

UnixWare 7.1.4 Maintenance Pack 1 Release Notes

July 2004

Dear SCO Customer,

This CD contains UnixWare 7.1.4 Maintenance Pack 1. This Maintenance Pack contains important fixes to your UnixWare system and should be applied at your next maintenance period.

Contents

- I. [Software Notes and Recommendations](#)
 - II. [Installation Instructions](#)
 - III. [Removal Instructions](#)
 - IV. [Comprehensive List of Problems Fixed](#)
 - V. [File Contents](#)
 - VI. [Escalation Fixes in this Maintenance Pack](#)
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I. Software Notes and Recommendations

1. The UnixWare 7.1.4 Maintenance Pack 1 should only be installed on:

UnixWare 7.1.4

2If you are performing an in place upgrade to UnixWare 7.1.4 from UnixWare 7.1.1, UnixWare 7.1.2 (Open UNIX 8.0.0), or UnixWare 7.1.3, you must reboot the system after upgrading and before installing this maintenance pack.

3. This maintenance pack consists of several sets and packages. An *install.sh* script is provided to simplify installation, as described in the [Installation Instructions](#), below. Use of this script is highly recommended.

The *install.sh* script installs the following:

- The required **uw714mp1** maintenance pack set.
 - Newer versions of 11 other packages (**cups**, **foomatic**, **hpijs**, **nics**, **openssh**, **openssl**, **openssld**, **samba**, **xcontrib**, **xserver**, and **uccs**), provided earlier versions of those packages were already installed on your system.
 - Updated documentation via the **uw7mpdoc** package.
4. Alternatively, with care you can install the packages individually. However, you should

note the following:

- A. The **uw714mp1** (UnixWare 7.1.4 Maintenance Pack 1) set is required for all systems.
 - B. The following packages are required to be updated, that is you need to install them if you have an earlier version installed on the system.
 - **cups** (Common Unix Printing System), version 1.1.19-02
 - **openssh** (Open Secure Shell), version 3.8.1p1
 - **samba** (SMB based file/printer sharing), version 3.0.4
 - **xcontrib** (X11R6 Contributed X Clients), version 8.0.2a
 - C. The following packages are strongly recommended:
 - **nics** (Netdriver Infrastructure and Configuration Subsystem), version 8.0.2a
 - **openssl** (OpenSSL - Secure Sockets Layer / TLS Cryptography Toolkit), version 0.9.7d
 - **xserver** (X11R6 X Server), version 8.0.2a
 - D. The following packages are optional:
 - **foomatic** (Foomatic Filters and PPDs), version 3.0.0-02
 - **hpijs** (HP Inkjet Printer Driver), version 1.5-01
 - **modjk1** (Additional Modules for Perl), version 2.0.4 **Note:** By default, the *install.sh* script does not install this package.
 - **openssld** (OpenSSL Documentation - Secure Sockets Layer / TLS Cryptography Toolkit), version 0.9.7d
 - **uccs** (OUDK Optimizing C Compilation System), version 8.0.2a
 - **uw7mpdoc** (Updated Base System Guides), version 7.1.4a
5. If you did not install some of the above packages when initially installing UnixWare 7.1.4, and you want to do so now, you can use the *install.sh* script to install these packages. You do not need to first install the original UnixWare 7.1.4 version. Please refer to the [Installation Instructions](#), below.

6. **uw714mp1** is a set and contains the following packages:

| | |
|------------------|--|
| uw714m1 | UnixWare 7.1.4 Maintenance Pack 1 package |
| libc | Runtime C Library package, version 8.0.2a |
| libthread | Runtime Thread Library package, version 8.0.2a |
| pam | Pluggable Authentication Modules, version 0.77 |

Installing **uw714mp1** will update the **libc** and **libthread** runtime libraries as well as installing the **uw714m1** and **pam** packages. The runtime libraries, once installed, are not removable.

7. After Installing UnixWare 7.1.4 Maintenance Pack 1, or on a later **pkgadd**, you may see this warning message:

Please reinstall the <uw714m1> package. Failure to do so may your system in an inconsistent state.

This means that one or more core packages updated by this maintenance pack were installed after installing the pack. So the **uw714m1** package needs to be reinstalled to update your system. To do this mount the maintenance pack CD and type:

```
pkgadd -d /mount_point/images/uw714mp1.image uw714m1
```

Then reboot your system:

```
shutdown -i6 -g0 -y
```

8. If you are installing UnixWare 7.1.4 Maintenance Pack 1 on a system that was previously upgraded from UnixWare 7.1.1, you may see messages like the following after the installation of the **libc**, **libthread** and **pam** packages:

```
collect: Cannot write ./dfhAI1k7rZ007231 (bfcommit, uid=0, gid
```

These messages can be safely ignored.

9. This maintenance pack contains security enhancements, including changes to numerous file and directory permissions. To obtain the full advantage of these enhancements on systems that contain the obsolete **scohelp** package, it is recommended that you remove the **scohelp** package prior to installing this maintenance pack. The SCOhelp documentation server has been replaced by DocView since UnixWare 7.1.3. If you have upgraded from a prior release, you can check for the existence of the **scohelp** package on your system with the command:

```
pkginfo scohelp
```

To remove the package, type the following command as **root**:

```
/etc/scohelphttp stop
```

Followed by:

```
pkgrm scohelp
```

10. This version of the maintenance pack supercedes the following supplements which may have been withdrawn from the download site:
- ptf9050, the UnixWare 7.1.4 Licensing Supplement
11. For a list of issues that this Maintenance Pack addresses, please see the [Comprehensive List of Problems Fixed](#), below.

12. If you have questions regarding this supplement, or the product on which it is installed, please contact your software supplier or support representative.
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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 or ftp site, download the *uw714mp1.iso* file to your server. In the directory where you downloaded the *uw714mp1.iso* file, type:

```
mount `marray -a uw714mp1.iso` /install
```

3. Change directory to */install*:

```
cd /install
```

4. To install the required **uw714mp1** set and update the supplemental packages on your system with the newer UnixWare 7.1.4 Maintenance Pack 1 versions, type:

```
./install.sh
```

or

```
./install.sh -v
```

The optional **-v** flag provides more status information during the installation.

Note the **modjk1** package is not installed by default; you will need to install this package separately if you require it.

If you instead want to individually install packages, run the following command:

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

where *packages* is one or more of the following:

| | |
|-----------------|----------------------|
| cups | required |
| openssh | required |
| samba | required |
| xcontrib | required |
| nics | strongly recommended |
| openssl | strongly recommended |
| xserver | strongly recommended |
| foomatic | optional |
| hpijs | optional |
| modjk1 | optional |
| openssl | optional |
| uccs | optional |
| uw7mpdoc | optional |

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

```
shutdown -i 6 -g 0 -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 uw714mp1
```

Note that removal of the **uw714mp1** set is not recommended.

3. To remove the supplemental packages for this maintenance pack (i.e., the packages listed in [Software Notes and Recommendations](#), except for the **uw714mp1** set) and restore your system to its prior state:
 - A. Remove the supplemental package. Note that you may first need to remove any packages that depend on the supplemental package.
 - B. Reinstall the UnixWare 7.1.4 media kit version of the supplemental package.

- C. Reinstall any other packages that you removed in **A**, above, that depend on the supplemental package you restored in **B**.

To avoid having to perform all these steps, we recommend that the supplemental packages, once installed, should not be removed.

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

```
shutdown -i 6 -g0 -y
```

IV. Comprehensive List of Problems Fixed

- A. The UnixWare 7.1.4 Maintenance Pack 1 set, **uw714mp1**, contains the following fixes:

Feature and usability enhancements:

1. The following UnixWare 7.1.4 functionality is now provided:

- Pluggable authentication modules (PAM) support
- Encrypted file system support

These features are described in the online documentation that is provided with the **uw7mpdoc** package that accompanies this maintenance pack. See the "New Features and Notes" section of the online documentation.

fz528611 fz529097

2. Intel microcode updates.

erg712621/ptf9050/fz529619

3. **kcrash** macros updates.

fz529663

4. Additional source files for DBA usage with MySQL provided by the SCOx enablement package. Modified *Makefile*, *eelsdba_mysql.c*, *initdb.mysql* and *README* are provided for use with latest MySQL Package.

fz529851

5. Enabled large file support in **compress**.

fz529876

Security improvements:

6. SECURITY: Some files and directories were created incorrectly allowing write permission to arbitrary users. Some system daemons were running with a file creation mask (**umask**) set to 0.

fz528862

7. SECURITY: Security vulnerability issues in TCP are fixed according to this IETF draft: <http://www.ietf.org/internet-drafts/draft-ietf-tcpm-tcpsecure-00.txt>.

erg712598/fz529384

8. SECURITY: Two new **inconfig** tunables have been introduced to address the TCP Rose Attack:

- **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

Reliability improvements:

9. Fixed panic on errant **umem_free()** in **[g|s]etgroups_sco**.
fz528775
10. Fixed a memory corruption bug caused by not stopping netbios when the system was brought to **init** state 1.
ptf9050b/fz529565
11. Fixed process hangs due to race between exiting children and SIGCLD processing in the parent.
erg712596/fz529361

Networking improvements:

12. Changed use of types **u_[short, int, long]** to **u[short, int, long]_t** in *<netinet/tcp.h>* since the former are not always defined.
fz529581
13. The SHUT_RD, SHUT_WR, and SHUT_RDRW macros in *<sys/socket.h>* are defined only when at least one XOPEN-ish feature test macro is defined. This is counter to our "everything visible by default" model for headers.

The TOG SUS says that SHUT_* macros can be defined in general, so there's no reason not to define these with no conditional inclusion coverage.
fz529698

14. Under some circumstances, **ppp** can go into an infinite loop of read calls in the *libns/i cs_read_data()* routine.
erg712620/fz529611

Installation tools improvements:

15. 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. This has been fixed so that the contents file is not updated until the files are installed.
fz519105

16. Fixed a problem where **pkginstall**, **pkgremove** and **installf** can destroy the software contents file if it is already locked by another process.
fz198541

Licensing improvements:

17. The license policy daemon ignores custom licenses from earlier releases. For example, if your system license had previously included extra users, not separately licensed but included in your original, those users would be ignored. This has been fixed.
ptf9050a/fz529560

Runtime C Library (libc) fixes:

18. Bad parsing of some special strings in string-to-floating code. (provided in libc version 8.0.2a)
fz529765

Runtime Thread Library (libthread) fixes:

19. Oracle may hang while starting by going into an infinite loop in *libthread's* **thr_keycreate()**. (provided in *libthread* version 8.0.2a)
erg712658/fz529884

- B. Additional bug fixes and enhancements are provided with the supplemental packages that are distributed with UnixWare 7.1.4 Maintenance Pack 1, as described below.

Documentation:

1. The Updated Base System Guides (**uw7mpdoc**) package, version 7.1.4a, provides documentation for the PAM, encrypted file system, **modjk1**, and Samba features delivered with **uw714mp1** and its supplemental packages.

PAM:

2. The following supplemental packages have been updated to enable support for PAM. They can only be installed if the **pam** package (contained in **uw714mp1** set) is installed:
 - The Common Unix Printing System (**cups**) package, version 1.1.19-02
 - The Open Secure Shell (**openssh**) package, version 3.8.1p1
 - The SMB based file/printer sharing (**samba**) package, version 3.0.4
 - The X11R6 Contributed X Clients (**xcontrib**) package, version 8.0.2a

The Open Secure Shell (openssh) package, version 3.8.1p1, contains these fixes:

3. OpenSSH has been updated to version 3.8.1p1 to enable PAM.
fz528611
4. SECURITY: OpenSSH only gives significance to the first 8 characters of a password. This was fixed by enabling PAM in OpenSSH 3.8.1p1.
erg712648/fz529827

The SMB based file/printer sharing (samba) package, version 3.0.4, contains these fixes:

5. Samba has been updated from version 3.0.0 to 3.0.4 to enable PAM and to provide multibyte support.
fz529665
6. Swat server status page shows smbd "not running" even when it is.
fz528969

The Netdriver Infrastructure and Configuration Subsystem (nics) package, version 8.0.2a, contains these fixes:

7. A time delay of 1 sec in `dl pi c l o s e()` was causing some applications, e.g. `getmany` (accessing `mib-2` table) to consume large amounts of CPU time. This time-delay ensured that all in-transit packets were processed before closing the SAP.

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

`dl pi c l o s e()` now constructs a `M_CTL` packet containing a message of type `dl _ c t l m s g _ t`. This message contains DLPI primitive set as `DL_CLOSESAP` and a pointer to the SAP structure.

This message is enqueued at the DLPI lower read queue so that `dpilrsrv` will handle it. It then goes to sleep. When `dl pi l r s r v` receives this message, it is assured that all messages before it have been sent upstream, i.e. there are no in-transit packets. `dl pi l r s r v` signals `dl pi c l o s e` to close the SAP.

erg712282/fz526486

The OpenSSL - Secure Sockets Layer / TLS Cryptography Toolkit (openssl) and OpenSSL Documentation (openssld) packages, version 0.9.7d, contains these fixes:

8. SECURITY: OpenSSL (**openssl**) has been updated to version 0.9.7d to fix security issues with earlier versions.
erg712602/fz529411
9. The OpenSSL Documentation - Secure Sockets Layer / TLS Cryptography Toolkit (**openssld**) package, version 0.9.7d, provides the updated documentation for the openssl version 0.9.7d package.

The X11R6 X Server (xserver) package, version 8.0.2a, contains these fixes:

10. SECURITY: Some files and directories were created incorrectly allowing write permission to arbitrary users. Some system daemons were running with a file creation mask (`umask`) set to 0.
fz528862

The Foomatic Filters and PPDs (foomatic) package, version 3.0.0-02, and the HP Inkjet Printer Driver (hpijs) package, version 1.5-01, contain this fix:

- 11. Fixed obscure corruption of a few data files.
fz529615

The Additional Modules for Perl (modjk1) package, version 2.0.4, contains this fix:

- 12. Provides the **modjk** connector for Apache 1 and Tomcat. Apache 2 users do not need this package.

Note: This package is not installed by default.

Customers requiring this functionality should install the modjk1 package from the UnixWare 7.1.4 Maintenance Pack CD by running:

```
cd mount_point
./install.sh modjk1
```

This package will not conflict with modjk for Apache 2 & Tomcat as the library is installed in a different location.
fz529629

The OUDK Optimizing C Compilation System (uccs) package, version 8.0.2a, contains these fixes:

- 13. With the introduction of NSS, SCO has changed some existing APIs and added some new APIs to support NSS. Customers building binaries that use these APIs will find that their compile will fail with undefined symbol references similar to the following:

| Undefined symbol | first referenced in file |
|---------------------|-----------------------------|
| getspnam_r | libperl.so |
| getpwent_r | libperl.so |
| getgrent_r | libperl.so |

Note: This problem is only seen in systems upgraded from earlier UnixWare releases to UnixWare 7.1.4.

- 14. C compiler bug fixed. In **-Xt** mode, the compiler may incorrectly attempt to combine two *typedefs* that are not numeric types.
erg712635/fz529721
- 15. Make command bug fixed. **\$(XD: str=rep)** broken, where X is any of the @* <%? special characters.
erg712665/fz529930

V. File Contents

The following files are updated or installed by the uw714m1 package:

```

/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/nb/Driver_atup.o
/etc/conf/pack.d/nb/Driver_mp.o
/etc/conf/pack.d/nbclts/Driver_atup.o
/etc/conf/pack.d/nbclts/Driver_mp.o
/etc/conf/pack.d/nbcots/Driver_atup.o
/etc/conf/pack.d/nbcots/Driver_mp.o
/etc/conf/pack.d/proc/Driver_atup.o
/etc/conf/pack.d/proc/Driver_mp.o
/etc/conf/pack.d/svc/Driver_atup.o
/etc/conf/pack.d/svc/Driver_mp.o
/etc/crash
/etc/dcopy
/etc/dinit.d/S80lp
/etc/docview
/etc/eels/src/eelsdba/Makefile-scox
/etc/eels/src/eelsdba/README
/etc/eels/src/eelsdba/eelsdba_mysql_scox.c
/etc/eels/src/eelsdba/initdb.mysql-scox
/etc/ff
/etc/fsck
/etc/imapd
/etc/init.d/eelsrc
/etc/init.d/license
/etc/init.d/lp
/etc/init.d/snmp
/etc/init.d/z35SysInfo
/etc/mail/slocal
/etc/mkfs
/etc/mount
/etc/ncheck
/etc/p6updata
/etc/pam.d/dtlogin.build
/etc/pam.d/dtsession.build
/etc/pam.d/ftp.build
/etc/pam.d/login.build
/etc/pam.d/mail.build
/etc/pam.d/passwd.build
/etc/pam.d/rexec.build
/etc/pam.d/rlogin.build
/etc/pam.d/rsh.build
/etc/pam.d/su.build

```

/etc/pam.d/telnet.build
/etc/popper
/etc/rc0.d/K20lp
/etc/rc0.d/K70eels
/etc/rc1.d/K20lp
/etc/rc1.d/K67snmp
/etc/rc1.d/R10license
/etc/rc1.d/S70eels
/etc/rc2.d/S70eels
/etc/rc2.d/S73snmp
/etc/rc2.d/S95docview
/etc/scsi/pdi_hot
/etc/scsi/pdi_mkdev
/etc/scsi/pdi_mkdtab
/etc/scsi/sdi_ghost
/etc/scsi/sdi_path
/etc/vol copy
/sbin/devnm
/sbin/df
/sbin/fsck
/sbin/fsdb
/sbin/mkfs
/sbin/mount
/sbin/putdev
/sbin/sdi_mkdev
/sbin/sdi_path
/sbin/su
/usr/bin/compress
/usr/bin/ddbconv
/usr/bin/devattr
/usr/bin/devfree
/usr/bin/devreserv
/usr/bin/df
/usr/bin/getdev
/usr/bin/getdgrp
/usr/bin/getvol
/usr/bin/login
/usr/bin/mail check
/usr/bin/mailx
/usr/bin/passwd
/usr/bin/pkginfo
/usr/bin/pkglist
/usr/bin/pkgmk
/usr/bin/pkgparam
/usr/bin/pkgtrans
/usr/bin/putdev
/usr/bin/su
/usr/bin/uncompress
/usr/bin/zcat
/usr/dt/bin/dtfile

/usr/dt/bin/dtsession
/usr/dt/lib/libpam.so.1
/usr/include/netinet/ip_var.h
/usr/include/netinet/tcp.h
/usr/include/netmgt/snmp.h
/usr/include/sys/socket.h
/usr/lib/crash/libkcrash.so
/usr/lib/crash/macros/buf.k
/usr/lib/crash/macros/e1008g.k
/usr/lib/crash/macros/eeE8.k
/usr/lib/crash/macros/file.k
/usr/lib/crash/macros/info.k
/usr/lib/crash/macros/inode.k
/usr/lib/crash/macros/ipc.k
/usr/lib/crash/macros/loadmacs
/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/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/vm.k
/usr/lib/crash/macros/vnode.k
/usr/lib/crash/macros/vxfs.k
/usr/lib/iaf/in.login/scheme
/usr/lib/iaf/login/scheme
/usr/lib/libadm.a
/usr/lib/libnsl.so
/usr/lib/libnsl.so.1
/usr/lib/libxti.so
/usr/lib/scoadmin/filesystem/filesystem0sa
/usr/sadm/install/bin/pkginstall
/usr/sadm/install/bin/pkgremove
/usr/sadm/sysadm/bin/mkdtab
/usr/sbin/crash
/usr/sbin/cs
/usr/sbin/dcopy
/usr/sbin/df
/usr/sbin/disksetup
/usr/sbin/edquota
/usr/sbin/fdisk
/usr/sbin/ff
/usr/sbin/fsck
/usr/sbin/hostmibd
/usr/sbin/in.ftpd
/usr/sbin/in.inetinst

/usr/sbin/in.rexecd
/usr/sbin/in.rshd
/usr/sbin/in.snmpd
/usr/sbin/installf
/usr/sbin/labelit
/usr/sbin/mkfs
/usr/sbin/mount
/usr/sbin/ncheck
/usr/sbin/partsize
/usr/sbin/pkgadd
/usr/sbin/pkgask
/usr/sbin/pkgcat
/usr/sbin/pkgchk
/usr/sbin/pkgcopy
/usr/sbin/pkginstall
/usr/sbin/pkgrm
/usr/sbin/prtconf
/usr/sbin/quot
/usr/sbin/quota
/usr/sbin/quotacheck
/usr/sbin/quotaoff
/usr/sbin/quotaon
/usr/sbin/removef
/usr/sbin/repquota
/usr/sbin/sco_pmd
/usr/sbin/switchover
/usr/sbin/volcopy

VI. Escalation Fixes in this Maintenance Pack

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

erg712596/fz529361
 erg712605/fz529414
 erg712621/ptf9050/fz529619
 erg712658/fz529884

erg712598/fz529384
 erg712620/fz529611
 erg712635/fz529721

ptf9050a/fz529560
 ptf9050b/fz529565

| | | | |
|----------|----------|----------|----------|
| fz198541 | fz519105 | fz528611 | fz528775 |
| fz529097 | fz529581 | fz529663 | fz529698 |
| fz529765 | fz529851 | fz528862 | fz529876 |

erg712282/fz526486 (fix provided in the nics package)
 erg712602/fz529411 (fix provided in the openssl package)
 erg712635/fz529721 (fix provided in the uccs package)

erg712648/fz529827 (fix provided in the openssh package)
erg712665/fz529930 (fix provided in the uccs package)

fz528862 (fix provided in the xserver package)
fz528969 (fix provided in the samba package)
fz529615 (fix provided in the foomatic and hpijs packages)
fz529629 (fix provided in the modjk1 package)
fz529665 (fix provided in the samba package)

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