

SCO OpenServer Release 5.0.7 Update Pack 3 Release and Installation Notes

This document provides installation instructions, new feature descriptions, and release notes for SCO OpenServer(TM) Release 5.0.7 Update Pack 3.

These *Release and Installation Notes* contain critical information that you need to know before and after installing SCO OpenServer Release 5.0.7 Update Pack 3. Familiarize yourself with the information that is relevant to your system, then install the Update Pack according to the instructions in this document.

NOTE Unless otherwise noted, this document supplements the SCO OpenServer Release 5.0.7 *Late News* (which are still relevant). As information becomes available after the publication of these *Release and Installation Notes*, it is added to the SCO OpenServer Release 5.0.7 *Late News* document, available from the SCO web site at:

<http://www.sco.com/support/docs/openserver>

These *Release and Installation Notes* cover the following topics:

- About Maintenance Packs and Update Packs (page 2)
- Before installing the Update Pack (page 2)
- Installing the Update Pack (page 4)
- New features in the Update Pack (page 9)

About Maintenance Packs and Update Packs

There are two support “tracks” that are available to SCO OpenServer Release 5.0.7 customers:

Maintenance Packs

A Maintenance Pack (MP) is a collection of security updates and fixes for reported problems. Maintenance Packs are made available periodically and can be downloaded and installed free-of-charge. Maintenance Packs are cumulative, so only the latest one needs to be installed.

Update Packs

An Update Pack (UP) is a collection of some of the new features and product enhancements that will be included in the next SCO OpenServer release. Available only for registered subscribers to the SCO Update Service, Update Packs are released on a regular basis, providing customers a simplified and streamlined process for deploying new technology and keeping systems updated.

Update Packs supplement the Maintenance Packs. Each Update pack requires the installation of a corresponding Maintenance Pack. Update Packs are cumulative, so you only need to install the latest Maintenance Pack plus the latest Update Pack to bring the system up to date with the latest features and enhancements.

Obtaining Update Packs

SCO OpenServer Update Packs are available for download from the SCO OpenServer Release 5.0.7 Update Pack web page:

<http://www.sco.com/support/update/download/osr507up.html>

A registered SCO Update Service license is required to install SCO OpenServer Update Packs. See “Registering your SCO Update Service license” (page 3) for more information.

Before installing the Update Pack

Update Pack 3 can only be installed on an SCO OpenServer Release 5.0.7 system. Previously released Update Packs do not need to be removed before proceeding.

Before you can install SCO OpenServer Release 5.0.7 Update Pack 3, you must:

1. Back up the data on your system and verify the integrity of the backup.
2. Install the SCO OpenServer Symmetrical Multiprocessing (SMP) product if you want to use Hyper-Threading Technology. The SMP product must be installed **before** Maintenance Pack 3 and Update Pack 3.

3. Install Maintenance Pack 3 on your SCO OpenServer Release 5.0.7 system and reboot.

See the *SCO OpenServer Release 5.0.7 Maintenance Pack 3 Release and Installation Notes* (<http://www.sco.com/support/update/download/osr507mp.html>) for installation information.

4. Verify that an SCO Update Service (SUS) Enabler license is installed on your system. See “Licensing Update Packs” (this page) for more information.
5. Verify that you have registered your copy of SCO OpenServer Release 5.0.7 and your SUS Enabler license. See “Registering your SCO Update Service license” (this page) for more information.

You are now ready to install Update Pack 3.

Licensing Update Packs

An SCO Update Service (SUS) Enabler license is required to use any of the Update Packs for SCO OpenServer Release 5.0.7. This license is available in two forms:

- the SCO OpenServer Release 5.0.7 with SCO Update bundled product includes the SUS Enabler license in the operating system license
- you can purchase an add-on SUS Enabler license to supplement the basic SCO OpenServer Release 5.0.7 license

To determine if your SCO operating system is bundled with SCO Update, run:

```
/etc/brand -L | grep "a120;"
```

If this command returns output, your operating system license also contains the SUS Enabler license.

To verify that an add-on SUS Enabler license was successfully installed, run the **License Manager** and check that the SCO Update Service is displayed in the list of currently installed licenses.

See “Licensing and registering SCO OpenServer products” in the *SCO OpenServer Handbook* for information on using the **License Manager** to install and verify licenses.

Registering your SCO Update Service license

Both your SCO OpenServer Release 5.0.7 license and SCO Update Service Enabler license must be registered before you can install an SCO OpenServer Release 5.0.7 Update Pack. You can do this at the SCO OpenServer Product Registration web page:

<http://www.sco.com/support/registration>

NOTE If you have not already registered your operating system license, you can simply register the SUS Enabler license. The operating system license is automatically registered at the same time.

After you register the SUS Enabler license, you will notice that an additional SCO OpenServer Update Service license automatically appears in the **License Manager**. This license is generated and installed on your system when you complete the SCO registration process. When you see this license in the **License Manager**, it means that the SCO Update service has been successfully activated.

See “Registering SCO OpenServer products” in the “About SCO OpenServer systems” chapter in the *SCO OpenServer Getting Started Guide* for more information on registering products and licenses.

Installing the Update Pack

NOTE Read “Before installing the Update Pack” (page 2) prior to starting this procedure.

You can acquire and install SCO OpenServer Release 5.0.7 Update Pack 3:

- directly over the Internet using the SCO Update function in the **Software Manager** (this page).
- by downloading the UP media images from either the SCO web site or FTP site (page 5).
- from the SCO OpenServer Release 5.0.7 Supplement CD Version 3 (page 7).

If there are multiple systems on your TCP/IP network that require Update Pack 3, you can load or install the UP on a software server and use it as a centralized distribution point. See “Installing Update Packs across the network” (page 8) for more information.

Update Pack 3 can be installed directly on top of Update Packs 1 or 2. Should you need to remove any of the Update Packs, however, see “Removing an Update Pack” (page 8).

Installing the Update Pack using SCO Update

The SCO Update feature of the **Software Manager** allows you to install Update Pack 3 directly over the Internet. This approach saves you the time — and extra hard disk space — of first downloading installable image files from the SCO web or FTP sites.

To run SCO Update:

1. Log in as *root*.
2. Start the **Software Manager** by double-clicking on its icon on the desktop, or by entering the following at the command-line prompt:

scoadmin software

3. From the **Software** menu, select **SCO Update**. The system connects to the SCO Update server.

The **Install Selection** window displays all of the SCO OpenServer Release 5.0.7 update packs, maintenance packs, drivers, and so forth that are currently available.

4. Highlight Update Pack 3 and click on **Install**.

The Update Pack software is automatically installed on your system.

WARNING The **Software Manager** displays one or more warnings if the Update Pack contains fixes for software features that are not currently installed on your system. If you do not plan to install the affected package (for example: SMP), you can ignore such messages and click on *Continue*. However, if you do plan to install this package later, you should stop the update process, install the package in question, and restart the update. This ensures the fixes are applied properly (and avoids potential problems).

If any Update Pack fixes were not installed because the corresponding feature was not present, the **Software Manager** shows the Update Pack as only partially installed. This is normal.

5. When the installation is complete, click on **OK**. The **Software Manager** lists Update Pack 3 among the installed software.
6. Exit the **Software Manager** by selecting the **Host** menu, then **Exit**.
7. Reboot the machine. (Because the **Software Manager** relinks the kernel, you must reboot before the new kernel takes effect.)

Installing the Update Pack from downloaded media images

To install Update Pack 3 from media images that you manually download:

1. Log in as *root*.
2. Download the Update Pack 3 media images from either the SCO web site or using FTP:
 - to use the web, go to the SCO OpenServer Release 5.0.7 Update Pack web page:

<http://www.sco.com/support/update/download/osr507up.html>

- to use FTP, go to the SCO Support Download Area:

<ftp://ftp.sco.com/pub/openserver5/507/scoupdate/up3>

NOTE Update Pack 3 is available via FTP as a single **tar(C)** archive, or as a number of media image files with names of the form *VOL.000.000*, *VOL.000.001*, and so forth. Because all update and maintenance packs use this same filename scheme, you should create a master directory with a unique subdirectory to store each pack. The master directory could be */usr/updates*, */usr/spool/patches*, or whatever suits your system layout. The master hierarchy should be writable by *root* only.

If you download the individual files rather than the tar archive, please be sure to carefully verify that all of the sequentially-numbered VOL files are present in your download directory before proceeding.

3. Download the *507up3_vol.tar* file and use this command to extract the media image files:

```
tar xvf 507up3_vol.tar
```

4. Start the **Software Manager** by double-clicking on its icon on the desktop, or by entering the following at the command-line prompt:

```
scoadmin software
```

5. From the **Software** menu, select **Install New**.
6. When prompted for the host (machine), select the current host and then click on **Continue**.
7. Select **Media Images** as the Media Device, then click on **Continue**. (You may need to scroll down before you see the **Media Images** option.)
8. Enter the absolute pathname for the directory that contains the Update Pack 3 media images. For example:

```
/usr/spool/patches/507up3
```

Click on **OK**.

9. In the **Install Selection** window, make sure that the Update Pack is highlighted then click on **Install**.

WARNING The **Software Manager** displays one or more warnings if the Update Pack contains fixes for software features that are not currently installed on your system. If you do not plan to install the affected package (for example: SMP), you can ignore such messages and click on *Continue*. However, if you do plan to install this package later, you should stop the update process, install the package in question, and restart the update. This ensures the fixes are applied properly (and avoids potential problems).

If any Update Pack fixes were not installed because the corresponding feature was not present, the **Software Manager** shows the Update Pack as only partially installed. This is normal.

10. When the installation is complete, click on **OK**. The **Software Manager** lists the Update Pack among the installed software.
11. Exit the **Software Manager** by selecting the **Host** menu, then **Exit**.
12. Reboot the machine. (Because the **Software Manager** relinks the kernel, you must reboot before the new kernel takes effect.)

Installing the Update Pack from the SCO OpenServer Release 5.0.7 Supplement CD Version 3

To install SCO OpenServer Release 5.0.7 Update Pack 3 from the SCO OpenServer Release 5.0.7 Supplement CD Version 3:

1. Log in as *root*.
2. Insert the SCO OpenServer Release 5.0.7 Supplement CD Version 3 into the drive.
3. Start the **Software Manager** by double-clicking on its icon on the desktop, or by entering the following at the command-line prompt:
scoadmin software
4. From the **Software** menu, select **Install New**.
5. When prompted for the host (machine), select the current host and then click on **Continue**.
6. Select the appropriate CD-ROM drive as the Media Device, then click on **Continue**.
7. In the **Install Selection** window, make sure that the Update Pack is highlighted then click on **Install**.

WARNING The **Software Manager** displays one or more warnings if the Update Pack contains fixes for software features that are not currently installed on your system. If you do not plan to install the affected package (for example: SMP), you can ignore such messages and click on *Continue*. However, if you do plan to install this package later, you should stop the update process, install the package in question, and restart the update. This ensures the fixes are applied properly (and avoids potential problems).

If any Update Pack fixes were not installed because the corresponding feature was not present, the **Software Manager** shows the Update Pack as only partially installed. This is normal.

8. When the installation is complete, click on **OK**. The **Software Manager** lists Update Pack 3 among the installed software.
9. Exit the **Software Manager** by selecting the **Host** menu, then **Exit**.
10. Reboot the machine. (Because the **Software Manager** relinks the kernel, you must reboot before the new kernel takes effect.)

Installing Update Packs across the network

You can install SCO OpenServer Release 5.0.7 Update Packs from one SCO OpenServer Release 5.0.7 system onto another across a TCP/IP network. To do so, you need a software server, which you can create as described in “Installing and managing software over the network” in the *SCO OpenServer Networking Guide*. This server has a user account called *swadmin*.

Install or load the Update Pack on the software server using one of the installation procedures described in “Installing the Update Pack” (page 4). Also see “Installing and managing software components” in the *SCO OpenServer Handbook* for more information on loading software.

To install an Update Pack onto a local machine once the Update Pack is available from the software server, start the **Software Manager** and select **Install New**. In the **Begin Installation** window, you are prompted for the source location of the Update Pack. Select **From Another Host**. You need to provide the name of the software server, as well as the password of the *swadmin* user on the software server.

Removing an Update Pack

NOTE Update Packs, Maintenance Packs, and Supplements must be removed in reverse order of installation. For example, if you installed Maintenance Pack 3 followed by Update Pack 3, you would remove UP3 first, followed by MP3.

It is not necessary to remove previous Update Packs prior to installing the latest Update Pack.

To remove an SCO OpenServer Release 5.0.7 Update Pack:

1. Log in as *root*.
2. Start the **Software Manager** by double-clicking its icon on the desktop, or by entering the following at the command-line prompt:
scoadmin software
3. Select the Update Pack in the list of installed software.
4. From the **Software** menu, select **Remove Software**. In the confirmation window, verify that you selected the correct software, then click on **Remove**.
5. When the **Removal complete** window appears, click on **OK**. The **Software Manager** should no longer list the Update Pack.
6. Exit the **Software Manager** by selecting the **Host** menu, then **Exit**.
7. Reboot the machine. (Because the **Software Manager** relinks the kernel, you must reboot before the new kernel takes effect.)

Update Pack features

Update Pack 3 comprises Update Packs 1 and 2, plus the following new features:

- DVD writing support (ProDVD): dvdrecord (page 10)
- Foomatic printer drivers (page 10)
- HP Inkjet Printer driver (hpijs) (page 10)
- PostgreSQL 7.4.2 (page 11)

Update Pack 2 provided the following:

- USB printer support (page 13)
- CUPS printer subsystem (page 15)
- GIMP-print support (page 18)

- ESP Ghostscript release 7.07.1 (page 18)
- H2N Bind8 DNS parser (page 18)
- updated IPC parameters (page 18)

Update Pack 1 provided the following:

- support for IDE hard disks larger than 137GB (page 18)
- extended shells (page 18)
- Info-ZIP (page 19)
- Hyper-Threading Technology (page 19)
- updated online documentation and manual pages (page 20)

Foomatic printer drivers

The foomatic package contains a generic printer filter and PPD (PostScript Printer Definition) files for over 200 non-PostScript printers. The filter and PPD files are integrated with the CUPS package and cannot be used with the System V LP print system. (Note that the CUPS package also provides its own PPD files. For more information, see the Printing topic in the online documentation.)

Further documentation on the printers supported by foomatic is available at:

http://www.linuxprinting.org/printer_list.cgi

You can search this site for the proper driver name for your printer, then look for the driver in the Make/Model selection list displayed by the CUPS graphical interface.

Foomatic is also a standalone system that creates PPD files from an XML database and includes tools for direct printing. The PPD creation program is called **foomatic-rip**(1) and the database is called *foomatic-db*.

HP Inkjet Printer driver (hpijs)

The HP-supplied hpijs printer driver is provided in conjunction with Ghostscript to support improved printing on a large number of HP DeskJet and LaserJet printers.

DVD writing with dvdrecord

Update Pack 3 includes DVD writing support with the **dvdrecord**(C) command, a port of the **ProDVD** utility. The command options for **cdrecord** (provided in Maintenance Pack 3) and **dvdrecord** are virtually identical. The **dvdrecord**(C) manual page is provided (and is maintained) by SCO. It contains basic information on creating CD and DVD data discs and includes key examples. **cdrecord**(1) is the generic documentation provided with the free

software and is not specific to SCO UNIX operating systems. Refer to **cdrecord(1)** for the complete option set and information on creating specialized disc layouts and formats.

NOTE If you have not already used the DVD drive to install SCO OpenServer Release 5.0.7, you need to manually configure the drive with the **mkdev cdrom** command (which also supports DVD drives).

DVD writers tested

ProDVD has been reported to work with most DVD drives. The following drives have been tested on SCO OpenServer Release 5.0.7:

- Pioneer DVR-A06
- Sony DWU-14A
- Plextor PX-708A

PostgreSQL 7.4.2

PostgreSQL is an object-relational database management system (ORDBMS) based on POSTGRES, Version 4.2, developed at UC Berkeley. This is an update to the version provided in Update Pack 2. The online documentation has been updated and the **mkdev pgsql** menus have been enhanced.

After the package is installed, PostgreSQL must be configured by running this command:

mkdev pgsql

NOTE Always use the **mkdev pgsql** script to start, stop, or change ownership of the PostgreSQL server.

This script allows you to view or configure the application defaults and manage administrative processes. The configuration options include:

1. Enable PostgreSQL
2. Disable PostgreSQL
3. Start PostgreSQL postmaster process
4. Stop PostgreSQL postmaster process
(after all clients have disconnected)
5. Stop PostgreSQL postmaster process NOW
6. Restart PostgreSQL postmaster process
(after all clients have disconnected)
7. Restart PostgreSQL postmaster process NOW
8. Set PostgreSQL database owner
9. Set PostgreSQL database directory

WARNING If no *postgres* user exists the first time **mkdev pgsql** is invoked, you are automatically prompted for a user ID so it can create the owner. At this point, **do not** press **q** if you wish to stop this process. Instead, press the (Del) key to exit the program. If you press **q**, a *postgres* user with a null ID is created. (This restriction also applies to Option 8 of the configuration menu.)

PostgreSQL and SSL paraphrases

mkdev pgsql fails to start up the postmaster process properly if SSL has been configured to use paraphrases. This is because the script does not pause to allow the paraphrase to be entered and the prompt scrolls off the screen. The workaround is to run **pg_ctl start** manually and enter the paraphrase when prompted.

PostgreSQL and UNIX domain sockets

This release of PostgreSQL for SCO OpenServer Release 5.0.7 does not support UNIX domain sockets. It is instead configured to use TCP/IP sockets. The default configuration allows all local users to connect to the server and remote connections are not allowed. To configure the server to allow remote connections and/or restrict local connections, edit the *pg_hba.conf* configuration file in your PostgreSQL data directory (the default location is */usr/pgsql/data*).

For example, to enable client access to the database server from all users at IP address 1.2.3.4, you would add the following line to *pg_hba.conf*:

```
host    all            all            1.2.3.4        255.255.255.255  trust
```

Users on IP address 1.2.3.4 would need to set the **PGHOST** environment variable to the name of the PostgreSQL server. For instance, if the server was running on the system *foo.bar.spam.com* then clients on IP address 1.2.3.4 would set the following in their shell environment:

```
PGHOST=foo.bar.spam.com
```

Updating to version 7.4.2

Because the database format has been since version 7.3.4, databases must be dumped and restored for use under 7.4.2. Instructions for performing a 7.3.x to 7.4.x upgrade can be found in Chapter 14: "Installation instructions" under Section 14.4: "If you are Upgrading" (<http://localhost:8457/en/PostgresqlDoc/index.html>) in the online PostgreSQL documentation, or externally at:

<http://www.postgresql.org/docs/7.4/static/install-upgrading.html>

The upgrade procedure refers to */usr/local/pgsql* and */usr/local/pgsql/data* as the default installation and data directories. On SCO OpenServer Release 5.0.7 these locations are */usr/pgsql* and */usr/pgsql/data*, respectively.

You should also save your previous PostgreSQL configuration files (*pg_hba.conf*, *pg_ident.conf*, and *postgresql.conf*) and make the appropriate configuration changes to the newly installed PostgreSQL configuration files. Remember to stop the daemon before upgrading.

WARNING If you do not follow the upgrade procedure, PostgreSQL 7.4.2 startup will fail.

JDBC driver for PostgreSQL

The PostgreSQL package also includes the latest Java JDBC driver, which provides a standard set of interfaces to SQL-compliant databases. You can find documentation at:

<http://doc.postgresintl.com/jdbc/index.html>

pgtclsh and pgtksh utilities

To use the *pgtclsh* and *pgtksh* utilities, you will need to install TCL and Tk 8.4. These are available as part of the GNU Tools version 5.0.7Kj, which can be obtained at:

<ftp://ftp.sco.com/pub/openserver5/opensrc/gnutools-5.0.7Kj>

USB printer support

NOTE There was an issue in UP2 where USB printers would hang during a print job and could not be accessed without a reboot. This has been fixed in UP3.

First provided in Update Pack 2.

This Update Pack includes support for USB printers. Although the support is general, it depends greatly on the capabilities of the printer. CUPS provides a small set of printer drivers (also called PostScript Printer Definition files, or PPD files). If the printer descriptions supplied with CUPS do not meet your needs, support for various “Windows-only” (GDI) printers is available by ESP Ghostscript, (page 18) GIMP-Print, (page 18) and foomatic, (page 10) which are all installed by default. Many “low-end” USB printers do not have image processing (rasterizing) capabilities and require the use of GIMP-print and ESP Ghostscript to process images and PostScript output.

Look for the driver in the Make/Model selection lists displayed by the CUPS graphical interface (page 16).

NOTE You do not have to install CUPS to enable USB printer support. USB device nodes are also available from the SCOAdmin **Printer Manager** and use the form `/dev/usb/lp.ID`, where **ID** is an identifier indicating the parent controller. For example:

`/dev/usb/lp020011.1`

The following printers have been tested and appear to work:

Canon BJC-85 (configured with GIMP-print driver)
HP LaserJet 4 with D-Link USB to parallel converter cable
HP Photosmart P1000

WARNING

- USB printer support is not designed to replace parallel printer support for existing installations. We strongly suggest that you retain an existing parallel connection rather than switch to the USB interface. It is likely that the printer will behave differently than you have come to expect. If you want to attach a new printer to your system and the printer provides both a parallel interface and a USB interface, we suggest that you use the parallel interface. Our testing suggests that many printers supporting both interfaces deviate from the USB specification.
- Any fax and scanner capabilities provided by printers are not currently supported (regardless of the driver used).
- The `usb(HW)` manual page states that printers can be attached and removed from the USB bus at any time. However, the printer must be re-attached to the same USB port to which it was first configured. If you hook it up to a different port on a hub, it will no longer be recognized by the print system.

usbprobe command

The `usbprobe` command line utility is provided to display the USB devices connected to the system. (Several levels of detailed information are available; run `usbprobe -h` for a list of options.) The output looks like this:

```
Path - Address - Description
-----
0 - 1 - Hub "UHCI Root Hub"
1 - 2 - Hub "General Purpose USB Hub"
1.2 - 3 - HID "Microsoft Basic Optical Mouse"
1.3 - 4 - Printer "Hewlett-Packard PhotoSmart P1000"
1.4 - 5 - HID "QTRONIX USB Keyboard and Mouse"
1.6 - 6 - Mass Storage "Iomega USB CDRW6402EXT-B"
1.7 - 7 - Mass Storage "Iomega USB Zip 100"
1.5 - 8 - Printer "Canon BJC-85"
```

A single run of `usbprobe` reports on devices attached to a single USB Host

Controller Interface (HCI). Each HCI can be thought of as a separate USB bus. Modern systems typically include up to five or more HCIs. A typical configuration has two physical USB connectors associated with each UHCI or OHCI USB 1.x controller, plus one EHCI controller that talks to all of the physical ports.

To see devices on bus number 3 for example, use this command:

```
usbprobe -I 3
```

USB 2.0 devices show up on the bus number associated with the EHCI controller. USB 1.x devices show up on different bus numbers depending on the physical hardware connections.

CUPS printer subsystem

First provided in Update Pack 2.

This Update Pack includes version 1.1.19 of the Common UNIX Printing System (CUPS). When installed, both the CUPS and standard (SYSV) print systems are active. Although both systems use the same command names, the options and behavior differ somewhat (each print system has a separate set of commands stored in */usr/lib/lp/cups* and */usr/lib/lp/sysv*):

accept cancel disable enable lp lpadmin lpmove lpr lpstat reject

Both command sets are supported. To make it easier to use the commands, you can define the default command set (SYSV or CUPS) to be used when a print command (such as **lpstat**) is entered on the command line. This can be done in any of three ways:

- on a system-wide basis in */etc/default/lpd*. The default entry is for the SYSV print system:

```
PRINT_SYSTEM=SYSV
```

- on a per-login basis by including **PRINT_SYSTEM=CUPS** or **PRINT_SYSTEM=SYSV** in the environment.
- by including **--sysv** or **--cups** as the first argument in the print command line (example: **lpstat --sysv -t**).

When the pathname is not supplied, the commands from the default print system are executed. You can use the full pathname to run a command belonging to the non-default print system. In a similar way, you can access the man pages for the two printer systems by supplying the relevant section name in the **man(C)** command (1 or 8 for CUPS man pages, C or ADM for the SYSV man pages):

Command	CUPS	SYSV
accept	8	ADM
cancel	1	C
disable	8	C
enable	8	C
lp	1	C
lpadmin	8	ADM
lpmove	8	ADM
lpr	1	C
lpstat	1	C
reject	8	ADM

CUPS Administration

The CUPS distribution includes a web-based administrative interface that is configured on port 631 (*http://localhost:631*).

NOTE You may have trouble logging in as *root* to the CUPS web administrative interface if each of the following three conditions are true:

1. Your system was installed with a Traditional or Low security profile.
2. You set a root password longer than eight characters during installation.
3. The *root* password has not been changed since installation.

In this case, use the **passwd(C)** command to re-enter the existing *root* password or change the password to a different value.

A list of available printers is generated at the time the CUPS print daemon (**cupsd**) is started (when the system enters multiuser mode). To regenerate the list (such as after connecting a new USB printer), enter the command:

```
/etc/init.d/cups restart
```

NOTE Do not change the configuration for a printer (such as dpi) while it is printing. This has been known to corrupt the output of the print job.

CUPS and Remote Printing (LPD)

Although CUPS supports LPD as both a server and a client, the CUPS LPD server implementation does not support access control (based on the settings in the */etc/hosts.equiv* and */etc/hosts.lpd* files). If your setup requires the use of the standard LPD, or you wish to use access control, do not install CUPS.

WARNING If you have never run **mkdev rlp** and you wish to do so, the CUPS package must be removed before running **mkdev rlp** and then reinstalled after remote printing is configured.

Using CUPS as an LPD client To configure CUPS so that jobs can be sent to a remote LPD printer, add a printer via the CUPS administrative interface and use the following settings:

Attribute	Setting
Device	LPD/LPR Host or Printer
Prototype device URI	lpd:// <i>hostname</i> / <i>printername</i>
Model/driver	Raw

NOTE If the printer was already configured for remote printing, the host and printer name are present in the */etc/printcap* file.

Using CUPS as an LPD server To configure CUPS so that remote hosts can send jobs to the CUPS printing system on the local host using the LPD protocol, follow the instructions found in the “Printing to LPD Servers” section of the *Software Administrator’s Manual* in the online CUPS documentation.

WARNING Because only one service can listen for print requests on the LPD port, **mkdev rlp** must not be configured on the local host. If **mkdev rlp** has ever been run on the host, it must be run again either before CUPS (UP3) is installed or with CUPS temporarily removed as described previously. If you intend to use CUPS as an LPD server you should run **mkdev rlp** to de-configure remote printing before CUPS/UP3 is installed (this is because the CUPS configuration is lost when the package is removed).

CUPS **lpstat(1)** command

The CUPS **lpstat(1)** always reports the state of devices as having been last modified on January 1st at 00:00. For example:

```
Obie accepting requests since Jan 01 00:00
```

This is because the CUPS version of **lpstat** does not capture this information. The default date is generated so that applications that parse **lpstat** output will not fail.

CUPS and HP LaserJet 6 Printers (PCL)

There is a known problem with the default printer driver displayed in the CUPS administrative interface for the HP LaserJet Series PCL 6. You should instead select one of these drivers that are reported to work:

- HP LaserJet Series CUPS v1.1 (en)
- HP LaserJet 6 series, CUPS+Gimp-Printv4.2.5 (en)

GIMP-Print support

First provided in Update Pack 2.

The Update Pack also provides the GIMP-Print (4.2.5) printer drivers for use exclusively with the CUPS printing system. GIMP-Print rasterizes bit images for printers that do not have built-in rasterizers (including many of the more inexpensive USB printers on the market).

ESP Ghostscript Release 7.07.1

First provided in Update Pack 2.

This Update Pack includes the 7.07.1 release of ESP Ghostscript. This is installed by default in conjunction with GIMP-Print to provide better printer support with CUPS.

H2N Bind8 DNS Parser

First provided in Update Pack 2.

h2n(ADM) translates */etc/hosts* to DNS files and creates a BIND conf file. This tool can be run once or many times. After converting your host table to DNS format, you can maintain the DNS files manually, or you can maintain the host table and run **h2n** each time you modify */etc/hosts*. (**h2n** automatically increments the serial number in each DNS file when it creates a new file.)

System V IPC parameters updated

First provided in Update Pack 2.

Several tunable parameters for the System V Inter Process Communications (IPC) shared memory and semaphore facilities were changed in Update Pack 2. The default settings were raised to values which should accommodate most commercial and open source databases without additional tuning. The maximum values of several parameters were also raised. See the Maintenance Pack 3 Release Notes for more information.

Support for IDE hard disks larger than 137GB

First provided in Update Pack 1, this feature has been moved to MP3.

Extended shells

First provided in Update Pack 1.

The GNU Bourne-Again Shell (**bash**), Z-Shell (**zsh**), and Extended C-Shell (**tcsh**) are included in this Update Pack. Documentation for each of the shells, including man pages and texinfo help, is provided when the shells are installed.

GNU Bourne-Again Shell (**bash**)

This popular shell from the GNU Project is a feature-rich shell that is largely IEEE POSIX P1003.2 compliant. It has most features of the Korn Shell (**ksh**) and is well suited to interactive use. Most existing shell scripts should run correctly with **bash**.

Z-Shell (**zsh**)

This shell is best suited for interactive usage. It has highly programmable command and filename completion, is most compatible with the Korn Shell (**ksh**), and has features that C-shell (**csh**) users will find familiar. It also has a full FTP client that you can access with built-in shell commands, as well as a number of additional loadable modules. You can extend **zsh** with other third-party modules at any time.

Extended C-Shell (**tcsch**)

This is a Berkeley C-shell (**csh**) compatible shell with many improvements, bug fixes, and command line editing capabilities. Note that the SCO version of **csh** behaves differently from other implementations of **csh** (including **tcsch**) in implementation of the `||` and `&&` operators.

Info-ZIP

First provided in Update Pack 1.

This Update Pack includes the Info-ZIP package, which provides the **zip** and **unzip** compressor-archiver utilities. These commands are compatible with the DOS-based PKZIP tools created by PKWARE, Inc.

Manual pages for these commands are also installed on the system.

Hyper-Threading Technology

First provided in Update Pack 1.

This Update Pack adds support for the Intel® Hyper-Threading (HT) Technology. Hyper-Threading allows two series of instructions to run simultaneously and independently on a single Intel Xeon(TM) or HT-enabled Intel Pentium® 4 processor. With Hyper-Threading Technology enabled, the system treats a physical processor as two “logical” processors. Each logical processor is allocated a thread on which to work, as well as a share of execution resources such as cache memories, execution units, and buses.

Hyper-Threading Technology can be employed on a PC that is equipped with the following components:

- an Intel Xeon or HT-enabled Intel Pentium 4 processor
- a chipset that supports HT Technology
- a system BIOS that supports HT Technology

SCO OpenServer supports Hyper-Threading Technology via the SCO OpenServer Release 5.0.7 Symmetrical Multiprocessing (SMP) product. When SMP is installed, Hyper-Threading is enabled by default.

NOTE If you want to use Hyper-Threading Technology, the SMP product must be installed before Maintenance Pack 1 and any Update Pack.

An SMP license is not required to install SMP on a single-CPU system; simply select to **Defer** licensing during the installation.

See the **hyperthread(HW)** manual page for details on using Hyper-Threading Technology.

Updated online documentation and manual pages

The Update Pack includes additions and enhancements to the SCO OpenServer online guides and manual pages. Guides and manual pages that are distributed with a number of the new products in this Update Pack are also provided.

The complete set of documentation, including manual pages, can be viewed by any browser using the DocView documentation server. Manual pages can also be viewed using the **man(C)** command.

Update Pack 3 provides the following documentation:

- Foomatic man pages:

foomatic-configure(1)
foomatic-gswrapper(1)
foomatic-ppd-options(1)
foomatic-ppdfile(1)
foomatic-printjob(1)
foomatic-rip(1)
foomatic-perl-data(1)
foomatic-compiledb(1)
foomatic-combo-xml(1)
foomatic-kitload(8)
foomatic-preferred-driver(8)
foomatic-getpjloptions(8)
foomatic-addpjloptions(8)

- ProDVD manual page:
dvdrecord(C)
- PostgreSQL documentation
(<http://localhost:8457/en/PostgresqlDoc/index.html>)

Update Pack 2 provided the following documentation:

- CUPS guides in the online documentation — including the *Overview of the Common UNIX Printing System*, *CUPS User's Manual*, *Software Administrator's Manual*, and *CUPS Security Report*.
- GIMP-print guides in the online documentation — including the *GIMP-Print User's Guide*, and *GIMP-Print, The Print Plugin for the GIMP*.
- **h2n**(ADM) — documents the BIND8 DNS parser.
- **giomap_noded**(ADM) — documents the USB device node daemon.
- **usb**(HW) — documents the USB device nodes and naming conventions.
- PostgreSQL guides (<http://localhost:8457/en/PostgresqlDoc/index.html>) — including the *Tutorial*, *User's Guide*, and *Administrator's Guide*.

Update Pack 1 provided the following documentation:

- **hyperthread**(HW) — documents use of the Intel Hyper-Threading Technology on an SCO OpenServer system.
- **p6update**(HW) — documents the utility for modifying Intel Pentium processor microcode, based on microcode updates provided by Intel Corporation.

Regenerating the DocView search index

The DocView search system, based on the **htdig** search engine, requires that a search index be generated. Because indexing the SCO OpenServer online Documentation Library can take awhile, the index is not re-generated during the update installation.

To generate the search index, run the following command:

```
/usr/lib/docview/conf/rundig
```

For more information, see “Generating the search index” in Using DocView, which is accessible from the SCO OpenServer online Documentation Library.

List of problems fixed

SCO OpenServer Release 5.0.7 Update Pack 3 includes the following bug fixes:

- Printing on fast ohci/uhci SMP systems results in printer device hang.
fz528829
- The **mkdev pgsq1** script has an option to “Restart (or start) PostgreSQL,” but this option only restarts PostgreSQL, it does not start it.
fz529342

Update Pack notes and limitations

The following notes and limitations apply to the SCO OpenServer Release 5.0.7 Update Pack 3:

- Printing to an Epson Stylus C82 printer with CUPS and Gimp-print results in disjoint print-outs and many blank pages. A fix for this problem will be available in a future release.

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