# **UnixWare 7.1.3 Maintenance Pack 5 Release Notes**

#### August 2005

Dear SCO Customer,

This CD contains UnixWare 7.1.3 Maintenance Pack 5. This Maintenance Pack contains important fixes to your UnixWare system and should be applied at your next maintenance period.

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# I. Software Notes and Recommendations

- 1. The UnixWare 7.1.3 Maintenance Pack 5 should only be installed on:
  - o UnixWare 7.1.3
- 2. If you are performing an in-place upgrade from UnixWare 7.1.1 or Open UNIX 8.0.0 to UnixWare 7.1.3, make sure to reboot the system after applying the update and before applying this maintenance pack.
- 3. This maintenance pack consists of the following sets and packages:
  - o uw713mp5 UnixWare 7.1.3 Maintenance Pack 5 Set

This set contains the following packages:

uw713m5 UnixWare 7.1.3 Maintenance Pack 5 Package

**libc** Runtime C Library package, version 8.0.1e **libthread** Runtime Thread Library package, version 8.0.1c

Eleven updated packages:

**cdrtools** A set of tools for CD/DVD Recorders, version 7.1.4

**nd** Network Drivers, version 8.0.2b

**nics** Network Infrastructure and Configuration Subsystem, version 8.0.2b

openssh Open Secure Shell, version 4.0p1

openssl OpenSSL, version 0.9.7g

openssld OpenSSL Documentation, version 0.9.7g

**zlib** General Purpose Data Compression Library, version 1.2.2

**basex** X11R6 Base X Runtime System, version 8.0.1d

xserver X11R6 X Server, version 8.0.1a xclients X11R6 X Clients, version 8.0.1a

xcontrib X11R6 Contributed X Clients, version 8.0.1a

4. An **install.sh** script is provided to simplify installation, as described in the <u>``Installation Instructions"</u> section below. Use of this script is highly recommended.

The **install.sh** script installs the following:

o The **uw713mp5** set.

Installing **uw713mp5** will update the **libc** and **libthread** runtime libraries as well as installing the **uw713m5** package. The runtime libraries, once installed, are not removable.

 Newer versions of the updated packages listed above, provided earlier versions of these packages are already installed on your system.

Alternatively, with care you can install the packages individually. However, you should note the following:

- The **uw713mp5** set is required for all systems.
- The following packages are strongly recommended:

cdrtools, openssh, openssl, zlib, xserver

The openssh package requires the openssl package version 0.9.7g.

All other packages are optional.

If you did not install some of the above packages when initially installing UnixWare 7.1.3, you

can do so using the **install.sh** script. You do not need to first install the original UnixWare 7.1.3 version. Please refer to the <u>``Installation Instructions"</u> section below.

```
5. This maintenance pack supersedes and obsoletes:
```

```
uw713mp1 (UnixWare 7.1.3 Maintenance Pack 1 Set)
uw713mp2 (UnixWare 7.1.3 Maintenance Pack 2 Set)
uw713mp3 (UnixWare 7.1.3 Maintenance Pack 3 Set)
uw713mp4 (UnixWare 7.1.3 Maintenance Pack 4 Set)
ptf9000
ptf9001
ptf9003
ptf9004
ptf9006
```

These packages and sets do not need to be removed prior to installing uw713mp5.

The installation of **uw713mp5** will also lock down these packages and they will no longer be removable.

Note: uw713mp5 does not replace the boot images that ship with ptf9000.

- 6. This maintenance pack can not be installed on top of UnixWare 7.1.3 Update Packs. For example, this maintenance pack can not be installed if **uw713up3** (Update Pack 3) is installed.
- 7. If you install a package (say **acp**) from the UnixWare media kit on a system with the maintenance pack installed, and that package has been updated by the maintenance pack, you will see the following warning message:

```
WARNING: Reapply uw713m5 package. Failure to do so may leave your system in an inconsistent state.
```

This warning message will be displayed after every **pkgadd** until you reinstall the **uw713m5** package. To do this, mount the maintenance pack CD and type:

```
# pkgadd -d /mount point/images/uw713mp5.image uw713m5
```

Then reboot your system:

```
# cd /
# shutdown -i6 -g0 -y
```

8. This maintenance pack updates **sendmail** to version 8.12.9, plus security fixes from 8.12.10. However, if you previously added a version of **sendmail** provided by a vendor other than The SCO Group, **uw713mp5** will not update that version.

After installing **uw713mp5**, running **sendmail** commands such as the **newalias** command may display the following error message:

```
Warning: .cf file is out of date: sendmail 8.12.9 supports version 10, .cf file is version 9
```

Mail will continue to function. However none of the new features, implemented in the configuration file, will be available unless you edit this file manually. See <a href="http://sendmail.org">http://sendmail.org</a> for further detail.

Only **Sendmail** has been updated. SCOadmin has not been updated. The old configuration file has been left in place to allow continued use of the SCOadmin interface.

To avoid the warning message edit /etc/sendmail.cf and change the config file format entry (the first non comment line) from "V9" to "V10". Note that once you edit sendmail.cf manually you will no longer be able to use SCOadmin to manage sendmail.

- 9. If your system hangs on the first reboot following installation of this maintenance pack and, prior to hanging, it displayed an error message stating that an HBA command timed out, apply the following workaround:
  - 1. Reset the system.
  - 2. When the system displays the UnixWare logo during the boot sequence, interrupt the boot by pressing any key.
  - 3. At the boot prompt enter:

```
USE_XAPIC=N boot
```

The system should continue to boot normally.

4. Once the system is running edit /stand/boot and add the following entry:

```
USE XAPIC=N
```

- 10. For a list of issues that this maintenance pack addresses, please see the <u>"Comprehensive List of Problems Fixed"</u> section below.
- 11. If you have questions regarding this supplement, or the product on which it is installed, please contact your software supplier or support representative.

# **II. Installation Instructions**

- 1. Log in as root.
- 2. If you are installing the maintenance pack from CD, insert the maintenance pack CD into the primary CD drive and type:

```
# mount /dev/cdrom/cdrom1 /install
```

If you are installing this maintenance pack from the web, download the uw713mp5.iso file to

your server from:

#### http://www.sco.com/support/update/download/uw713list.html

In the directory where you downloaded the **uw713mp5.iso** file, type:

```
# mount `marry -a uw713mp5.iso` /install
```

3. Change directory to /install:

```
# cd /install
```

4. To install the required **uw713mp5** set and the updated packages on your system, type:

```
# ./install.sh [-nv]
```

This will show you a menu screen listing the names of the packages that are part of this maintenance pack.

By default, **uw713mp5**, and updated packages whose earlier versions are already installed on your system are selected for installation.

The packages whose earlier versions are not installed on your system are not selected for installation.

The packages whose later versions are installed on your system are not listed.

Select the packages that you want to install on your system and press **Apply** to continue. Since the menu screen can only display ten packages at a time, pressing **Apply** will show the next list of packages. Pressing **Apply** on the final screen will install the selected packages.

The optional **-n** (non-interactive) flag skips the menu screen and proceeds to install the default selection of packages.

The optional -v (verbose) flag provides more status information during the installation.

5. To individually install packages and sets, run the following command:

```
# ./install.sh [packages]
```

where packages can be any of the packages listed in Section I.

6. After all desired packages are installed, reboot the system by typing:

```
# cd /
# shutdown -i6 -g0 -y
```

## **III. Removal Instructions**

- 1. Log in as root.
- 2. To remove the maintenance pack set (except for its library packages, which are not removable), type:

```
# pkgrm uw713mp5
```

#### **Notes:**

- Removal of the **uw713mp5** set is not recommended.
- o During the removal you will be warned that libthread and **libc** will not be removed.
- The Open Secure Shell (openssh) package is functionally dependent on the uw713m5 package. It will not work if uw713m5 is removed.
- 3. To fully restore your system to its prior state, reinstall the UnixWare 7.1.3 media kit version of the updated packages.

**Note**: Removal of the updated packages is not recommended.

4. After all the packages are removed, reboot the system by typing:

```
# cd /
# shutdown -i6 -g0 -y
```

# IV. Comprehensive List of Problems Fixed

#### A. Problems Fixed in Maintenance Pack 1 and also included in Maintenance Pack 5

The UnixWare 7.1.3 Maintenance Pack 1 (**uw713mp1**) contains the following fixes. These fixes are also included in UnixWare 7.1.3 Maintenance Pack 5 (**uw713mp5**).

- 1. Fixed system panic when fusers examines an exiting process. fz526462
- 2. Fixed hangs seen on Compaq ML350 and ML370 systems when hyperthreading (Jackson Technology) is enabled, i.e., when the boot parameter ENABLE\_JT is set to YES. fz526444
- 3. Fixed problems with the CDE desktop help viewer. fz526501
- 4. Added missing scoadmin filesystem files that were not installed when upgrading from UnixWare

7.1.1 or Open UNIX 8.0.0. fz526550

5. Added updated /usr/include files that were not installed when upgrading from UnixWare 7.1.1 or Open UNIX 8.0.0. fz526552

6. Added a new makewhatis(1M) command that was not installed when upgrading from UnixWare 7.1.1 or Open UNIX 8.0.0. fz526526

7. Fixed crash(1M) to recognize changes to the callout structure. fz518517

8. Fixed problems with target disk driver error recovery. fz520729

#### B. Problems Fixed in Maintenance Pack 2 and also included in Maintenance Pack 5

The UnixWare 7.1.3 Maintenance Pack 2 (**uw713mp2**) contains the following fixes. These fixes are also included in UnixWare 7.1.3 Maintenance Pack 5 (**uw713mp5**).

#### **Security Fixes:**

- 9. SECURITY: A setuid program can be used to corrupt root owned files. If a program closes file descriptors 0, 1 and/or 2 before exec'ing a setuid program, the setuid program will open files under these file descriptors, which have special meanings stdin/stdout/stderr. erg712059/fz526562/CSSA-2002-SCO.43
- SECURITY: A rogue talk client is able to cause the talk demon to overrun a buffer, and could be used to compromise a machine running talkd. erg712055/fz521053/CSSA-2002-SCO.42
- 11. SECURITY: A buffer overflow in XDR portion of the libnsl library can be exploited. erg712182/fz526861/CSSA-2003-SCO.7
- 12. SECURITY: A command line buffer overflow in the ps command can be exploited. erg712109/fz525292/CSSA-2003-SCO.1
- 13. SECURITY: A buffer overflow in libnsl's implementation of xdr\_array when deserializing the XDR stream can be exploited. fz501642/fz525725/CSSA-2003-SCO.7
- 14. SECURITY: A security vulnerability in the sendmail binary can be exploited by remote users to gain root access. erg712247/fz527484/CSSA-2003-SCO.5
- 15. SECURITY: When using ftp to transfer a file with a pipe as the first character in its name (for example, |xyz), ftp executes the file on client machine.

erg712227/fz527425/CSSA-2003-SCO.3

16. SECURITY: The uudecode command does not validate the filename. It should not write to pipes or symbolic links.

erg712093/fz521051/CSSA-2002-SCO.44

17. SECURITY: Privileged, setuid or setgid processes are prohibited from dumping core. A new tunable COREFILE\_SECURE, if tuned to 0, will allow such processes to core dump. erg712163/fz526524

#### **Networking Fixes:**

- 18. Panic in ppp driver pppwsrv() routine due to a race condition. fz501673/fz526330
- 19. Panic in ppp's pcid driver. fz501650/fz525867
- 20. Communication problem between pcid and ppp driver. fz501678/fz526352
- 21. The ttymon process sometimes stops listening to a port after PPP disconnect. fz501634/fz525626
- 22. When receiving data from a TCP socket it may lock up indefinitely with data buffered up in the kernel but never returned to the process. fz501604/fz520887
- 23. Connection server (cs) fails with the following error: cs: ioctl() set signal error; errno=22 erg712153/fz526540
- 24. Network printing performance was not optimal. erg712041/fz520932
- 25. If an ftp client host was reset (as in cycling the power) during data transmission to the server, the ftp-data connection never times out on the server. If the client tries to use the same port after reboot for an ftp transmission, the server responds with EADDRINUSE. fz501703/fz526973
- 26. After removing a network interface, "pkgchk nics" complains about missing files. erg712152/fz526505
- 27. Repeated logins on virtual terminals (/dev/vt02, ... /dev/vt08) result in file descriptor leakage in ttymon. fz501636/fz525650
- 28. When excessive short-lived rlogin sessions are being created, /var/adm/wtmp and /var/adm/wtmpx get out of sync and must be rewritten. While these files are being rewritten, no one can rlogin to the system. If these files grow quite large, this can take up to 20-30 minutes. Also under heavy load the short-lived rlogin sessions may leave the entries in utmp from sessions that have actually

completed. erg712151/fz526496

29. KMA corruption in tcp.

erg712086/fz521356

30. Can't write to /dev/\_tcp/num tty device (rlogin connection). erg712250/fz526110

- 31. Occasionally bind() returns EADDRINUSE for no apparent reason. erg712209/fz527217
- 32. Problem in tape driver relating to SAN attached tape drives. erg712195/fz526396
- 33. Status requests are not being automatically generated for a network printer if it is busy resulting in job ids not being freed. fz501666/fz526164
- 34. Hangs and delays in streams caused by streams routines unnecessarily allocating large physically contiguous buffers.
  erg712266/fz527550
- 35. Panic in tco\_close() routine. erg712230/fz527439
- 36. Panic in nfs which can occur following certain types of transmission errors. fz526648
- 37. Cleaned up code which handles dispatching of tcp timers. fz526796

#### **Compatibility Fixes:**

- 38. Minor command modifications required by the Open Group for UNIX certification. For details, see <u>``Supplementary Documentation"</u>. fz526395/fz526629/fz527377
- 39. Fixed system call restart code for OpenServer applications. Also modified code for the connect system call so that connect is properly restartable for OpenServer applications. fz527264
- 40. Fix system hangs during boot up on older (Pentium III and earlier) IBM hardware. fz527522
- 41. Allow use of an ELF interpreter which contains a PT\_NOTES section, as some older OpenServer libraries do. fz527571
- 42. Enable 16-bit IPC IDs for OpenServer and Xenix compatibility.

fz527373

43. Implement support of MAP\_NOEOF mmap flag for OpenServer applications running on UnixWare. fz527536

44. Fix panic caused by certain OpenServer binaries. fz550013/fz514721

45. Fix chown() where arguments of -1 do not work for OSR5 binaries. fz526683

#### Miscellaneous Fixes:

- 46. Fixed emergency\_disk(1M) boot media hang if machine has > 4GB of memory. fz527578
- 47. Fixed an unrecoverable "internal error" experienced by the debug command when reading some core files from threaded applications. Fixed the recently added -m command line option to specify an alternate runtime library path when analyzing core files from other systems. fz501675/fz526224/fz526635/fz526681
- 48. Fixed the vtoc driver to support disks whose physical sector size is an integral multiple of 512. fz501717/fz527726
- 49. System may refuse to take console input after 248 days, thereby appearing to be hung due to invalid time stamps in the cmux driver. fz501720/fz527517
- 50. Fixed useradd(1M) command to allow \$ in usernames (SAMBA requirement). fz526483
- 51. The ksh95 builtin pwd command can output pathnames starting with //. fz199364
- 52. The pwck(1M) command does not display the line being processed when encountering errors. erg712157/fz518020
- 53. Fixed the dump command to correctly display version with -V option. fz518607
- 54. Multithreaded process hangs during exec and is unkillable. erg712172/fz526750
- 55. The kernel can panic in mod\_dev\_load if a DDI8 driver does not get configured properly.
- 56. PSE memory remains unavailable after dynamically adding memory. erg712235/fz527455

- 57. System hangs in vxfs filesystem. Processes blocked waiting on a call to vx\_iget. erg712184/fz526355
- 58. Added undocumented option noquota to the vxfs mount command to fix the problem where the output of mount -p when used in /etc/vfstab, is rejected by mount with the message: UX:vxfs mount: ERROR: illegal -o suboption -- noquota erg712190/fz526894
- 59. Restore the pre-7.1.3 lookuppn syntax so that third-party provided filesystems continue to work. The extra root vnode argument has been removed from lookuppn. A new lookuppnx function has been created with this extra argument. fz527503
- 60. Fix for sdiadd -n panic on systems with HBA's pre-DDI8. The problem was that sdi\_hot\_add() was not converting the older style SCSI address into the newer extended SCSI addressing scheme properly. The original fix sets the address to -1's instead of 0's for the wildcard case. The function pdi\_hot will set the SCSI address to all -1's to tell SDI that we want to scan the entire SCSI bus starting from absolute address 0/0/0/0 (controller/bus/target/lun). erg712223/fz527360
- 61. If DNS is not configured, scoadmin mail will not allow any changes in mail configuration. erg712296/fz527783

#### C. Problems Fixed in Maintenance Pack 3 and also included in Maintenance Pack 5

The UnixWare 7.1.3 Maintenance Pack 3 (**uw713mp3**) contains the following fixes. These fixes are also included in UnixWare 7.1.3 Maintenance Pack 5 (**uw713mp5**).

#### **Security Fixes:**

- 62. SECURITY: Fixed exploitable buffer overflows in metamail. erg712265/fz527543/CSSA-2003-SCO.15
- 63. SECURITY: Fixed TCP to drop packets with both SYN & FIN set to avoid vulnerability described in: <a href="http://www.kb.cert.org/vuls/id/464113">http://www.kb.cert.org/vuls/id/464113</a> erg712274/fz527623
- 64. SECURITY: Fixed CRLF (Carriage Return, Line Feed) injection vulnerability in lynx. erg712379/fz528144
- 65. SECURITY: Fixed exploitable sendmail char sign extension buffer overflow. erg712276/fz527629
- 66. SECURITY: Fixed remotely exploitable vulnerability in sendmail that could allow an attacker to gain control of a vulnerable sendmail server. erg712433/fz528320/CSSA-2003-SCO.23.1
- 67. SECURITY: DocView no longer permits certain URLs from reading publicly-readable system files.
  erg712367/fz528126/CSSA-2003-SCO.18

- 68. SECURITY: Fixed procfs where a local user can gain root privs from a setuid root binary. erg712482/fz528474/CSSA-2003-SCO.32
- 69. SECURITY: Fixed LKP where users can escape chroot "jail". erg712519/fz528642

#### **Networking Fixes:**

- 70. System panic due to a race condition in tcp timers code. **Note**: This problem was fixed in uw713mp2 but the problem description was not added to the errata file. erg501722/fz527554
- 71. write(2) on a raw socket erroneously returns EISCONN. **Note**: This problem was fixed in uw713mp2 but the problem description was not added to the errata file. fz501681/fz526404
- 72. Fixed TCP data corruption. erg712389/fz528172
- 73. If two arp -d's are called in quick succession, one of the entries may not be deleted. erg711628/fz516107
- 74. Connection server (cs) allows 2 child processes to talk to the same device. fz501731/fz527737
- 75. Fixed a deadlock in do\_snddis() routine in libnsl. erg712327/fz527968
- 76. The traceroute command dumps core. fz528035

#### **USB fixes:**

- 77. Embedded EHCI on IBM 8430/13x takes decades to reset. fz501727/fz527381
- 78. EHCI chips that request 64-bit addressing get: "Descriptor load failed during enumeration" fz501727/fz528043
- 79. Melco/Yedata USB drive tanks with "Inquiry Read failed, unbinding!" when attached. fz501727/fz528046

#### **Printing Fixes:**

- 80. lpsched performs poorly when a large number of jobs (200+) are submitted at once. fz501718/fz527462
- 81. If the name of remote system for a remote printer is not found in /etc/lp/Systems, lpsched does not complain at startup and later on coredumps when a status or cancel request is sent to that printer. fz527931

82. Remote print requests remain indefinitely in queue if remote system is down. They do not timeout even if timeout parameter is specified in /etc/lp/Systems for the corresponding remote system.

WARNING: Since by default the timeout is set to 10 minutes, print setups with large network delays may suddenly experience timed-out jobs. For such systems, system administrators should either increase the timeout value or set timeout to "never" to restore old behavior. fz527934

#### **Miscellaneous Kernel Fixes:**

83. Kernel panics with a bad read pointer in a STREAMS message block, caused by mishandling of the message block in the STREAMS utility msgpullup and in the IP protocol handling routine ip\_input.

erg712321/fz527939

- 84. Kernel panics in specfs due to NULL pointer dereference (s\_cp). erg712337/fz528010
- 85. Kernel panics in realitexpire. erg712352/fz528064
- 86. System hangs. Hard hang, unable to dump or break in via kdb. erg712346/fz528045
- 87. System hangs in flock() when the NFS server is Microsoft SFU (3.0). erg712347/fz528048
- 88. System hangs; infinite loop in deadflck. erg712154/fz526541
- 89. Running sdipath -o repair repeatedly may cause a hang in mpio\_closeAll. erg712254/fz527498
- 90. Hyperthreading is disabled (erroneously) on some systems. erg712350/fz528053
- 91. Large block sized i/o requests failing with Pre-DDI8 HBA drivers. This issue can be easily reproduced by installing ODM and doing Root encapsulation. erg712316/fz527917
- 92. Fixed failures mounting/creating vxfs snapshots which indicated that the filesystem is either already mounted, busy, or the allowable number of mount point exceeded when none of these failure conditions were true.

  erg712361/fz528100
- 93. Some STREAMS ioctls involving multiple message exchanges with the driver may timeout prematurely and return EAGAIN erroneously. erg712396/fz528199
- 94. Fixed kernel stack overflows with lxuwfs, replacing relatively large stack variables with allocated

areas. Matching change made to lxdevfs. Altered lxuwfs behavior on attempts to recurse: before the change, it exposed the covered directory; after, it returns ENOENT. Altered the definition of recursion in lxuwfs, so that it now detects both descent into the same lxuwfs mount point, and descent into any other lxuwfs mount point.

fz527910/fz528131

- 95. System call entry handler for linux binaries will panic if a real device is attached to the same vector or if a spurious interrupt is received on that vector.

  erg712348/fz528051
- 96. Shared memory that is in use by a process experiencing a fork failure might not be released. erg712399/fz528204
- 97. xAPIC support for IBM xSeries 440. fz526749

#### **Miscellaneous Fixes:**

- 98. Fixed "ps -o time" where a process which has accumulated more than 24 hours of CPU time is shown as having accumulated one day more than the actual time. erg712295/fz527776
- 99. The crash command is changed to display per-processor callouts as well as global callouts from the callout command.

  fz527802
- 100. The queue command in crash prints garbage at the end of the line. fz528406
- 101. Updated kcrash. fz528295
- 102. When pkgadd fails early on, before any package has been selected, it gives the following message: UX:mailx: WARNING: No message !?! This message was confusing to users and is now not displayed.

  fz527750
- 103. ksh93 autoload functions invoked within command substitution fail to execute. erg712312/fz527879
- 104. /u95/bin/ksh users' `w` idle time resets every 10 min. erg712362/fz528070
- 105. /etc/conf/bin/idconfupdate now creates its .idlock file in /etc/conf instead of /var/tmp. This avoids idtools problems when /var/tmp is not mounted. fz528107/fz528129
- 106. When installing UnixWare on some machines with the nVidia GeForce4 video chipset, the screen goes black and the machines freezes after the initial kernel is loaded and before the language selection screen.

erg712344/fz528030

107. The syslog demon (syslogd) fails to respond to SIGHUP. erg712414/fz528159

- 108. Support logical volumes up to 1TB. mkfs\_vxfs failed on logical volumes > 512GB and fdisk reported invalid cylinders in "1TB boundary" cases. erg712311/fz520676
- 109. The date command dumps core. Attempting to update the system time using SCOadmin results in an error message, although the time does get updated. erg712397/fz528056
- 110. The userdel command dumps core.

fz501732/fz528409

- 111. The rtpm command incorrectly reports it is out of memory and exits. erg712441/fz528135
- 112. The time reported by rtpm gets out of sync with the system clock. erg712393/fz528133
- 113. optimizer bug generated incorrect code for /usr/lib/ppp/psm/ip\_rt snd\_dns() and snd\_dns2() functions.

  fz528222
- 114. runacct updates wtmp[x] utmp[x] without holding record locks. This can trigger "synchronize" operations, which may take a long time to complete if the files are large. The effect is that other commands; for example, telnet and rlogin are blocked waiting for the housekeeping to finish. erg712428/fz528292
- 115. Added the missing charset attribute for Japanese documentation in DocView. fz526356
- 116. DocView search index is now generated using a cron job so the administrator does not have to run it manually. fz526593
- 117. Enabled DocView Print Book capability to allow users to assemble content for printing a PDF file.

  fz527196

#### D. Problems Fixed in Maintenance Pack 4 and also included in Maintenance Pack 5

The UnixWare 7.1.3 Maintenance Pack 4 (**uw713mp4**) contains the following fixes. These fixes are also included in UnixWare 7.1.3 Maintenance Pack 5 (**uw713mp5**).

#### **Security Fixes:**

- 118. SECURITY: Fixed exploitable libDtHelp buffer overflow. erg712445/fz528372/CSSA-2003-SCO.31
- 119. SECURITY: A new file system tunable, CHROOT\_SECURITY is provided to protect against a known exploit for escaping from a chroot prison. The new tunable is described in /etc/conf/dtune.d/fs and defined in /etc/conf/mtune.d/fs. Protection is provided by the default value of 1 but traditional behavior may be obtained by resetting CHROOT\_SECURITY to 0. erg712509/fz528555/SCOSA-2005.2
- 120. SECURITY: Two new inconfig tunables have been introduced to address the TCP Rose Attack:
  - o ip\_maxfragpackets: This is the maximum number of fragmented packets that IP will accept. The default is 800.
  - ip\_maxfragsperpacket:
     This is the maximum number of fragments per packet that IP will accept. The default is 16.

erg712605/fz529414/SCOSA-2005.14

121. SECURITY: Fixed vulnerabilities in TCP according to this IETF draft: http://www.ietf.org/internet-drafts/draft-ietf-tcpm-tcpsecure-00.txt erg712598/fz529384/SCOSA-2005.14

#### **Networking Fixes:**

- 122. netconfig fails to configure network card properly in certain situations with multiple NICS. erg712451/fz528400
- 123. Fixed a panic in tcp\_close() or tcp\_qremque() due to a race condition in inet driver. fz528895
- 124. Fixed a panic in tco\_unconnect() when closing OpenOffice 1.1 under LKP. erg712444/fz528361
- 125. Fixed a panic in socksys driver (ss\_send\_recv\_tpi routine trying to free memory that has already been freed by ss\_rput\_socket.) This can happen when a client closes a Unix Domain socket after server has just accepted the connection but not yet returned to user.

  erg712480/fz528467
- 126. Fixed a panic due to KMA corruption as a result of closing an open NFS file during process exit. fz529130
- 127. Fixed panics in netbios driver routines while running LSV inet stress tests (GetService). fz526345
- 128. SNMP utility trap\_rece quits with: "Couldn't assign the requested address". erg712289/fz527728
- 129. Fixed rcp slow down problem after rcp'ing a > 2GB file. erg712177/fz526823

130. Added checks for STREAMS flow control in UDP multicast/broadcast single receiver code-path to prevent panics/system freeze. erg712484/fz528479

#### **Miscellaneous Kernel Fixes:**

- 131. Periodic timeout scheduling fix. erg712571/fz528990
- 132. System fails to mount vxfs filesystems with large numbers of inodes (>8M) and marks them bad and sets "full fsck" flag. Full fsck of the filesystems which is required to mount them, fails with the following message:

```
fileset 1 primary inode 65 has invalid size (4194762752) fileset 1 primary inode 97 has invalid size (4194762752) fileset 1 primary inode 97 has invalid size (4194762752) no valid ILISTs for fileset 999 file system check failure, aborting ...
```

**Note:** The updated fsdb utility now prints IAU headers and summaries independently. erg712524/fz528656

- 133. IBM xSeries 445 fails to boot when hyperthreading is enabled. erg712577/fz528645
- 134. Process hang due to bug in waitid. erg712596/fz529361
- 135. Added SDI pseudo hba driver instance to prevent panics when HBA drivers are removed in Hot Plug Manager when device nodes are busy/open. erg712305/fz527809
- 136. Panic in dounmount() when closing fifo stream, due to a race condition between two process, one calling dounmount through nm\_unmount() and the other through nm\_unmountall(). erg711929/fz519727
- 137. The siginfo structure contains two new members, si\_iaddr (the address of the instruction that caused the trap) and si\_raddr (an associated memory reference address, if there is one, otherwise the same as si\_iaddr).

  erg712550/fz528887
- 138. Latest Intel microcode updates. erg712621/fz529619

#### **Miscellaneous Fixes:**

- 139. MAXRUN is a new cron tunable defined in /etc/default/cron. It defaults to 25 and governs the number of simultaneous cron jobs in the system.

  erg712469/fz528435
- 140. The compress command dies with a SIGSEGV, and fails to compress the file.

erg712220/fz527292

- 141. Prevent mounted CD-ROMS from being ejected. erg712570/fz528962
- 142. sysi86(SI86DSCR) doesn't validate selector when clearing a descriptor. fz521540
- 143. By the time pkgadd executes the preinstall script of a package, it has already updated the contents file with the information from the package's pkgmap file. Hence if the preinstall script is terminated for some reason, the contents file is left in a bad state the files are not installed on the system but they are present in the contents file.

  fz519105
- 144. pkginstall, pkgremove and installf can destroy software contents file if it is already locked by another process.
- 145. Fixed pkgrm's -n option to set QUIETMODE=true so that packages' preremove and postinstall scripts can work in quiet mode. Previously, it was using the value saved in the pkginfo file when the package was last installed.

  fz529498
- 146. Fixed ksh bug that occasionally caused processes to hang. erg712386/fz528169

#### Runtime C Library (libc) version 8.0.1d fixes:

- 147. The qsort() routine was reworked to increase performance, especially when presented with lots of "equal" data items. **Note**: This problem was fixed in uw713mp3 but the problem description was not added to the errata file. erg712331/fz527984/fz528071
- 148. Repair a qsort() bug in which an incorrect internal swap routine can be used. erg712529/ptf9006/fz528569
- 149. strcasecmp() fails to return correct values when linking with libXm. erg712522/fz528654
- 150. memmove treats pointers as signed integers, results in memory corruption when crossing 2GB. erg712358/fz528079
- 151. The multibyte to wide-character conversion code for EUC was broken. erg712507/fz528536
- 152. The set of codeset pairs available today for the iconv command and the library routine includes being able to translate between "unicode" (actually UCS2 -- the two-byte form) and the following codesets: PC437, PC850, PC860, PC863, PC865, 8859/1, eucJP, sjis, and UTF-8. As UTF-8 is just another way (and often more common way) to represent Unicode, we added capability to translate directly to/from UTF-8 and PC437, PC850, PC860, PC863, PC865, 8859/1, eucJP, and

```
sjis.
ptf9006/fz529336
```

153. Process receives a SIGSEGV if dlclose() is called from a shared library finaliser routine. fz528933

#### Runtime Threads Library (libthread) version 8.0.1b fixes:

154. cpio hangs due to a libthread bug. fz501680/fz526385

Additional bug fixes and enhancements are provided with the following package that is distributed with UnixWare 7.1.3 Maintenance Pack 4.

- The Netdriver Infrastructure and Configuration Subsystem (nics) package, version 8.0.2a, contains this fix:
  - 155. A time delay of 1 sec in dlpiclose() was causing some applications, e.g. getmany (accessing mib-2 table) to consume large amounts of CPU time. This time delay ensured that all intransit packets were processed before closing the SAP.

This delay is removed and the code reworked to use message based synchronization during closedown.

dlpiclose() now constructs a M\_CTL packet containing a message of type dl\_ctlmsg\_t. This message contains DLPI primitive set as DL CLOSESAP and a pointer to the SAP structure.

This message is queued at the DLPI lower read queue so that dlpilrsrv will handle it. It then goes to sleep. When dlpilrsrv receives this message, it is assured that all messages before it have been sent upstream, i.e., there are no in-transit packets. dlpilrsrv signals dlpiclose to close the SAP.

erg712282/fz526486

#### E. Problems Fixed in Maintenance Pack 5

The UnixWare 7.1.3 Maintenance Pack 5 (uw713mp5) contains the following fixes.

#### **Feature and Usability Enhancements:**

- 156. Updated /sbin/p6update to support new Intel Nacona and Prescott processors microcode update format. Also integrated latest Intel microcode release. fz530177
- 157. Enabled large file support in compress. fz529876

#### **Security Fixes:**

158. SECURITY: Fixed the Common Desktop Environment dtlogin XDMCP Parser Remote Double Free vulnerability.

erg712592/fz529303/CAN-2004-0368/SCOSA-2005.18

159. SECURITY: Fixed Denial of Service in RPC portmapper (rpcbind) when it receives a number of invalid portmap requests.

erg712862/fz532477/CAN-2005-2132/SCOSA-2005.31

160. SECURITY: Fixed the following Denial of Service vulnerability. When the NFS mountd service is run by inetd and an NFS mount related request is received from a remote (or local) host, inetd will repeatedly create the mountd process and as a result increasingly consume memory. This problem also exists for the following inetd services: ypupdated, rusersd, sprayd, and walld.

To fix this, the mountd service is updated from a "dgram" service to a "tli" service. The socket\_type (in /etc/inet.d/inetd.conf) is also changed from "dgram" to "tli" for the following inetd services: mountd, ypupdated, rusersd, sprayd, and walld. erg712731/fz530479/SCOSA-2005.1

- 161. SECURITY: Fixed a Denial of Service (CPU exhaustion by recursion) vulnerability in the ftp deamon (in.ftpd) via a glob pattern with a large number of \* (wildcard) characters. erg712855/fz532336/SCOSA-2005.28
- 162. SECURITY: Fixed predictable temporary file creation by the escope command that can be exploited by any local attacker to remove arbitrary files on the vulnerable file system via the infamous symlink vulnerability.

  erg712738/fz530500/SCOSA-2004.21
- 163. SECURITY: Fixed the following vulnerabilities in the telnet client.

Buffer overflow in the slc\_add\_reply function when handling LINEMODE suboptions, allows remote attackers to execute arbitrary code via a reply with a large number of Set Local Character (SLC) commands.

Heap-based buffer overflow in the env\_opt\_add function allows remote attackers to execute arbitrary code via responses that contain a large number of characters that require escaping, which consumers more memory than allocated. erg712801/fz531446/SCOSA-2005.21

164. SECURITY: Fixed a security vulnerability where an attacker can exploit the telnet client using a malicious telnet server and gain information about the targetted system, which could allow more effective attacks.

erg712857/fz532338/SCOSA-2005.21

165. SECURITY: A malicious user can create cpio archives containing absolute pathnames and/or relative pathnames like ../ (dot dot/) causing users running cpio -i to inadvertently overwrite files on their system. To prevent it, a new option option "-N" is provided for "safe mode", where cpio is trapped inside the present working directory while extracting files. erg712854/fz532333/SCOSA-2005.32

#### **Networking Fixes:**

#### UnixWare 7.1.3 Maintenance Pack 5 Release Notes

- 166. Fixed a race between fsflush which is releasing an un-referenced vnode and NFS rnode allocation code which is trying to re-use the same free'd/inactive vnode, leading to panic. erg712724/fz530399
- 167. An errant assumption about the maximum size of tcp/ip header including the MAC header and the STREAM headers would not exceed 256 bytes caused the system to write past the allocated space. The allocation optimization now properly accounts for the MAC header if it does not exceed the 256 byte KMA pool size. erg712756/fz530654
- 168. Fixed race between tcp input processing and tcp close processing. erg712585/fz529161
- 169. TCP timers (like 2msl and zombie) yield and reschedule themselves after consuming configurable amount of time. This is primarily applicable to workloads with short-lived connections similar to the web requests.

  fz532371
- 170. For /dev/tcp, /dev/udp and other related device nodes, permission is given to root to change access and modification times, and to change mode, uid and gid if they are different from the current ones erg712672/fz528399
- 171. Fixed IP packet filtering. erg712619/fz529605
- 172. SNMP time ticks are being interpreted as signed 32 bit integers instead of unsigned 32 bit integers.
  erg712732/fz530366
- 173. The netstat -I command displays output incorrectly, if the machine gets a lot of packets in a particular interval. erg712663/fz529916
- 174. The "ntpq -p" command is not functioning properly. erg712812/fz531498

#### **USB fixes:**

- 175. Fixed a potential problem with newer EHCI USB controllers that are controlled by the system BIOS. The visible symptom is that devices attached to the EHCI ports of certain systems won't work.

  fz530306
- 176. Low and full speed USB devices attached directly (i.e. not via a USB 2.0 hub) to an EHCI controller will get a message logged to the console 'Device reset timeout during enumeration!' when they are discovered. The message is benign; the devices work as expected. This fix eliminates the cause of the distracting message.

  fz530377

177. Fixed bug in UDI bridge mapper that caused shared PCI interrupts to remain un-acknowledged during USB host controller initialization leading to system hangs.

erg712677/fz530090 erg712699/fz530174

178. Fixed USB floppy drive issue, non-synchronized assignments of controller number by both pdiunits & SDI layer cause overlapping and conflicting SDI unit numbers assigned to usb\_msto, causing problems while accessing USB floppy drive(s).

erg712669/fz529971

#### **Miscellaneous Kernel Fixes:**

- 179. Fixed panic that can occur due to race condition between fdetach of a named pipe and the last close on the pipe's file descriptors.

  erg711929/fz519727
- 180. Fixed panic and kernel memory corruptions caused by an erroneous pointer left in a STREAMS lower multiplexor queue structure during execution of an I\_LINK ior I\_PLINK ioctl. erg712470/fz528449
- 181. Fix a panic that can occur when a process that has attached shared memory segments fails a fork system call.
  erg712782/fz530917
- 182. System gets many "Out of stream" messages in osmlog and panics afterwards. erg712707/fz530251
- 183. Fixed a deadlock in asyc output stream. erg712825/fz531720
- 184. Fix for reserve bitmap buffer setup to wrong channel/snode during VxFS snapshot creation, causing snapshots to be disabled due to read i/o failures on good drives.

  erg712644/fz529774
- 185. Fix various "off by one" errors in the interval timer code. erg712667/fz529962
- 186. Fixed problems caused by the Intel ICH3-S chipset occasionally returning bad real-time clock values. Symptom was that some platforms may hang on boot with warning messages from psm\_time\_spin\_adjust.
  erg712593/fz529317
- 187. Fix in mps and atup psm initialization to do "himem" detection after APIC and PIC initialization or after masking all interrupts on PIC, otherwise unexpected hardware interrupts can cause failure of v86bios() calls to detect "himem" via BIOS e820 interfaces, leading to OS not detecting whole system memory.

  erg712765/fz530717
- 188. Fixed a system hang issue that can occur when file system activity is frozen when asynchronous VxFS transaction log write(s) holding locks hang forever when MPIO layer detects a path failure

and attempts path recovery. erg712725/fz530400 erg712670/fz529968

- 189. Timeouts for bound drivers may run on wrong cpu. fz532326
- 190. Support to allow running global callout on any cpu. If this feature is enabled via setting callout\_balance to 1 in svc.cf/Space.c, then callouts may execute on cpu other than the boot cpu. This has the affect of running callouts at the precise scheduled time in an heavy system workload. fz532367
- 191. allocb\_physreq can fail to allocate a buffer even when there are free buffers available. erg712501/fz528513

#### **Motif library and X improvements:**

- 192. Fixed the bug where the change of background of the Motif Scale widget with XtSetValues has no effect if the widget was not realized yet. erg712682/fz530146
- 193. Fixed the XmATTACH\_OPPOSITE\_FORM attachment in the children of a Form widget using the incorrect sign of the value, which causes the form to resize itself to become smaller and smaller.

  erg712697/fz530166
- 194. Fixed the display of the Japanese messages in the programs based on the Athena widgets. erg712661/fz529890

**Note**: Portions of this fix are contained in the xserver, xclients, and xcontrib packages. These packages must be installed or the commands will stop working in Japanese!

#### **Compiler Fixes:**

195. When doing optimization on functions with exceptionally large code blocks where the total number of arguments passed to calls in a single block exceeds 8000, the C or C++ compiler may generate incorrect memory addresses for local variables. This problem has only occurred in atypical 4GL generated source code.

erg712757/fz530656

#### **Miscellaneous Fixes:**

- 196. disksetup(1M) default blocksize does not work with large file systems: added a condition in create\_fs to check for user specified blksz, in case of large file system sizes for vxfs.

  erg71615/fz529483
- 197. init failing to change runlevels. There was a race condition in the waitproc function in init that has been fixed.
  erg712313/fz527890

- 198. System hangs on boot idmknodd last process run. There was a race condition in the waitproc function in the init code that has been fixed.

  erg712607/fz529426
- 199. The auditrpt -f command is causing segmentation faults on some audit report data files. erg712760/fz530410
- 200. The cm\_vtcld and scoadmin utilities core dump when SFNOLIM is tuned higher than 32767. erg712304/fz527772
- 201. We now have liberypto.so from openssl package also and it defines \_des\_crypt() which is also defined by liberypt.so. Updated liberypt.so to use its own definition so that things remain sane. fz530438

#### **Runtime C Library (libc) version 8.0.1e fixes:**

202. Fixed a memory leak in tzset(). erg712729/fz530421

#### Runtime Thread Library (libthread) version 8.0.1d fixes:

203. Packaging fixes are done in libthread.

Additional bug fixes and enhancements are provided with the following packages that are distributed with UnixWare 7.1.3 Maintenance Pack 5.

- The Cdrtools A set of tools for CD/DVD Recorders package, version 7.1.4
  - 204. SECURITY: Cdrtools has been updated from version 1.11a21 to 2.01.01a01 to fix the following problem:

Cdrecord in the cdrtools package before 2.01, when installed setuid root, does not properly drop privileges before executing a program specified in the RSH environment variable, which allows local users to gain privileges. erg712690/fz530156/SCOSA-2005.20

- The Network Drivers (nd) package, version 8.0.2b:
  - 205. The nd package provided with UnixWare 7.1.4 Maintenance Pack 2 is being provided here. Please see uw714mp2 cover letter to see the contents of this package.
- The Network Infrastructure and Configuration Subsystem (nics) package, version 8.0.2b:
  - 206. System panics under heavy load in dlpi\_hwfail\_handler. There was race condition in txmon handler.
    erg712681/fz530124
- The Open Secure Shell (openssh) package, version 4.0p1:
  - 207. OpenSSH has been updated from version 3.4p1 to 4.0p1.

Please see the openssh website for the list of changes: <a href="http://www.openssh.com">http://www.openssh.com</a>.

- 208. SECURITY: OpenSSH only gives significance to the first 8 characters of password. erg712648/fz529827/SCOSA-2005.19
- 209. Cannot login to an account with an expired password with openssh. fz530287
- The OpenSSL (openssl) package, version 0.9.7g:
  - 210. SECURITY: OpenSSL has been updated from version 0.9.6g to 0.9.7g to fix several security issues with the earlier version.

Please see the openssl website for the list of changes: <a href="http://www.openssl.org">http://www.openssl.org</a>.

```
erg712602/fz529411/SCOSA-2005.7 fz531858
```

- The OpenSSL Documentation (openssld) package, version 0.9.7g, provides the updated documentation for the openssl package version 0.9.7g.
- The General Purpose Data Compression Library (zlib) package, version 1.2.2:
  - 211. SECURITY: zlib has been updated from version 1.1.4 to 1.2.2 to fix several security issues with the earlier version.

Please see the zlib website for the list of changes: <a href="http://www.gzip.org/zlib/">http://www.gzip.org/zlib/</a>.

```
fz532198
erg712692/fz530158/SCOSA-2004.17
```

- The X11R6 Base X Runtime System (basex) package, version 8.0.1d:
  - 212. SECURITY: Fail-soft mechanism is implemented for handling cases where the permissions and/or owner of the /tmp/.X11-unix, /tmp/.ICE-unix, and /tmp/.font-unix directories are not correctly set.

Fail-soft means, if the permission and/or owner is improperly set, the component would try to properly set it. If it is unable to do that, it would generate error/warning message(s), but the component would not fail.

**Note**: Portions of this fix are contained in the xserver package.

```
erg712694/fz530161/SCOSA-2005.8
```

- 213. Fixed XtAppAddInput() function. Added missing brackets around XPOLL\_READ, XPOLL\_WRITE, XPOLL\_EXCEPT erg712671/fz529974
- The X11R6 X Server (xserver) package, version 8.0.1a:

- 214. Invoking "scoadmin video" on an Intel SE7520JR2 white box server to adjust graphics resolution in either character or graphics mode causes the system console to start blinking, and there is no recovery other than rebooting.

  erg712755/fz530648
- 215. Fixed the problem where pushing Caps Lock turns on the Scroll Lock LED. fz528560
- The X11R6 Contributed X Clients (xcontrib) package, version 8.0.1a:
  - 216. Fixed warning message from the xtetris command. fz530182
  - 217. The puzzle command is causing segmentation fault. erg712700/fz530183
  - 218. The ar command displays incorrect message in Japanese environment. erg712640/fz529737

# V. Supplementary Documentation

The following minor modifications have been made in order to maintain conformance to the UNIX 95 standard:

- The **dd** command was modified to accept and ignore a double dash (--) as an end of options indicator. Note that **dd** has no options that begin with a dash (-), so "--" can only appear as the leading argument and consequently has no real purpose.
- The **sort** command was modified to remove its previous (mistaken) UNIX 95 behavior. Previously, when using **sort** -c with the POSIX2 environment variable set, sort only indicated whether the input was sorted through its exit value. The **sort** command was changed for Release 7.1.3 to remove the dependency on the POSIX2 environment variable, so that **sort** -c will always return a diagnostic if the input is out of order.
- The two supported Korn shells (/bin/ksh and /u95/bin/sh) did not recognize an integer literal with a leading 0 as being octal, nor a leading 0x or 0X as hexadecimal in arithmetic constructs. This does not match the intent of the POSIX.2 and OpenGroup shell specification. So, for example, the following output was seen in previous versions of the Korn shell:

```
$ echo $((10+1))
11
$ echo $((010+1))
11
$ echo $((0x10+1))
/u95/bin/sh: 0x10+1: arithmetic syntax error
```

A change was made to work as intended when the POSIX2 environment variable is set:

```
$ export POSIX2=on
$ echo $((10+1))
11
$ echo $((010+1))
9
$ echo $((0x10+1))
17
```

Note that because integer constants like 010 have a silent change in behavior, this change requires POSIX2 to be set in the environment.

• Minor namespace changes to the following header files:

```
arpa/inet.h
netdb.h
netinet/in.h
netinet/in6 f.h
netinet/in f.h
fmtmsg.h
grp.h
libgen.h
pwd.h
stdarg.h
strings.h
unistd.h
utmp.h
utmpx.h
wchar.h
sys/fcntl.h
sys/stat.h
sys/statvfs.h
sys/convsa.h
sys/stropts.h
sys/mman.h
sys/socket.h
sys/un.h
sys/regset.h
sys/siginfo.h
sys/ucontext.h
sys/fp.h
```

## **VI. File Contents**

The **uw713m5** package updates/installs these files:

```
/etc/conf/bin/idconfupdate
/etc/conf/bin/idinstall
/etc/conf/drvmap.d/cbus
/etc/conf/drvmap.d/compaq
/etc/conf/drvmap.d/mps
/etc/conf/drvmap.d/udiMbrdg
/etc/conf/drvmap.d/usb_ehci
/etc/conf/drvmap.d/usb msto
```

```
/etc/conf/drvmap.d/usbd
/etc/conf/dtune.d/fs
/etc/conf/dtune.d/ipc
/etc/conf/dtune.d/kdb util
/etc/conf/dtune.d/proc
/etc/conf/interface.d/psm.2.1
/etc/conf/interface.d/psm.2.2
/etc/conf/mdevice.d/cbus
/etc/conf/mdevice.d/compag
/etc/conf/mdevice.d/kdb
/etc/conf/mdevice.d/kdb util
/etc/conf/mdevice.d/mps
/etc/conf/mdevice.d/psm apic
/etc/conf/mdevice.d/psm cfgtables
/etc/conf/mdevice.d/psm mc146818
/etc/conf/mdevice.d/scodb
/etc/conf/mdevice.d/udiMbrdg
/etc/conf/mdevice.d/usb ehci
/etc/conf/mdevice.d/usb_msto
/etc/conf/mdevice.d/usbd
/etc/conf/mtune.d/fs
/etc/conf/mtune.d/ipc
/etc/conf/mtune.d/kdb util
/etc/conf/mtune.d/proc
/etc/conf/node.d/usb msto
/etc/conf/pack.d/alp/Driver mp.o
/etc/conf/pack.d/ansi/Driver mp.o
/etc/conf/pack.d/asyc/Driver atup.o
/etc/conf/pack.d/asyc/Driver mp.o
/etc/conf/pack.d/async/Driver mp.o
/etc/conf/pack.d/atup/Driver atup.o
/etc/conf/pack.d/atup/Driver mp.o
/etc/conf/pack.d/audit/Driver atup.o
/etc/conf/pack.d/audit/Driver mp.o
/etc/conf/pack.d/bfs/Driver mp.o
/etc/conf/pack.d/bmse/Driver mp.o
/etc/conf/pack.d/ca/Driver mp.o
/etc/conf/pack.d/cbus/Driver mp.o
/etc/conf/pack.d/cdfs/Driver atup.o
/etc/conf/pack.d/cdfs/Driver mp.o
/etc/conf/pack.d/char/Driver mp.o
/etc/conf/pack.d/cmux/Driver atup.o
/etc/conf/pack.d/cmux/Driver mp.o
/etc/conf/pack.d/coff/Driver mp.o
/etc/conf/pack.d/compaq/Driver mp.o
/etc/conf/pack.d/compaq/space.c
/etc/conf/pack.d/confmgr/Driver mp.o
/etc/conf/pack.d/connld/Driver mp.o
/etc/conf/pack.d/cram/Driver mp.o
/etc/conf/pack.d/dcompat/Driver mp.o
/etc/conf/pack.d/devpoll/Driver mp.o
/etc/conf/pack.d/dma/Driver mp.o
/etc/conf/pack.d/dosfs/Driver mp.o
/etc/conf/pack.d/dosx/Driver mp.o
/etc/conf/pack.d/dow/Driver mp.o
/etc/conf/pack.d/eisa/Driver mp.o
/etc/conf/pack.d/elf/Driver atup.o
/etc/conf/pack.d/elf/Driver mp.o
/etc/conf/pack.d/event/Driver mp.o
/etc/conf/pack.d/fd/Driver mp.o
```

```
/etc/conf/pack.d/fdbuf/Driver mp.o
/etc/conf/pack.d/fdfs/Driver mp.o
/etc/conf/pack.d/fifofs/Driver mp.o
/etc/conf/pack.d/fpe/Driver mp.o
/etc/conf/pack.d/fs/Driver atup.o
/etc/conf/pack.d/fs/Driver mp.o
/etc/conf/pack.d/fs/space.c
/etc/conf/pack.d/gentty/Driver mp.o
/etc/conf/pack.d/gvid/Driver mp.o
/etc/conf/pack.d/hpci/Driver mp.o
/etc/conf/pack.d/iaf/Driver mp.o
/etc/conf/pack.d/iasy/Driver mp.o
/etc/conf/pack.d/inet/Driver atup.o
/etc/conf/pack.d/inet/Driver mp.o
/etc/conf/pack.d/inet/space.c
/etc/conf/pack.d/intmap/Driver mp.o
/etc/conf/pack.d/intp/Driver atup.o
/etc/conf/pack.d/intp/Driver mp.o
/etc/conf/pack.d/io/Driver atup.o
/etc/conf/pack.d/io/Driver mp.o
/etc/conf/pack.d/ipc/Driver atup.o
/etc/conf/pack.d/ipc/Driver mp.o
/etc/conf/pack.d/ipc/Modstub.o
/etc/conf/pack.d/ipc/space.c
/etc/conf/pack.d/ipc/stubs.c
/etc/conf/pack.d/kbd/Driver mp.o
/etc/conf/pack.d/kd/Driver atup.o
/etc/conf/pack.d/kd/Driver mp.o
/etc/conf/pack.d/kdb/Driver atup.o
/etc/conf/pack.d/kdb/Driver mp.o
/etc/conf/pack.d/kdb util/Driver atup.o
/etc/conf/pack.d/kdb util/Driver mp.o
/etc/conf/pack.d/kdb util/Modstub.o
/etc/conf/pack.d/kdb util/space.c
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#### UnixWare 7.1.3 Maintenance Pack 5 Release Notes

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/usr/lib/crash/macros/mplock.k
/usr/lib/crash/macros/net.k
/usr/lib/crash/macros/page.k
/usr/lib/crash/macros/pm.k
```

```
/usr/lib/crash/macros/proc.k
/usr/lib/crash/macros/sd01.k
/usr/lib/crash/macros/sertty.k
/usr/lib/crash/macros/stack.k
/usr/lib/crash/macros/stat.k
/usr/lib/crash/macros/stream.k
/usr/lib/crash/macros/trace.k
/usr/lib/crash/macros/ufs.k
/usr/lib/crash/macros/user.k
/usr/lib/crash/macros/vm.k
/usr/lib/crash/macros/vnode.k
/usr/lib/crash/macros/vxfs.k
/usr/lib/docview/cgi-bin/htsearch.pl
/usr/lib/docview/cgi-bin/info2html
/usr/lib/docview/cgi-bin/infocat
/usr/lib/docview/cgi-bin/man
/usr/lib/docview/cgi-bin/man2html
/usr/lib/docview/cgi-bin/manform
/usr/lib/docview/cgi-bin/manlist
/usr/lib/docview/cgi-bin/printbook
/usr/lib/docview/cgi-bin/search
/usr/lib/docview/cgi-bin/sectionlist
/usr/lib/docview/conf/mknavlist
/usr/lib/docview/conf/rundig.crontab
/usr/lib/docview/conf/set.rundig.cron
/usr/lib/docview/conf/templates/DocView.pm.in
/usr/lib/docview/conf/templates/rewrite.conf.in
/usr/lib/docview/conf/uw713uplinstall.pl
/usr/lib/docview/conf/uw713up3install.pl
/usr/lib/docview/de/Introductions/manpages.html
/usr/lib/docview/de/Introductions/printintro.html
/usr/lib/docview/de/Introductions/search.html
/usr/lib/docview/en/Introductions/manpages.html
/usr/lib/docview/en/Introductions/printintro.html
/usr/lib/docview/en/Introductions/search.html
/usr/lib/docview/es/Introductions/manpages.html
/usr/lib/docview/es/Introductions/printintro.html
/usr/lib/docview/es/Introductions/search.html
/usr/lib/docview/fr/Introductions/manpages.html
/usr/lib/docview/fr/Introductions/printintro.html
/usr/lib/docview/fr/Introductions/search.html
/usr/lib/docview/ja/IndexTemplate.html
/usr/lib/docview/ja/Introductions/manpages.html
/usr/lib/docview/ja/Introductions/printintro.html
/usr/lib/docview/ja/Introductions/search.html
/usr/lib/docview/ja/NavpageTemplate.html
/usr/lib/docview/ja/header.html
/usr/lib/docview/ja/nomatch.html
/usr/lib/docview/ja/syntax.html
/usr/lib/drf/conframdfs
/usr/lib/drf/fsck-vxfs.dy
/usr/lib/drf/labelit-vxfs.dy
/usr/lib/drf/mkfs-vxfs.dy
/usr/lib/fs/libsharedfstyp/libvxfsfstyp.so
/usr/lib/fs/vxfs/df
/usr/lib/fs/vxfs/edquota
/usr/lib/fs/vxfs/ff
/usr/lib/fs/vxfs/fsadm
/usr/lib/fs/vxfs/fscat
/usr/lib/fs/vxfs/fsdb
```

```
/usr/lib/fs/vxfs/fstyp
/usr/lib/fs/vxfs/getext
/usr/lib/fs/vxfs/labelit
/usr/lib/fs/vxfs/ncheck
/usr/lib/fs/vxfs/quot
/usr/lib/fs/vxfs/quota
/usr/lib/fs/vxfs/quotaoff
/usr/lib/fs/vxfs/quotaon
/usr/lib/fs/vxfs/repquota
/usr/lib/fs/vxfs/setext
/usr/lib/fs/vxfs/volcopy
/usr/lib/fs/vxfs/vxdump
/usr/lib/fs/vxfs/vxrestore
/usr/lib/fs/vxfs/vxupgrade
/usr/lib/iconv/dos.unicode.so
/usr/lib/iconv/iconv data
/usr/lib/iconv/unicode.88591.so
/usr/lib/iconv/unicode.eucJP.so
/usr/lib/iconv/unicode.sjis.so
/usr/lib/iconv/unicode.utf.so
/usr/lib/libXm.so.1.3
/usr/lib/libcrypt.so
/usr/lib/libcrypt.so.1
/usr/lib/libnsl.so
/usr/lib/libnsl.so.1
/usr/lib/libsmux.so
/usr/lib/libsnmp.so
/usr/lib/libsnmpio.so
/usr/lib/libsocket.so
/usr/lib/libsocket.so.1
/usr/lib/libsocket.so.2
/usr/lib/libxti.so
/usr/lib/libxti.so.1
/usr/lib/locale/ja/LC MESSAGES/uxar
/usr/lib/lp/lpNet
/usr/lib/lp/lpsched
/usr/lib/lpsched
/usr/lib/mail/execmail
/usr/lib/nfs/lockd
/usr/lib/nfs/mountd
/usr/lib/ppp/psm/ip rt
/usr/lib/saf/ttymon
/usr/lib/scoadmin/filesystem/CDFSSupplInfo.tlib
/usr/lib/scoadmin/filesystem/filesystemGUI
/usr/lib/scoadmin/filesystem/filesystemOsa
/usr/lib/scoadmin/filesystem/fsUtils.tlib
/usr/lib/scoadmin/filesystem/fsUtils.tndx
/usr/lib/scohelp/en US.ISO8859-1/man/bin/makewhatis
/usr/lib/sendmail
/usr/lib/sysadm.tlib
/usr/lib/sysadm.tndx
/usr/sadm/install/bin/pkginstall
/usr/sadm/install/bin/pkgremove
/usr/sadm/install/scripts/i exit
/usr/sbin/arp
/usr/sbin/crash
/usr/sbin/cron
/usr/sbin/cs
/usr/sbin/disksetup
/usr/sbin/fsadm
```

```
/usr/sbin/fscat
/usr/sbin/getext
/usr/sbin/getty
/usr/sbin/in.ftpd
/usr/sbin/in.otalkd
/usr/sbin/in.rlogind
/usr/sbin/in.talkd
/usr/sbin/installf
/usr/sbin/ntpg
/usr/sbin/pkgadd
/usr/sbin/pkgask
/usr/sbin/pkgrm
/usr/sbin/pwck
/usr/sbin/removef
/usr/sbin/rtpm
/usr/sbin/sar
/usr/sbin/setext
/usr/sbin/syslogd
/usr/sbin/traceroute
/usr/sbin/trap rece
/usr/sbin/useradd
/usr/sbin/userdel
/usr/sbin/vxconvert
/usr/sbin/vxdump
/usr/sbin/vxrestore
/usr/sbin/vxtunefs
/usr/sbin/vxupgrade
/usr/sbin/vxzip
/usr/share/htmldoc/data/cp-1250
/usr/share/htmldoc/data/cp-1251
/usr/share/htmldoc/data/cp-1252
/usr/share/htmldoc/data/cp-1253
/usr/share/htmldoc/data/cp-1254
/usr/share/htmldoc/data/cp-1255
/usr/share/htmldoc/data/cp-1256
/usr/share/htmldoc/data/cp-1257
/usr/share/htmldoc/data/cp-1258
/usr/share/htmldoc/data/cp-874
/usr/share/htmldoc/data/iso-8859-1
/usr/share/htmldoc/data/iso-8859-14
/usr/share/htmldoc/data/iso-8859-15
/usr/share/htmldoc/data/iso-8859-2
/usr/share/htmldoc/data/iso-8859-3
/usr/share/htmldoc/data/iso-8859-4
/usr/share/htmldoc/data/iso-8859-5
/usr/share/htmldoc/data/iso-8859-6
/usr/share/htmldoc/data/iso-8859-7
/usr/share/htmldoc/data/iso-8859-8
/usr/share/htmldoc/data/iso-8859-9
/usr/share/htmldoc/data/koi8-r
/usr/share/htmldoc/data/prolog.ps
/usr/share/htmldoc/data/psglyphs
/usr/share/htmldoc/fonts/Courier-Bold.afm
/usr/share/htmldoc/fonts/Courier-Bold.pfa
/usr/share/htmldoc/fonts/Courier-BoldOblique.afm
/usr/share/htmldoc/fonts/Courier-BoldOblique.pfa
/usr/share/htmldoc/fonts/Courier-Oblique.afm
/usr/share/htmldoc/fonts/Courier-Oblique.pfa
/usr/share/htmldoc/fonts/Courier.afm
/usr/share/htmldoc/fonts/Courier.pfa
```

```
/usr/share/htmldoc/fonts/Helvetica-Bold.afm
/usr/share/htmldoc/fonts/Helvetica-Bold.pfa
/usr/share/htmldoc/fonts/Helvetica-BoldOblique.afm
/usr/share/htmldoc/fonts/Helvetica-BoldOblique.pfa
/usr/share/htmldoc/fonts/Helvetica-Oblique.afm
/usr/share/htmldoc/fonts/Helvetica-Oblique.pfa
/usr/share/htmldoc/fonts/Helvetica.afm
/usr/share/htmldoc/fonts/Helvetica.pfa
/usr/share/htmldoc/fonts/Symbol.afm
/usr/share/htmldoc/fonts/Symbol.pfa
/usr/share/htmldoc/fonts/Times-Bold.afm
/usr/share/htmldoc/fonts/Times-Bold.pfa
/usr/share/htmldoc/fonts/Times-BoldItalic.afm
/usr/share/htmldoc/fonts/Times-BoldItalic.pfa
/usr/share/htmldoc/fonts/Times-Italic.afm
/usr/share/htmldoc/fonts/Times-Italic.pfa
/usr/share/htmldoc/fonts/Times-Roman.afm
/usr/share/htmldoc/fonts/Times-Roman.pfa
/usr/ucblib/makewhatis
```

## VII. Escalation Fixes in this Maintenance Pack

Here are the tracking numbers for the fixes included in this maintenance pack:

```
erg712055/fz521053/CSSA-2002-SCO.42
                                          erg712059/fz526562/CSSA-2002-SCO.43
erg712093/fz521051/CSSA-2002-SCO.44
                                          erg712109/fz525292/CSSA-2003-SCO.1
erg712182/fz526861/CSSA-2003-SCO.7
                                          erg712227/fz527425/CSSA-2003-SCO.3
erg712247/fz527484/CSSA-2003-SCO.5
                                          erg712265/fz527543/CSSA-2003-SCO.15
erg712367/fz528126/CSSA-2003-SCO.18
                                          erg712433/fz528320/CSSA-2003-SCO.23.
erg712445/fz528372/CSSA-2003-SCO.31
                                          erg712482/fz528474/CSSA-2003-SCO.32
                                          erg712592/fz529303/CAN-2004-0368/SCO
erg712509/fz528555/SCOSA-2005.2
erg712598/fz529384/SCOSA-2005.14
                                          erg712602/fz529411/SCOS-2005.7
erg712605/fz529414/SCOSA-2005.14
                                          erg712731/fz530479/SCOSA-2005.1
erg712738/fz530500/SCOSA-2004.21
                                          erg712801/fz531446/SCOSA-2005.21
erg712854/fz532333/SCOSA-2005.32
                                          erg712855/fz532336/SCOSA-2005.28
erg712857/fz532338/SCOSA-2005.21
                                          erg712862/fz532477/CAN-2005-2132/SCO
erg501722/fz527554 erg711628/fz516107
                                       erg711929/fz519727 erg712041/fz520932
                                       erg712153/fz526540 erg712154/fz526541
erg712151/fz526496 erg712152/fz526505
erg712163/fz526524 erg712172/fz526750
                                       erg712177/fz526823 erg712184/fz526355
erg712195/fz526396 erg712209/fz527217
                                       erg712220/fz527292 erg712223/fz527360
erg712235/fz527455 erg712250/fz526110
                                       erg712254/fz527498
                                                          erg712266/fz527550
erg712276/fz527629 erg712282/fz526486
                                       erg712289/fz527728
                                                           erg712295/fz527776
erg712304/fz527772 erg712305/fz527809
                                       erg712311/fz520676
                                                           erg712312/fz527879
erg712316/fz527917 erg712321/fz527939
                                       erg712327/fz527968
                                                           erg712331/fz527984/
erg712337/fz528010 erg712344/fz528030
                                       erq712346/fz528045
                                                           erg712347/fz528048
erg712350/fz528053 erg712352/fz528064
                                       erg712358/fz528079
                                                           erg712361/fz528100
                                       erg712389/fz528172
erg712379/fz528144 erg712386/fz528169
                                                           erg712393/fz528133
erg712397/fz528056 erg712399/fz528204
                                       erg712414/fz528159
                                                           erq712428/fz528292
                                                           erg712470/fz528449
                                       erg712469/fz528435
erg712444/fz528361 erg712451/fz528400
erg712484/fz528479
                   erg712501/fz528513
                                       erg712507/fz528536
                                                           erg712519/fz528642
erg712524/fz528656
                   erg712529/ptf9006/fz528569
                                                           erg712550/fz528887
erg712571/fz528990
                   erg712577/fz528645 erg712585/fz529161
                                                           erg712593/fz529317
erg712607/fz529426 erg712619/fz529605 erg712621/fz529619 erg712640/fz529737
erg712663/fz529916
                   erg712667/fz529962 erg712669/fz529971
                                                           erg712670/fz529968
```

#### UnixWare 7.1.3 Maintenance Pack 5 Release Notes

```
erg712672/fz528399 erg712677/fz530090 erg712682/fz530146 erg712697/fz530166
erg712700/fz530183 erg712707/fz530251 erg712724/fz530399 erg712725/fz530400
erg712756/fz530654 erg712757/fz530656 erg712760/fz530410 erg712765/fz530717
erg712812/fz531498 erg712825/fz531720 erg71615/fz529483
fz501604/fz520887 fz501634/fz525626 fz501636/fz525650 fz501642/fz525725/CSSA
fz501650/fz525867 fz501666/fz526164 fz501673/fz526330 fz501675/fz526224/fz52
fz501678/fz526352 fz501680/fz526385 fz501681/fz526404 fz501703/fz526973 fz5
fz501718/fz527462 fz501720/fz527517 fz501727/fz527381 fz501727/fz528043 fz5
fz501731/fz527737 fz501732/fz528409 fz518517
                                                         fz518607
fz520729 fz521540 fz526345 fz526356 fz526395/fz526629/fz527377
                                                                      fz526444
fz526483 fz526501 fz526526 fz526550 fz526552 fz526593 fz526648 fz526683
fz526791 fz526796 fz527196 fz527264 fz527373 fz527503 fz527522 fz527536 fz527578 fz527750 fz527802 fz527910/fz528131 fz527931 fz527934 fz528035
fz528222 fz528295 fz528406 fz528560 fz528895 fz528933 fz529130 fz529498
fz530177 fz530306 fz530377 fz530438 fz532326 fz532367 fz532371 fz550013/
ptf9006/fz529336
erg712648/fz529827/SCOSA-2005.19 fz530287 (fix provided in openssh package)
erg712661/fz529890 (with other portions in the packages xserver,
                    xclient, xcontrib)
erg712694/fz530161/SCOSA-2005.8 (fix provided in xserver and basex packages)
erg712681/fz530124 (provided in the nics package)
erg712690/fz530156/SCOSA-2005.20 (provided in the cdrtools package)
erg712755/fz530648 (provided in the xserver package)
fz530182 erg712700/fz530183 (provided in xcontrib package)
fz531858 (fix provided in openssl package)
erg712692/fz530158/SCOSA-2004.17 fz532198 (provided in the zlib package)
```

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