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Sun Ultra 80 Hardware Documentation

The *Sun Ultra™ 80 Hardware Documentation* CD contains:

- *Sun Ultra 80 Hardware AnswerBook2™ with ShowMe™ How™ Multimedia* (which contains the *Sun Ultra 80 Hardware Service Manual* with linked multimedia procedures)
- HTML version of the *Sun Ultra 80 Hardware Service Manual* (for use with Solaris™ 2.5.1 Hardware: 11/97 and non-Sun hardware platforms)
- *CDinsert.txt* file (text version of this CD insert)

This CD insert contains the following procedures and information:

- “System Requirements” on page 4
- “Installing AnswerBook2 to a Server Hard Drive” on page 6
- “Viewing this Answerbook2 Collection From the CD” on page 11
- “Viewing the HTML Service Manual” on page 15
- “Viewing the Linked Video Procedures” on page 16

Hardware AnswerBook2 Software

The *Sun Ultra 80 Hardware AnswerBook2* online documentation contains hardware service documentation and multimedia procedures for the Sun Ultra 80 system. You can view the documentation on the screen and print selected pages or sections.

System Requirements

Depending on which type of system or which version of the Solaris operating environment your system is using, you can view the documentation on this CD in different ways.

- Solaris version 2.6 or later: You can view the documentation in three ways:
 - Install the *Sun Ultra 80 Hardware AnswerBook2* documentation-server software on this CD to your AnswerBook2 server hard drive.
 - View the *Sun Ultra 80 Hardware AnswerBook2* directly from this CD.
 - View the HTML version of the documentation included on this CD.
- Solaris version 2.5.1 or earlier: View the HTML version of the documentation included on this CD.

- System running Solaris version 2.5.1, but connected to an AnswerBook2 server running Solaris version 2.6 software or later: Install this AnswerBook2 to the Solaris 2.6 or later server and view it from there using your Solaris 2.5.1 system.
- PC with a CD-ROM drive running Windows 95 or later: View the HTML document using Netscape Navigator™ version 4.0 or later, or Internet Explorer version 4.0 or later. Refer to your browser documentation for information on configuring your browser to view MPEG-1 files.
- Power Macintosh with a CD-ROM drive: View the HTML document using Netscape Navigator version 4.0 or later, or Internet Explorer version 4.0 or later. To enable the browser to display MPEG-1 movies, you must have both QuickDraw 2.5.1 or later and the MPEG system extension installed.

Installing AnswerBook2 to a Server Hard Drive

1. Start the OpenWindows™ or the Common Desktop Environment (CDE) windowing environment.
2. Insert this *Sun Ultra 80 Hardware Documentation* CD into your CD-ROM drive.

Note – If you are running Volume Manager, it automatically detects the CD and opens FileManager to display the contents of the CD. If you are not running Volume Manager, open FileManager and go to the /cdrom/cdrom0/ directory to view the contents of the CD.

3. In a command tool, become root by typing the su command and your superuser password.
4. Start Software Manager by typing the swmtool command at the # prompt as follows:

```
# /usr/sbin/swmtool -d /cdrom/cdrom0/
```

The Admintool: Software window is displayed.

Note – If your system’s authorizations are not set correctly for root clients, you might see an error message similar to: `Xlib: Client is not authorized to connect to server` displayed in the console window. One way to correct this problem is to exit superuser status and type: `xhost +hostname` (where *hostname* is the name of the host you are using), then become root again and restart Software Manager. Alternatively, you can use the `xauth` command to permanently change the authorization information so that root clients can attach to the X server.

5. Select Sun Ultra 80 Hardware AnswerBook2, then click Add.

The Admintool: Add Software window is displayed.

6. Type the number of the installation option you want (heavy or nil).

Note – You need 386 MBytes of free space in your target directory to do a heavy installation. After you select installation type and target directory, the install script checks the directory to verify there is enough free space.

A heavy installation copies the entire contents of the CD to the AnswerBook2 server hard drive. A `nil` installation copies only index files and pointers. The `nil` installation requires the *Sun Ultra 80 Hardware Documentation* CD to be present in the CD-ROM drive of the AnswerBook2 server.

7. When you are prompted, type the directory where you want the AnswerBook2 collection installed.

`/opt` is the default home directory for AnswerBook2.

The installation process takes several minutes.

Note – Read the installation script messages carefully, looking in particular for any warning messages after the line,

`## Verifying disk space requirements.`

—If you do not have enough space in your target directory, type `n` at the prompt to cancel the installation. You can then free up more space, or you may want to perform a `nil` installation or view this AnswerBook2 collection directly from the CD. (To check how much space is in your directory manually, at a command line, type `df directory name`)

—If you have enough space, continue with the next step in this procedure.

- 8. Type y at the following prompt to continue the installation (see note above):**

```
Do you want to continue with the installation
of <SUNWult80> [y,n]
```

- 9. Type y at the following prompt to continue the installation:**

```
This package contains scripts which will be
executed with superuser permission during the
process of installing this package.

Do you want to continue with the installation
of <SUNWult80> [y,n]
```

- 10. Press Return when you see the following prompt:**

```
Installation of <SUNWult80> was successful.
Press Return to continue.
```

- 11. Exit Software Manager (the Admintool: Software window).**

Note – For information on installing AnswerBook2 server software, refer to the *Software and AnswerBook2 Installation Guide* or the *SPARC: Installing Solaris Software on the Desktop*, one of which is supplied with your Solaris Media Kit.

12. Exit superuser status.

13. At the % prompt, type answerbook2 .

The AnswerBook2 Navigator window is displayed.

Note – If you receive any error messages related to AnswerBook2 server environmental variables, contact your system administrator for help, or refer to the *Software and AnswerBook2 Installation Guide* or the *SPARC: Installing Solaris Software on the Desktop*, one of which is supplied with your Solaris Media Kit.

14. To view your new AnswerBook2 collection, double-click Sun Ultra 80 Hardware AnswerBook2 in the AnswerBook2 Navigator window.

To view the video clips in this collection, you must configure your browser to view MPEG-1 files; see “Viewing the Linked Video Procedures” on page 16.

Viewing this Answerbook2 Collection From the CD

To view this AnswerBook2 collection directly from the CD, perform the following steps:

1. **Insert this *Sun Ultra 80 Hardware Documentation* CD into your CD-ROM drive.**
2. **In a command tool, become root by typing the `su` command and your superuser password.**
3. **Change directory to the top level of the CD-ROM volume using the following command:**

```
% cd /cdrom/cdrom0
```

4. **Run the AnswerBook2 executable using the following command:**

```
# ./ab2cd
```

If you have existing AnswerBook2 collections installed on your system and you want the AnswerBook2 software on this CD to recognize those collections, use the following command:

```
# ./ab2cd -s
```

This causes the software to scan for other collections installed on your system and to add them to its database.

- 5. You can now use a browser to view the documentation at the following URL:**

`http://server:8888/`

Where *server* is the name of the system to which the CD is installed.

To view the video clips in this collection, you must configure your browser to view MPEG-1 files; see “Viewing the Linked Video Procedures” on page 16.

- 6. To stop running the server from the CD, type the following command:**

```
# /cdrom/cdrom0/ab2cd stop
```

Important Notes When Viewing the AnswerBook2 Collection from the CD:

1. The AnswerBook2 server running from the CD always runs on port 8888. If you already have an AnswerBook2 server running on your system using the default port (8888), the ab2cd script will display the following message:

A document server is already running on this system as <server>:8888. Please shut down the current server before running the ab2cd command.

In this case, use the following command to shut down the existing server:

```
# /usr/lib/ab2/bin/ab2admin -o stop
```

2. Always use the command `ab2cd stop` to stop the server running from the CD.

The `ab2cd stop` command stops the AnswerBook2 server process and cleans up all files in the `/tmp/.ab2/` and the `/tmp/ab2cd_config/` directories.

3. To run two AnswerBook2 software servers (one on your system, one from the CD), keep these rules in mind:
- The `/etc/init.d/ab2mgr start` command always starts the server software on your system.
 - The `ab2cd` command always starts the server software from the CD.
 - Always use the `ab2cd stop` command to stop the server software running from the CD.
 - To stop both servers, first use the `ab2cd stop` command to stop the server software running from the CD, then use either of the following two commands to stop the server software running on your system:

```
# /etc/init.d/ab2mgr stop
```

or

```
# /usr/lib/ab2/bin/ab2admin -o stop
```

Viewing the HTML Service Manual

You can also view the service manual and video clips using an HTML version, if you are using a system that does not permit you to run the AnswerBook2 software, such as a Sun workstation running Solaris 2.5.1 or earlier, or a non-Sun system.

You can read the HTML version in two ways:

- Use any HTML-compliant browser to view directly from CD at:
/cdrom/cdrom0/Docs/HTML/Book.htm
- Copy the HTML files from the above location on the CD to your system hard drive and use a browser to view them from your hard drive.

To view the video clips in this collection, you must configure your browser to view MPEG-1 files; see “Viewing the Linked Video Procedures” on page 16.

Viewing the Linked Video Procedures

To view the video clips that are linked to the service manual, you must first edit your browser's preferences to specify an MPEG video application. Use the following procedure.

Note – If you are using a PC to view the HTML files, you cannot use ShowMe TV™ to view the MPEG video files; you must configure your browser to use ActiveMovie or another viewer.

If you are using a Macintosh to view the HTML files, you cannot use ShowMe TV to view the MPEG video files; you must configure your browser to use QuickDraw 2.5.1 or later, and the MPEG system extension must be installed.

1. Edit your browser's preferences to specify an MPEG video application.

For example, to use the ShowMe TV software (provided on this CD) in a Netscape Communicator™ browser, perform these steps:

Note – ShowMe TV is included with Solaris 2.6 and Solaris 7. You can also download ShowMe TV from the following URL:
http://www.sun.com/desktop/products/software/ShowMeTV/ShowMeTV_Receiver.html

- a. In the main menu of the browser, select Edit->Preferences.
 - b. In the Preferences window, click on the triangle to the left of Navigator and select the subcategory Applications.
2. Scroll through the list of Applications and select MPEG Video.
3. Select Edit, then in the window that appears, define the MPEG Video application to be the following:

```
# cd /cdrom/cdrom0/pkgsg/showmetv/bin/showmetv -nowrap  
-exit %s
```
4. Click OK to apply this change, then click OK again to close the Preferences window.
5. While you are viewing a service manual chapter, click on any of the video clip icons to launch the viewer.

Note – If you let a video clip play through to the end, the viewer will automatically be dismissed. However, if you want to view another video clip before a prior clip has finished, be sure to first dismiss the viewer displaying the previous video clip. If you start another video clip without dismissing the previous viewer, the later video will not play correctly.

ShowMe How Multimedia Documentation Support on Non-Sun Systems

The ISO 9660 format used on the CD is not fully supported on some PC or Macintosh systems. Therefore, the ShowMe How (MPEG-1) video segments cannot be launched on those systems by clicking the document's video-link icons. The ShowMe How video segments *can* be viewed on PC and Macintosh systems if you manually browse to the segments' location on the CD.

To manually open and view a ShowMe How video segment on a PC or Macintosh system:

- 1. Open the video viewer that you use to view MPEG-1 videos.**
- 2. In the viewer's File menu, select Open.**
- 3. In the dialog window that is displayed, browse to the following directory on the *Sun Ultra 80 Hardware Documentation CD* (capitalization may vary):**

CDROM/ULETPSVC/ULETPSVC/COMMON/PRODUCT/SUNWULT8/
INSTALL/RELOC/_AB2INST/BOOKS/ULETPSVC/FIGURES/MOVIES/

4. Open the MPEG file that you want to view. The nine MPEG file names are listed in the following table, with the corresponding procedure names.

Table 1 ShowMe How MPEG Video Clips on CD

Procedure	MPEG File
Removing and replacing a peripheral assembly drive (CD-ROM, tape, or diskette drive)	CD.MPG
Removing and replacing a CPU module	CPU.MPG
Removing and replacing a hard drive	HD.MPG
Removing and replacing an interface card (PCI, UPA graphics, or audio card)	IC.MPG
Removing and replacing a motherboard	MB.MPG
Removing and replacing a power supply	PS.MPG
Restarting the system	RS.MPG
Shutting down the system	SD.MPG
Setting serial port jumpers	SJ.MPG

Warning Message When Viewing ShowMe How Video Clips

Sometimes when launching ShowMe TV to view a video clip, a warning window might pop up with a message similar to the following:

```
Netscape: subprocess diagnostics (stdout/stderr)
Warning:
Name: recPositionForm
Class: XmForm
Bailed out of edge synchronization after 10,000
iterations. Check for contradictory constraints on
children of this form.
```

This warning does not indicate a problem with either the video clip or the ShowMe TV application. Click the button at the bottom of the warning window to dismiss it, and continue watching the video clip.