



GNOME 2.0 Desktop for the Solaris Operating Environment Installation Guide

Beta

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

Part No: 817-3852-10
December 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 REPOUDRE 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.



031111@6671



Contents

Preface	5
1 Preparing to Install the GNOME 2.0 Desktop	9
Before You Begin	9
Installers for Different Platforms	9
Installer Contents	10
System Requirements	10
Downloading the Installer	12
To Download the Installer	12
To Unpack the Installer	13
Removing Beta Versions of the GNOME 2.0 Desktop	14
2 Installing the GNOME 2.0 Desktop	15
Types of GNOME Desktop Installation With the Install Wizard	16
Patch Considerations	16
Patch Locations	16
Patch Lists	17
Approximate Installation Times	17
Additional Packages	17
Installing User Documentation	18
Installing the GNOME Desktop With the Install Wizard	19
Installing the GNOME Desktop With a Jumpstart Script	19
Uninstalling the GNOME Desktop	20
Solaris Upgrade Considerations	20

3	Initial Session Management	21
	Starting Your First GNOME Desktop Session	21
	To Delete Preferences of Previous Revisions of the GNOME 2.0 Desktop	21
	To Log In to the GNOME Desktop	22
	Notifying Users to Delete Preferences From Previous Revisions	22
	Performance Considerations	22
4	Information About Working With the GNOME Desktop	23
	User Documentation	23
	Troubleshooting the GNOME Desktop	24
	General GNOME Information	24
A	Installing a Language Version	25
	Disk Space Requirements	25
	Location of the Download Packages	25
	Unpacking the Installer	26
	Installing the Language Version	26

Preface

The *GNOME 2.0 Desktop for the Solaris Operating Environment Installation Guide* describes the installation process for the GNOME 2.0 Desktop for the Solaris™ 8 operating environment and the Solaris 9 operating environment, update 5.

Who Should Use This Book

This manual is for system administrators.

How This Book Is Organized

This guide is structured in the following way:

- Chapter 1 describes what you need to do before you begin the installation.
- Chapter 2 discusses the installation process.
- Chapter 3 outlines initial session management activities.
- Chapter 4 provides pointers to other helpful information.

Related Books

The following manuals are related to this guide.

- *GNOME 2.0 Desktop for the Solaris Operating Environment Accessibility 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.comSM 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. machine_name% you have mail.
AaBbCc123	What you type, contrasted with on-screen computer output	machine_name% su Password:
<i>AaBbCc123</i>	Command-line placeholder: replace with a real name or value	To delete a file, type rm <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	machine_name%
C shell superuser prompt	machine_name#
Bourne shell and Korn shell prompt	\$
Bourne shell and Korn shell superuser prompt	#

Preparing to Install the GNOME 2.0 Desktop

This chapter tells you what you need to do before you can begin the installation of the GNOME 2.0 Desktop.

- “Before You Begin” on page 9
- “System Requirements” on page 10
- “Downloading the Installer” on page 12
- “Removing Beta Versions of the GNOME 2.0 Desktop” on page 14

Before You Begin

Read this section before you download and install the GNOME 2.0 Desktop.

Installers for Different Platforms

You can download the following installers for the GNOME 2.0 Desktop, depending on your platform:

- Installer with patches for the Solaris 8 Operating Environment, SPARC Architecture Edition
- Installer with patches for the Solaris 9 Operating Environment, SPARC Architecture Edition
- Installer with patches for the Solaris 8 Operating Environment, x86 Architecture Edition
- Installer with patches for the Solaris 9 Operating Environment, x86 Architecture Edition

After you unpack the installer, you install the desktop environment software using the Install Wizard, which is the graphical user interface for the installer.

Installer Contents

Table 1-1 lists the contents of the desktop environment installer.

TABLE 1-1 Contents of the Desktop Environment Installer

Software	Size	Installed in...
Platform-independent data files	66 MB	/usr/share
Platform-dependent configuration files	4 MB	/etc
Platform-dependent desktop environment files	45 MB	/usr
System-specific data files	<1 MB	/var
Optional 64-bit libraries	11 MB	/usr/lib/sparcv9
Optional development packages	14 MB	/usr
Platform-independent optional development packages	18 MB	/usr/share

Note – The GNOME 2.0 Desktop is an English-language version only. You can install locales separately on top of the English-language base.

System Requirements

Table 1-2 lists the system requirements that you must have to install the desktop environment.

TABLE 1-2 System Requirements for the GNOME 2.0 Desktop

System Parameter	Requirement
Operating Environment	<ul style="list-style-type: none">■ Solaris 8 Operating Environment (OE): SPARC Architecture Edition or x86 Architecture Edition■ Solaris 9 OE: SPARC Architecture Edition■ Solaris 9 Update 2 OE: x86 Architecture Edition
Hardware	The GNOME 2.0 Desktop runs on all hardware supported by the Solaris 8 OE or the Solaris 9 OE.

TABLE 1-2 System Requirements for the GNOME 2.0 Desktop (Continued)

System Parameter	Requirement
Disk Space	<p>You must ensure that you have enough disk space on your root partition or <code>/usr</code> slice to install the desktop environment. The total free disk space that you require during the installation is the sum of the following for both the unpacked files in the download directory and the install image:</p> <ul style="list-style-type: none">■ Desktop environment files.■ Patches required by your system architecture.■ Optional packages that you decide to install. <p>See Table 1-1 for the sizes of the various packages.</p> <p>For example:</p> <p>The total maximum free disk space required during installation for Solaris 8 SPARC Architecture Edition, with all optional packages, is as follows:</p> <ul style="list-style-type: none">■ Unpacked files in the download directory: 300 MB■ Install image: 300 MB <p>The total maximum free disk space for this example is therefore 600 MB.</p> <p>Note – You can delete the files in the download directory after you successfully install the desktop environment in the install image directory.</p>
Kernel Configuration	<p>For the Solaris 8 OE, the number of shared memory segments must be at least 256, or 100 hexadecimal. If this parameter is not set, or is set to less than 256, then the Install Wizard notifies you during the installation that you must set this parameter. Perform the following steps to set this parameter:</p> <ol style="list-style-type: none">1. Add the following line to the <code>/etc/system</code> file: <pre>set shmsys:shminfo_shmseg = 0x100</pre>2. Reboot the system. <p>For more information about the system file, use the following command to view the relevant manpage:</p> <pre>man -s4 system</pre>
Memory	<ul style="list-style-type: none">■ 128 MB per user session.■ 96 MB per user session for a Sun Ray™ configuration.

TABLE 1-2 System Requirements for the GNOME 2.0 Desktop (Continued)

System Parameter	Requirement
AccessX	To enable AccessX functionality on systems other than Sun Ray thin clients, perform the following actions: <ol style="list-style-type: none">1. Log in as root, then open a terminal window.2. Check that the file <code>/etc/dt/config/Xservers</code> does not exist, then run the following commands:<ol style="list-style-type: none">a. <code>mkdir -p /etc/dt/config</code>b. <code>cp /usr/dt/config/Xservers /etc/dt/config/Xservers</code>3. Open the file <code>/etc/dt/config/Xservers</code>.4. Add the following string to the end of the <code>Xsun</code> command line in the <code>Xservers</code> file: <code>+kb</code>5. Exit and save the <code>Xservers</code> file.6. Run the following command: <code>pkill -HUP dtlogin</code>7. Log out of the desktop environment, then log back in.8. To verify that you have successfully enabled AccessX, run the following command and look for <code>XKEYBOARD</code> in the extensions list: <code>xdpyinfo</code>

Downloading the Installer

You must download the installer that is appropriate for your platform. See “Installers for Different Platforms” on page 9 for more information. You download the installer as a single file.

To Download the Installer

Perform the following steps to download the installer for the GNOME 2.0 Desktop:

1. Perform the instructions in “Before You Begin” on page 9.
2. Ensure that you have enough disk space for the download and the installation, see “System Requirements” on page 10.
3. Decide which directory you want to download the installer into. Because you have to install the desktop environment as root, the download directory must be accessible by root.
4. View the following web page in your browser:
`http://www.sun.com/gnome/get.html`
5. Click on the *Download Now* link for the required installer in the *Download* section of the page.

6. Log in if you are an existing download user, or go to the registration page if you are a new user.
7. Read the *Terms of Use* page, select Accept, then click Continue.
8. In the *Download* page, click on the description of the tarball that you want to download.
9. Download the tar file for the installer from the Sun Download Center to a root-accessible directory.

To Unpack the Installer

Perform the following steps to unpack the installer:

1. Use the `cd` command to change into the directory where you downloaded the tar file for the installer.
2. Depending on your system platform, execute one of the following commands to unpack the installer:

SPARC Architecture Edition:	<pre>gunzip -c gnome-2_0-fcs-solaris8-sparc.tar.gz tar xvpf - gunzip -c gnome-2_0-fcs-solaris9-sparc.tar.gz tar xvpf -</pre>
x86 Architecture Edition:	<pre>gunzip -c gnome-2_0-fcs-solaris8-x86.tar.gz tar xvpf - gunzip -c gnome-2_0-fcs-solaris9-x86.tar.gz tar xvpf -</pre>

3. When the installer is fully unpacked, you can delete the downloaded file to free up disk space. Use one of the following commands:

SPARC Architecture Edition:	<pre>rm gnome-2_0-fcs-solaris8-sparc.tar.gz rm gnome-2_0-fcs-solaris9-sparc.tar.gz</pre>
x86 Architecture Edition:	<pre>rm gnome-2_0-fcs-solaris8-x86.tar.gz rm gnome-2_0-fcs-solaris9-x86.tar.gz</pre>

Removing Beta Versions of the GNOME 2.0 Desktop

You must remove any beta versions of the GNOME 2.0 Desktop that are on your system before you can install the GNOME 2.0 Desktop. To remove a beta version of the GNOME 2.0 Desktop, perform the following actions:

1. Log in as root, then open a terminal window.
2. At the command prompt type the following command:

```
cd gnome-install-directory/gnome-install
```

Where *gnome-install-directory* is the directory where you unpacked the installer.
3. Run the following command:

```
./remove
```

Installing the GNOME 2.0 Desktop

This chapter describes how to install the GNOME 2.0 Desktop.

- “Types of GNOME Desktop Installation With the Install Wizard” on page 16
- “Patch Considerations” on page 16
- “Approximate Installation Times” on page 17
- “Additional Packages” on page 17
- “Installing User Documentation” on page 18
- “Installing the GNOME Desktop With the Install Wizard” on page 19
- “Installing the GNOME Desktop With a Jumpstart Script” on page 19
- “Uninstalling the GNOME Desktop” on page 20
- “Solaris Upgrade Considerations” on page 20

Users of the GNOME 2.0 Desktop can coexist with users of earlier versions of the GNOME Desktop on the same system, for example the GNOME 1.4 Desktop. You cannot install the GNOME 2.0 Desktop on the same system as an earlier revision of the GNOME 2.0 Desktop, for example the GNOME 2.0 Beta Desktop. You must remove earlier revisions of the GNOME 2.0 Desktop before you install the GNOME 2.0 Desktop. See “Removing Beta Versions of the GNOME 2.0 Desktop” on page 14 for more information.

Types of GNOME Desktop Installation With the Install Wizard

The Install Wizard provides the following types of installation:

Type of Installation	Description
Typical	Enables you to install the following packages: <ul style="list-style-type: none">■ GNOME 2.0 Desktop■ Required Solaris Patches
Custom	Enables you to install the following packages: <ul style="list-style-type: none">■ GNOME 2.0 Desktop■ Required Solaris Patches■ GNOME 2.0 Libraries 64-bit■ GNOME 2.0 Developer

Patch Considerations

Perform the following actions relevant to patches before you install the GNOME 2.0 Desktop:

1. Review the patch lists
2. Read the README files in the patch directories
3. Install patches

Patch Locations

You can find patches for the GNOME 2.0 Desktop in the following locations:

SPARC Architecture Edition:	gnome-install/GNOME/sparc/patches
x86 Architecture Edition:	gnome-install/GNOME/i386/patches

If you have any concerns about installing patches, install the patches manually. Deselect the patches in the Install Wizard using the *Custom* installation method. If possible, perform patch installation in single user mode. If you cannot install in single user mode, then perform patch installation with the system in as quiet a state as possible. You can achieve a quiet state when no users are logged in and no user processes are running.

Patch Lists

You can find patch lists for the desktop environment at the following location:
<http://www.sun.com/gnome/support.html>

Approximate Installation Times

Installation time is considerably longer when you need to install the full patch list. Guideline installation times are as follows:

Platform	Excluding Patches	Including Patches
SPARC Architecture Edition, Solaris 8 OE	15 min	90 min
SPARC Architecture Edition, Solaris 9 OE	15 min	20 min
x86 Architecture Edition, Solaris 8 OE	20 min	90 min
x86 Architecture Edition, Solaris 9 OE	15 min	20 min

Additional Packages

During the installation, the Install Wizard looks for the following packages:

Package	SPARC Architecture Edition	x86 Architecture Edition
SUNWbzip	Required	Required
SUNWfreetype2-64	Required	Not required

Package	SPARC Architecture Edition	x86 Architecture Edition
SUNWfreetype2	Required	Required
SUNWgscr	Required	Required
SUNWgsfot	Required	Required
SUNWgsfst	Required	Required
SUNWjpg	Required	Required
SUNWlxml	Required	Required
SUNWlxmlx	Required	Not required
SUNWlxsl	Required	Required
SUNWlxslx	Required	Not required
SUNWnsgm	Required	Required
SUNWsogm	Required	Required
SUNWpng	Required	Required
SUNWTiff	Required	Required
SUNWzlib	Required	Required

If the Install Wizard finds these packages, then no action is taken. If the Install Wizard does not find these packages, then the packages are installed during the installation.

Installing User Documentation

User documentation is included in the tarball. When you unpack the tarball, the documentation files are also unpacked. However, the installation process does not install the documentation files on your system.

You might want to delete the tarball and the unpacked files after you have performed the installation. Therefore, if you want to save user documentation, then you must copy the files to your system, before you delete the directory with the unpacked files.

For information about the location of the user documentation, see Chapter 4.

Installing the GNOME Desktop With the Install Wizard

To install the desktop environment with the Install Wizard perform the following steps:

1. Log in as root, then open a terminal window.
2. Use the `cd` command to change to the `gnome-install` directory.
3. Run the following command to start the Install Wizard: `./install`
4. Follow the Install Wizard through the installation decisions that you need to make.
5. Click on Accept when the Install Wizard displays the license agreement. If you do not click on Accept, you cannot continue with the installation.
6. Click on Install Now.
7. Exit the Install Wizard when the installation is complete.
8. Reboot your system if the Install Wizard notifies you to do so.

Installing the GNOME Desktop With a Jumpstart Script

You can use the following Jumpstart scripts to install a basic version of the GNOME 2.0 Desktop:

SPARC Architecture Edition:	<code>gnome-install/GNOME/sparc/pkgs/install</code>
x86 Architecture Edition:	<code>gnome-install/GNOME/i386/pkgs/install</code>

The contents of the basic version of the desktop environment that you install with the Jumpstart script are as follows:

Contains:	Optional development packages
Does not contain:	<ul style="list-style-type: none">■ Zip libraries <code>SUNWbzip</code> and <code>SUNWzlib</code>■ 64-bit libraries

Note – None of the packages listed in “Additional Packages” on page 17 are installed by the Jumpstart script. The SUNWxwsvr package is also not installed.

Uninstalling the GNOME Desktop

To uninstall the desktop environment perform the following steps:

1. Log in as root, then open a terminal window.
2. Run the following command: `/usr/sbin/remove-gnome`

Solaris Upgrade Considerations

You can install the GNOME 2.0 Desktop on the Solaris 8 operating environment, and subsequently upgrade your system to the Solaris 9 operating environment. However, for each Solaris operating environment, the GNOME 2.0 Desktop has specific patch and package dependencies.

If you upgrade from the Solaris 8 operating environment to the Solaris 9 operating environment, then you must do the following:

- Install the required Solaris patches using the Installation Wizard.
- Update manually a number of non-GNOME packages that are still present as Solaris 8 packages. You must remove these packages to ensure future Solaris 9 patching.

Note – Solaris 9 Update 4 will contain an updated version of the GNOME Desktop. If you upgrade in future to Solaris 9 Update 4, then you will install a complete new version of the GNOME Desktop.

Initial Session Management

This chapter describes initial session management considerations for the GNOME 2.0 Desktop.

- “Starting Your First GNOME Desktop Session” on page 21
- “Notifying Users to Delete Preferences From Previous Revisions” on page 22

Starting Your First GNOME Desktop Session

Before you start your first desktop environment session, you must delete the preference settings from previous revisions of the GNOME 2.0 Desktop.

To Delete Preferences of Previous Revisions of the GNOME 2.0 Desktop

Perform the following steps to remove the preferences for an earlier revision of the GNOME 2.0 Desktop:

1. Log in to CDE or a failsafe session.
2. Run the following command: `/usr/bin/gnome-cleanup`

The command output lists all of the previous preference files, and asks you to confirm that you want to delete the files.

To Log In to the GNOME Desktop

To log in to the desktop environment perform the following steps:

1. Choose Session → GNOME 2.0 Desktop.
2. Enter your username in the field on the **Login Manager** dialog, then click OK.
3. Enter your password in the field on the **Login Manager** dialog, then click OK.

Note – You can only start an English-language session, unless you have installed GNOME language packages.

To find out more about session management, see the *GNOME 2.0 Desktop for the Solaris Operating Environment User Guide*.

Notifying Users to Delete Preferences From Previous Revisions

All users who log in to the GNOME 2.0 Desktop must delete the preferences for any previous revisions of the GNOME 2.0 Desktop. If you install the GNOME 2.0 Desktop to a system with multiple users, you must notify the users about the requirement to delete their previous preferences.

Performance Considerations

To optimize the performance of the desktop environment, see the *GNOME 2.0 Desktop for the Solaris Operating Environment System Administration Guide*.

Information About Working With the GNOME Desktop

This chapter describes where you can find more information about working with the GNOME 2.0 Desktop.

- “User Documentation” on page 23
- “Troubleshooting the GNOME Desktop” on page 24
- “General GNOME Information” on page 24

User Documentation

Table 4–1 lists the locations of user documentation for applets, applications, and the GNOME 2.0 Desktop for the Solaris operating environment.

TABLE 4–1 Locations of User Documentation

Component	Documentation Location
Applets	Right-click on the applet, then choose Help.
Applications	Start the application, then choose Help → Contents.

TABLE 4-1 Locations of User Documentation (Continued)

Component	Documentation Location
Desktop environment	<p>You can find information about all desktop environment topics in the <i>GNOME 2.0 Desktop for the Solaris Operating Environment User Guide</i>. You can read this guide in the following ways:</p> <ul style="list-style-type: none">■ Help browser: Open the Applications menu, then choose Help.■ HTML format or PDF format: Open the file <code>/sgnome/pkgsgnome-2.0/docs/en/user-documentation.html</code>, then choose the manual you want to view.
Specialist topics	<p>Other manuals in the GNOME 2.0 Desktop documentation set provide information about accessibility and system administration. You can access PDF and HTML versions of these manuals from the following file:</p> <code>/sgnome/pkgsgnome-2.0/docs/en/user-documentation.html</code> .

Troubleshooting the GNOME Desktop

For a list of suggested solutions to known issues in the GNOME Desktop, see the following location: <http://www.sun.com/gnome/support.html>

General GNOME Information

For general information about the GNOME project, see the following location: <http://www.sun.com/gnome/>

Installing a Language Version

This appendix provides information about installing a language version of the GNOME 2.0 Desktop.

- “Disk Space Requirements” on page 25
- “Location of the Download Packages” on page 25
- “Unpacking the Installer” on page 26
- “Installing the Language Version” on page 26

Disk Space Requirements

Disk space requirements for language versions of the desktop environment are as follows:

Tarball:	50 MB
Unpacked files:	130 MB

Location of the Download Packages

Use the same process to download the language version packages, as for the English-language package. For further information, see “To Download the Installer” on page 12. Follow the link on the download page for language versions.

Unpacking the Installer

Use the same process to unpack the language version installer, as for the English-language installer. For further information, see “To Unpack the Installer” on page 13.

Installing the Language Version

Use the same process to install the language version of the desktop environment, as for the English-language version. For further information, see Chapter 2.