



# GNOME 2.0 Desktop for the Solaris Operating Environment Accessibility Guide

---

Sun Microsystems, Inc.  
4150 Network Circle  
Santa Clara, CA 95054  
U.S.A.

Part No: 816-7282-11  
April 2003

Copyright 2003 Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, CA 95054 U.S.A. All rights reserved.

This product or document is protected by copyright and distributed under licenses restricting its use, copying, distribution, and decompilation. No part of this product or document may be reproduced in any form by any means without prior written authorization of Sun and its licensors, if any. Third-party software, including font technology, is copyrighted and licensed from Sun suppliers.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and other countries, exclusively licensed through X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, docs.sun.com, AnswerBook, AnswerBook2, and Solaris are trademarks, registered trademarks, or service marks of Sun Microsystems, Inc. in the U.S. and other countries. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. in the U.S. and other countries. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc.

The OPEN LOOK and Sun™ Graphical User Interface was developed by Sun Microsystems, Inc. for its users and licensees. Sun acknowledges the pioneering efforts of Xerox in researching and developing the concept of visual or graphical user interfaces for the computer industry. Sun holds a non-exclusive license from Xerox to the Xerox Graphical User Interface, which license also covers Sun's licensees who implement OPEN LOOK GUIs and otherwise comply with Sun's written license agreements.

Federal Acquisitions: Commercial Software—Government Users Subject to Standard License Terms and Conditions.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

---

Copyright 2003 Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, CA 95054 U.S.A. Tous droits réservés.

Ce produit ou document est protégé par un copyright et distribué avec des licences qui en restreignent l'utilisation, la copie, la distribution, et la décompilation. Aucune partie de ce produit ou document ne peut être reproduite sous aucune forme, par quelque moyen que ce soit, sans l'autorisation préalable et écrite de Sun et de ses bailleurs de licence, s'il y en a. Le logiciel détenu par des tiers, et qui comprend la technologie relative aux polices de caractères, est protégé par un copyright et licencié par des fournisseurs de Sun.

Des parties de ce produit pourront être dérivées du système Berkeley BSD licenciés par l'Université de Californie. UNIX est une marque déposée aux Etats-Unis et dans d'autres pays et licenciée exclusivement par X/Open Company, Ltd.

Sun, Sun Microsystems, le logo Sun, docs.sun.com, AnswerBook, AnswerBook2, et Solaris sont des marques de fabrique ou des marques déposées, ou marques de service, de Sun Microsystems, Inc. aux Etats-Unis et dans d'autres pays. Toutes les marques SPARC sont utilisées sous licence et sont des marques de fabrique ou des marques déposées de SPARC International, Inc. aux Etats-Unis et dans d'autres pays. Les produits portant les marques SPARC sont basés sur une architecture développée par Sun Microsystems, Inc.

L'interface d'utilisation graphique OPEN LOOK et Sun™ a été développée par Sun Microsystems, Inc. pour ses utilisateurs et licenciés. Sun reconnaît les efforts de pionniers de Xerox pour la recherche et le développement du concept des interfaces d'utilisation visuelle ou graphique pour l'industrie de l'informatique. Sun détient une licence non exclusive de Xerox sur l'interface d'utilisation graphique Xerox, cette licence couvrant également les licenciés de Sun qui mettent en place l'interface d'utilisation graphique OPEN LOOK et qui en outre se conforment aux licences écrites de Sun.

CETTE PUBLICATION EST FOURNIE "EN L'ETAT" ET AUCUNE GARANTIE, EXPRESSE OU IMPLICITE, N'EST ACCORDEE, Y COMPRIS DES GARANTIES CONCERNANT LA VALEUR MARCHANDE, L'APTITUDE DE LA PUBLICATION A REpondre A UNE UTILISATION PARTICULIERE, OU LE FAIT QU'ELLE NE SOIT PAS CONTREFAISANTE DE PRODUIT DE TIERS. CE DENI DE GARANTIE NE S'APPLIQUERAIT PAS, DANS LA MESURE OU IL SERAIT TENU JURIDIQUEMENT NUL ET NON AVENU.



030929@6671



# Contents

---

<b>Preface</b>	<b>7</b>
<b>1 Introduction to Accessibility</b>	<b>11</b>
Overview of Accessibility	11
<b>2 Configuring the Mouse and Keyboard</b>	<b>13</b>
Configuring the Mouse	13
To Configure the Behavior of the Mouse	13
To Configure the Mouse Pointer	15
To Use the Keyboard to Emulate the Mouse	16
Configuring the Keyboard	16
Before You Can Use AccessX	16
To Activate the Keyboard Accessibility Options	17
To Enable the Keyboard to Emulate the Mouse	18
To Enable the Slow Keys Feature	19
To Enable the Bounce Keys Feature	20
To Enable the Sticky Keys Feature	20
To Enable Audible Notifications for Toggle Keys	22
To Enable the Repeat Keys Feature	22
<b>3 Using the Keyboard to Navigate the Desktop</b>	<b>23</b>
Introduction to Keyboard Navigation	23
Essential Keyboard Shortcuts	23
Global Keyboard Shortcuts	24
Navigating the Desktop Background	25

Navigating Panels	26
To Move a Panel Object	27
To Navigate Drawers	28
To Navigate Menus on Panels	29
To Navigate Applets	29
Navigating Your Workspaces	30
Navigating Windows	30
To Give Focus to a Window	30
To Control a Window	31
To Move a Window	31
To Resize a Window	32
To Navigate Paned Windows	32
Navigating Applications	34
Essential Keyboard Shortcuts for Navigating Applications	35
Essential Keyboard Shortcuts for Navigating Dialogs	36
Navigating Nautilus File Manager	36
To Navigate the View Pane	37
To Navigate the Side Pane	38
Navigating Standard Elements and Controls	39
To Navigate Menus	39
To Navigate Buttons	40
To Navigate Radio Buttons	40
To Navigate Check Boxes	41
To Navigate Text Boxes	41
To Navigate Spin Boxes	43
To Navigate Drop-Down List Boxes	44
To Navigate Drop-Down Combination Boxes	44
To Navigate Sliders	45
To Navigate Tabbed Sections	46
To Navigate Lists	48
To Navigate Trees	50
Customizing Your Keyboard Shortcuts	50
<b>4 Customizing the Appearance of the Desktop</b>	<b>53</b>
Customization Options	53
Using Themes to Customize the Desktop	54
Introduction to Themes	54

To Choose a Desktop Theme	55
To Choose a Window Frame Theme	56
To Choose a Nautilus Theme	56
To Create Your Own Themes	56
Customizing Specific Components of the Desktop	56
To Customize the Desktop Background	57
To Customize Desktop Background Objects	57
To Customize Fonts	57
Meeting Specific Accessibility Needs	59
To Achieve a High or Low Contrast Desktop	59
To Achieve a Large Print Desktop	60



# Preface

---

The *GNOME 2.0 Desktop for the Solaris Operating Environment Accessibility Guide* describes how to configure, customize, and use the accessibility features of the GNOME 2.0 desktop for the Solaris™ 8 operating environment and the Solaris 9 operating environment.

---

## Who Should Use This Book

This manual is for users, system administrators, and anyone who is interested in how the GNOME 2.0 desktop satisfies Section 508 of the U.S. Rehabilitation Act.

---

## How This Book Is Organized

This manual is structured in the following manner:

- Chapter 1 introduces you to accessibility in the GNOME desktop.
- Chapter 2 describes how to configure the mouse and keyboard to make these devices accessible to more users.
- Chapter 3 describes how to navigate the desktop from the keyboard only.
- Chapter 4 describes the methods you can use to change the appearance of the desktop to enhance the accessibility of the desktop for users with visual impairments.

---

## Related Books

The following manuals are related to this manual:

- *GNOME 2.0 Desktop for the Solaris Operating Environment Installation Guide*
- *GNOME 2.0 Desktop for the Solaris Operating Environment Release Notes*
- *GNOME 2.0 Desktop for the Solaris Operating Environment System Administration Guide*
- *GNOME 2.0 Desktop for the Solaris Operating Environment Troubleshooting Guide*
- *GNOME 2.0 Desktop for the Solaris Operating Environment User Guide*

---

## Accessing Sun Documentation Online

The docs.sun.com<sup>SM</sup> Web site enables you to access Sun technical documentation online. You can browse the docs.sun.com archive or search for a specific book title or subject. The URL is <http://docs.sun.com>.

---

## Ordering Sun Documentation

Sun Microsystems offers select product documentation in print. For a list of documents and how to order them, see “Buy printed documentation” at <http://docs.sun.com>.

---

## Typographic Conventions

The following table describes the typographic changes used in this book.



**TABLE P-1** Typographic Conventions

Typeface or Symbol	Meaning	Example
AaBbCc123	The names of commands, files, and directories; on-screen computer output	Edit your <code>.login</code> file. Use <code>ls -a</code> to list all files. <code>machine_name%</code> you have mail.
<b>AaBbCc123</b>	What you type, contrasted with on-screen computer output	<code>machine_name% su</code> Password:
<i>AaBbCc123</i>	Command-line placeholder: replace with a real name or value	To delete a file, type <b>rm</b> <i>filename</i> .
<i>AaBbCc123</i>	Book titles, new words, or terms, or words to be emphasized.	Read Chapter 6 in <i>User's Guide</i> . These are called <i>class</i> options. You must be <i>root</i> to do this.

---

## Shell Prompts in Command Examples

The following table shows the default system prompt and superuser prompt for the C shell, Bourne shell, and Korn shell.

**TABLE P-2** Shell Prompts

Shell	Prompt
C shell prompt	<code>machine_name%</code>
C shell superuser prompt	<code>machine_name#</code>
Bourne shell and Korn shell prompt	<code>\$</code>
Bourne shell and Korn shell superuser prompt	<code>#</code>



# Introduction to Accessibility

---

This chapter introduces you to accessibility in the GNOME desktop.

---

## Overview of Accessibility

The core business of Sun Microsystems is to connect people to information and services, including people with disabilities. Therefore, a key goal of Sun Microsystems is to provide a desktop that incorporates accessibility features to enable people with disabilities to use the desktop easily and efficiently. Recent legislation such as Section 508 of the U.S. Rehabilitation Act also heightens awareness of the need to provide accessible software.

The GNOME desktop is easy to use and incorporates many accessibility features. Every application and utility in the desktop is designed with accessibility and usability in mind. Users with physical disabilities such as low vision or impaired motor skills can use all of the functionality of the desktop thanks to the customization tools that are available. The customization tools enable you to customize the appearance and behavior of the desktop.

The customizability of the desktop contributes greatly to the accessibility of the desktop. This manual describes the various customization options that you can use to tailor the desktop to suit your particular needs.



# Configuring the Mouse and Keyboard

---

This chapter describes how to configure the mouse and keyboard to make these devices accessible to more users.

---

## Configuring the Mouse

Use the **Mouse** preference tool to configure the mouse to suit your needs. To open the **Mouse** preference tool, choose Applications → Desktop Preferences → Mouse. The **Mouse Preferences** dialog is displayed.

### To Configure the Behavior of the Mouse

The following sections describe how to modify the behavior of the mouse to suit your needs.

#### To Configure the Mouse for Left-Handed Use

To configure the mouse for left-handed use, click on the **Buttons** tab in the **Mouse Preferences** dialog, then select the **Left-handed mouse** option. When you select this option, the system swaps the functions of the left mouse button and the right mouse button immediately.

## To Configure the Double-Click Behavior

If you have difficulty double-clicking, you can increase the period of time that the system allows to elapse between the first click and the second click of a double-click. For example, if the double-click timeout setting is 0.4 seconds, you must perform the second click of a double-click within 0.4 seconds of the first click. If the second click occurs more than 0.4 seconds after the first click, the system interprets the two clicks as two single clicks.

To configure the double-click timeout setting, perform the following steps:

1. Click on the **Buttons** tab in the **Mouse Preferences** dialog.
2. Use the **Delay** slider to specify the timeout in seconds that the system allows between the two clicks of a double-click.
3. Double-click on the light bulb to the right of the slider to test the setting. If you perform the two clicks of the double-click within the timeout specified, the light bulb lights up fully to display a yellow glow around the bulb. If you do not double-click within the timeout specified, the light bulb does not light fully. You should increase the timeout setting and try again. When the light bulb lights, the timeout setting is suitable for your needs.

## To Configure the Speed and Sensitivity of the Mouse

To configure the speed and sensitivity of the mouse, perform the following steps:

1. Click on the **Motion** tab in the **Mouse Preferences** dialog.
2. Configure the following options:

**Acceleration**      Use the slider to specify the speed at which the mouse pointer moves around the screen when you move your mouse.

If you select a low setting, the mouse pointer moves at a speed similar to the speed at which you are physically moving the mouse. This means that you need to physically move the mouse larger distances to cover the screen area. If you select a high setting, the mouse pointer moves at a faster speed than the speed at which you are physically moving the mouse. This means that you need to physically move the mouse small distances to cover the screen area.

**Sensitivity**      Use the slider to specify how sensitive the mouse pointer is to movements of your mouse.

**Threshold**      Use the slider to specify the distance that you must move an item before the system interprets the move action as a drag-and-drop action.

## To Locate the Mouse Pointer

If you have difficulty locating the mouse pointer on the screen, you can enable an option to highlight the pointer when you press the Control key. To enable this option, click on the **Cursors** tab in the **Mouse Preferences** dialog, then select the **Show position of cursor when the Control key is pressed** option. When you press Control, the system displays an animation around the pointer to highlight the pointer.

## To Configure the Mouse Pointer

The following sections describe how to modify the display characteristics of the pointer.

### To Change the Pointer

To select the type of pointer that is displayed on the desktop, perform the following steps:

1. Click on the **Cursors** tab in the **Mouse Preferences** dialog.
2. Select one of the following themes from the pointer themes that are listed in the **Cursor Theme** list box:
  - **Default Cursor**  
Displays the default black pointer.
  - **White Cursor**  
Displays a white pointer that is the same size as the default pointer.
  - **Large Cursor**  
Displays a large black pointer.
  - **Large White Cursor**  
Displays a large white pointer.
3. To change the pointer theme, you must log out of your session and log in again.

### To Stop the Cursor Blinking

To stop the cursor blinking in text boxes and fields, perform the following steps:

1. Choose Applications → Desktop Preferences → Accessibility → Keyboard to start the Keyboard Accessibility preference tool.
2. Click on the Repeat Key Preferences button. The **Keyboard Preferences** dialog is displayed.

3. In the **Keyboard** tabbed section, deselect the **Blinks in text boxes and fields** option.

## To Use the Keyboard to Emulate the Mouse

If you have difficulty using a mouse, you can use the keyboard to emulate the mouse functions. See “To Enable the Keyboard to Emulate the Mouse” on page 18 of this manual for more information.

---

# Configuring the Keyboard

Use the Keyboard Accessibility preference tool, also known as AccessX, to configure the keyboard accessibility options. To start AccessX, choose Applications → Desktop Preferences → Accessibility → Keyboard.

The AccessX dialog enables you to customize your keyboard in the following ways:

- To use the numeric keypad to emulate mouse actions. See “To Enable the Keyboard to Emulate the Mouse” on page 18.
- To specify the duration for which you must press-and-hold a key before the system accepts the keypress. See “To Enable the Slow Keys Feature” on page 19.
- To ignore rapid, repeated keypresses of the same key. See “To Enable the Bounce Keys Feature” on page 20.
- To accept key combinations in sequence rather than simultaneously. See “To Enable the Sticky Keys Feature” on page 20.
- To emit an audible notification when a user activates or deactivates a toggle key. See “To Enable Audible Notifications for Toggle Keys” on page 22.
- To ignore long keypresses of the same key and control the repeat rate of a keypress. See “To Enable the Repeat Keys Feature” on page 22.

## Before You Can Use AccessX

Before you can use the AccessX preference tool, you must enable XKB on your Solaris system.

---

**Note** – XKB is not currently supported on Sun Ray™ systems.

---



To enable XKB on a non-Sun Ray system, perform the following steps:

1. Log in as root.
2. Check if the path and file `/etc/dt/config/Xservers` exists on your system.
3. If the `/etc/dt/config` directory does not exist, enter the following command:

```
mkdir -p /etc/dt/config
```

4. If the `Xservers` file is not present, enter the following command:

```
cp /usr/dt/config/Xservers /etc/dt/config/Xservers
```

5. Open the `Xservers` file in a text editor and scroll to the end of the file.
6. Append the following to the command line at the end of the file:

```
+kb
```

7. Save and close the file.
8. Enter the following command at a command line:

```
pkill -HUP dtlogin
```
9. Log out of your GNOME session and log in again.
10. To verify if XKB is running, enter `xdpyinfo` and search for `XKEYBOARD` in the extensions list.

## To Activate the Keyboard Accessibility Options

To activate the keyboard accessibility options, perform the following steps:

1. Select the **Enable keyboard accessibility** option.
2. Select the **Beep when enabling/disabling keyboard accessibility features** option to receive an audible notification each time a user enables or disables a keyboard accessibility option using the following keyboard shortcuts:
  - Press-and-hold Shift for eight seconds to enable or disable the slow keys feature.
  - Press Shift five times to enable or disable the sticky keys feature.
3. To automatically disable the keyboard accessibility options if the options are not used for a specified number of seconds, select the **Disable if unused for X seconds** option. Use the slider to specify the number of seconds of keyboard idle time required before the system disables the keyboard accessibility options.

This option is intended for computers that are shared by a number of different users, some of whom require the keyboard accessibility options.

## To Enable the Keyboard to Emulate the Mouse

The mouse keys feature enables you to use the numeric keypad on the keyboard to emulate mouse actions. This feature benefits users who have difficulty using a mouse or other pointing device. To enable and configure the mouse keys feature, perform the following steps:

1. Select the **Enable Mouse Keys** option.
2. Configure the following options to determine the behavior of the mouse pointer when you control the pointer from the numeric keypad:

<b>Maximum pointer speed</b>	Use this spin box to specify the maximum speed, in pixels per second, at which the pointer moves around the screen.
<b>Time to accelerate to max speed</b>	Use this spin box to specify the duration, in milliseconds, before the pointer accelerates to the maximum pointer speed.
<b>Start moving this long after keypress</b>	Use this spin box to specify the interval, in milliseconds, between a keypress and the time when the pointer starts to move.

When you enable mouse keys, the keys on the numeric keypad have the following functions:

**TABLE 2-1** Numeric Keypad to Mouse Functions Mapping

<b>Numeric Keypad Keys</b>	<b>Function</b>
1, 2, 3, 4, 6, 7, 8, 9	Move the mouse pointer around the screen
5	Mouse button click
0	Mouse button double-click
.	Mouse button press
/	Mouse button 1
*	Mouse button 2
–	Mouse button 3

Some systems also use the function keys to emulate the mouse buttons. The common function key to mouse button mappings are described in the following table.

**TABLE 2-2** Function Keys to Mouse Functions Mapping

Function Key	Function
F2	Mouse button 1
F3	Mouse button 2
F4	Mouse button 3

## To Enable the Slow Keys Feature

The slow keys feature enables you to customize how the keyboard handles user input in the following ways:

- Specify the duration for which you must press-and-hold a key before the system accepts the keypress. This aspect of the feature benefits users who frequently press keys that they do not intend to press.
- Enable audible indications of keyboard input and acceptance. This aspect of the feature benefits users who cannot see the result of a keypress.

To enable and configure the slow keys feature, perform the following steps:

1. Select the **Enable Slow Keys** option.

---

**Tip** – To select or deselect this feature from the keyboard, press-and-hold Shift for eight seconds. This keyboard shortcut automatically selects all of the slow keys options. If you selected the **Beep when enabling/disabling keyboard accessibility features** option, after four seconds the system beeps three times to indicate that the system is about to select or deselect the feature. If you enable this feature from the keyboard, you must press-and-hold Shift for eight seconds again to disable the feature.

---

2. Use the **Only accept keypress after x msecs** slider or spin box to specify the duration, in milliseconds, for which you must press and hold a key before the system accepts the keypress. Use the **Testing Area** to test the slow keys setting and modify the setting as required.
3. To enable audible indications of keyboard input and acceptance, select the following options:

**Beep when key is pressed**      Select this option to hear a beep when you press a key.

**Beep when key is accepted**      Select this option to hear a beep when the system accepts a keypress.

**Beep when key is rejected**      Select this option to hear a beep when the system rejects a keypress. The system rejects a keypress if

you do not press-and-hold the key for the duration that is specified in the **Only accept keypress after x msec**s setting.

## To Enable the Bounce Keys Feature

The bounce keys feature enables you to customize the keyboard to ignore rapid, repeated keypresses of the same key. For example, users with impaired motor skills might press the same key several times when they intend to press the key once. This feature enables you to customize the keyboard to ignore repeated keypresses.

To enable and configure the bounce keys feature, perform the following steps:

1. Select the **Enable Bounce Keys** option.
2. Use the **Ignore keypresses within x msec**s slider or spin box to specify the duration after the first keypress for which the system ignores repeated keypresses of the same key. For example, if you select a duration of 500 msec, the system ignores all repeated keypresses of the same key that occur within 500 msec of the first keypress.
3. Select the **Beep when key is rejected** option to hear an audible indication when the system ignores a key.

---

**Note** – If you wish to enable the bounce keys feature, please ensure that the **Enable Slow Keys** option is deselected. The slow keys feature requires you to press a key for a specified duration before the system accepts the keypress as a valid keypress. If you cannot press the key for the duration that is specified by the slow keys setting, the system does not accept your input unless you deselect the **Enable Slow Keys** option.

---

## To Enable the Sticky Keys Feature

The sticky keys feature enables you to press the keys in a key combination in sequence rather than simultaneously. This feature is designed for users who are unable to press two or more keys simultaneously.

To enable and configure the sticky keys feature, perform the following steps:

1. Select the **Enable Sticky Keys** option.

---

**Tip** – To enable the sticky keys feature from the keyboard, press Shift five times. This keyboard shortcut automatically selects all of the sticky keys options. If you selected the **Beep when enabling/disabling keyboard accessibility features** option, the system beeps to indicate that the system is about to select or deselect the feature. If you enable this feature from the keyboard, press Shift five times again to disable the feature.

---

2. Select the **Beep when modifier is pressed** option to receive an audible indication each time you press a modifier key. This option is useful to remind you whether a modifier key is active or inactive.
3. To automatically disable the sticky keys feature when a user presses two keys simultaneously, select the **Turn off Sticky Keys when two keys pressed simultaneously** option.

You can use the sticky keys feature in latch or lock mode. The following table describes how to choose a mode and the difference between the two modes.

**TABLE 2-3** Sticky Keys Latch or Lock Mode

To use the sticky keys feature in...	Press the modifier key...	The modifier key stays active until...
Latch mode	Once.	You press a non-modifier key.
Lock mode	Twice in quick succession.	You press the modifier key again.

For example, if you want to press Alt + F1, you should do the following:

1. Press Alt to latch the modifier key. The Alt key remains active.
2. Press F1. The key combination is now complete. After you press F1, the Alt modifier key is no longer active.

As another example, if you want to press Ctrl + Alt + Tab, you should do the following.

1. Press Ctrl twice to lock the modifier key. The Ctrl remains active.
2. Press Alt.
3. Press Tab. The key combination is now complete.
4. To unlock the modifier key, press Ctrl again.

## To Enable Audible Notifications for Toggle Keys

A toggle key is any key on the keyboard that can switch between two states. The Num Lock, Caps Lock, and Scroll Lock keys are toggle keys. Most toggle keys have an associated light emitting diode (LED) on the keyboard that lights when the toggle key is active. To assist users with visual impairments, you can customize the keyboard to emit an audible notification when a user presses a toggle key. For example, when you press Num Lock, you can determine whether the key is toggled or not toggled by the sound.

To enable accessible toggle keys, select the **Enable Toggle Keys** option. When you activate the Num Lock, Caps Lock, or Scroll Lock keys, the system beeps once. When you deactivate a toggle key, the system beeps twice.

## To Enable the Repeat Keys Feature

The repeat keys feature enables you to repeat a keystroke multiple times without pressing the key more than once. This feature is designed for users who cannot release keys quickly, for example users who operate a mouth stick. When you enable repeat keys, you can specify the duration for which you must press a key before the key starts to repeat.

To enable and configure the repeat keys feature, perform the following steps:

1. Click on the Repeat Key Preferences button. The **Keyboard Preferences** dialog is displayed.
2. Select the **Keyboard repeats when key is held down** option to enable the repeat keys feature.
3. Use the **Delay** slider to specify the duration for which you must press a key before the keyboard interprets the action as a repeat key. If you have difficulty releasing keys, select a long time delay.
4. Use the **Speed** slider to specify the speed at which the keyboard repeats the keypress as input.

# Using the Keyboard to Navigate the Desktop

---

This chapter describes how to navigate the desktop from the keyboard only. Users who have difficulty using a mouse or other pointing device can navigate and use the desktop from the keyboard.

---

## Introduction to Keyboard Navigation

This section describes the essential keyboard shortcuts to enable you to navigate the desktop from the keyboard.

You can customize some of the keyboard shortcuts that are described in this chapter. The text indicates the shortcuts that you can customize. See “Customizing Your Keyboard Shortcuts” on page 50 for information about how to customize keyboard shortcuts.

## Essential Keyboard Shortcuts

The following table lists the essential keyboard shortcuts that you can use to navigate the desktop. The keyboard shortcuts that you use to navigate specific desktop elements and controls are described in the appropriate sections of this chapter.

Keys	Function
Tab	Give focus to the next desktop element or control.

Keys	Function
Shift+Tab	Reverse the navigation direction and give focus to the previous desktop element or control. In general, the Shift key reverses the navigation direction.
Ctrl+Tab	If the Tab key has a specific purpose in a control, press Ctrl+Tab to give focus to the next element or control. For example, if you press Tab in a text box, the system inserts a tab space.  To give focus to the previous element or control, press Shift+Ctrl+Tab.
arrow keys	Navigate within a desktop element or control.
spacebar	Activate the element or control that has focus. For example, if the current control is a button, this action is the equivalent of clicking on the button with a mouse.
Esc	Close a window, menu, or drawer.

## Global Keyboard Shortcuts

The following table lists the keyboard shortcuts that you can use from any part of the desktop.

Keys	Function
Alt+F1	Open the Main Menu at the location of your mouse pointer.  You can customize this keyboard shortcut.
Alt+F2	Open the <b>Run Program</b> dialog.  You can customize this keyboard shortcut.
Print Screen	Take a screenshot of the entire screen.  You can customize this keyboard shortcut.
Alt+Print Screen	Take a screenshot of the window that currently has focus.  You can customize this keyboard shortcut.
F1	If the focused desktop element is an application window or dialog, this keyboard shortcut opens the online help for the application.



Keys	Function
Ctrl+ F1	If the focused desktop element is a panel or application window, this keyboard shortcut switches the display of tooltips for the window or panel objects on and off.
Shift+ F10	Open a popup menu for the desktop element that has focus, if a popup menu exists.

## Navigating the Desktop Background

The desktop background is the part of the desktop where there are no interface items or applications, such as panels and windows. The following table lists the keyboard shortcuts that you can use to navigate the desktop background and the desktop background objects. A desktop background object is an icon on the desktop background that you can use to open files, folders, or applications.

Keys	Function
Ctrl+Alt+D	Temporarily hide all windows and give focus to the desktop background.  To restore the windows, press Ctrl+Alt+D again.  You can customize this keyboard shortcut.
Ctrl+ Alt+Tab	Display a popup window with icons that represent the desktop background and the panels. Press-and-hold Ctrl+Alt and continue to press Tab to switch the focus between the desktop background and the panels.  You can customize this keyboard shortcut.
Tab	When the desktop background or a desktop background object has focus, give focus to the next desktop background object in alphabetical order.
arrow keys	When the desktop background or a desktop background object has focus, give focus to a neighboring desktop background object.
A sequence of characters that matches the first n characters of a desktop background object name.	When the desktop background has focus, give focus to the desktop background object whose name starts with the specified sequence of characters.

Keys	Function
F2	Rename the desktop background object that has focus.
Shift+F10	Open the popup menu for the desktop background object that has focus.
Ctrl+F10	Open the Desktop Background menu.

## Navigating Panels

A panel is an area on the desktop from which you can run special programs, applications, and applets. The most common panel is the Menu Panel, which stretches the full width of the top edge of the desktop. The following table lists the keyboard shortcuts that you can use to navigate panels and panel objects.

Keys	Function
Ctrl+ Alt+Tab	Give focus to a panel. This keyboard shortcut displays a popup window with icons that represent the desktop background, panels, and drawers. Press-and-hold Ctrl+Alt and continue to press Tab to switch the focus between the desktop background, panels, and drawers.  You can customize this keyboard shortcut.
Tab	Give focus to the next object on the panel.  <b>Note</b> – When you navigate the Menu Panel, the Tab key skips the Applications and Actions menus and the Window List icon.
F10	Open the Applications menu when the Menu Panel has focus. Continue to press F10 to switch focus between the Applications menu and the window list.
spacebar	Activate a panel object, for example, open a menu or start a launcher.
Shift+ F10	Open the panel object popup menu.
Ctrl+F10	Open the panel popup menu.

## To Move a Panel Object

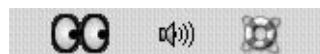
You can move a focused panel object to a different location on a panel or drawer, or you can move the object to the next panel. To move a panel object, perform the following steps:

1. Press Tab to give focus to the object.
2. Press Shift+F10 to open the panel object popup menu.
3. Use the arrow keys to select the Move menu item.
4. Use the keyboard shortcuts that are listed in the following table to perform the move operation.

Keys	Function
arrow keys	Move the object left and right on a horizontal panel or up and down on a vertical panel.
Shift+ arrow keys	Move the object and push any objects that you encounter in front of the object.
Ctrl+ arrow keys	Move the object and swap position with any objects that you encounter in the move.
Tab	Move the object to the next panel.
spacebar	Complete the move operation.

The following examples demonstrate the effect of different move operations on the objects in a panel.

The following illustration shows a panel with three panel objects before a move operation takes place.



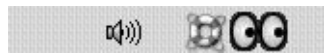
The following illustration shows the effect of using the arrow keys to move the Geyes applet on the panel. You can use the arrow keys to move the applet left or right until you meet the next panel object.



The following illustration shows the effect of using the Shift + arrow keys to move the Geyes applet on the panel. You can use the Shift+ arrow keys to push the Volume Control and Help panel objects ahead of the object that you are moving.



The following illustration shows the effect of using the Ctrl + arrow keys to move the Geyes applet on the panel. You can use the Ctrl + arrow keys to swap position with the Volume Control and Help panel objects as you meet the objects.



## To Navigate Drawers

A drawer is a collapsible extension of a panel. The following table lists the keyboard shortcuts that you can use to navigate into and out of drawers. When you open a drawer, you can navigate the contents of the drawer in the same way as you navigate a panel. See "Navigating Panels" on page 26 for information about how to navigate a panel.

Keys	Function
spacebar	Open or close the drawer that has focus.
arrow keys	Navigate into the drawer that has focus.
Esc	Close the drawer and give focus to the drawer object on the panel.
Shift+Esc	Give focus to the drawer object on the panel and leave the drawer open.

## To Navigate Menus on Panels

The following table lists the keyboard shortcuts that you can use to navigate menus on panels.

Keys	Function
spacebar	Open the menu that has focus.
arrow keys	Navigate the menu.
spacebar	Select a menu item.
Shift+F10	Open the popup menu associated with a menu item, if one exists.
Esc	Close a menu.

## To Navigate Applets

An applet is a small application that resides on a panel. You can navigate to all applets and open the applet popup menu from the keyboard. However, if the applet does not contain controls that you can give focus to, you cannot navigate the controls in the applet. The following table lists the keyboard shortcuts that you can use to navigate applets.

Keys	Function
spacebar	Activate the applet control that has focus, if applicable. Not all applets contain controls that you can activate. If the applet does not contain a control that you can activate, the spacebar does nothing.
arrow keys	Navigate the controls on the applet.
Shift+F10	Open the applet popup menu. To navigate the menu, use the standard keyboard shortcuts for navigating menus. See “To Navigate Menus” on page 39 for information about how to navigate menus.

---

## Navigating Your Workspaces

A workspace is a discrete area in which you can work. You can have many workspaces on your desktop and you can switch from one workspace to another. Each workspace can contain different windows and processes. The following table lists the keyboard shortcuts that you can use to navigate workspaces.

Keys	Function
Ctrl+ Alt + arrow keys	Give focus to the next or previous workspace. This keyboard shortcut displays a popup window with icons that represent the workspaces. Press and hold Ctrl+Alt and continue to press the arrow keys to switch the focus between the workspaces.  You can customize this keyboard shortcut.
Shift+ Alt + arrow keys	Move the window that has focus to the next or previous workspace.  You can customize this keyboard shortcut.

---

## Navigating Windows

The following sections describe the keyboard shortcuts that you can use to navigate windows. A window is a rectangular frame on your screen that displays an application.

---

**Note** – You can customize all of the keyboard shortcuts that are associated with navigating windows. See “Navigating Your Workspaces” on page 30 for more information.

---

### To Give Focus to a Window

Before you can use or modify a window, you must give focus to the window. The following table lists the keyboard shortcuts that you can use to give focus to a window.

Keys	Function
Alt+ Tab	Display a popup window with icons that represent each window. Press-and-hold Alt and continue to press Tab to move through the windows until you reach the window to which you want to give focus.
Alt+Esc	Raise each window in turn until you reach the window to which you want to give focus.

## To Control a Window

When a window has focus, you can perform various actions on the window. The following table lists the keyboard shortcuts that you can use to control the window that has focus.

Keys	Function
Alt+ spacebar	Open the Window Menu.
Alt+F4	Close the window.
Alt+F9	Minimize the window.
Alt+F10	Maximize the window.
Alt+F5	Restore a maximized window to the original size of the window.

## To Move a Window

When a window has focus, you can move the window around the screen. The following table lists the keyboard shortcuts that you can use to move a window.

Keys	Function
Alt+F7	Start the move operation.
arrow keys	Move the window 10 pixels at a time in the direction of the arrow key.
Ctrl+ arrow keys	Move the window one pixel at a time in the direction of the arrow key.

<b>Keys</b>	<b>Function</b>
Shift + arrow keys	Move the window in the direction of the arrow key to align it with the edge of the nearest window, panel, or screen edge.
spacebar	Complete the move operation and leave the window in the current position.
Esc	Cancel the move operation and restore the window to the original position.

## To Resize a Window

When a window has focus, you can increase or decrease the size of the window. The following table lists the keyboard shortcuts that you can use to resize the window that has focus.

<b>Keys</b>	<b>Function</b>
Alt+F8	Start the resize operation.
arrow keys	Resize the window in the direction of the arrow keys.
spacebar	Complete the resize operation and leave the window at the current size.
Esc	Cancel the resize operation and restore the window to the original size.

## To Navigate Paned Windows

A paned window is a window that is split into two or more panes. The Help browser and the Nautilus file manager are examples of applications that use paned windows.





**FIGURE 3-1** Example of a Paned Window

The following table describes the keyboard shortcuts that you can use to navigate windows with panes.

Keys	Function
F6	Give focus to the next pane. The system gives focus to the control that last had focus in the pane.

Keys	Function
F8	Give focus to the first resize handle in the window. The resize handle is displayed between the panes and enables you to resize the panes. Press F8 again to give focus to the next resize handle.

When the resize handle has focus, you can use the keyboard shortcuts that are listed in the following table to modify the paned window.

Keys	Function
arrow keys	Move the resize handle by a small amount.
Ctrl + arrow keys	Move the resize handle by a large amount.
Home	Reduce the size of the pane to the left of the resize handle for vertical panes, or above the resize handle for horizontal panes, to the minimum size allowed.
End	Increase the size of the pane to the left of the resize handle for vertical panes, or above the resize handle for horizontal panes, to the maximum size allowed.
spacebar	Set the position of the resize handle and return the focus to the last control that had focus.
Esc	Reset the position of the resize handle to the original position and return the focus to the last control that had focus.

## Navigating Applications

An application is any program, utility, or other software package that you run on your desktop. Applications comprise the following standard user interface components:

- Windows** A window is a rectangular frame on your screen that displays an application. See “Navigating Windows” on page 30 for information about how to navigate windows.
- Dialogs** A dialog is a popup window in which you enter information or commands. See “Essential Keyboard Shortcuts for Navigating Dialogs” on page 36 for information about how to navigate dialogs.
- Controls** A control is an instrument that you use to operate or guide the user interface. For example, buttons, check boxes, menus, and text boxes are controls. See “Navigating Standard Elements and Controls” on page 39

for detailed information about how to navigate the different types of controls that are available.

This section of the manual describes the essential keyboard shortcuts that you can use to start using applications and dialogs.

## Essential Keyboard Shortcuts for Navigating Applications

Since there are many applications that you can use in the desktop, this manual does not describe the keyboard shortcuts that you can use to navigate all of the different applications. However, the basic keyboard shortcuts are common to all applications. Access keys also provide an efficient way to navigate an application from the keyboard. An access key is identified by an underlined letter on a menu or control. In some cases, you must press Alt in combination with the access key to perform an action.

The following table lists the essential keyboard shortcuts that you can use to navigate applications.

Keys	Function
F10	Open the first menu on the application menubar.
Alt + access key	Open the menu that is associated with the access key.
access keys	Select the menu item that is associated with the access key.
left arrow and right arrow	Switch focus between the menus on the menubar.
up arrow and down arrow	Move focus into a menu.
Esc	Close the open menus and give focus to the control that had focus before the menubar.

## Essential Keyboard Shortcuts for Navigating Dialogs

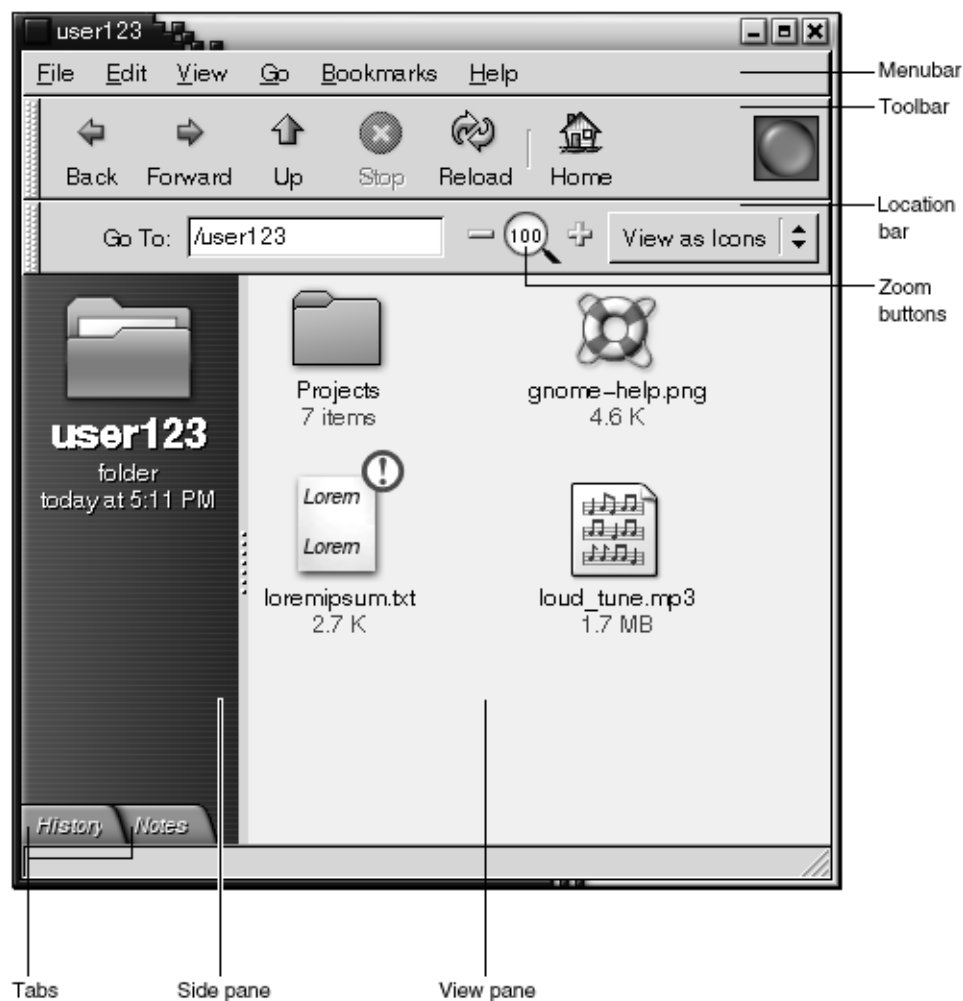
The following table lists the essential keyboard shortcuts that you can use to navigate dialogs.

Keys	Function
Alt+access key	Activate or select a control.
Tab	Give focus to the next control.
Ctrl+ Page Up	Move to the next tabbed section of the dialog, if the dialog contains tabbed sections.
Ctrl+Page Down	Move to the previous tabbed section of the dialog, if the dialog contains tabbed sections.
Esc	Close the dialog.
Return	Perform the default action for the dialog. The default action is usually to apply the changes and close the dialog.

---

## Navigating Nautilus File Manager

The Nautilus file manager window contains several components and there are different keyboard shortcuts defined to navigate each component. The following graphic illustrates the name and location of each component.



**FIGURE 3-2** Nautilus File Manager Window Components

## To Navigate the View Pane

The following table describes the keyboard shortcuts that enable you to navigate the list and icon views of the file manager view pane. To navigate the music view of the file manager view pane, see “Navigating Standard Elements and Controls” on page 39 for information about how to navigate standard user interface controls.

Keys	Function
F6	Switch focus between the side pane and the view pane.
arrow keys	Select the next or previous file or folder in the direction of the arrow key.
Tab	Select the next file or folder in the current order.
Ctrl+ arrow keys	Give focus to the next or previous file or folder but do not select the item.
Ctrl+ spacebar	Add the focused file or folder to the current selection.
spacebar	Open the focused file or folder.
A sequence of characters that matches the first n characters of a filename.	In an icon view, select the first file or folder that starts with the specified sequence of characters.
Ctrl+ F	In a list view, display a popup dialog where you can enter a sequence of characters that matches the first n characters of a filename.

## To Navigate the Side Pane

The following table describes the keyboard shortcuts that enable you to navigate the file manager side pane in general.

Keys	Function
F6	Switch focus between the side pane and the view pane.
Shift+ F10	Open the side pane popup menu.
Shift+Tab	Switch the focus from the tab contents to the tab name.
arrow keys	Give focus to the next or previous tab name, when a tab name has focus.
spacebar	Display or hide the tab that has focus. The tab name remains in focus.
Tab	Move the focus from the tab name to the tab contents.

The following table describes the keyboard shortcuts that enable you to navigate the **History** tab in the side pane.

Keys	Function
arrow keys	Give focus to the next or previous file or folder in the history list.
spacebar	Open the file or folder that has focus in the history list.

For information about how to navigate the **Notes** tab of the file manager side pane, see “To Navigate Text Boxes” on page 41 for information about how to navigate multi-line text boxes.

For information about how to navigate the **Tree** tab of the file manager side pane, see “To Navigate Trees” on page 50.

---

## Navigating Standard Elements and Controls

The following sections describe how to navigate and use standard user interface elements and controls from the keyboard.

### To Navigate Menus

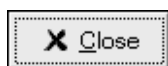
The following table lists the keyboard shortcuts that you can use to navigate menus.

Keys	Function
up arrow and down arrow	Give focus to the next or previous menu item on a menu.
right arrow	If the menu item that has focus is a submenu, open the submenu and give focus to the first menu item on the submenu.  If the menu item that has focus is not a submenu, open the next menu on the menubar.
left arrow	If the menu item that has focus is a submenu item, switch the focus back to the submenu.  If the menu item that has focus is not a submenu item, open the previous menu on the menubar.

Keys	Function
Return	Select the focused menu item and close the open menus.
access key	Select the menu item that is associated with the access key and close the open menus.
spacebar	Select the focused menu item and close the open menus except when the menu item is a check box or radio button. If the menu item is a check box or radio button, the menu does not close.
Esc	Close the open menus.

## To Navigate Buttons

A button is a control that you use to start an action. Most buttons are rectangular and contain a text label.



**FIGURE 3-3** Sample Button

The following table lists the keyboard shortcuts that you can use to navigate buttons.

Keys	Function
spacebar	Activate the button that has focus. This is the equivalent of clicking on the button.
Return	Activate the button that has focus or, if no button has focus, perform the default action for the dialog.

## To Navigate Radio Buttons

A radio button is a control that you use to select one of several mutually-exclusive options.



- Search from the beginning of the document
- Search from the cursor position

**FIGURE 3-4** Sample Radio Button

The following table lists the keyboard shortcuts that you can use to navigate a set of radio buttons.

Keys	Function
arrow keys	Select the next or previous radio button and deselect the other radio buttons in the group.

## To Navigate Check Boxes

A check box is a control that you use to select or deselect an option.

- Case sensitive

**FIGURE 3-5** Sample Check Box

The following table lists the keyboard shortcuts that you can use to navigate a check box.

Keys	Function
spacebar	Select or deselect the check box.

## To Navigate Text Boxes

Text boxes are controls in which you type text.

Title:

**FIGURE 3-6** Sample Single Line Text Box

The following table lists the keyboard shortcuts that you can use to navigate a single line text box.

<b>Keys</b>	<b>Function</b>
left arrow	Position the cursor one character to the left.
right arrow	Position the cursor one character to the right.
Ctrl+left arrow	Position the cursor at the start of the current word. Press-and-hold Ctrl and continue to press left arrow to position the cursor at the start of the previous word.
Ctrl+right arrow	Position the cursor at the end of the current word. Press-and-hold Ctrl and continue to press right arrow to position the cursor at the end of the next word.
Home	Position the cursor at the start of the line.
End	Position the cursor at the end of the line.
Shift+ left arrow or right arrow	Select one character at a time to the left or right of the cursor.
Shift+Ctrl+left arrow or right arrow	Select one word at a time to the left or right of the cursor.
Shift+ Home	Select all text to the left of the cursor.
Shift+End	Select all text to the right of the cursor.
Ctrl+A	Select all text in the text box.

In addition to the keyboard shortcuts listed in the previous table, use the keyboard shortcuts in the following table to navigate multi-line text boxes.

<b>Keys</b>	<b>Function</b>
Page Up	Position the cursor at the top of the current view. Press Page Up again to position the cursor at the top of the previous view.
Page Down	Position the cursor at the end of the current view. Press Page Down again to position the cursor at the end of the previous view.
Ctrl+up arrow	Position the cursor at the start of the current paragraph. Press-and-hold Ctrl and continue to press up arrow to position the cursor at the start of the previous paragraph.

Keys	Function
Ctrl+down arrow	Position the cursor at the end of the current paragraph. Press-and-hold Ctrl and continue to press down arrow to position the cursor at the end of the next paragraph.
Ctrl+Page Up	Position the cursor one view width to the left.
Ctrl+Page Down	Position the cursor one view width to the right.
Ctrl+Home	Position the cursor at the start of the text box.
Ctrl+End	Position the cursor at the end of the text box.
Ctrl+Tab	Give focus to the next control on the dialog.
Shift+ Page Up	Select the text to the start of the current view. Press-and-hold Shift and continue to press Page Up to extend the selection to the start of the previous view.
Shift+Page Down	Select the text to the end of the current view. Press-and-hold Shift and continue to press Page Down to extend the selection to the end of the next view.
Shift+Home	Select the text to the start of the line.
Shift+End	Select the text to the end of the line.
Shift+Ctrl+up arrow	Select the text to the start of the paragraph, then to the start of the previous paragraph.
Shift+ Ctrl+down arrow	Select the text to the end of the paragraph, then to the end of the next paragraph.
Shift+ Ctrl+Home	Select the text to the start of the text box.
Shift+ Ctrl+End	Select the text to the end of the text box.

## To Navigate Spin Boxes

A spin box is a control that allows you to type a numeric value or select a value from a list of all possible values.



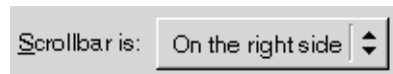
**FIGURE 3-7** Sample Spin Box

The keyboard shortcuts that you use to navigate the text box area of a spin box are listed in “To Navigate Text Boxes” on page 41. The following table lists the keyboard shortcuts that you can use to navigate the up and down arrows in the spin box.

Keys	Function
up arrow or down arrow	Increase or decrease the value of the spin box by a small amount.
Page Up or Page Down	Increase or decrease the value of the spin box by a large amount.

## To Navigate Drop-Down List Boxes

A drop-down list box is a control that you use to select one of several available items. The drop-down list box contains a button that you use to display the available items.



**FIGURE 3-8** Sample Drop-Down List Box

The following table lists the keyboard shortcuts that you can use to navigate a drop-down list box.

Keys	Function
spacebar	This key performs one of the following functions: <ul style="list-style-type: none"> <li>■ If the drop-down list is not open, this key opens the drop-down list.</li> <li>■ If the drop-down list is open, this key accepts the current selection and closes the list.</li> </ul>
up arrow	Select the previous list item.
down arrow	Select the next list item.
Esc	Close the list without changing the selection.

## To Navigate Drop-Down Combination Boxes

A drop-down combination box is a text box with a drop-down list box attached.



**FIGURE 3-9** Sample Drop-Down Combination Box

When the text box has focus, use the keyboard shortcuts that are listed in “To Navigate Text Boxes” on page 41 to navigate the text box area. When the text box has focus, you can also use the keyboard shortcuts in the following table to navigate the drop-down list area.

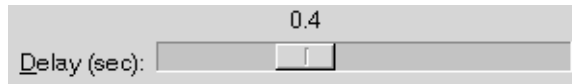
Keys	Function
up arrow	Select the previous item from the drop-down list without displaying the list.
down arrow	Select the next item from the drop-down list without displaying the list.
Ctrl+ down arrow	Open the drop-down list.

When the drop-down list has focus, you can use the keyboard shortcuts that are listed in the following table to navigate the drop-down list.

Keys	Function
up arrow	Select the previous list item.
down arrow	Select the next list item.
Home	Select the first item on the list.
End	Select the last item on the list.
Page Up	Select the item at the top of the current list view.
Page Down	Select the item at the bottom of the current list view.
spacebar	Accept the current selection and close the drop-down list.
Ctrl+Page Up	Scroll to the left of the list, if required.
Ctrl+Page Down	Scroll to the right of the list, if required.

## To Navigate Sliders

A slider is a control that you use to set a value in a continuous range of values.

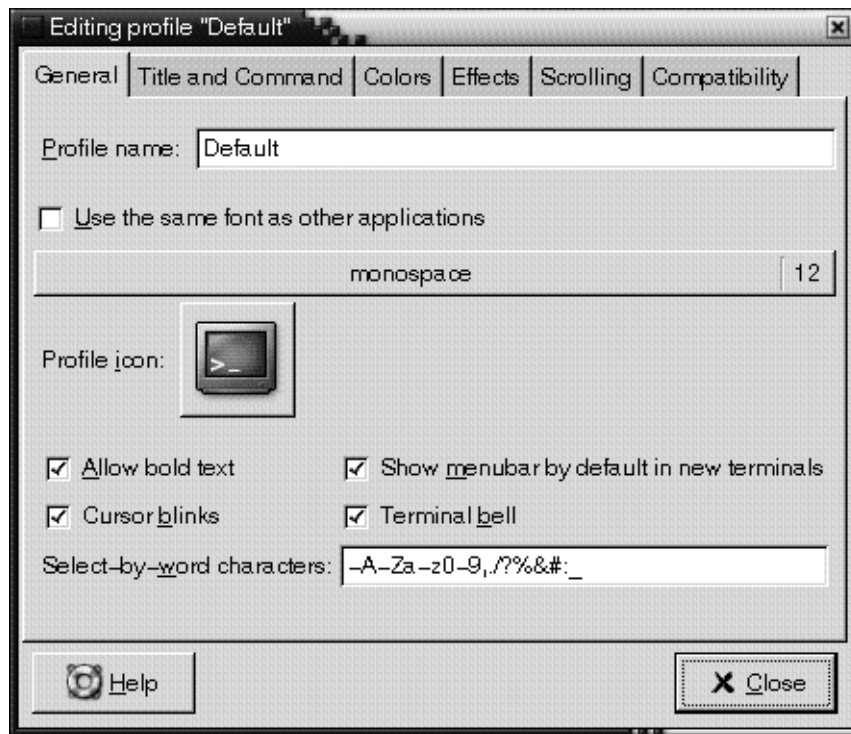


**FIGURE 3-10** Sample Slider

The following table describes the keyboard shortcuts that you can use to navigate a slider.

<b>Keys</b>	<b>Function</b>
left arrow or up arrow	Move the slider left or up by a small amount.
right arrow or down arrow	Move the slider right or down by a small amount.
Page Up	Move the slider left or up a large amount.
Page Down	Move the slider right or down a small amount.
Home	Move the slider to the maximum value.
End	Move the slider to the minimum value.

## To Navigate Tabbed Sections



**FIGURE 3-11** Sample Dialog with Tabbed Sections

Windows and dialogs are sometimes divided into logical sections that are displayed one section at a time on the window or dialog. The divisions are called tabbed sections that are identified by a tab with a text label.

The following table lists the keyboard shortcuts that you can use to navigate the tabbed sections of a window or dialog when a tab name has focus.

Keys	Function
left arrow	Give focus to the previous tabbed section.
right arrow	Give focus to the next tabbed section.
Tab or Ctrl+down arrow	Give focus to the first control on the active tabbed section.

The following table lists the keyboard shortcuts that you can use to navigate the tabbed sections of a window or dialog when a control on a tabbed section has focus.

Keys	Function
Ctrl+ Page Up	Give focus to the previous tabbed section.  This keyboard shortcut does not work if the focused control uses Ctrl+ Page Up for another purpose.
Ctrl+Page Down	Give focus to the next tabbed section.  This keyboard shortcut does not work if the focused control uses Ctrl+ Page Down for another purpose.
Ctrl+Tab	Give focus to the next control outside the tabbed sections.

## To Navigate Lists

The following table lists the keyboard shortcuts that you can use to navigate multi-column lists when a column header has focus.

Keys	Function
left arrow or right arrow	Give focus to the previous or next column header.
spacebar	Activate the header. This action usually sorts the list by the column header.
Tab	Give focus to the list contents.

The following table lists the keyboard shortcuts that you can use to navigate lists when the contents of the list has focus.

Keys	Function
arrow keys	Select the next or previous row or column.
Page Up	Select the top row of the list contents that are in view. Press Page Up again to select the top row of the previous view.
Page Down	Select the bottom row of the list contents that are in view. Press Page Down again to select the bottom row of the next view.
Home	Select the first row in the list.
End	Select the last row in the list.



<b>Keys</b>	<b>Function</b>
Shift+arrow keys	For lists that support multiline selections, add the next or previous row or column to the current selection.  For lists that only allow single line selections, select the next or previous row or column.
Shift+Page Up	Select all the rows between the current selection and the top row of the view.
Shift+Page Down	Select all the rows between the current selection and the bottom row of the view.
Shift+Home	Select all the rows between the current selection and the first row in the list.
Shift+End	Select all the rows between the current selection and the last row in the list.
Ctrl+arrow keys	Give focus to the next row or column but do not extend the selection.
Ctrl+Page Up	Give focus to the top row in the view but do not extend the selection.
Ctrl+Page Down	Give focus to the bottom row in the view but do not extend the selection.
Ctrl+Home	Give focus to the first row in the list but do not extend the selection.
Ctrl+End	Give focus to the last row in the list but do not extend the selection.
Ctrl+spacebar	Add the focused row to the selection or remove the focused row from the selection.
spacebar	If the selected item is a text box, this key enables you to edit the item.  If the selected item is a check box, this key enables you to select or deselect the check box.
Return	Activate the item.
Ctrl+A	For lists that support multiline selections, select all rows in the list.
Shift+ Tab	Give focus to the column header, if applicable.

## To Navigate Trees

A tree is a user interface control that contains sections that you can expand and collapse. A tree usually represents a hierarchical structure.

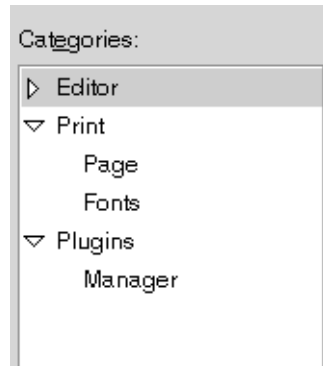


FIGURE 3-12 Sample Tree Structure

To navigate trees, you can use the same keyboard shortcuts that are listed in “To Navigate Lists” on page 48. In addition, the following table lists the keyboard shortcuts you can use for the tree items.

Keys	Function
+ (plus)	Expand the focused item.
- (minus)	Collapse the focused item.
Back Space	Select the parent item.

---

## Customizing Your Keyboard Shortcuts

Use the Keyboard Shortcuts preference tool to display the default keyboard shortcuts that you use to navigate the desktop. You can customize the default keyboard shortcuts to meet your requirements. You can also create hot keys. Hot keys are keyboard shortcuts that start applications.

To start the Keyboard Shortcuts preference tool, choose Applications → Desktop Preferences → Keyboard Shortcuts. The **Desktop shortcuts** table lists the keyboard shortcut that is associated with each action.

To customize a keyboard shortcut, perform the following steps:

1. Click on the action for which you want to customize the keyboard shortcut. The row is highlighted.
2. Click on the keyboard shortcut in the **Shortcut** column. The following text is displayed in the **Shortcut** column:  
Type a new accelerator, or press Backspace to clear
3. Press the keys that you want to associate with the action. The new keyboard shortcut is displayed in the **Shortcut** column.

To disable a keyboard shortcut, perform the following steps:

1. Click on the action for which you want to disable the keyboard shortcut. The row is highlighted.
2. Click on the keyboard shortcut in the **Shortcut** column. The following text is displayed in the **Shortcut** column:  
Type a new accelerator, or press Backspace to clear
3. Press Back Space. The keyboard shortcut is disabled.



# Customizing the Appearance of the Desktop

---

This chapter describes the methods you can use to change the appearance of the desktop to enhance the accessibility of the desktop for users with visual impairments.

---

## Customization Options

There are a number of methods to enable you to customize the appearance of the desktop to suit your specific needs, as follows:

### Themes

Themes are the most effective way to change the appearance of the desktop in a consistent manner. See “Using Themes to Customize the Desktop” on page 54 for more information about themes and how to use themes to achieve the type of desktop that you require.

### Desktop and application-specific configuration settings

You can customize different components of the desktop individually to achieve the display settings that you require. You can configure the desktop and applications in addition to using themes or as an alternative to using themes. See “Customizing Specific Components of the Desktop” on page 56 for more information.

The following table summarizes the changes that you can make to the desktop and where you can make the changes. This manual does not provide detailed instructions about how to customize the desktop. For detailed instructions about how to use the customization tools that the desktop provides, refer to the online help for each tool or to the *GNOME 2.0 Desktop for the Solaris Operating Environment User Guide*.

**TABLE 4-1** Quick Reference to Customizing the Appearance of the Desktop

To change the...	Use...
Overall appearance of the desktop to use high contrast colors, low contrast colors, or large print.	The Theme preference tool.
Appearance of the desktop background only.	The Background preference tool and the Nautilus file manager <b>Preferences</b> dialog.
Font displayed on the desktop background and in all desktop applications.	The Font preference tool.
Default font settings of the gedit text editor or Terminal application. By default, gedit and Terminal use the default application font that is specified in the Font preference tool.	The <b>Preferences</b> dialog for the application.
Appearance of icons and tabs in the Nautilus file manager application.	The <b>View</b> menu and the <b>Preferences</b> dialog in the Nautilus file manager application.

---

## Using Themes to Customize the Desktop

This section describes how to use themes to customize the appearance of the desktop.

### Introduction to Themes

You can use themes to modify and control the appearance of the desktop in a consistent manner. A theme is a group of coordinated settings that specifies how a desktop component or a group of desktop components appears. When you apply a theme, the system modifies many desktop components simultaneously to achieve the desired effect. For example, if you apply a theme that increases the font size across the desktop, the theme also modifies the size of panels and icons on the desktop for optimum compatibility with the font size.

The following types of themes affect different parts of the desktop:

Desktop themes

Desktop themes determine the visual appearance of all windows, applications, dialogs, panels, and applets. Desktop themes also determine the visual appearance of the GNOME-compliant interface items that appear on windows, panels, and applets, such as menus, icons, and buttons. Some of the

	desktop themes that are available in the desktop are designed for special accessibility needs.
Window frame themes	Window frame themes determine the appearance of the frames around windows only.
Nautilus file manager themes	Nautilus file manager themes determine the appearance of desktop background objects, Nautilus icons, and the font used on tabs in the Nautilus side pane.

## To Choose a Desktop Theme

To open the Theme preference tool and view the desktop themes that are available, choose Applications → Desktop Preferences → Theme. The **Theme Preferences** dialog is displayed. Click on the **Widget Theme** tab to display the desktop themes that are available. To choose a new theme for the desktop, click on a theme in the **Widget Theme** list box. The system automatically applies the theme to the desktop.

There are several desktop themes available that suit different accessibility needs. These themes are described in the following table:

**TABLE 4–2** Desktop Themes Designed for Accessibility Requirements

Theme Name	Description
<b>HighContrast</b>	Provides dark text on a light background using high contrast colors.
<b>HighContrastInverse</b>	Provides light text on a dark background using high contrast colors.
<b>LowContrast</b>	Uses low contrast colors for the background and foreground text.
<b>LargePrint</b>	Increases the font size to 18pt. The background and foreground colors are the same as those specified by the <b>Default</b> desktop theme.
<b>HighContrastLargePrint</b>	Provides dark text on a light background using high contrast colors and increases the font size to 18pt.
<b>HighContrastLargePrintInverse</b>	Provides light text on a dark background using high contrast colors and increases the font size to 18pt.

**TABLE 4-2** Desktop Themes Designed for Accessibility Requirements (Continued)

Theme Name	Description
<b>LowContrastLargePrint</b>	Uses low contrast colors for the background and foreground text and increases the font size to 18pt.

## To Choose a Window Frame Theme

To open the Theme preference tool and view the window frame themes that are available, choose Applications → Desktop Preferences → Theme. The **Theme Preferences** dialog is displayed. Click on the **Window Frames** tab to display the window frame themes that are available. The **Atlanta** theme is an accessible theme.

## To Choose a Nautilus Theme

Nautilus file manager themes determine the appearance of desktop background objects, Nautilus icons, and the font used on tabs in the Nautilus side pane. To select a Nautilus theme, perform the following steps:

1. Start the Nautilus file manager.
2. Choose Edit → Preferences to display the **Preferences** dialog.
3. Click on the **Appearance** category to display the Nautilus themes that are available. The accessible Nautilus themes correspond to the accessible desktop themes that are listed in Table 4-2.
4. Select the theme that matches the desktop theme that you selected.

## To Create Your Own Themes

For information about how to create your own desktop themes and window frame themes, see the *GNOME 2.0 Desktop for the Solaris Operating Environment System Administration Guide*.

---

# Customizing Specific Components of the Desktop

This section describes how to customize specific components of the desktop individually.



## To Customize the Desktop Background

The desktop themes do not affect the desktop background. Therefore to modify the desktop background to complement your desktop, you must customize the desktop background separately using the Background preference tool. To start the Background preference tool, choose Applications → Desktop Preferences → Background.

## To Customize Desktop Background Objects

The size of the icons that are displayed on the desktop background is controlled by the Nautilus file manager. To change the size of the icons, perform the following steps:

1. Start the Nautilus file manager.
2. Choose Edit → Preferences..
3. Select the **Views** category.
4. In the **Icon View Defaults** group, select the zoom level that you require in the **Default zoom level** spin box.

## To Customize Fonts

This section describes how to customize the font settings for the desktop and frequently-used applications.

If you have difficulty with the default font type and font size that is used on the desktop and desktop background, you can customize the font settings to suit your needs.

You can specify individual font settings for the following desktop components and applications:

- Entire desktop excluding the desktop background
- Desktop background only
- Terminal
- gedit text editor
- Nautilus file manager

## To Customize the Desktop Fonts

The Font preference tool allows you to specify the default fonts for the desktop.

To start the Font preference tool, choose Applications → Desktop Preferences → Font. The **Font Preferences** dialog contains the following options:

**Application font** Click on this button to select a default font to use for the text that is displayed on the desktop, including the text displayed on the windows and dialogs associated with GNOME-compliant applications and applets.

---

**Note** – If you use the Theme preference tool to select a theme that modifies the application font, the theme setting overrides the font that you select using the Font preference tool.

---

**Desktop font** Click on this button to select a font to use for the text that is displayed on the desktop background only.

---

**Note** – If you use large fonts, you may need to change the size of panes in applications that use panes such as, Nautilus file manager and Yelp.

---

## To Customize the Terminal Font

By default, the Terminal application uses the default font settings that are specified in the Font preference tool to display the text in the Terminal window components such as the titlebar, toolbar, menubar, and application dialogs. However, Terminal uses fixed-width fonts to display the contents of the Terminal window, that is the text that is displayed at the command line.

To change the font settings for the contents of the Terminal window, start the Terminal application, then choose Edit → Current Profile. In the **General** tabbed section, specify a font for the window contents as follows:

1. Deselect the **Use the same font as other applications** option.
2. Click on the font selector button to select the font type and font size to use for the contents of the Terminal window.

## To Customize the gedit Text Editor Font

By default, the gedit application uses the default font settings that are specified in the Font preference tool to display the text in the gedit window components such as the menubar, toolbar, and application dialogs. However, you can customize the font that gedit uses to display the text editor window contents. To customize the font settings for the gedit window contents, perform the following steps:

1. In the gedit application, choose Edit → Preferences.
2. In the **Preferences** dialog, select the **Fonts & Colors** category.

3. Perform one of the following steps:
  - To use the default desktop font that is specified in the Font preference tool, select the **Use default theme font** option.
  - To specify a font, deselect the **Use default theme font** option, then click on the Font used by the editor button to display the font selector dialog.

## To Customize the Nautilus File Manager Font

By default, the Nautilus file manager uses the default font settings that are specified in the Font preference tool to display the text in the file manager window. However, you can further customize the font that is used in the file manager view pane. To customize the font that is used in the view pane, click on the View menu in the file manager, then select one of the following menu items:

- To enlarge the text, select Zoom In.
- To reduce the text, select Zoom Out.
- To reset the text to the default font setting, select Normal Size.

---

## Meeting Specific Accessibility Needs

The following sections summarize the steps you need to take to improve the accessibility of the desktop in a particular area.

### To Achieve a High or Low Contrast Desktop

To achieve a high or low contrast desktop, perform the following steps:

1. Use the Theme preference tool to select the high contrast or low contrast desktop theme that you require.
2. Use the Theme preference tool to select a window frame theme. You should select the **Atlanta** window frame theme for use with high contrast desktop themes. The **Atlanta** window frame theme may also improve readability for some users. However, you can choose the window frame theme that best suits your needs.
3. In the **Nautilus Preferences** dialog, select a Nautilus theme to match the high contrast or low contrast desktop theme that you selected. See “To Choose a Nautilus Theme” on page 56 for more information.
4. Use the Background preference tool to customize your desktop background as follows:

- Set the **Picture Options** to **No Picture**.
  - Set the **Background Style** to **Solid color**.
  - Select a background color that suits your needs.
5. In the Terminal application, ensure that the **Use colors from system theme** option is selected in the **Edit Profile** dialog.
  6. In the gedit application, ensure that the **Use default theme colors** option is selected in the **Preferences** dialog.

## To Achieve a Large Print Desktop

To achieve a large print desktop, perform the following steps:

1. Use the Theme preference tool to select the large print theme that you require.
2. Use the Theme preference tool to select a window frame theme. You can use the **Crux**, **Atlanta**, or **Bright** window frame themes with large print desktop themes, depending on the contrast level that you prefer.
3. Use the Font preference tool to increase the font that is displayed on desktop background objects.
4. In the **Nautilus Preferences** dialog, select a Nautilus theme to match the large print desktop theme that you selected. See “To Choose a Nautilus Theme” on page 56 for more information.
5. Increase the font size that is used to display the contents of the Terminal application window. See “To Customize the Terminal Font” on page 58 for more information.
6. If the **Use default theme font** option is selected in the gedit **Preferences** dialog, gedit uses the font size that is specified in the large print theme that you selected. However, if the **Use default theme font** option is not selected, increase the font size that is used to display the contents of the gedit text editor window. See “To Customize the gedit Text Editor Font” on page 58 for more information.
7. If you use applications that use panes, such as Nautilus file manager and the Help browser, you may need to change the size of panes to accommodate the large print. See the online help for the appropriate application for more information.