Red Hat Desktop

Deployment Guide

Red Hat Desktop: Deployment Guide


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Introduction

Welcome to the Red Hat Desktop Deployment Guide!

Deploying the GNOME Desktop across an organization commonly requires that some aspects of the desktop enviroment be modified for that specific deployment. This document aims to enumerate common deployment tasks and establish best practices for those tasks.

This document is not intended to address the more general topic of system administration and the GNOME Desktop. The *GNOME Desktop System Administration Guide* already serves this purpose and readers are encouraged to refer to this guide through **Applications** (the main menu on the panel) => **Help**, by selecting the *Desktop* Category, and then selecting the *System Administration Guide* Document from the menu.

1. Document Conventions

When you read this manual, certain words are represented in different fonts, typefaces, sizes, and weights. This highlighting is systematic; different words are represented in the same style to indicate their inclusion in a specific category. The types of words that are represented this way include the following:

`command`

Linux commands (and other operating system commands, when used) are represented this way. This style should indicate to you that you can type the word or phrase on the command line and press [Enter] to invoke a command. Sometimes a command contains words that would be displayed in a different style on their own (such as file names). In these cases, they are considered to be part of the command, so the entire phrase is displayed as a command. For example:

Use the `cat testfile` command to view the contents of a file, named `testfile`, in the current working directory.

`file name`

File names, directory names, paths, and RPM package names are represented this way. This style should indicate that a particular file or directory exists by that name on your system. Examples:

The `.bashrc` file in your home directory contains bash shell definitions and aliases for your own use.

The `/etc/fstab` file contains information about different system devices and file systems.

Install the `webalizer` RPM if you want to use a Web server log file analysis program.

application

This style indicates that the program is an end-user application (as opposed to system software). For example:

Use **Mozilla** to browse the Web.

[key]

A key on the keyboard is shown in this style. For example:

To use [Tab] completion, type in a character and then press the [Tab] key. Your terminal displays the list of files in the directory that start with that letter.

[key]-[combination]

A combination of keystrokes is represented in this way. For example:

The [Ctrl]-[Alt]-[Backspace] key combination exits your graphical session and returns you to the graphical login screen or the console.

text found on a GUI interface

A title, word, or phrase found on a GUI interface screen or window is shown in this style. Text shown in this style is being used to identify a particular GUI screen or an element on a GUI screen (such as text associated with a checkbox or field). Example:

Select the **Require Password** checkbox if you would like your screensaver to require a password before stopping.

top level of a menu on a GUI screen or window

A word in this style indicates that the word is the top level of a pulldown menu. If you click on the word on the GUI screen, the rest of the menu should appear. For example:

Under **File** on a GNOME terminal, the **New Tab** option allows you to open multiple shell prompts in the same window.

If you need to type in a sequence of commands from a GUI menu, they are shown like the following example:

Go to **Applications** (the main menu on the panel) => **Programming** => **Emacs Text Editor** to start the **Emacs** text editor.

button on a GUI screen or window

This style indicates that the text can be found on a clickable button on a GUI screen. For example:

Click on the **Back** button to return to the webpage you last viewed.

`computer output`

Text in this style indicates text displayed to a shell prompt such as error messages and responses to commands. For example:

The `ls` command displays the contents of a directory. For example:

```
Desktop                about.html       logs          paulwesterberg.png
Mail                   backupfiles      mail          reports
```

The output returned in response to the command (in this case, the contents of the directory) is shown in this style.

`prompt`

A prompt, which is a computer's way of signifying that it is ready for you to input something, is shown in this style. Examples:

```
$
```

```
#
```

```
[stephen@maturin stephen]$
```

```
leopard login:
```

`user input`

Text that the user has to type, either on the command line, or into a text box on a GUI screen, is displayed in this style. In the following example, **`text`** is displayed in this style:

To boot your system into the text based installation program, you must type in the **`text`** command at the `boot:` prompt.

<replaceable>

Text used for examples, which is meant to be replaced with data provided by the user, is displayed in this style. In the following example, *<version-number>* is displayed in this style:

The directory for the kernel source is `/usr/src/kernels/`*<version-number>*`/`, where *<version-number>* is the version and type of kernel installed on this system.

Additionally, we use several different strategies to draw your attention to certain pieces of information. In order of how critical the information is to your system, these items are marked as a note, tip, important, caution, or warning. For example:

Note

Remember that Linux is case sensitive. In other words, a rose is not a ROSE is not a rOsE.

Tip

The directory `/usr/share/doc/` contains additional documentation for packages installed on your system.

Important

If you modify the DHCP configuration file, the changes do not take effect until you restart the DHCP daemon.

Caution

Do not perform routine tasks as root — use a regular user account unless you need to use the root account for system administration tasks.

Warning

Be careful to remove only the necessary partitions. Removing other partitions could result in data loss or a corrupted system environment.

2. Activate Your Subscription

Before you can access service and software maintenance information, and the support documentation included in your subscription, you must activate your subscription by registering with Red Hat. Registration includes these simple steps:

- Provide a Red Hat login
- Provide a subscription number
- Connect your system

The first time you boot your installation of Red Hat Enterprise Linux, you are prompted to register with Red Hat using the **Setup Agent**. If you follow the prompts during the **Setup Agent**, you can complete the registration steps and activate your subscription.

If you can not complete registration during the **Setup Agent** (which requires network access), you can alternatively complete the Red Hat registration process online at http://www.redhat.com/register/.

2.1. Provide a Red Hat Login

If you do not have an existing Red Hat login, you can create one when prompted during the **Setup Agent** or online at:

`https://www.redhat.com/apps/activate/newlogin.html`

A Red Hat login enables your access to:

- Software updates, errata and maintenance via Red Hat Network
- Red Hat technical support resources, documentation, and Knowledgebase

If you have forgotten your Red Hat login, you can search for your Red Hat login online at:

`https://rhn.redhat.com/help/forgot_password.pxt`

2.2. Provide Your Subscription Number

Your subscription number is located in the package that came with your order. If your package did not include a subscription number, your subscription was activated for you and you can skip this step.

You can provide your subscription number when prompted during the **Setup Agent** or by visiting http://www.redhat.com/register/.

2.3. Connect Your System

The Red Hat Network Registration Client helps you connect your system so that you can begin to get updates and perform systems management. There are three ways to connect:

1. During the **Setup Agent** — Check the **Send hardware information** and **Send system package list** options when prompted.
2. After the **Setup Agent** has been completed — From **Applications** (the main menu on the panel), go to **System Tools**, then select **Red Hat Network**.
3. After the **Setup Agent** has been completed — Enter the following command from the command line as the root user:

- `/usr/bin/up2date --register`

3. We Need Feedback!

If you spot a typographical error in the *Red Hat Desktop Deployment Guide*, or if you have thought of a way to make this manual better, we would love to hear from you! Please submit a report in Bugzilla: http://bugzilla.redhat.com/bugzilla/ against the component *rhd-dg*.

When submitting a bug report, be sure to mention the manual's identifier:

```
rhd-dg(EN)-4-Print-RHI (2005-03-09T16:26)
```

If you have a suggestion for improving the documentation, try to be as specific as possible when describing it. If you have found an error, please include the section number and some of the surrounding text so we can find it easily.

Chapter 1.

Configuration Overview: The GConf System

The **GConf** system is one of the primary means to configure the users' desktops, therefore a brief overview of this system is provided below.

Many configurable quantities are accessible via *key/value* pairs using the graphical *GConf editor* tool. This tool is available from the command-line using the command `/usr/bin/gconf-editor`, or, more simply by typing `gconf-editor` in a terminal. The **GConf editor** is also available through **Applications** (the main menu on the panel) => **System Tools** => **Configuration Editor**.

For more detailed information on **GConf Editor**, refer to the *Configuration Editor Manual* through **Applications** (the main menu on the panel) => **Help**, and by selecting the *Applications* Category, then the *Utilities* Category, and finally, by selecting the *Configuration Editor Manual* Document.

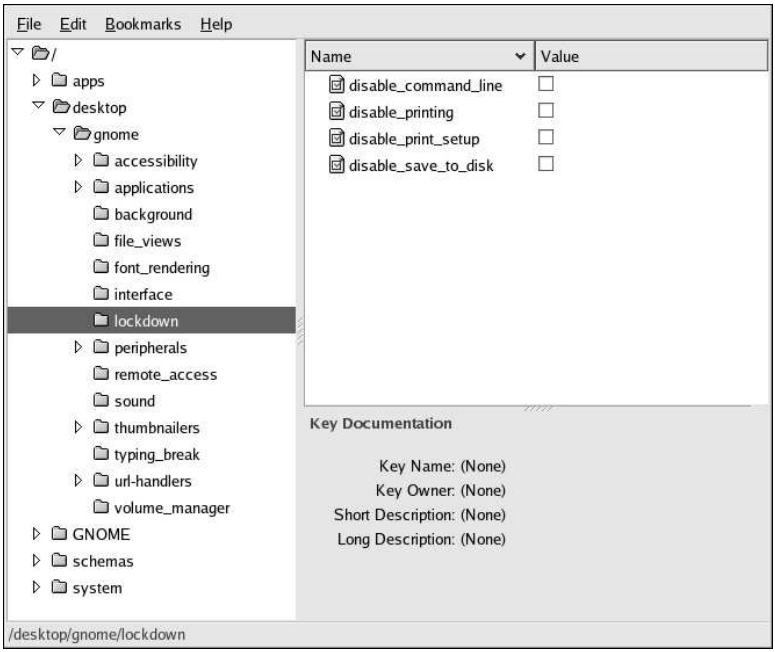

Figure 1-1. The GConf Editor

1.1. Background: Configuration Sources

The following provides background material that the administrator may find useful, especially when saving current desktop preferences.

Tip

Readers might first wish to refer to the **GConf** section of the *GNOME Desktop System Administration Guide* available through **Applications** (the main menu on the panel) => **Help**, and by selecting the *Desktop* Category, selecting the *System Administration Guide* Document, and reading the chapter titled *Using GConf*, and also the GConf project page located on the web at http://www.gnome.org/projects/gconf/ before continuing. Specifically, the use of `gconftool-2` to *load* and *dump* preference settings is not discussed in depth in this document, but is detailed in the GNOME Guide.

GConf stores preferences data in a set of *configuration sources*. The sources used, their properties, and the order in which they are used by **GConf** is defined in the `/etc/gconf/2/path` file.

Each configuration source entry has three parts:

Storage Backend Identifier

The only commonly used configuration backend is the *XML backend* whose identifier is `xml`.

Configuration Source Flags

A comma separated list of flags which is interpreted by the storage backend. The XML backend recognizes two flags - `readonly` and `readwrite` which determine whether the configuration source is writable.

Storage Location

The location in which the storage backend should store the preferences data. The exact meaning of this storage location depends on the storage backend in use. With the XML backend, the location is the path to a filesystem directory.

By default there is a *Mandatory Source*, a *User Source* and a *Defaults Source*. They are:

- `xml:readonly:/etc/gconf/gconf.xml.mandatory`
- `xml:readwrite:$(HOME)/.gconf`
- `xml:readonly:/etc/gconf/gconf.xml.defaults`

The order of the configuration sources is intentional. If a key is set in the Mandatory Source and the Defaults Source, then the value in the Mandatory Source takes precedence. Therefore, by setting the value of a key in the Mandatory Source, users will not be able to modify that key.

The default **GConf** path file also includes a number of other path files if they exist. The `/etc/gconf/2/path` file allows administrators to define new configuration sources and include them in the set of configuration sources used by **GConf**. The configuration sources specified in the `path` file are included before the standard Defaults Source.

One final item of note is that the storage location specifier for a source may also reference the value of environmental variables. For example, the standard User Source is defined as `xml:readwrite:$(HOME)/.gconf`. Environmental variables may be defined as follows:

`$(HOME)`

The user's home directory.

`$(USER)`

The user's username.

`$(ENV_name)`

Any other environmental variable may be referenced by prefixing the environmental variables name with `ENV_`.

1.2. Setting System-Wide Default and Mandatory Preferences

You can set system-wide settings using either the graphical **GConf editor** or the command line utility, `gconftool-2`. Examples of each method are given below.

Caution

You should make sure that all users are logged out before changing *any* system-wide default or mandatory preference settings.

1.2.1. Using GConf Editor

When logged in as root, you can use **GConf editor** to set system-wide default and system-wide mandatory settings by opening a special **GConf editor** window. For example, to set mandatory system-wide settings, run **GConf editor** and choose **New Mandatory Window** from the **File** menu as shown in Figure 1-2.

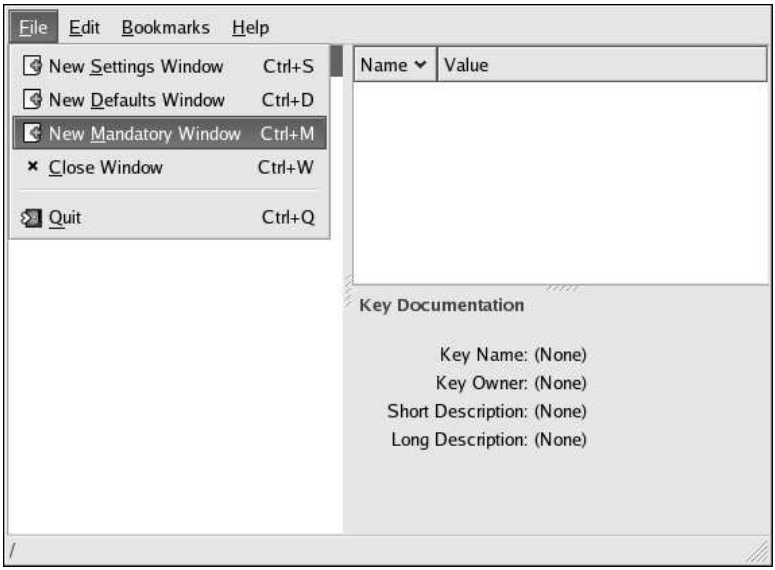

Figure 1-2. Mandatory Settings Using GConf Editor

Tip

Refer to the Configuration Editor Manual (available through the online help system) for more detailed information on using the **GConf editor**.

1.2.2. Using the `gconftool-2` Utility

For example, using `gconftool-2` you can set the system-wide *default* number of workspaces to 5 by issuing the command:

```
# gconftool-2 --direct --config-source \
  xml:readwrite:/etc/gconf/gconf.xml.defaults \
  xml:readwrite:/etc/gconf/gconf.xml.defaults --type int --set \
  /apps/metacity/general/num_workspaces 5
```

Tip

Refer to the **GConf** Section of the *GNOME Desktop System Administration Guide* (available through the online help system) for more detailed information regarding the use of `gconftool-2`.

Chapter 2.

Configuring the Panel

Tip

For more information on configuring panels, refer to the **GConf** chapter of the *GNOME Desktop Administration Guide* available through **Applications** (the main menu on the panel) => **Help**, selecting the *Desktop* Category, and choosing the *System Administration Guide* Document.

Note

For information on locking down the *panel*, refer to Section 4.3 *Locking Down the Panel*.

2.1. Panel Configuration

The following material is meant to serve as a more technical reference for panel configuration.

2.1.1. Configuration Layout

The panel configuration contains a more complex set of **GConf** keys. This section gives an overview of how those keys are organized.

Most of the panel configuration is stored in `/apps/panel/`. The `general/` directory contains the following keys:

`toplevel_id_list`

The list of panel identifiers. Each identifier is also the name of the sub-directory in the `toplevels` directory which contains the actual preferences for that panel.

`object_id_list`

The list of panel object identifiers. Each identifier is also the name of the sub-directory in the `objects` directory which contains the actual preferences for that panel object.

`applet_id_list`

The list of panel applet identifiers. Each identifier is also the name of the subdirectory in the `applets` directory, which contains the actual preferences for that panel applet.

Thus, the default contents of `/apps/panel/` looks something like:

```
/apps/panel/general:
  applet_id_list = [mixer,clock,systray,...]
  object_id_list = [menu_bar,web_launcher,...]
```

```
  toplevel_id_list = [top_panel,bottom_panel]
  ...

/apps/panel/toplevels/bottom_panel:
  size = 24
  expand = true
  name = Bottom Panel
  orientation = bottom
  ...

/apps/panel/objects/menu_bar:
  toplevel_id = top_panel
  object_type = menu-bar
  position = 0
  locked = true
  ...

/apps/panel/objects/web_launcher:
  toplevel_id = top_panel
  object_type = launcher-object
  position = 1
  launcher_location = file:///usr/share/applications/redhat-web.desktop
  ...

/apps/panel/applets/clock:
  toplevel_id = top_panel
  object_type = bonobo-applet
  position = 1
  panel_right_stick = true
  locked = true
  bonobo_iid = OAFIID:GNOME_ClockApplet
  ...
```

2.1.2. Default Configuration

The default panel configuration is specified in `/etc/gconf/schemas/panel-default-setup.entries`. When the panel is installed, the default configuration is loaded into the Defaults Source using the `gconftool-2` "`--load`" argument:

```
# gconftool-2 \
  --config-source=xml:readwrite:/etc/gconf/gconf.xml.defaults \
  --direct --load /etc/gconf/schemas/panel-default-setup.entries
```

This command loads the default configuration into the `/apps/panel/default_setup` **GConf** directory.

2.1.3. Modifying the Default Configuration

Modifying the default panel configuration can be a difficult task. Unfortunately, it is also one of the more common tasks for administrators wishing to deploy a modified desktop environment configuration.

Tip

Refer to the *GNOME Desktop System Administration Guide* for an alternative method for changing the default panel configuration to that described below.

The following provides a more complex example of how to modify the default panel configuration.

2.1.3.1. Example: Removing the Print Manager launcher and the Notification Area

Consider a relatively straightforward example and assume that we wish to remove the **Print Manager** launcher and the **Notification Area** from the default configuration.

- Make a copy of `/etc/gconf/schemas/panel-default-setup.entries`:

```
# cp /etc/gconf/schemas/panel-default-setup.entries \
     /etc/gconf/schemas/local-panel-default-setup.entries
```

- Edit *local*`-panel-default-setup.entries`, removing the `print_launcher` entry from `object_id_list` and removing the `print_launcher` directory from the `objects` directory:

```
            <value>
              <string>spreadsheet_launcher</string>
            </value>
            <value>
            <string>print_launcher</string>
           </value>
         </list>
        </list>
      </value>
    </entry>
...
<!-- Print Launcher -->

  <entry>
    <key>objects/print_launcher/object_type</key>
    <schema_key>/schemas/apps/panel/objects/object_type</schema_key>
    <value>
      <string>launcher-object</string>
    </value>
  </entry>
...
  <entry>
    <key>objects/print_launcher/menu_path</key>
    <schema_key>/schemas/apps/panel/objects/menu_path</schema_key>
  </entry>
  <entry>
    <key>objects/print_launcher/action_type</key>
    <schema_key>/schemas/apps/panel/objects/action_type</schema_key>
  </entry>

<!-- Workspace Switcher Applet -->
```

- Next, remove the `systray` entry from `applet_id_list` and remove the `systray` directory from the `applets` directory:

```
              <string>mixer</string>
           </value>
           <value>
             <string>systray</string>
           </value>
           <value>
```

```
            <string>clock</string>
          </value>
          <value>
...
<!-- System Tray Applet -->

  <entry>
    <key>applets/systray/object_type</key>
    <schema_key>/schemas/apps/panel/objects/object_type</schema_key>
    <value>
      <string>bonobo-applet</string>
    </value>
  </entry>
...
  <entry>
    <key>applets/systray/menu_path</key>
     <schema_key>/schemas/apps/panel/objects/menu_path</schema_key>
  </entry>
  <entry>
    <key>applets/systray/launcher_location</key>
     <schema_key>/schemas/apps/panel/objects/launcher_location</schema_key>
  </entry>
  <entry>
    <key>applets/systray/action_type</key>
    <schema_key>/schemas/apps/panel/objects/action_type</schema_key>
  </entry>

<!-- Clock Applet -->
```

- Create the configuration source into which you will load your modified default setup:

```
# mkdir --mode a=rwx,g=rx,o=rx \
  /etc/gconf/local.xml.defaults
```

  It is important that your configuration source be created using the correct `--mode` argument to ensure it is readable by all users. **GConf** will use the permissions from this toplevel directory when creating new files or directories in the configuration source.

- Load the new default setup into `/apps/panel/default_setup` in the new configuration source:

```
# gconftool-2 --config-source=xml:readwrite:/etc/gconf/local.xml.defaults \
  --direct --load \
  /etc/gconf/schemas/local-panel-default-setup.entries
```

- Add the new configuration source to `/etc/gconf/2/path`, which will cause the source to appear before the Defaults Source for all users:

```
# echo "xml:readonly:/etc/gconf/local.xml.defaults" \
  >> /etc/gconf/2/path
```

Note

This change will only come into effect when the **GConf** daemon is re-started. Therefore, it is preferable to make the change with all users logged out.

Chapter 3.

Menu Editing and Configuration

Tip

For detailed information describing the implementation of the menu system, refer to the *Desktop Menu Specification* located at the freedesktop.org website: http://standards.freedesktop.org/menu-spec/latest.

It is often useful for an administrator to add or remove items from the main desktop **Applications** menu. Owing to the complexity of the menu system, modifying the **Applications** menu can sometimes be a difficult task. For example, it is much more difficult to add a menu item than it is to remove a menu item.

This chapter provides an overview of the menu system and documents methods for:

- Removing menu items for individual users
- Removing menu items for all users
- Removing submenus for individual users
- Removing submenus for all users

3.1. Overview of the Menu System

Note

This overview of the menu system is not intended to to be comprehensive in its scope. For detailed information about the menu system, refer to the various menu-related specifications at the freedesktop.org web site: http://www.freedesktop.org

The Red Hat menu system is based on the the freedesktop.org Desktop Menu Specification and consists of three major sets of configuration and data files:

Menu (`*.menu`) Files

The `*.menu` files are XML configuration files that specify the order, hierarchy, and merging of both menus and menu items.

The system `*.menu` files are located in `/etc/xdg/menus/`. User-specific `*.menu` files are located in `$HOME/.config/menus/` and can be edited to override the values specified in the system `*.menu` files.

In particular, the `/etc/xdg/menus/applications.menu` file contains the definition of the main application menu layout.

Directory Entry (`*.directory`) Files

The `*.directory` files provide data about a *menu* such as its name, tooltip, and icon, and are located in `/usr/share/desktop-directories/`. Refer to the *GNOME Desktop System Administration Guide* for more information on *directory entry* files.

Desktop Entry (`*.desktop`) Files

The `*.desktop` files provide data about a *menu item* such as its name, command to run, and its icon. The desktop entry files also contain keywords that determine the location of the menu item in the menu hierarchy. The system desktop entry files are located in `/usr/share/applications/`. Refer to the *GNOME Desktop System Administration Guide* for more information on *desktop entry* files.

User-specific desktop entry files are located in `$HOME/.local/share/applications/` and can be used to add applications to the "**Open With =>**" submenu that appears when right-clicking on a file. The `$HOME/.local/share/applications/mimeinfo.cache` contains MIME type information associating the `$HOME/.local/share/applications/*.desktop` applications with the file types specified in the `*.desktop` files.

3.2. Removing Menu Items for Individual Users

The menu configuration files for a given user are located in the `$HOME/.config/menus/` directory. The `*.menu` files are XML configuration files that allow you to override the system menu defaults.

For example, to remove the **Calculator** menu item from the **Accessories** submenu, edit the `applications.menu` file in the `$HOME/.config/menus/` directory, adding a new <Menu> section using the <Exclude> element as shown:

```
<!DOCTYPE Menu PUBLIC "-//freedesktop//DTD Menu 1.0//EN"
"http://www.freedesktop.org/standards/menu-spec/1.0/menu.dtd">

<!-- File created by desktop-file-utils version 0.8 -->
<Menu>
  <Name>Applications</Name>
  <MergeFile>/etc/xdg/menus/applications.menu</MergeFile>


<!-- Removes the Calculator from the Accessories submenu -->
  <Menu>
    <Name>Accessories</Name>
    <Exclude>
      <Filename>gnome-gcalctool.desktop</Filename>
    </Exclude>
  </Menu>
<!-- END of Calculator removal content -->

</Menu>
```

The `*.desktop` file that corresponds to a given menu item can be found in the `/usr/share/applications/` directory. The `gnome-gcalctool.desktop` file corresponds to the **Calculator** menu item. Note that the name of the submenu (**Accessories**, in this case) can be determined from the files located in the `/usr/share/desktop-directories/` directory.

Similar methods can be used to remove other items from the **Applications** menu and its submenus.

Note

The user's session must be restarted for the menu changes to take effect.

3.3. Removing Submenus for Individual Users

To remove the entire **System Settings** submenu for a user, use the <Deleted/> element in the user's `$HOME/.config/menus/applications.menu` file as shown:

```
<!DOCTYPE Menu PUBLIC "-//freedesktop//DTD Menu 1.0//EN"
"http://www.freedesktop.org/standards/menu-spec/1.0/menu.dtd">

<!-- File created by desktop-file-utils version 0.8 -->
<Menu>
  <Name>Applications</Name>
  <MergeFile>/etc/xdg/menus/applications.menu</MergeFile>


<!-- Removes the System Settings submenu from the Applications menu-->

  <Menu>
    <Name>System Settings</Name>
    <Deleted/>
  </Menu>

<!-- END of System Settings removal content -->

</Menu>
```

The other submenus of the **Applications** can be removed in similar fashion. Note that the name of the submenus can be determined from the files located in the `/usr/share/desktop-directories/` directory.

3.4. Removing Menu Items for All Users

To remove the **Dasher** menu item from the **Accessories** submenu, edit `/etc/xdg/menus/applications.menu`, by adding the following before the final </Menu> tag in the file:

```
 ...

  <Menu>
    <Name>Accessories</Name>
    <Exclude>
      <Filename>gnome-dasher.desktop</Filename>
    </Exclude>
  </Menu>

</Menu> <!-- End Applications -->
```

As mentioned above, the appropriate `*.desktop` file name to use for a given menu item can be determined from the files located in the `/usr/share/applications/` directory.

3.5. Removing System Menus for All Users

To remove the **System Settings** submenu of the **Applications** menu, edit `/etc/xdg/menus/applications.menu`, by adding the following before the final </Menu> tag in the file:

```
 ...

  <Menu>
    <Name>System Settings</Name>
    <Deleted/>
  </Menu>

</Menu> <!-- End Applications -->
```

The other submenus of the **Applications** can be removed in similar fashion. Note that the name of the submenus can be determined from the files located in the `/usr/share/desktop-directories/` directory.

Chapter 4.

Locking Down the Desktop: Disabling GNOME Desktop Features

The GNOME desktop can be configured to restrict user access to a number of actions, such as printing, access to the command line, and even the ability to log out of the system. The most restricted configuration can be used to form the basis for a public terminal configuration or that of a kiosk-like setup, in which the user can only perform simple functions like web browsing. This chapter provides the essential information needed by administrators to perform the various tasks related to locking down the desktop.

Most of the restricted access can be configured using GConf key/value pairs, hence these will be discussed first.

4.1. Disabling Lock Screen and Log Out

To disable the ability to log out and to lock the screen, set the appropriate keys under `/apps/panel/global/` using the **GConf editor**.

The keys to set are

```
/apps/panel/global/disable_log_out
/apps/panel/global/disable_lock_screen
```

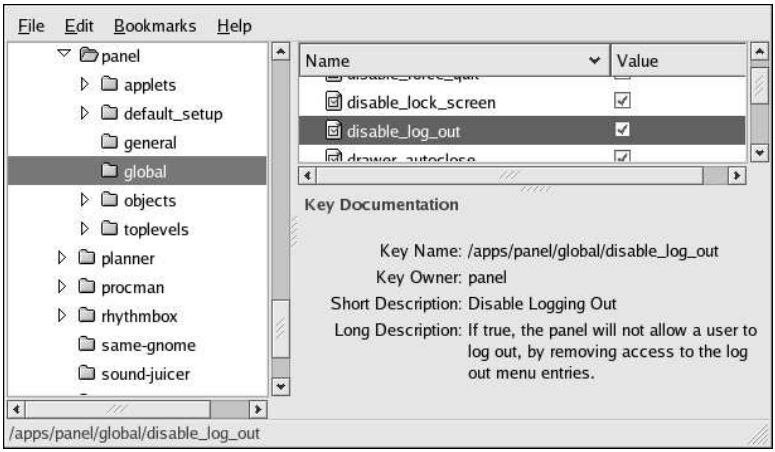

Figure 4-1. Using GConf editor to disable Log Out and Lock screen

4.2. Disabling [Ctrl]-[Alt]-[Delete]

To prevent the key sequence [Ctrl]-[Alt]-[Delete] from rebooting the computer and from displaying the **Log Out** dialog, you must make configuration changes at both the window manager level and at the system level.

4.2.1. Window Manager Configuration

Setting the following gconf keys will prevent [Ctrl]-[Alt]-[Delete] from displaying the **Log Out** dialog.

1. Note in Figure 4-2 that the default global keybinding for [Ctrl]-[Alt]-[Delete] is attached to the gconf key `run_command_1`.

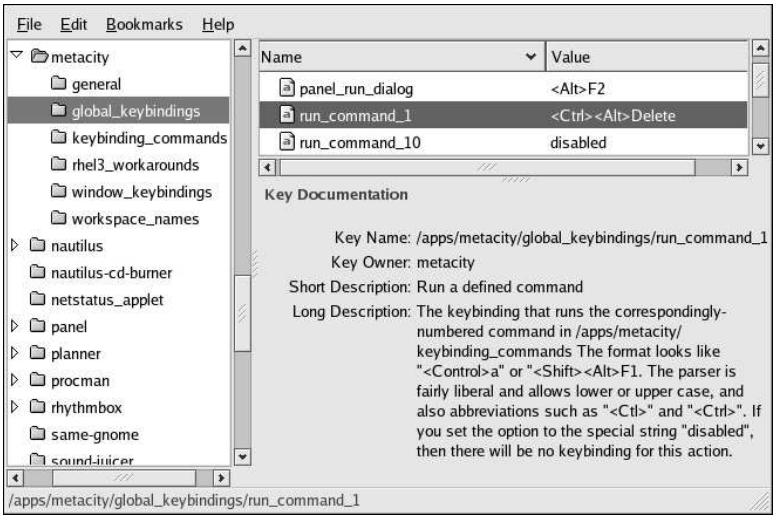

Figure 4-2. Default Metacity Action for [Ctrl]-[Alt]-[Delete]

2. To change the window manager's interpretation of [Ctrl]-[Alt]-[Delete], change the `run_command_1` key value from `gnome-session-save --kill` to something benign as shown in Figure 4-3. (Note that the appropriate key to change is `/apps/metacity/keybinding_commands/command_1`.)

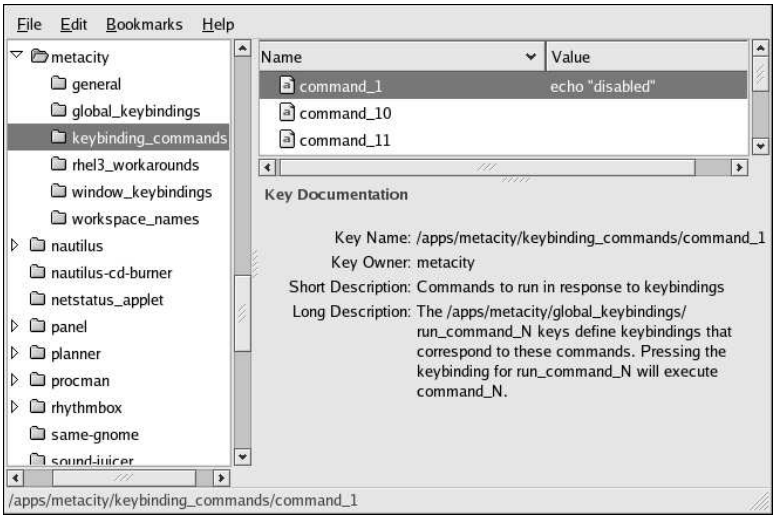

Figure 4-3. Resetting the `run_command_1` Key

4.2.2. System-Level Configuration

To disable [Ctrl]-[Alt]-[Delete] at the system level, comment out the relevant section in `/etc/inittab` as shown below:

```
# Trap CTRL-ALT-DELETE
#ca::ctrlaltdel:/sbin/shutdown -t3 -r now
```

4.2.3. Disabling [Ctrl]-[Alt]-[Backspace]

To disable the [Ctrl]-[Alt]-[Backspace] key combo from terminating the X session, add a `Serverflags` section to the **X** configuration file `/etc/X11/xorg.conf` and add a `DontZap` option to the section.

```
Section "Serverflags"

Option "DontZap"      "yes"

EndSection
```

4.3. Locking Down the Panel

To disable changes to the configuration of the panel, set the

```
/apps/panel/global/locked_down
```

key using **Gconf editor**, as shown in Figure 4-4.

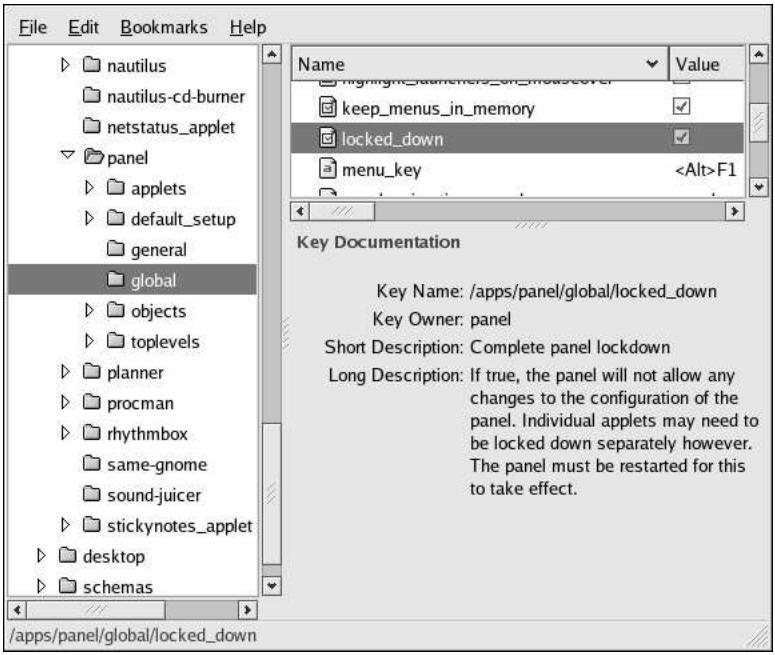

Figure 4-4. Locking Down the Panel

4.3.1. Disabling Applets

To disable certain applets from loading or appearing in the **applet menu**, you can specify which applets you wish to disable by adding the appropriate *applet IID* to the `/apps/panel/global/disabled_applets` key.

For example, to disable the **Show Desktop** applet, add the applet IID `OAFIID:GNOME_ShowDesktopApplet` to the `/apps/panel/global/disabled_applets` key as shown in Figure 4-5.

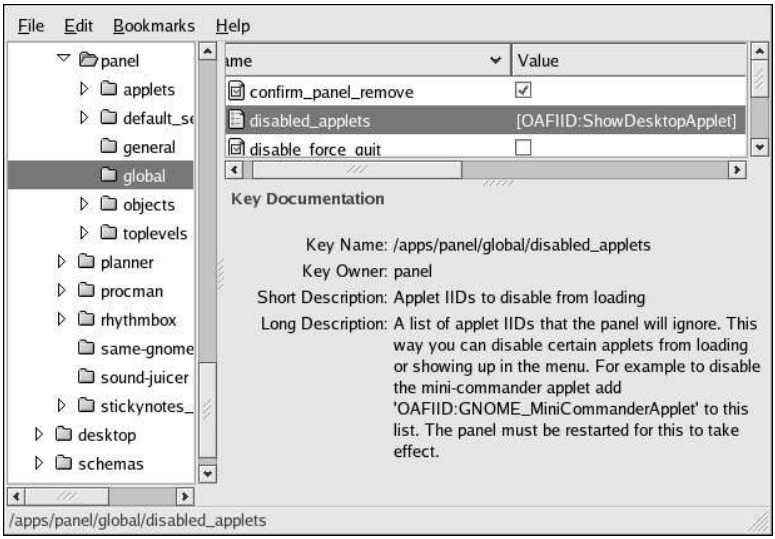

Figure 4-5. Disabling Panel Applets

Disabled applets may still appear in the dialog for adding applets, but will not be added to the panels.

Note

The panel must be restarted for disabled applet changes to take effect.

4.4. Disabling Command Line Access

To completely disable command line access, you will need to make configuration changes in a number of different contexts:

- Set the `disable_command_line` gconf key, which prevents the user from accessing the terminal or specifying a command line to be executed
- Disable the **Command Line** (Mini-Commander) applet
- Disable console switching by editing `/etc/X11/xorg.conf`
- Remove the **Open Terminal** menu item from the **desktop background menu**

These steps are described below.

Setting the `disable_command_line` gconf key

Set the `/desktop/gnome/lockdown/disable_command_line` key by using **GConf editor** as shown in Figure 4-6. Setting this key also disables access to the **Run Application** panel dialog.

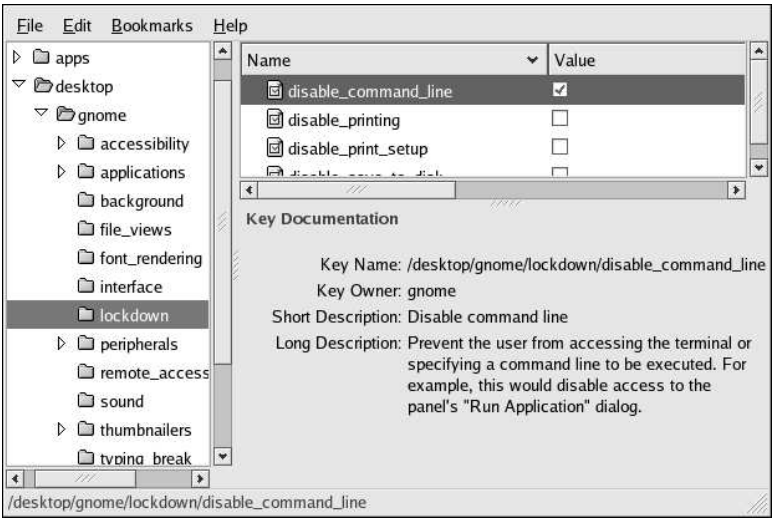

Figure 4-6. Setting the `disable_command_line` GConf Key

Disabling the **Command Line** (Mini Commander) applet

To disable this applet, you will need to add the applet IID *OAFIID:GNOME_MiniCommanderApplet* to the list of disabled applets. Refer to Section 4.3.1 *Disabling Applets* for information on disabling applets.

Disabling Console Switching

Access to all virtual consoles can be disabled by adding a `DontVTSwitch` option to the `Serverflags` section in the **X** configuration file `/etc/X11/xorg.conf`.

```
Section "Serverflags"

Option "DontVTSwitch" "yes"

EndSection
```

Removing the **Open Terminal** menu item from the **desktop background menu**

The menu containing the **Open Terminal** menu item will automatically be removed when all desktop icons are removed by unsetting the `/apps/nautilus/preferences/show_desktop` key. When this key is unset, **Nautilus** no longer controls the desktop. Refer to Section 4.6 *Removing Desktop Icons* for instructions for unsetting this key.

4.5. Restricting the Number of Workspaces

To limit the display to one workspace, set the

```
/apps/metacity/general/num_workspaces
```

key using the **GConf editor** as shown in Figure 4-7.

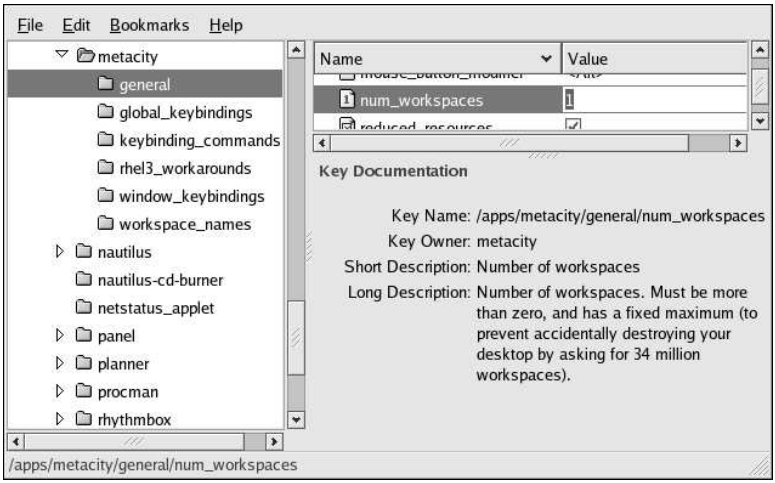

Figure 4-7. Setting the Number of Workspaces

4.6. Removing Desktop Icons

To remove one or more of the default icons from the desktop, unset the appropriate key

```
/apps/nautilus/desktop/*_icon_visible
```

as shown in Figure 4-8.

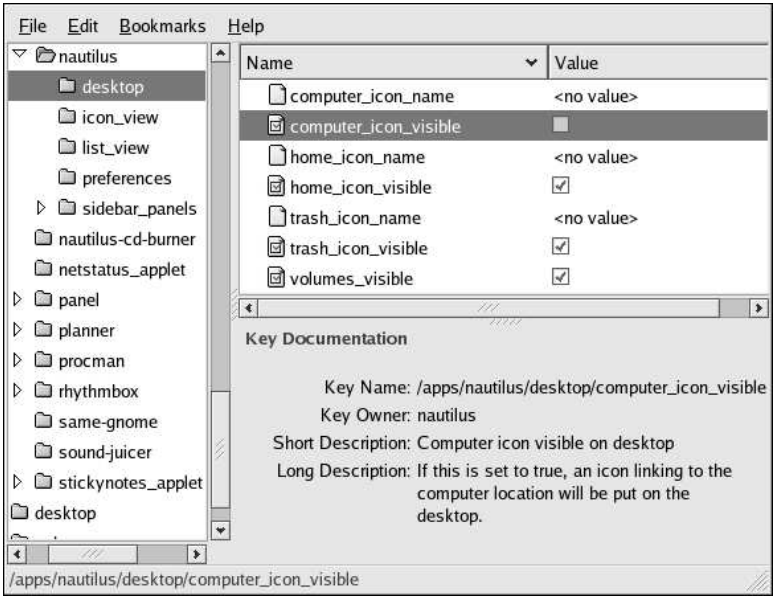

Figure 4-8. Removing the Computer Desktop Icon

To prevent the appearance of icons representing mounted media such as cdroms, unset the following key

```
/apps/nautilus/desktop/volumes_visible
```

as shown in Figure 4-9.

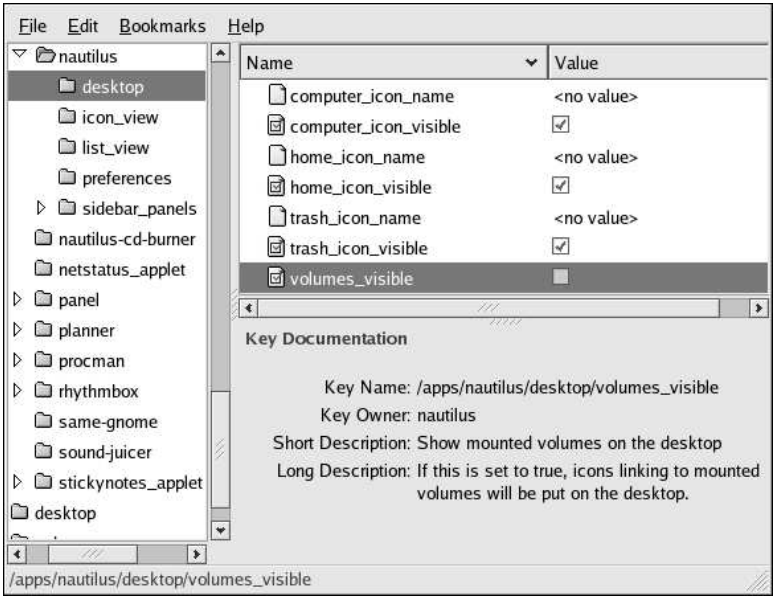

Figure 4-9. Removing Desktop Volumes Icons

To eliminate *all* icons from the desktop, unset the following key

```
/apps/nautilus/preferences/show_desktop
```

as shown in Figure 4-10.

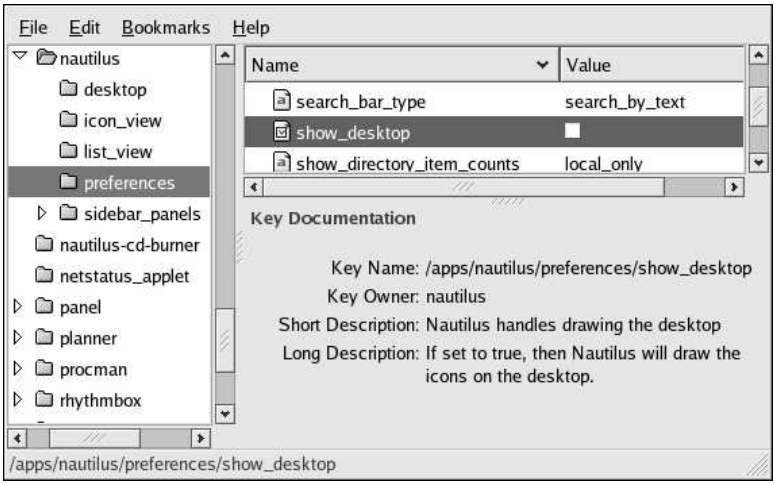

Figure 4-10. Removing All Desktop Icons

Note

Unsetting this key also removes the desktop background menu, thereby eliminating access to the **Open Terminal** menu item. This is a recommended step for disabling command line access as described in Section 4.4 *Disabling Command Line Access*.

4.7. Other Kiosk-related Configuration Tasks

This section documents a number of configuration tasks an administrator might find useful in setting up a machine to serve as a public kiosk.

Tip

Removing the top panel or its **Main Menu** is recommended for kiosk operation. To remove the top **Panel**, right-click on it with the mouse and choose **"Delete This Panel..."** from the **Panel** menu.

4.7.1. Preventing Automounting of Drives

To prevent all drives, such as floppy disks, cdroms, or other removable media from automatically mounting, unset the

```
/desktop/gnome/volume_manager/automount_drives
/desktop/gnome/volume_manager/automount_media
```

keys as shown in Figure 4-11.

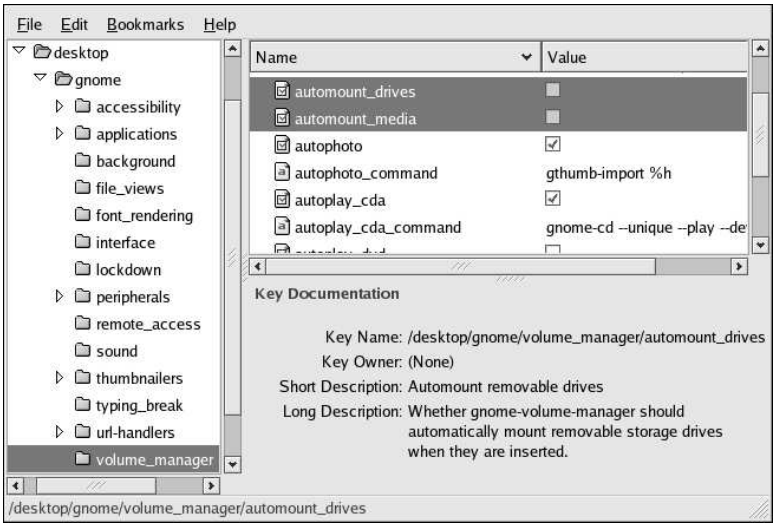

Figure 4-11. Disabling Automounting

4.7.2. Disabling Printing Functionality

To disable printing and printing setup, set the following keys

```
/desktop/gnome/lockdown/printing
/desktop/gnome/lockdown/print-setup
```

as shown in Figure 4-12.

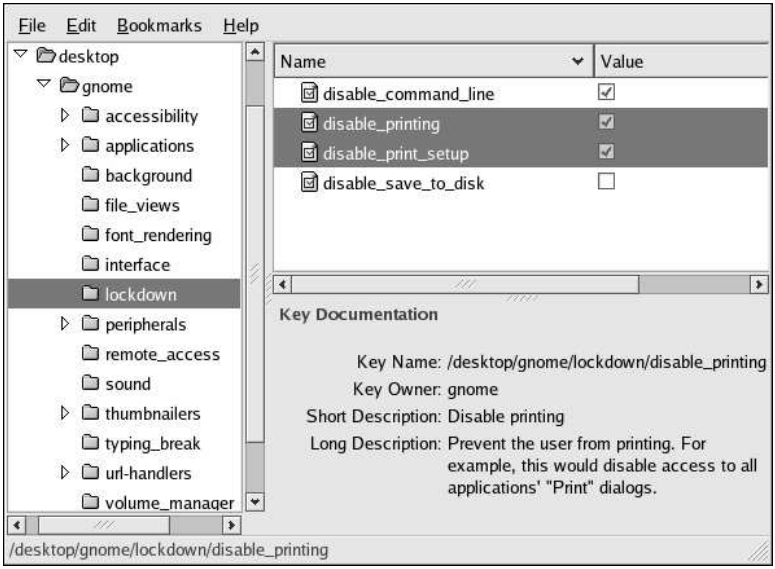

Figure 4-12. Disabling Printing Functionality

4.7.3. Disabling File Saving

To prevent a user from saving files to disk and from access to all **"Save As..."** dialogs, set the

```
/desktop/gnome/lockdown/save_to_disk
```

key as shown in Figure 4-13.

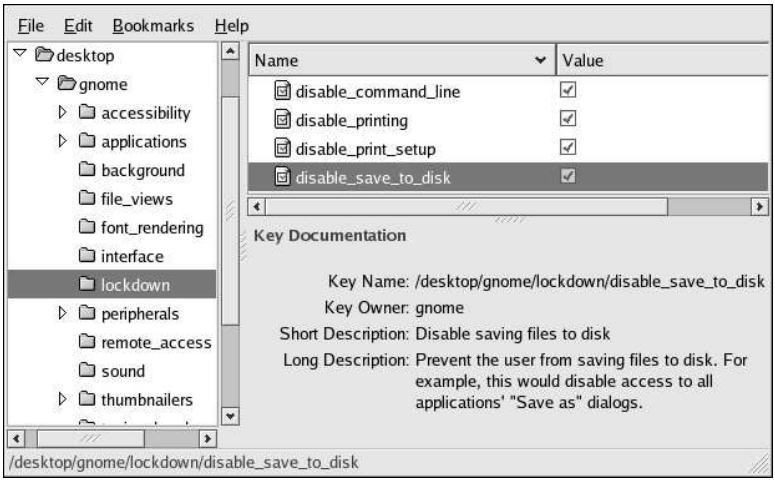

Figure 4-13. Disabling Writing to Disk

4.7.4. Disabling Application Force Quit

To prevent the user from forcing an application to quit by eliminating access to the force quit button, set the

```
/apps/panel/global/disable_force_quit
```

key as shown in Figure 4-14.

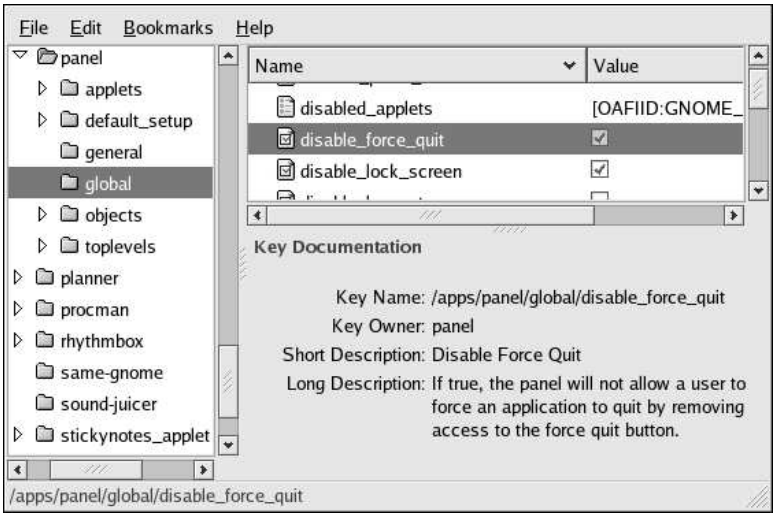

Figure 4-14. Disabling Application Force Quit

4.7.5. Locking Down Preferences for the Firefox Web Browser

A complete, succinct guide to locking down preferences for the Firefox and Mozilla web browsers is available on the web at http://togami.com/~warren/guides/mozlockdown.

4.7.6. Automatic Login for Public Kiosks

When using a machine as a public kiosk, it is recommended that the system be configured to skip the login screen and to automatically start an **X** session.

The automatic login process is enabled through the configuration of **gdm**, the **Gnome Display Manager**. Specifically, the automatic login functionality is set in the **gdm** configuration file, `/etc/X11/gdm/gdm.conf`.

The automatic login process can be enabled by directly editing `/etc/X11/gdm/gdm.conf`, or by using the graphical Login Screen Setup tool. Both techniques are described below.

Note

Configuring **gdm** requires administrative privileges.

Tip

For more detailed information regarding the configuration of **gdm**, the **Gnome Display Manager**, refer to the *Gnome Display Manager Reference Manual* available within the online help system through **Applications** (the main menu on the panel) => **Help**, in the *Desktop* Category.

4.7.6.1. Using the Login Screen Setup Tool

To enable automatic login using the graphical **Login Screen Setup** tool, start the application by either

- typing the command
  `gdmsetup`

  or via the menus through
- **Applications** (the main menu on the panel) => **System Settings** => **Login Screen**.

After typing in the administrative password, the **Login Screen Setup** tool will appear on your screen. To enable automatic login, check the box labelled **"Login a user automatically on first bootup"** and enter a valid system user name in the **Automatic login username** text entry box. Figure 4-15 demonstrates this configuration for a fictional user named *"sam"*.

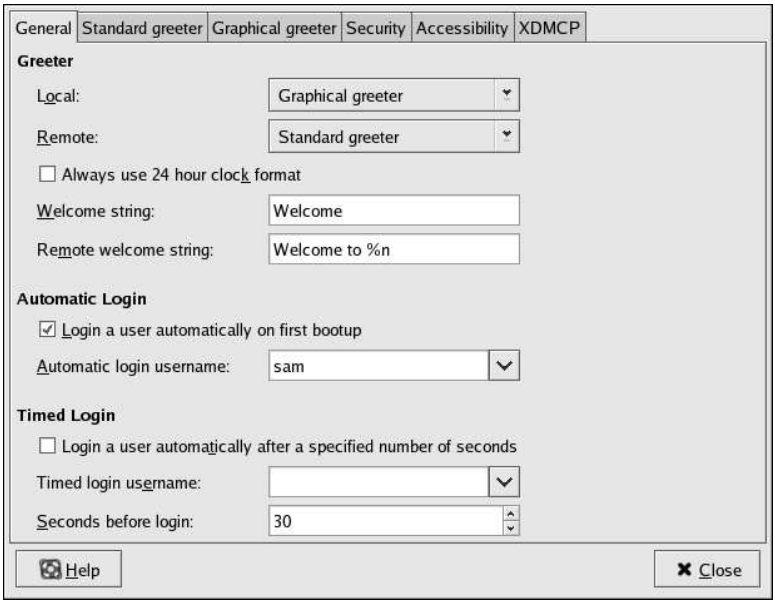

Figure 4-15. Enabling Automatic Login with the Login Screen Setup Tool

4.7.6.2. Editing the `gdm.conf` Configuration File

To enable automatic login, add (or change) the following directives to `/etc/X11/gdm/gdm.conf`:

```
AutomaticLoginEnable=true
AutomaticLogin=<valid_username>
```

where *<valid_username>* is a valid user on the system.

Chapter 5.

Remote Desktop Access

In the enterprise environment, system administrators often need to deal with a large number of basic problems on users' machines. Remotely taking control of a user's desktop to fix the problem, while at the same time training the user how to resolve the problem for themselves, is an effective and simple way to handle these types of support scenarios. This chapter describes how to use **vncviewer** and **Terminal Server Client** to gain remote access to a user's desktop to aid in the administration of the remote system.

Both **vncviewer** and **Terminal Server Client** allow the administrator to connect to a user's desktop session in a way that allows both the user and the administrator to simultaneously view the same desktop screen, including all currently active applications and actions (such as mouse movements, etc.)

While **vncviewer** is primarily for connecting to a Linux desktop, **Terminal Server Client** can be used to access both Windows and Linux desktops.

Note

These tools *only* allow you to connect to a user's existing session. If the user is not logged in, the connection will fail.

Important

All remote desktop connections described in this chapter use *unencrypted* connections, thereby sending authentication information over the network without encryption. Their use is therefore recommended only inside a trusted, secure network.

5.1. Allowing Access

Before you can gain access to a remote user's desktop, the user's environment must be configured to allow remote access. There are different levels of access that a desktop user may grant to another, ranging from simple viewing of the user's desktop, to gaining complete control of the desktop.

These different levels of access are configurable through **Applications** (the main menu on the panel) **=> Preferences => Remote Desktop** menu item.

The default configuration for remote desktop access is shown in Figure 5-1.

Figure 5-1. Default Remote Desktop Access Control Dialog

As can be seen in the above image, the access can be granted in a number of ways:

- Allow other users to view your desktop
- Allow other users to control your desktop
- When a user tries to view or control your desktop:
  - Ask you for confirmation
  - Require the user to enter this password (followed by a text input box.)

5.1.1. Gaining Remote Administrative Access

For remote administration it is recommended that the administrator check all the boxes in the Remote Desktop dialog and set a required password for the administrator to gain access. This recommended configuration is shown in Figure 5-2.

Figure 5-2. Remote Desktop Access for Administration

With the above access permissions, the administrator should be able to gain complete access to the user's desktop. This method has the further benefit that the user can observe the administrator control the user's desktop in real time. This technique can be particularly effective when combined with another simultaneous, synchronous form of communication (such as a telephone conversation), thereby providing a means for the user to learn to address the problem by on their own in the future. In some remote administration cases, however, it would not be appropriate for the user to take part in the administration.

5.2. Connecting Using vncviewer

To connect to the user's desktop from a remote machine, the administrator need only issue the command: `vncviewer <remote-hostname>:0`. For example, if the remote hostname is `linux.example.com`, the command would take the form: `vncviewer linux.example.com:0`

vncviewer also has a graphical interface that is available through **Applications** (the main menu on the panel) => **Accessories** => **VNC Viewer**.

5.3. Connecting Using Terminal Server Client

In addition to **vncviewer**, you can also connect to a user's Windows or Linux desktop using **Terminal Server Client**, which is available through **Applications** (the main menu on the panel) => **Internet** => **Terminal Server Client**.

The **Terminal Server Client** serves as a graphical interface to the command line programs `vncviewer` and `rdesktop`, and can be accessed from the command line using the `tsclient` command.

Terminal Server Client is a GNOME 2 application for remotely accessing Microsoft Windows NT/2000™ Terminal Services and XP Remote Desktop Sharing™ using the Remote Desktop Protocol (RDP). It also supports connections using other remote desktop methods such as *vnc*, *Xnest*, and the *Citrix ICA*™ client.

5.3.1. Connecting to a Remote Linux Desktop

The minimal configuration for a user named "sam" connecting to a Linux desktop named `linux.example.com` using the VNC protocol is shown in Figure 5-3.

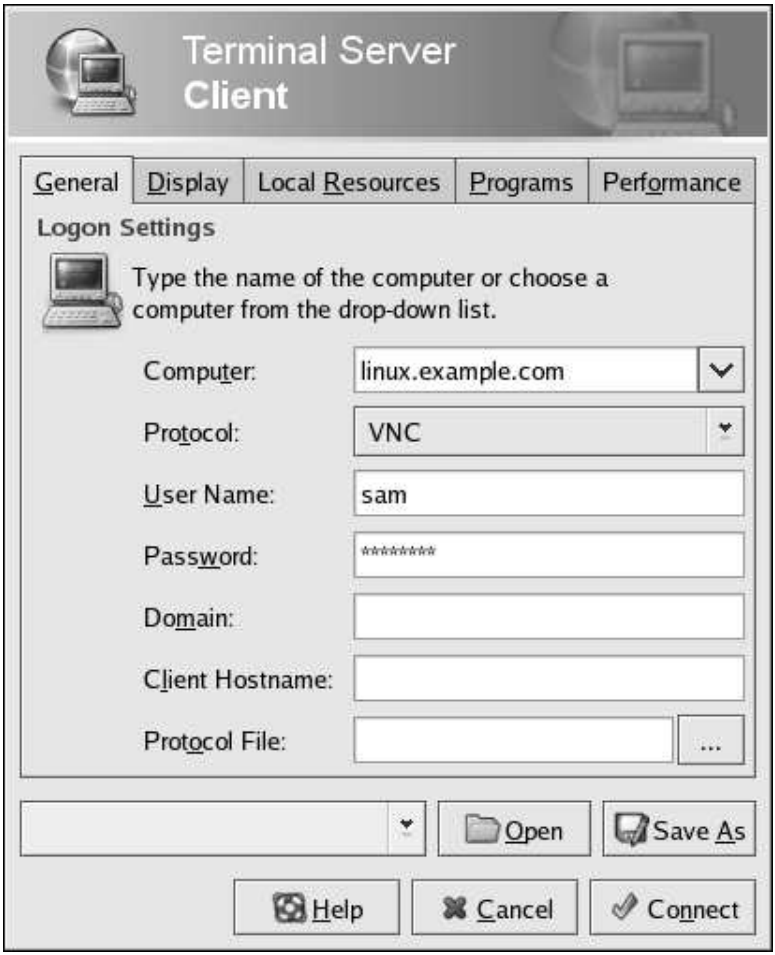

Figure 5-3. Terminal Server Client Using VNC to Connect to a Linux Desktop

5.3.2. Connecting to a Remote Windows Desktop

The minimal configuration for a user named "sam" connecting to a Windows 2000™ desktop named `win.example.com` using the RDPv5 protocol is shown in Figure 5-3.

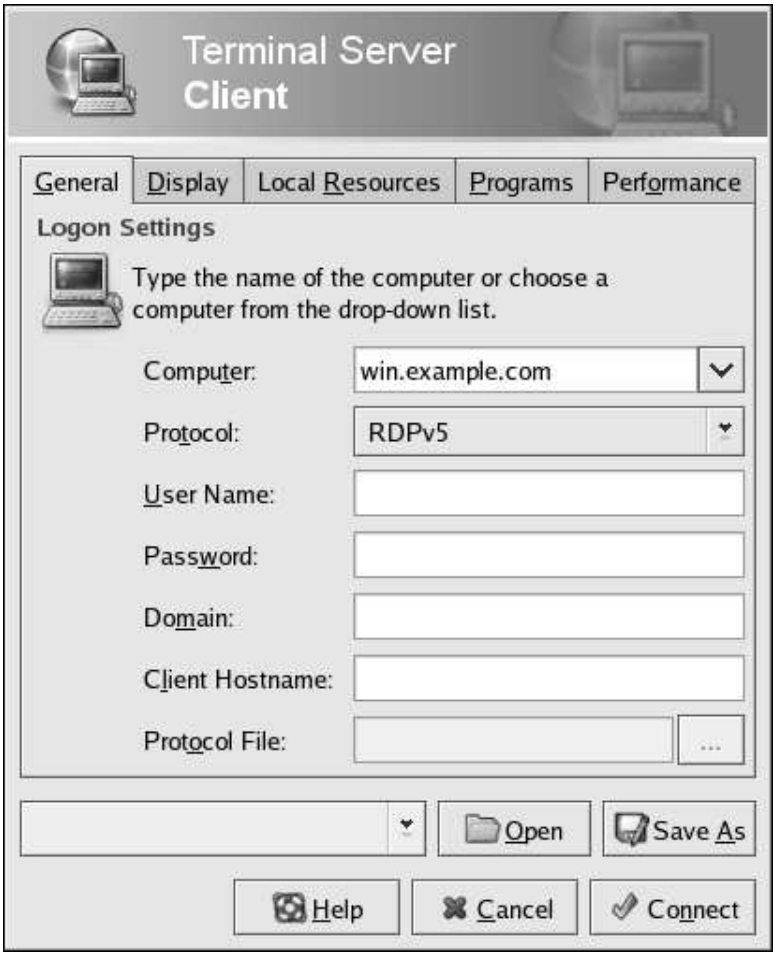

Figure 5-4. Terminal Server Client Using RDP to Connect to a Windows Desktop

After choosing **Connect**, you will be prompted for a user name and password.

Note

The user account with which you connect to the terminal server *must* have administrative privileges on the machine to which you are connecting.

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The manuals are written in DocBook SGML v4.1 format. The HTML and PDF formats are produced using custom DSSSL stylesheets and custom jade wrapper scripts. The DocBook SGML files are written in **Emacs** with the help of PSGML mode.

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