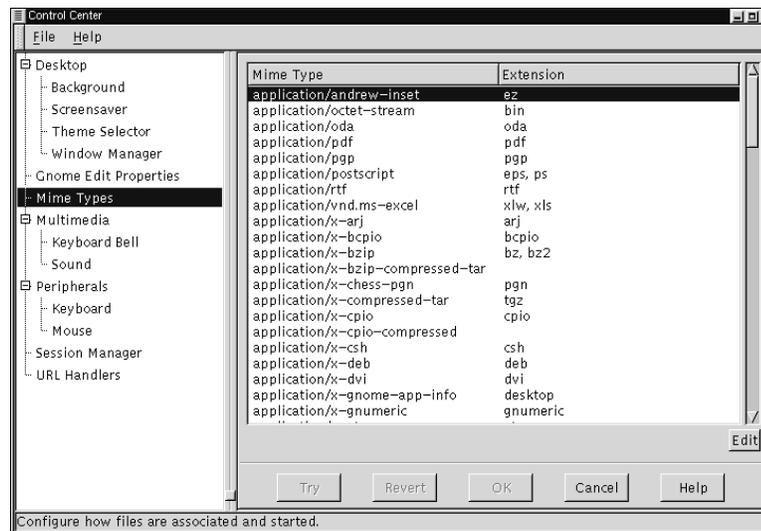
Figure 33. The Default Editor Capplet



GNOME Mime Types

The GNOME Mime Types Capplet allows you to determine how you wish to handle certain file types, or Mime types. Mime stands for Multipurpose Internet Mail Extensions and was originally developed to allow email to carry various forms of data. In GNOME you can define certain Mime types to be handled in any manner you wish. For example, if you use .sgml files frequently and you wish to always use Emacs to edit them you can configure the .sgml Mime type to always be handled by Emacs. This means that any program that wishes to launch the mime type for you will bring up Emacs. This includes double clicking on the file type in the GNOME File Manager.

Figure 34. The GNOME Mime Types



To add a new mime type press the **Add** button. This will display the *Add New Mime Type* dialog in which you may define the new Mime type.

To edit an existing Mime type you may select the Mime type with your mouse cursor and press the Edit button. This will bring up the *Set Actions for...* dialog. You may define the icon used for the Mime type, the *Open* action, the *View* action and the *Edit* action.

Multimedia Capplets

Keyboard Bell

The Keyboard Bell capplet allows you to change the bell sound that is produced by your CPU speaker when a keyboard error or message is sent.

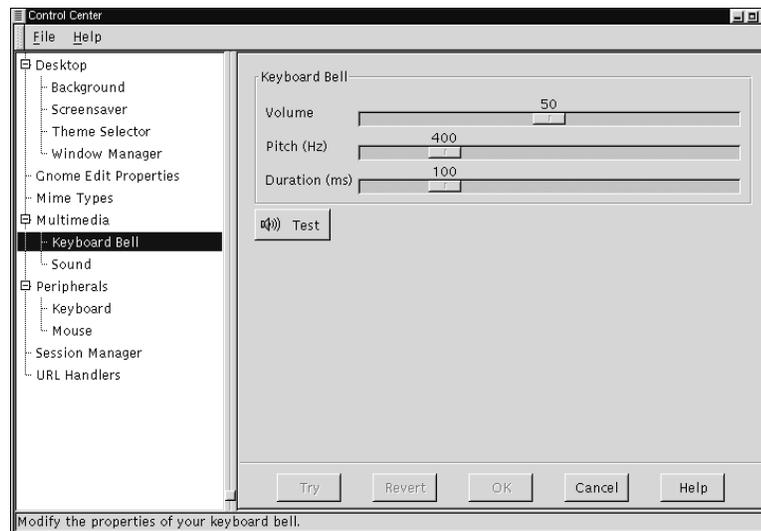
Volume changes the actual volume of the bell.

The pitch slider will change the pitch of the note that is played. By default it is set to 440Hz, or the A above middle C.

Duration changes the length of time the tone is played.

The **Test** button will allow you to hear the current settings of your keyboard bell.

Figure 35. The Keyboard Bell Capplet



The Sound Capplet

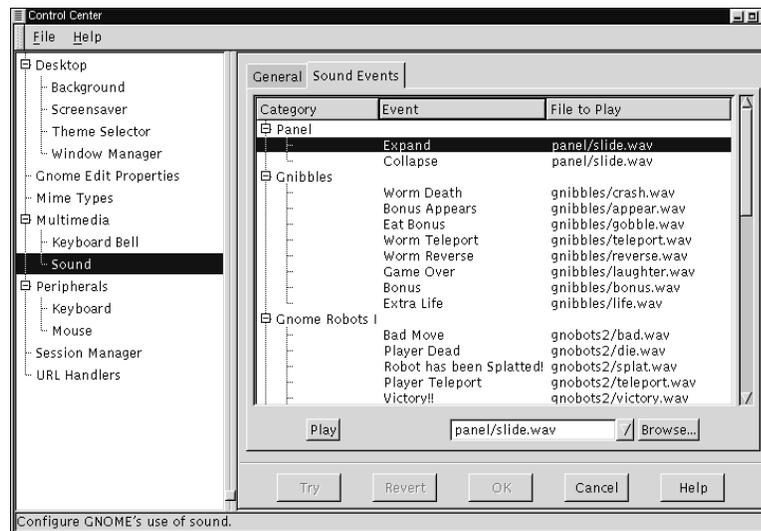
The Sound capplet allows you to set the system sounds for your GNOME session. There are two tabs to select in the sound capplet: General and Sound Events.

General Tab - At this point you have two options to choose from in the General tab, enabling sound for GNOME and for events. If you select *Enable Sound for GNOME* you will make sure that GNOME's sound engine (ESD) will be launched every session of GNOME you run. *Enable sound for events* will launch any sound files you have set in the *Sound Events* tab when those events occur. With these two items enabled you will utilize GNOME's session management, which will remember your sound settings whenever you log in or out.

Sound Events Tab - This tab allows you to navigate through the sound events in GNOME and change their sounds.

To change a sound associated with a GNOME event select the event in the hierarchical list on the left and press the **Browse** button to find a sound file on your system that you wish to associate with that event. Once you have found a sound file you may press the **Play** button to test the sound and see if you like it enough to hear it every time the event occurs.

Figure 36. The Sound Properties Capplet



Peripherals

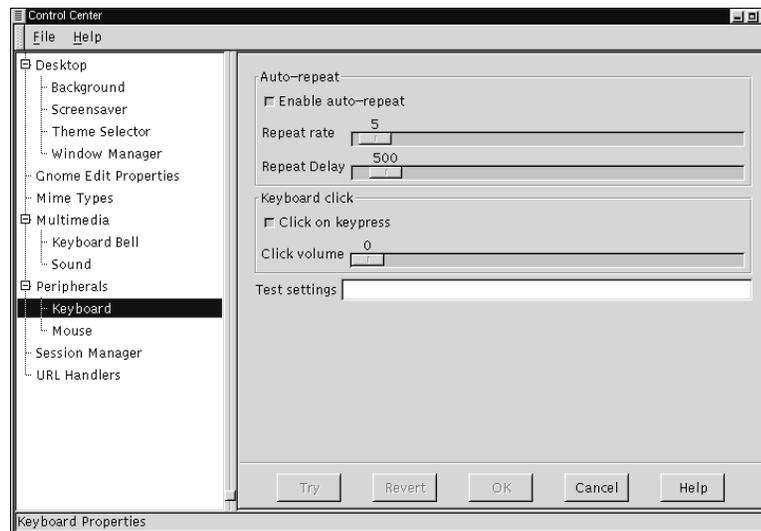
The capplets in this section of the Control Center will help you configure hardware input devices including keyboard, and mouse properties.

The Keyboard Properties Capplet

There are currently two settings for the keyboard in this capplet. You may change the properties of *Auto-repeat* and the *Keyboard Click*.

Auto-repeat enables you to hold a key down and have it repeat the character at the rate and delay you set in this capplet. *Keyboard Click* enables a small click sound to play at each key press.

Figure 37. The Keyboard Properties Capplet

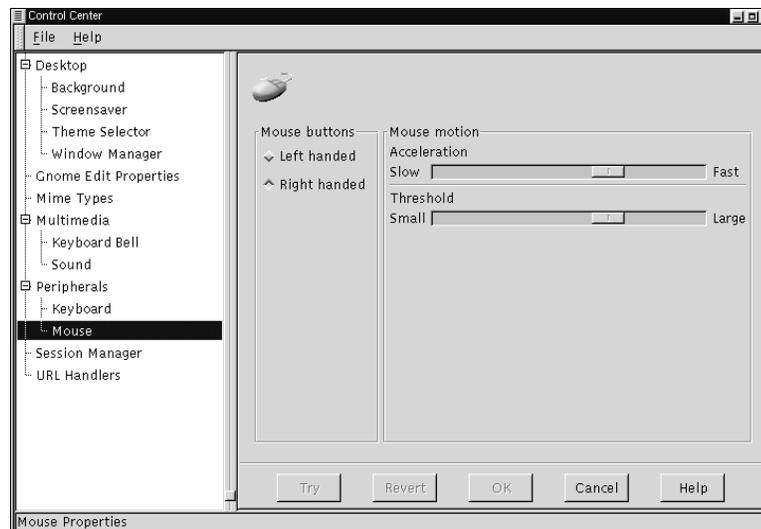


The Mouse Properties Capplet

The Mouse Properties capplet allows you to change between left and right handed mouse buttons and to define the *Accelerations* and *Threshold* properties.

The *Accelerations* setting allows you to change the speed the mouse moves across the screen in relation to the movement of the mouse on your mouse pad. The *Threshold* setting allows you to set the speed at which you have to move your mouse before it starts the acceleration speed you have defined in the *Acceleration* setting.

Figure 38. The Mouse Properties Capplet



Session Manager

The Session Manager Cappellet allows you to control the GNOME Session Management. This includes which programs start up when you log in, whether to automatically save your GNOME requests, and whether to confirm log out requests. You can find out more information about Session Management in Chapter 10.

- *Prompt on logout* - This first option allows you to disable the confirmation dialog when logging out.
- *Automatically save changes to session* - This will make the Session Management always save changes made to your GNOME session when you log out. If this option is not set you can still have GNOME save your session changes by checking the appropriate box in the log out confirmation dialog.
- *Non-session-managed Startup Programs* - This allows you to start non-session managed applications whenever you start a GNOME session.

NOTE: Programs that are not GNOME compliant are not session managed so will not be restarted without being listed here. You do not need to put GNOME applications in here, you can simply leave them running and save the current session when you log out.

If you wish to add a new program to the *Non-session-managed Startup Programs* press the **Add** button. This will launch a simple dialog that allows you to specify the command to launch the application and what priority it will receive.

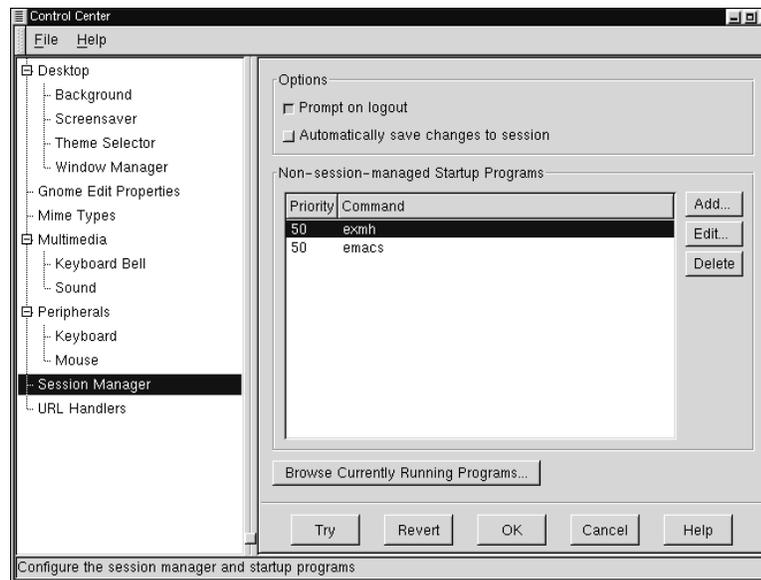
The priority for most applications you wish to start is 50. If you have an application that needs to be started before other applications, like a window manager, you should set the priority to a lower number.

IMPORTANT: This option is for advanced users. Unless you are familiar with the Priority settings you should keep you applications running with a Priority of 50.

- *Browse Currently Running Programs* - This allows you to see what applications are currently running. You can shut down those applications if you wish and those applications will be removed from your GNOME session. The applications in this list are mostly higher level applications and should not be shut down. However, if there is a part of GNOME that you do not wish to run, like the Panel, this is where you would shut it down for now and prevent it from being started when you initiate GNOME in the future.

IMPORTANT: This option is for advanced users only. You should not use this tool shut down applications you may wish to use the next time you log in to GNOME.

Figure 39. The Session Manager Capplet



User Interface Options

The User Interface Options allows you to change the appearance of applications that are GNOME-compliant. You may recognize these applications as ones that are pre-installed with GNOME or ones that say they are built with GTK(the GIMP Toolkit).

Application Defaults

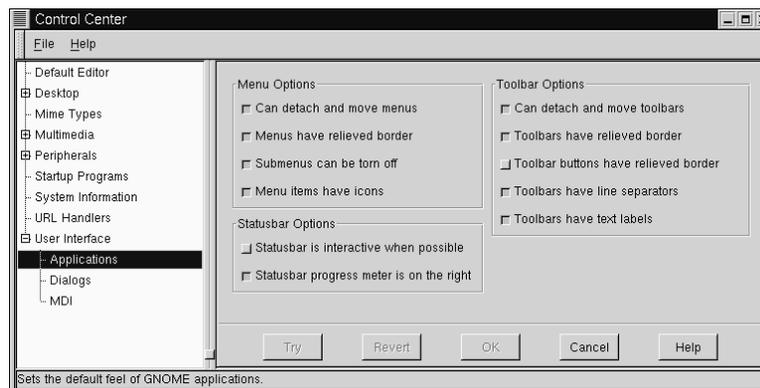
The Application Defaults capplet allow you to change certain user interface aspects of your GNOME compliant applications.

IMPORTANT: Although this capplet gives you great control over the look and feel of your applications you should consider these tools for advanced use only.

- Can detach and move menubars - By default menubars in GNOME applications may be dragged from their usual location and placed anywhere within the application or desktop. If you do not wish to use this feature you may turn it off.
- Menus have relieved borders - By default menubars have relieved borders. If you do not like this look you may turn this feature off.
- Submenus can be torn off - This allows the submenus to have the perforated line which allows you to "tear" them off and have them as a small movable window.
- Menu items have icons - Some menu items in applications will have icons. If you wish not to see these icons in applications that use them you may turn off this feature.

- Statusbar in interactive when possible - Some applications can have the status bar at the bottom become separated into its own window. If you would like to have those applications separate the status bar into another window you may turn on this option.
- Statusbar progress meter on right - Some applications have progress meters in their statusbars. By default these progress meters are on the right side of the statusbar. If you wish them to be on the left you may turn off this feature.
- Can detach and move toolbars - By default toolbars in GNOME applications may be dragged from their usual location and placed anywhere within the application or desktop. If you do not wish to use this feature, you may turn it off.
- Toolbars have relieved border - By default toolbars have relieved borders. If you do not like this look you may turn this feature off.
- Toolbar buttons have relieved border - By default toolbar buttons do not have relieved borders in their natural state. They do, however, change when the mouse is over them. If you wish them to be relieved at all times you may turn on this feature.
- Toolbars have line separators - By default toolbar buttons have small line separators between them. If you so not wish to have the line separators you may turn this feature off.
- Toolbars have text labels - By default toolbar buttons have images and text to identify them. If you are familiar with the buttons and do not need the text you may turn on this feature.

Figure 40. Applications Defaults Caplet



Dialogs

The Dialogs Caplet will allow you to change the default settings for dialog boxes in GNOME compliant applications. A dialog box is a window that is launched by an application to help perform a task needed by that application. An example of a dialog box is a Print dialog which appears when you press a print button. The dialog allows you to set print options and start the print process. The Dialogs caplet will allow you to change the following options:

Dialog buttons - Choose to use the default buttons, buttons more spread out, put buttons on the edges, put the buttons on the left with left-justify, and put buttons on

the right with right-justify.

Dialog buttons have icons - Some dialog buttons (for example "OK") can have icons on them. By default the applications which provide this have the icons turned on. If you wish not to see them you may turn off this feature.

Use statusbar instead of dialog when possible - You may tell applications to use the statusbar instead of a dialog if the application will allow it. This will only work with dialogs that provide information not one that require some interaction on your part.

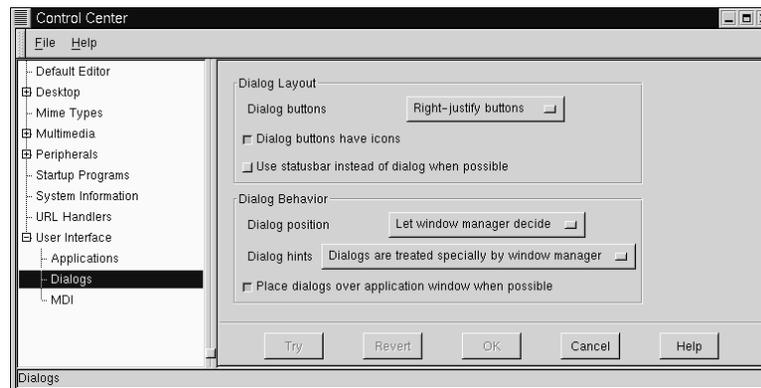
Dialog position - This will let you choose how the dialogs appear when launched. You can let the window manager decide for you (or how you have defined it in the window manager configuration), center the dialogs on the screen, or drop them where the mouse pointer is when they are launched.

Dialog hints - This will let you change the behavior of the dialog hints which are the tooltips that appear when you move your mouse button over a button or part of the dialog. You may choose to have hints handled like other windows, or let the window manager decide how to display them.

Place dialogs over application window when possible - You may choose to place dialog over the applications when possible which will help you keep your windows organized on your screen. If you are familiar with other operating systems you may wish to keep this selected as this is how most operating systems handle dialogs.

IMPORTANT: Although this caplet gives you great control over the look and feel of your applications you should consider these tools for advanced use only.

Figure 41. Dialog Caplet



MDI

The MDI caplet allows you to change the MDI mode for GNOME applications. MDI stands for Multiple Document Interface and refers to the how more than one document is displayed in GNOME applications.

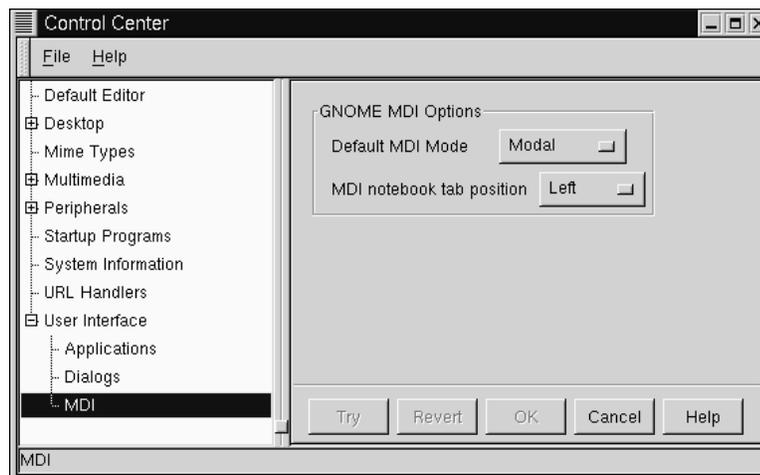
IMPORTANT: Although this caplet gives you great control over the look and feel of your applications you should consider these tools for advanced use only.

The default style in GNOME-compliant applications for MDI is usually tabs or "notebooks" If you do not like the tab look you may change it here.

Default MDI Mode - In addition to Notebook, you will find, Toplevel and Modal. Notebook is the default tab look, Toplevel displays only the active document on the top view until it is closed and Modal has only one toplevel which can contain any of the documents at any one time, however only one can be displayed. If you have ever used Emacs Modal is very similar to the way Emacs handles buffers.

MDI notebook tab position - If you choose to use the Notebook style you may then decide where you want the tabs to appear in your applications. You may have them at the top, left, right, or bottom of your application. Keep in mind that these choices will affect applications that are GNOME compliant.

Figure 42. MDI Cappellet



Chapter 10. A Word About Session Management

Introduction

You might have seen a little bit about session management when you read about GNOME. Session management can be a very useful tool for you in your use of GNOME and GNOME applications.

The main idea of session management is that your work will be saved whenever you log out of GNOME. Your GNOME "Session" is currently saved when you log out, however you may not notice all that it can do.

Probably one of the most useful features of session management is the ability to start applications you had open when you logged out of GNOME. This is easily demonstrated as you exit GNOME and enter again. You will see your applications re-appear in the same location on your desktop as they were when you logged out.

If there are certain applications you wish to start up whenever you log in, even if they were not open the last time your session was saved, you may add them to the Session Manager Capplet which you can read about in the section called *Session Manager* in Chapter 9.

IMPORTANT: If you have heard about application data being session managed you have heard about the future of GNOME. For application data to be saved correctly you must be using a fully compliant GNOME application. At the time of publication of this manual there were not any applications that offer full session management for your data, so until there are some and you are aware of their capabilities you should not rely on session management to save your application data.

Resetting the GNOME Session

One advanced feature of the GNOME Session Manager is the ability to recover a "clean session" if anything goes wrong for you. To do this you must hold down the **CTRL** and **SHIFT** keys together when you log in to GNOME.

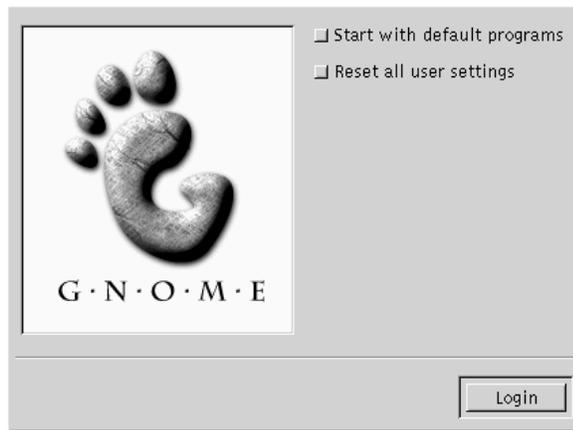
This will bring up a dialog box which gives you two different options for restoring your GNOME Session.

The first option is to *Start with default programs*. This option will remove all of the session configuration setting in respect to applications. This will only erase the GNOME session data for applications you had running when you logged out last, it will not change any information you may have set in the Session Manager Capplet in the GNOME Control Center.

The second option is to *Reset all user settings*. This will reset all GNOME application, and core configuration data. This option will destroy any configurations you have made to the Panel, the GNOME File Manager, the Session Manager Capplet, and any GNOME application. This option will not remove files on your desktop.

IMPORTANT: These options are for advanced users and should only be used in case there is a problem with your GNOME Session. You can lose data for many applications if you utilize the functionality provided by these options.

Figure 43. Login Screen for Resetting GNOME Session



Chapter 11. Panel Applets

Introduction

This section describes the GNOME applets that are available to add to the GNOME Panel. To access these applets right mouse click on the Panel and select **Add new applet** from the **pop-up** menu.

Amusements

The Amusement applets are designed to make your life more enriched by providing you with a complete waste of time and resources purely for your entertainment. If you find that valuable space in your brain has been filled with something an Amusement applet has taught you, then the authors of that applet have succeeded in their task.

Monitors

Monitor Applets are designed to be used to keep track of your system and its functions. You can monitor the resources of your machine, which allows you to keep close tabs on how things are working.

Battery Monitor

The Battery Monitor is a simple applet that allows you to see how much time you have remaining on your laptop monitor.

Battery Charge Monitor

The Battery Charge Monitor indicates what percentage of your laptop's battery charge remains and how long the laptop can run with this charge. It also indicates if the laptop is currently plugged in. If you left click on the applet, the display will change to a graph plotting the remaining charge on the vertical axis and the time on the horizontal. So if your laptop has been charging, the graph should be rising and if it has been running on batteries, the graph should be falling.

Right clicking on the applet will bring up a pop-up menu. If you click on the Properties menu item you can edit properties such as which colors to use in the display, when to notify you of a low battery, and the general look of the applet.

CPU/MEM Usage Monitor

The CPU/MEM Usage Monitor is an applet that will show you the current usage of CPU, Memory, and Swap Space. The applet consists of three bars that are shaded with colors to represent the usage. If you are running the applet on a horizontal panel the top bar is CPU, the middle bar is Memory, and the bottom bar is Swap Space. If

you are running the applet on a vertical panel the CPU is the left bar, Memory is the middle bar, and Swap Space is the right bar.

Figure 44. The CPU/MEM Applet



- CPU - The CPU bar will break down current CPU usage by means of three colors. The yellow shows the current hit by the current user. Grey shows the current hit by non-user specified system activity. Black show idle use.
- MEMORY - The Memory bar shows the current physical memory usage with one of four colors. The yellow show the current shared memory usage. The grey-yellow show other memory usage. The grey shows the buffers being used. The Green show free physical memory available on your system.
- SWAP SPACE - The Swap Space bar shows how much swap space is being used with a yellow bar. Any free swap space will be shown with a green bar.

CPULoad Applet

The CPULoad Applet is a simple graph that shows you the current CPU Usage using three colors:

Figure 45. The CPULoad Applet



The yellow shows the current hit by the current user. Grey shows the current hit by non-user specified system activity. Black show idle use.

MEMLoad Applet

The MEMLoad is a simple graph that shows you the current Memory usage using four colors:

Figure 46. The MEMLoad Applet



The yellow show the current shared memory usage. The grey-yellow show other memory usage. The grey shows the buffers being used. The Green shows free physical memory available on your system.

SWAPLoad Applet

The SWAPLoad is a simple graph that shows you the current Swap Space usage using two colors:

Figure 47. The SWAPLoad Applet



The yellow bar shows how much swap space is currently being used. Any free swap space will be shown with a green bar.

Multimedia

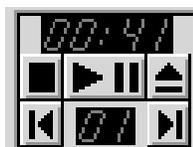
The Multimedia Applets are a collection of applets that allow you to utilize multimedia on your system. You will find applets that control sound, video, and other multimedia.

CD Player Applet

The CD Player Applet is a simple CD player that resides in the panel.

When you have an audio CD in your CDRom drive you may use the Play/Pause, Stop, Forward, backward and Eject buttons to control your CD for playback. Above the buttons is a small display that shows the time remaining on the track and in between the Forward and Backward buttons is the track number.

Figure 48. The CD Player Applet



IMPORTANT: You must have the correct access rights to your CDRom drive for this applet to be successful. Some systems, will normally grant you the necessary rights automatically when you log into the console. The mechanism that does this is called the `pam_console`. If your system doesn't give you the necessary rights to the CDRom, then

you will need to be given those rights. If you have the root password type the following in a terminal window.

```
$ su
$ Password: [type in root password]
$ chmod a+r /dev/cdrom
$ exit
```

If your CDROM is located somewhere other than /dev/cdrom make sure you change it in the commands above.

If you want more control over your CD you may right mouse click on the CD Player Applet and select **Run gxcd** from the **pop-up** menu. This will launch the GNOME CD Player which you can read more about in Chapter 12.

IMPORTANT: When the CD Player Applet is running you will not have physical control over the eject button on your CDROM drive. If you wish to eject the CD you must use the Eject Button on the CD Player Applet.

Mixer Applet

The Mixer Applet is a simple applet that allows you to control the volume on your system. There are two main controls on the applet: the Volume Slidebar and the Mute button. To raise or lower the volume use the slide bar with your mouse. To mute your system press the small mute button on the bottom of the applet.

Figure 49. The Mixer Applet



If you want more control over your system volume you may right mouse click on the Mixer Applet and select the **Run gmix** menu item from the **pop-up** menu.

Network

Network applets enable your work on a network or the internet to be monitored or enhanced. Network applets range from checking mail to monitoring the time you have spent on the internet.

MailCheck Applet

The Mailcheck applet will check mail on your system and let you know if there is new mail waiting for you. At this point it will only check your local system mail. It will not query another server for your mail. To access the properties for the Mailcheck

applet right mouse click on the applet and select the **Properties** menu item from the **pop-up** menu. The Mail check properties dialog box will appear and you may change the following properties. If you would like to execute a program before each update you may enter a command in the Execute text box. This can be useful if you want to run fetchmail to retrieve your mail from another server. You may also specify how often you check for mail and select which animation style you would like displayed in the applet.

WebControl Applet

The WebControl applet allows you to launch your web browser with the URL you indicate in the URL text box. If you would like to launch a new window instead of using the active one you may check the Launch new window checkbox. To clear the URL textbox, press the **Clear** button. To access the properties, right mouse click on the WebControl applet and select the **Properties** menu item from the **pop-up** menu. The Web Control properties dialog box will appear and you can select whether you want to Display the URL text label and the launch new window options on your applet.

Modem Lights Applet

The Modem Lights Applet is a handy applet that will start you dial up connection and monitor it for you once it is connected. It derives its name by displaying two small modem lights which monitor the activity on your modem.

Setting up modem lights requires you to already have a dial up connection working on your system. You must right mouse click on the applet and select the **Properties** menu item from the **pop-up** menu. This will launch the Modem Lights Setting dialog.

Within this dialog are two tabs, the *General* tab and the *Advanced* tab. In the *General* you type the scripts used to start your dialup connection in the *Connect command* textbox. The disconnect scripts are typed in the *Disconnect command* textbox. Press Apply and then press the small single button at the edge of the applet. The scripts will be run. Once there is a connection the small modem lights will blink and the internet load will be displayed in the small black box in the center of the applet.

Utility

The Utility Applets are a set of general utilities to use in your work environment.

Clock Applet

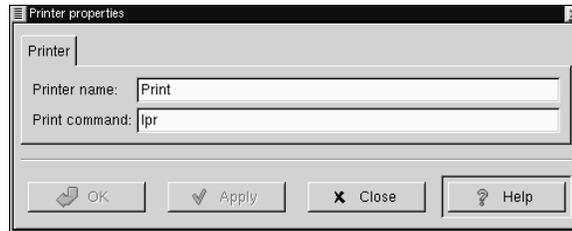
The Clock applet is the one of the only applets that is loaded by default when you install GNOME for the first time. To access the clock properties, right mouse click on the clock and select the **Properties** menu item from the **pop-up** menu. The Clock Properties dialog box will appear allowing you to specify whether you would like 12 or 24 hour time to be displayed.

Printer Applet

The Printer Applet is represented by a small printer icon that lives on your Panel. If you drag a file to the Printer Applet it will print the file for you. To set up the Printer Applet, right mouse click on it and select the **Properties** menu item from the **pop-up** menu. This will bring up the Printer properties dialog box. In this dialog you may specify a printer name and the Print Command. For most systems the Print Command will be

```
lpr
```

Figure 50. The Printer Applet Properties



Drive Mount Applet

On many Unix-like systems, after inserting a disk you must tell the computer to mount it in order to use that disk.

The Drive Mount Applet allows you or your systems administrator to mount a drive on your system by simply clicking the icon on your Panel. In order for this to work you will have to set the drive you want to access to be user mountable.

This can be done quite easily with someone with root permissions if they have *linuxconf* installed on your machine. Just select the drive you want to access in the *Access local drive* section. In the *Options* tab select the *User Mountable* option. This drive will now be mountable by all users.

If you do not have *linuxconf* someone with root access must edit your */etc/fstab* to include user access. This is done by adding user access to the drive specification. For Example:

If your *fstab* file looks like this:

```
/dev/cdrom /mnt/cdrom iso9660 exec,dev,ro,noauto 0 0
```

Add "user" to the fourth column:

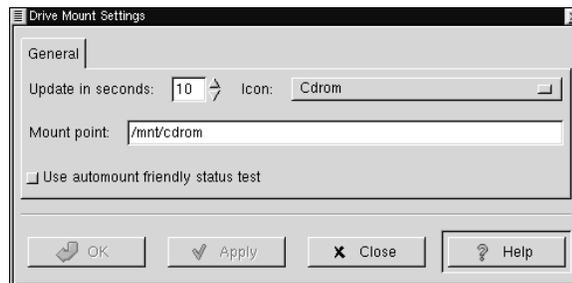
```
/dev/cdrom /mnt/cdrom iso9660 user,exec,dev,ro,noauto 0 0
```

Now that you can mount the drive without being root you may add the Drive Mount Applet to your panel by selecting **Drive Mount** from the **Utilities** menu in the **Add new applet** menu.

You will see a small drive image on your Panel that looks like a floppy drive.

Figure 51. The Drive Mount Applet

The Drive Mount applet will always default to access your floppy drive. You may change this by right mouse clicking on the applet and selecting the **Properties** item from the **pop-up** menu.

Figure 52. The Drive Mount Applet

The *Drive Mount Settings* dialog allows you to define which drive you want to mount and where it is located.

The first option is how many seconds you wish to have between applet updates. During updates, the applet will check the drive status to see if it is mounted (in case it was mounted or unmounted by other means) and will display the applet accordingly.

The second option you have is which icon to be displayed. You have a choice of four icons, Floppy, CDRom, Zip Disk, and Hard Drive. After you have selected the icon you must put the correct mount point for the drive in the *Mount point* text box.

The last option to set in the *Drive Mount Settings* is whether or not you wish to *Use automount friendly status test*. If you are using a system that utilizes autofs to auto-mount your drives the Drive Mount applet might interfere with autofs. If this is the case you should select this option. If you are not using autofs (which is most likely the case) do not select this option as it is taxing on your system and is much slower.

GNOME Pager

The GNOME Pager is an applet that will show you all of your virtual desktops and the applications within them. There are two main areas on the GNOME Pager, the desktops view and the applications view. In the desktop view each of your desktops will be represented as a small rectangle. If there are any applications on the desktops, they will show up as small outlines according to their position on the desktop. The Applications view will show you the applications on your active desktop in a list view. If you press the button in the middle that contains the arrow it will show you a view of all desktops and list the applications that are currently on them.

Figure 53. The GNOME Pager

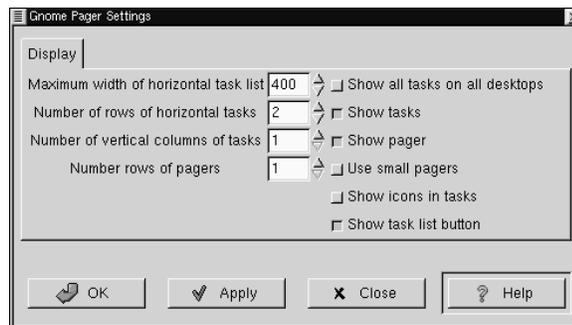


NOTE: If windows "disappear" from your screen when you iconify them, just add a GNOME Pager to your Panel.

You may access the GNOME Pager Settings dialog with a right mouse click on the Pager and select the **Properties** menu item from the **pop-up** menu.

The GNOME Pager Settings dialog contains two tabs, the *Pager* and the *Tasklist* tabs. The *Pager* tab allows you to change the setting for the Pager (graphical representation of desktops) and the *Tasklist* tab allows you to change the settings of your Tasklist (list of open applications on your desktop).

Figure 54. The GNOME Pager Properties



- *Pager* -
 - *Show Pager* - This allows you to show the pager or not. Not showing the Pager will allow you to just use the tasklist.
 - *Place pagers after tasklist* - This allows you to switch the location of the pager and the tasklist from left to right and top to bottom depending on the orientation of your Panel.
 - *Width of small pagers* - If you have the small pagers on you can define the width here.
 - *Height of small pagers* - If you have the small pagers on you can define the height here.
 - *Width of large pagers* - If you have the large pagers on you can define the width here.
 - *Height of large pagers* - If you have the large pagers on you can define the height here.
- *Tasklist* -

- *Show task list button* - This toggles the tasklist button. The task list button is the small button with the up arrow which brings up a list of all tasks on all desktops when pressed.
- *Show task list* - You can choose to show the task list or use the pager alone.
- *Show button icons* - This will toggle icons on the task list buttons. Turning them off may save you some space.
- *Which tasks to show* - this area lets you define which applications will show up in the task list and when. You can choose to have all tasks, normal tasks only, minimized tasks only, all tasks on all desktops, or all minimized tasks on all desktops.
- *Geometry* - this area allows you to change the geometry of the tasklist. You can have the tasklist always display at minimum size or change the width of the horizontal and vertical task lists. You may also specify the number of rows of horizontal tasks and the number of vertical columns of tasks.

Quicklaunch Applet

The Quicklaunch Applet is a small applet that gives you a repository to place launchers. The Quicklaunch applet holds the application launchers you wish to have and allows you to click on them to launch the applications. Drag and drop functionality makes the set up of the Quicklaunch applet very easy and quick.

Figure 55. The Quicklaunch Applet



To add a launcher to the Quicklaunch applet you must already have the launcher set up either in the Main Menu, on your Panel, or on your desktop. Once you have the launcher you may drag it onto the Quicklaunch applet to create a small launcher button. To launch the application simply press the launcher button.

To drag a launcher from your Main Menu click once on the Main Menu to open it, and click once on the sub menu to open it. Now move the mouse to the application desired, press (but do not release) the left mouse button, drag the application to the Quicklaunch applet and release the button. To drag a launcher from either the Panel or your desktop, move the mouse to the launcher, press and hold the left mouse button, drag the application to the Quicklaunch applet, and release the button.

Once the launcher is in the Quicklaunch applet you may right mouse click on it and select *Properties* to change any properties associated with the launcher. The dialog that is launched is the standard GNOME launcher properties dialog, which you can read more about in the section called *Adding Application Launchers* in Chapter 4.

Chapter 12. GNOME CD Player

Introduction

The GNOME CD Player (`gtcd`) is a GNOME enabled application that is preloaded with GNOME. This is a simple CD Player which allows you to listen to Compact Discs on your PC.

Using the GNOME CD Player

The GNOME CD Player will be available to you in the Main Menu in the Audio menu and can also be invoked in the command line with `$gtcd`.

Figure 56. The GNOME CD Player



IMPORTANT: You must have the correct access rights to your CDROM drive for this application to be successful. Some systems, will normally grant you the necessary rights automatically when you log into the console. The mechanism that does this is called the `pam_console`. If your system doesn't give you the necessary rights to the CDROM, then you will need to be given those rights. If you have the root password type the following in a terminal window.

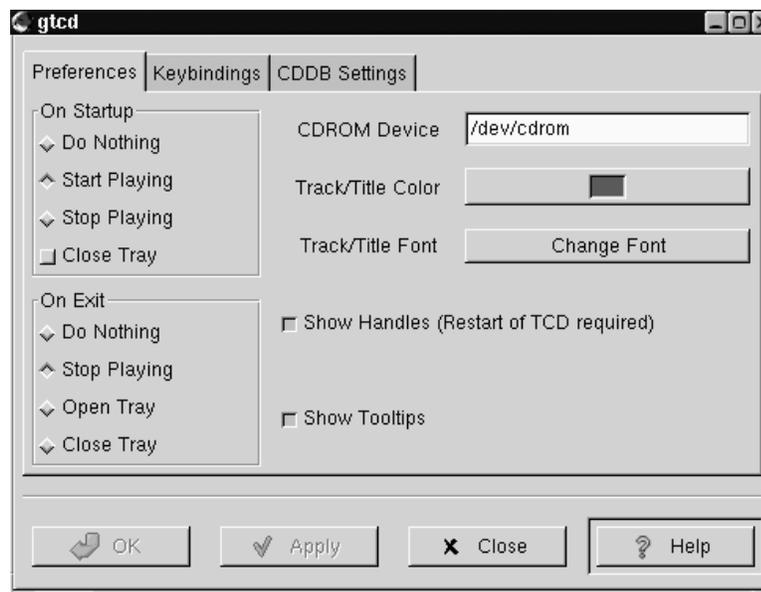
```
$ su
$ Password: [type in root password]
$ chmod a+r /dev/cdrom
$ exit
```

If your CDROM is located somewhere other than `/dev/cdrom` make sure you change it in the commands above.

The GNOME CD Player works like any CD Player with common buttons such as Play, Stop, Pause, etc. Plus a track selector button that displays the track titles in a drop down menu. You have access to change various properties by pressing the **Preferences** button. This will bring up the GNOME CD Player Preferences dialog.

There are three tabs in the GNOME CD Player Preferences dialog: Preferences, Key-bindings, and CDDB Settings.

Figure 57. The GNOME CD Player Properties



- **Preferences Tab** - In this dialog you may specify:
 - What you would like the GNOME CD Player to do when first started, and when exited.
 - The location of your CDROM on your system. This is usually **/dev/cdrom**.
 - The Color to display the Track and CD Title.
 - The Font to display the Track and CD Title.
 - Whether you would like handles on the title window which will allow you to drag the title window off of the CD Player to float on the desktop.
 - Whether tooltips are enabled when your mouse is over the buttons.
- **Keybindings Tab** - In this tab you can change the key bindings associated with the GNOME CD Player. These keybindings allow you to use the Player without using your mouse. If you want to change one of the bindings, select it with your mouse and type the new key in the **Click here to change** text box. Press Apply to save the changes
- **CDDDB Settings Tab** - CDDDB stands for CD Database and is a huge global database of CD information. Each CD has an identity, which the CD Player can read. If you are connected to the internet, it will then search a CDDDB server for that CD identity and return any information it has on it. This usually includes CD Title, Artist, and track titles. It can also include notes and lyric information. Once this data is retrieved, the GNOME CD Player will store the information on your hard drive for future access. In the CDDDB Setting tab you can change the CDDDB server and edit your local CDDDB database. You can read more about CDDDB by visiting the CDDDB Website (<http://www.cddb.org>).

Another feature in the GNOME CD Player is the Track Editor. The track editor can be launched by the **Track Editor** button on the main GNOME CD Player window. The Track Editor allows you to edit the CD track information in case it is incorrect or

there was no CDDB entry for your CD. You may also check the status of the CDDB information by pressing the **CDDB Status** button at the bottom of the Track Editor. This will show you what messages, if any, were returned from the CDDB server.

Figure 58. The GNOME CD Player Track Editor



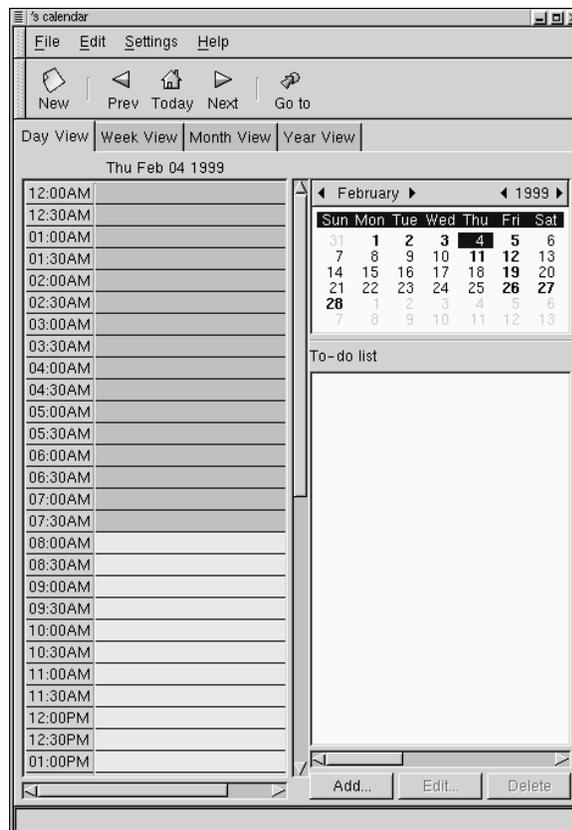
Chapter 13. The GNOME Calendar

Introduction

The GNOME Calendar is a simple calendar application which can be quite useful in your daily work. The Calendar, like much of GNOME, is in its infancy and while it is a very useful application, there is some very impressive functionality still to come like network shared calendar usage, and syncing capability with Palm Pilots and other hand held PDAs. The Calendar can be launched from the **Applications** submenu of the Main Menu.

The Calendar is broken up into four main tabs: Day, Week, Month, and Year. Each view allows you to view the respective time period but will also allow you to schedule appointments from any one of the tabs.

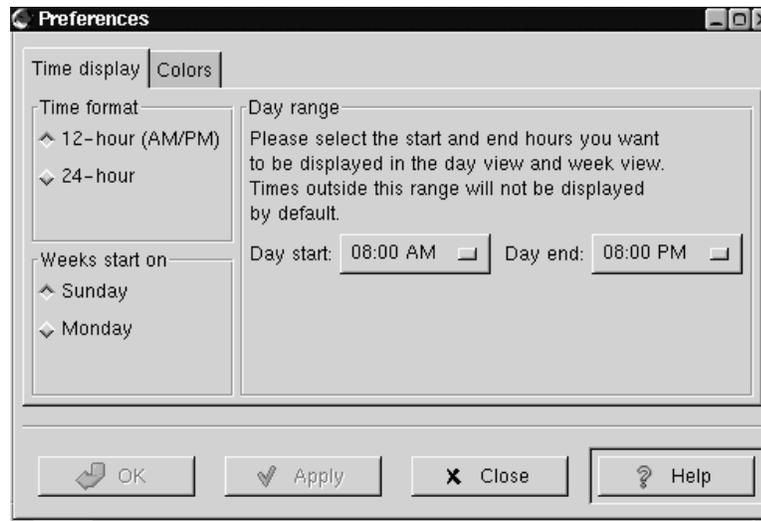
Figure 59. The GNOME Calendar



Setting Up the GNOME Calendar

The GNOME Calendar can be used in the state which it is shipped but there are tools available to make sure it is setup the way you would like it to be. The first place you should go is the GNOME Calendar Preferences. You can find the Preferences dialog by selecting the **Preferences** menu item from the **Settings** menu.

Figure 60. The GNOME Calendar Preferences



The Calendar Preferences dialog is broken up into three tabs, Time display, Colors, and Todo List

Time - This tab is broken up into three main sections: Time format, Weeks start on, and Day range.

Time format - This allows you to choose between a 12 or 24 hour format clock.

Weeks start on - This allows you to define what day your week will start on, Sunday or Monday. This will affect how the calendar is laid out in the Day and Week views.

Day range - This section lets you choose what time your days will start and end. Any hours outside the range selected will be shaded on your Day view.

Colors - This tab allows you to change the default colors used in the Calendar. There are seven color choices you can customize: Outline, Headings, Empty days, Appointments, Highlighted day, Day numbers, and Current day's number. Each choice has a small color selector box next to it. When you press this box you will be given a color selector dialog in which you can choose the color you want. Once you have selected a color the small sample calendar on the right side of the tab will preview your choice.

Todo List - This tab allows you to define which columns will be shown in the Todo List in the Day View. You can set the Summary, Due Date, and Priority columns.

Once you have made the changes to the Calendar Preferences you may press the **Apply** button to apply them.

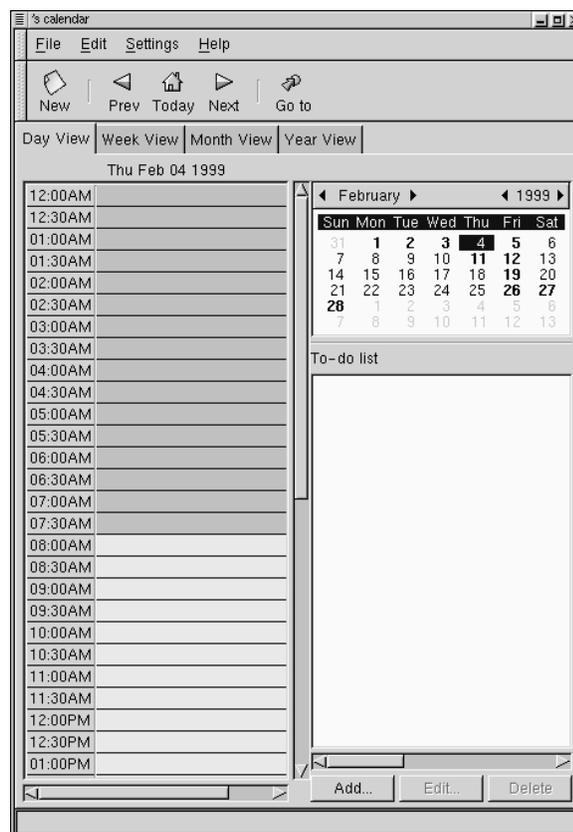
Using the GNOME Calendar

Using the GNOME Calendar is quite simple and most tasks can be performed from any of the major views, Day, Week, Month or Year. Probably one of the most important features to remember is that at any time you may right mouse click on a particular day and add a new appointment. There are many other features which will be described below in each of the major views.

The Day View

The Day tab is probably the most useful view in the GNOME Calendar as it acts just as a day timer would. On the left of the tab is the hour listing for the current day. The light grey coloring in the hour list separates the work hours from the non-work hours. If you would like to change the work hours displayed in light grey you can do so in the section called *Setting Up the GNOME Calendar*.

Figure 61. The Day View



TIP: One tip for adding a new appointment in the Day View is to select a few hours in the hours list by clicking and dragging your mouse down the hours list. Once the correct range of time has been selected you may press Enter and type in the appointment. This will allow you to skip the Create New Appointment dialog.

Next to the hours listing in the top right hand corner is a small full month calendar. You may change the month or year of the small month calendar by pressing the for-

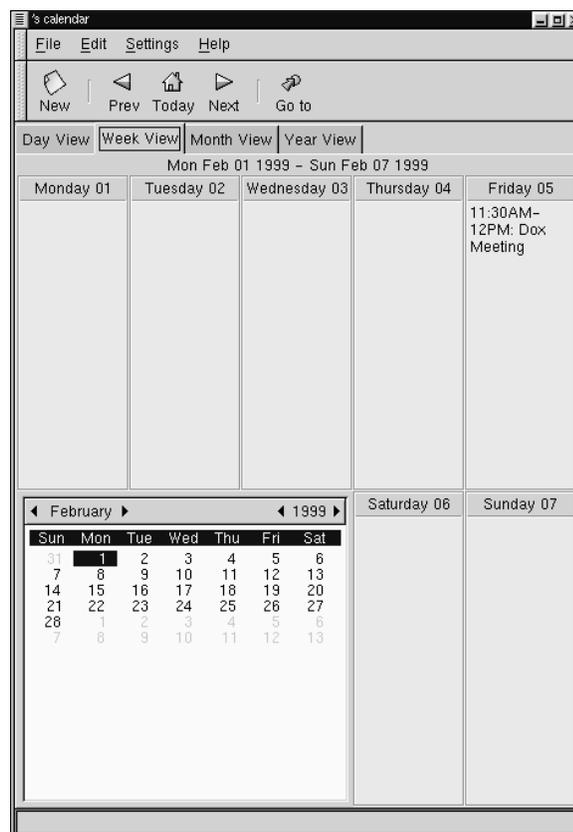
ward and backward arrows on the top. You may use the small month calendar to navigate the days as well. Double clicking on any day in the small month calendar will move the current day view to that particular day.

Below the small month calendar is your Todo list. The Todo list is a simple list where you can keep all your tasks on hand. To add an item to the Todo list press the **Add** button. This will launch a small editing box where you can type in the item. Once you have entered an item in the To-do list you may use the **Edit** and **Delete** to manage you items. The To-do items are available no matter which days are displayed in the Day View and can only be deleted with the **Delete** button.

The Week View

The Week View shows the current week with detailed descriptions of your appointments. If you would like to add an appointment for any of the days in the week view, you may right mouse click on the day and select the **New appointment** menu item from the **pop-up** menu. You may also use the week view to navigate to particular days in the Day View. Double-click on any day in the Week View and you will go to that day in the Day View.

Figure 62. The Week View



In the lower left corner of the Week View there is a small month calendar. You may change the month or year of the small month calendar by pressing the forward and

backward arrows on the top. You may use the small month calendar to navigate the days as well. Double clicking on any day in the small month calendar will move the current week view to that particular week.

The Month View

The Month View shows the entire month with brief detailed descriptions of your appointments. The Month View makes use of the customized colors available in the Calendar. You may read about how to set these colors in the section called *Setting Up the GNOME Calendar*. For any day with a brief description of an appointment you may click on the day to display a detailed description of the appointment in a pop-up window. If you would like to add an appointment to a day in the Month View you may right mouse click on any day and select the **New Appointment in this day** item from the **pop-up** menu. You may use the items in the **pop-up** menu to navigate in the Day, Week, and Year views by selecting either **Jump to this day**, **Jump to this week**, or **Jump to this Year**.

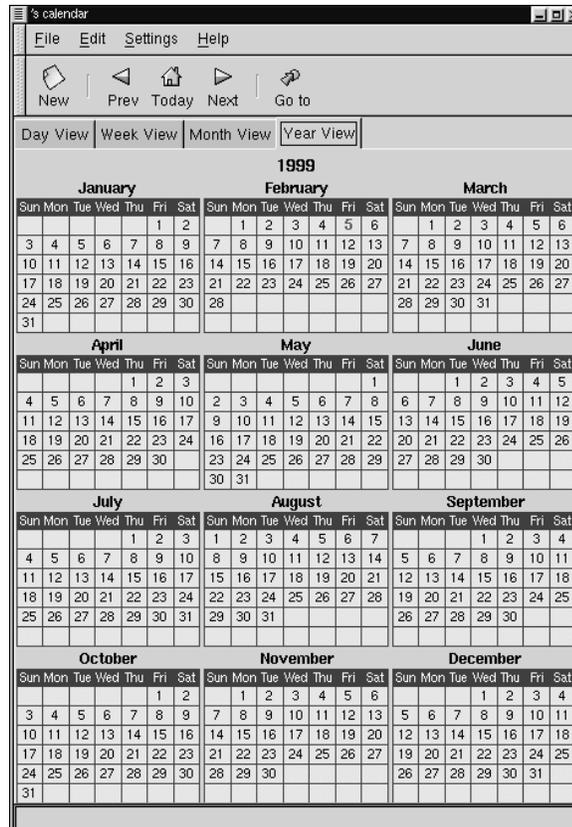
Figure 63. The Month View



The Year View

The Year View shows you the entire year with no descriptions of appointments. Like the Month View, the Year View makes use of the customized colors available in the Calendar. You may read about how to set these colors in the section called *Setting Up the GNOME Calendar*. If you have an appointment on a day you may click on that day and a description of the appointment will be displayed in the pop-up window. If you would like to add an appointment to a day in the Year View you may right mouse click on any day and select the **New Appointment in this day** item from the **pop-up** menu. You may use the items in the **pop-up** menu to navigate in the Day, Week, and Month views by selecting either **Jump to this day**, **Jump to this week**, or **Jump to this Month**.

Figure 64. The Year View



Making a New Appointment

There are many methods for making a new appointment in the GNOME Calendar, the easiest is by pressing the **New** button on the button bar. Whenever you make a new appointment you will launch the Create New Appointment dialog that allows you to set the properties of that appointment. The Create New Appointment dialog is broken into two different tabs, the General and the Recurrence tabs.

General - The General tab is the area in which you specify the time of the appointment

and set reminders for yourself. There are four different areas on the General tab: Summary, Time, Alarms, and Classification.

- Summary - The Summary box allows you to type a description of the appointment. Keep in mind that only a portion of this description will be available in the Week and Month Views.
- Time - The Time area allows you to set the time range for the appointment by selecting the date and hours. To the right of the start and end days there is a small selection box named Calendar. This will bring up a small Calendar when pressed. You may select the start and end date in the small calendar. To the right of the start and end hours there is a small button that will display the hours of the day when pressed. Each hour in the list will have a sub menu displaying each quarter hour so you may select them. The hours are restricted to those included in the Day Range.
- Alarms - The Alarms area allows you to set up an alarm to remind you of an appointment. There are four different types of alarms you may use to remind yourself of appointments: Display, Audio, Program, and Mail. The Display alarm will display a message on your screen at the time you set. The Audio alarm will play an audio file at the time you set. The Program alarm will run a program you specify at the time you set. The Mail alarm will send email to the user specified at the time you set.

Recurrence - The Recurrence tab allows you to specify how often an appointment should recur, if at all. The first property you should set if you want a recurring appointment is the Recurrence rule. You may choose among None, Daily, Weekly, Monthly, and Yearly. For each selection you may adjust the recurrence properties for your selection. In the Ending date area you may set a rule which will stop the recurrence of your appointment or allow it to repeat forever. In the Exceptions area you may make exceptions to the recurring appointment by double clicking the date and pressing the **Add** button.

Chapter 14. GNOME User's Guide Documentation Team

Writers

David C. Mason

David A. Wheeler

Editors

Paul Gallagher

Allan Gottlieb

Alexander A. Kirillov

Appendix A. GNU General Public License

Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc.

675 Mass Ave, Cambridge, MA 02139, USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software—to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation’s software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author’s protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors’ reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that re-distributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone’s free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

1. This License applies to any program or other work which contains a notice

placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

2. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

3. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:
 - a. You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.
 - b. You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.
 - c. If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

4. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:
 - a. Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
 - b. Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
 - c. Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

5. You may not copy, modify, sub-license, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sub-license or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.
6. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.
7. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights

granted herein. You are not responsible for enforcing compliance by third parties to this License.

8. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

9. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.
10. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

11. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

12. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.
13. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

