ULTRIX and UWS Version 4.5

Release Notes

Order Number: AA-PZTXC-TE

December 1995

Product Version: ULTRIX and UWS Version 4.5

This manual lists new features and changes to the ULTRIX and UWS products. It also discusses current product software and documentation issues.

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About This Manual

This manual discusses the new features and changes in the ULTRIX and ULTRIX Worksystem Software Version 4.5 products. It also discusses any current issues, including problems discovered during the release and, where possible, their workarounds. Finally, tables in this manual describe the software problems that have been resolved by this release.

Read Chapter 1 before you install or upgrade to ULTRIX and ULTRIX Worksystem Software Version 4.5. Read the rest of the notes before using the products.

If you discover errors, omissions, or inaccuracies as you use the software and documentation, report the problem to your local Digital representative.

Audience

This document is written for people who install, manage, and maintain ULTRIX and ULTRIX Worksystem Software (UWS) and their documentation. Also, programmers and other users of the ULTRIX and UWS software will find in these release notes information that affects their work.

Organization

This document contains five chapters and one appendix:

Chapter 1	Contains information about the installation and upgrade, including new features, changes since the last version, and known issues or problems.
Chapter 2	Contains information about the hardware, including new features, changes since the last version, and known issues or problems.
Chapter 3	Contains information about the ULTRIX software components, including new features, changes since the last version, and known issues or problems.
Chapter 4	Contains information about the ULTRIX Worksystem Software (UWS) software components, including new features, changes since the last version, and known issues or problems.
Chapter 5	Contains information about the the ULTRIX and UWS documentation, including new features, changes since the last version, and known issues or problems.
Appendix A	Contains tables that define which software problems have been resolved by this release.

Related Documentation

You should have the ULTRIX and UWS documentation kit and your hardware documentation.

In addition to this document, the documents most likely to help you get started are:

- *ULTRIX and UWS Version 4.5 Software Product Descriptions* (SPDs)

  The SPDs contain the legal definition of the software products.

- *ULTRIX and UWS Version 4.5 System Notes*

  These notes contain information from previous release notes that still is relevant to the current version of the products.

- *Guide to Installing ULTRIX and UWS*

  This guide steps you through installations and upgrades of ULTRIX and UWS.

- *Guide to System and Network Setup*

  This guide defines the tasks you perform after installing or upgrading ULTRIX and UWS.

- *Guide to Sharing Software on a Local Area Network*

  This guide steps you through the Remote Installation Services (RIS) and the Diskless Management Services (DMS) for ULTRIX and UWS.

Conventions

`%` `$`	A percent sign represents the C shell system prompt. A dollar sign represents the system prompt for the Bourne and Korn shells.
`#`	A number sign represents the superuser prompt.
`% cat`	Boldface type in interactive examples indicates typed user input.
`file`	Italic (slanted) type indicates variable values, placeholders, and function argument names.
`. . .`	In syntax definitions, a horizontal ellipsis indicates that the preceding item can be repeated one or more times.
`cat`(1)	A cross-reference to a reference page includes the appropriate section number in parentheses. For example, `cat`(1) indicates that you can find information on the `cat` command in Section 1 of the reference pages.
Ctrl/*x*	This symbol indicates that you hold down the first named key while pressing the key or mouse button that follows the slash. In examples, this key combination is enclosed in a box (for example, Ctrl/C).

Installation and Upgrade 1

The first section of this chapter discusses new features of and changes to the installation and upgrade procedures for the ULTRIX and ULTRIX Worksystem Software (UWS) products. The second section of this chapter discusses current issues for:

- Installation and upgrade procedures
- Software media and subsets
- Booting the system
- Configuring the system
- RIS and DMS
- After upgrade or installation

Read this chapter before you install or upgrade the ULTRIX and UWS software.

1.1 New Features and Changes

There are no new features or changes to the products' installation or upgrade.

1.2 Installation and Upgrade Notes

The following sections discuss current installation and upgrade issues.

1.2.1 Larger Swap Space Needed

With the addition of OSF/Motif Version 1.2, many of the UWS components have increased in size, and so require more swap space.

The *Guide to Installing ULTRIX and UWS* recommends creating a swap space that is three to four times the size of the processor's physical memory. If you plan to run the OSF/Motif user environment, you should create a swap space of this size.

1.2.2 Delete XUI Subsets Before Upgrading to OSF/Motif

If you are upgrading a system with XUI subsets installed and you choose to put OSF/Motif on the new system instead of XUI, you should first shut down to single-user mode and remove the XUI subsets (using the `setld -d` command). Otherwise, some files from the XUI subsets may be left on your system after the upgrade.

1.2.2.1 Do Not Apply Previously Published Patches to Version 4.5

If you have received any patches for ULTRIX and UWS Version 4.4 or earlier releases, do not install them after you have installed or upgraded to Version 4.5. The tables in Appendix A describe the patches that have been included in Version 4.5.

If you have questions about patches, contact your local Digital representative.

1.2.2.2 Field Test Systems Must Remove Certain Lock Files Before Upgrade

If you have installed field test versions of ULTRIX and UWS Version 4.5 on your system and you plan to upgrade to another field test version, you must remove certain lock files before you perform the upgrade. The `setld` utility checks the lock files during an upgrade to determine which subsets are already installed. Failing to remove these lock files will cause the prerelease software to remain on the system rather than upgrading to the final product.

You must remove the lock files before performing the upgrade. The steps are different for RISC and VAX systems.

1.2.2.2.1 Removing Lock files from RISC Systems – To remove unwanted lock files from RISC systems:

1. Bring the system to single-user mode by entering the following command:

   ```
   # /etc/shutdown 'now'
   ```

2. Change directory to the root file system by entering the following command:

   ```
   # cd /
   ```

3. If you have a DMS system, change directory to the DMS root environment.
4. Remove the lock files from the `usr/etc/subsets` directories for supported commands:

   ```
   # rm usr/etc/subsets/UD[TW]*45?.lk
   # rm usr/etc/subsets/DXM*45?.lk
   ```

5. If you are upgrading unsupported subsets, enter the command:

   ```
   # rm usr/etc/subsets/UDX*45?.lk
   ```

6. Follow the upgrade instructions in Chapter 5 of the *Guide to Installing ULTRIX and UWS.*

1.2.2.2.2 Removing Lock Files from VAX Systems – To remove unwanted lock files from VAX systems:

1. Change directory to the root file system by entering the following command:

   ```
   # cd /
   ```

2. If you have a DMS system, change directory to the DMS root environment.
3. Remove the lock files from the `usr/etc/subsets` directories for supported

commands:

```
# rm usr/etc/subsets/ULT*45?.lk
# rm usr/etc/subsets/UWS*45?.lk
# rm usr/etc/subsets/DXV*45?.lk
```

4. If you are upgrading unsupported subsets, enter the command:

```
# rm usr/etc/subsets/UDX*45?.lk
```

5. Follow the upgrade instructions in Chapter 5 of the *Guide to Installing ULTRIX and UWS.*

1.2.2.3 Stopping Installation with Ctrl/C

A full installation stops after you press Ctrl/C. You must restart the installation from the beginning. Depending on where you are in the installation procedure, you may see a display such as the following:

```
Do you want to stop the installation? <y/n>
```

The installation will stop regardless of your answer to this question.

1.2.2.4 Loading Software Updates During an Upgrade

This release may include one or more software subsets that update (replace) components in the standard subsets included on the software kit. If you are upgrading your system from an earlier version of ULTRIX and UWS, be sure to install these updates to the subsets as explained in Section 5.1.6 of the *Guide to Installing ULTRIX and UWS.* Failure to install these updates to subsets could cause system problems later.

1.2.2.5 Rebuilding the Kernel During an Upgrade

Be sure to rebuild your kernel when upgrading your system to Version 4.5. Section 5.1.7 and Section 5.1.8 of the *Guide to Installing ULTRIX and UWS* explain the steps needed to rebuild your kernel as part of the upgrade process.

1.2.3 Software Media and Subsets

The following notes discuss media and subsets issues.

1.2.3.1 VAX Console Media Labeling Differences

Some of the VAX console media have not changed since Version 4.3. These media retain their Version 4.3 labels. The instructions in the *Guide to Installing ULTRIX and UWS* take this into account.

1.2.3.2 Media Labels

Table 1-1 lists the media labels for Version 4.5.

Table 1-1: Media Labels for Version 4.5

Media Type	Media Label
TK50 (RISC)	ULTRIX AND UWS V4.5 (RISC) BOOT/UPGRADE
	ULTRIX AND UWS V4.5 (RISC) SUPPORTED SUBSETS VOLUME 1
	ULTRIX AND UWS V4.5 (RISC) SUPPORTED SUBSETS VOLUME 2
	ULTRIX AND UWS V4.5 (RISC) UNSUPPORTED SUBSETS
	ULTRIX AND UWS V4.5 (RISC) ENCRYPTION SUBSETS
TK50 (VAX)	ULTRIX AND UWS V4.5 (VAX) BOOT/UPGRADE
	ULTRIX AND UWS V4.5 (VAX) SUPPORTED SUBSETS
	ULTRIX AND UWS V4.5 (VAX) UNSUPPORTED SUBSETS
	ULTRIX AND UWS V4.5 (VAX) ENCRYPTION SUBSETS
MT9 (RISC)	ULTRIX AND UWS V4.5 (RISC) BOOT/UPGRADE
	ULTRIX AND UWS V4.5 (RISC) SUPPORTED SUBSETS VOLUME 1
	ULTRIX AND UWS V4.5 (RISC) SUPPORTED SUBSETS VOLUME 2
	ULTRIX AND UWS V4.5 (RISC) SUPPORTED SUBSETS VOLUME 3
	ULTRIX AND UWS V4.5 (RISC) SUPPORTED SUBSETS VOLUME 4
	ULTRIX AND UWS V4.5 (RISC) UNSUPPORTED SUBSETS VOLUME 1
	ULTRIX AND UWS V4.5 (RISC) UNSUPPORTED SUBSETS VOLUME 2
	ULTRIX AND UWS V4.5 (RISC) ENCRYPTION SUBSETS

Table 1-1: (continued)

Media Type	Media Label
MT9 (VAX)	ULTRIX AND UWS V4.5 (VAX) BOOT/UPGRADE
	ULTRIX AND UWS V4.5 (VAX) SUPPORTED SUBSETS VOLUME 1
	ULTRIX AND UWS V4.5 (VAX) SUPPORTED SUBSETS VOLUME 2
	ULTRIX AND UWS V4.5 (VAX) SUPPORTED SUBSETS VOLUME 3
	ULTRIX AND UWS V4.5 (VAX) UNSUPPORTED SUBSETS VOLUME 1
	ULTRIX AND UWS V4.5 (VAX) UNSUPPORTED SUBSETS VOLUME 2
	ULTRIX AND UWS V4.5 (VAX) ENCRYPTION SUBSETS
CD-ROM (RISC)	ULTRIX AND UWS V4.5 SUPP/UNSUPP (RISC) Includes BOOT/UPGRADE
	ULTRIX AND UWS V4.5 RISC/VAX ENCRYPTION SUBSETS
CD-ROM (VAX)	ULTRIX AND UWS V4.5 (VAX) SUPP/UNSUPP (VAX) Includes BOOT/UPGRADE
	ULTRIX AND UWS V4.5 RISC/VAX ENCRYPTION SUBSETS

1.2.3.3 ULTRIX and UWS RISC Subset Sizes

The following sections list the subset sizes for the supported, the unsupported, the boot/upgrade, and the encryption subsets that make up ULTRIX and UWS Version 4.5.

Note

The actual subset sizes may vary from these numbers in the external product. These numbers approximate the final sizes: they are calculated from the field test software.

For a description of each subset, see the *Guide to Installing ULTRIX and UWS*.

1.2.3.3.1 Sizes of ULTRIX and UWS RISC Supported Subsets – Table 1-2 lists the sizes of the supported ULTRIX and UWS RISC subsets in kilobytes for the root, `/usr`, and `/var` directories.

Table 1-2: Sizes of ULTRIX and UWS RISC Supported Subsets

Subset	root Size (Kbytes)	/usr Size (Kbytes)	/var Size (Kbytes)	Total (Kbytes)
DXMDECW450	––	15998.300	––	15998.300
DXMMAIL450	––	5024.190	––	5024.190
DXMMAN450	––	4679.380	––	4679.380
DXMX11450	––	21471.800	––	21471.800
DXMXDEVG0450	––	8004.850	––	8004.850
DXMXM450	––	15540.700	––	15540.700
UDT210PGMR450	––	4.599	––	4.599
UDTACCT450	0.043	249.856	––	249.899
UDTAFM450	––	901.603	––	901.603
UDTBASE450	3155.290	25108.500	35.636	28299.400
UDTBGX450	––	3980.570	––	3980.570
UDTBIN450	13.252	38931.200	––	38944.500
UDTCDABASE450	––	7139.340	––	7139.340
UDTCDAPGMR450	––	1519.070	––	1519.070
UDTCOMM450	13.728	1245.180	––	1258.910
UDTDCMT450	0.017	290.438	––	290.455
UDTDCMTEXT450	––	1078.070	––	1078.070
UDTDL450	78.811	3327.810	––	3406.620
UDTEXAMPLES450	––	1163.240	––	1163.240
UDTEXER450	––	954.473	––	954.473
UDTINET450	452.065	5675.300	59.393	6186.760
UDTINTLPGMR450	––	582.959	––	582.959
UDTINTLRT450	––	110.724	––	110.724
UDTKERB450	––	1233.630	756.884	1990.510
UDTMAN450	––	3343.130	––	3343.130
UDTMANPGMR450	––	1459.810	––	1459.810
UDTMH450	0.512	7754.830	1.024	7756.370
UDTMIPS3PGMR450	––	3485.670	––	3485.670
UDTMOP450	32.702	425.044	78.336	536.082
UDTNFS450	201.744	1439.330	541.170	2182.240
UDTPGMR450	0.040	10363.800	––	10363.800
UDTPRESTO450	––	163.840	0.539	164.379
UDTPRINT450	37.055	2682.910	0.512	2720.480
UDTRPCDEV450	––	648.067	90.112	738.179
UDTRPCRT450	0.014	275.750	1338.780	1614.540
UDTSCCS450	––	1194.310	––	1194.310
UDTSEC450	377.783	935.539	––	1313.320
UDTSMSCAMP450	––	102.219	––	102.219

Table 1-2: (continued)

Subset	root Size (Kbytes)	/usr Size (Kbytes)	/var Size (Kbytes)	Total (Kbytes)
UDTSPD450	—	848.360	—	848.360
UDTUMAIL450	62.507	895.195	—	957.702
UDTUUCP450	0.020	612.534	997.897	1610.450
UDWDECW450	—	11681.500	—	11681.500
UDWFONT15450	—	5612.330	—	5612.330
UDWFONT450	—	4322.370	—	4322.370
UDWFONTSTR450	—	164.352	—	164.352
UDWMAIL450	—	2713.850	—	2713.850
UDWMAN450	—	364.243	—	364.243
UDWMANPGMR450	—	1562.800	—	1562.800
UDWSER450	—	12292.500	56.739	12349.200
UDWSYSMGNT450	—	3090.640	—	3090.640
UDWWSTSER450	—	2740.570	—	2740.570
UDWX11450	—	6075.160	—	6075.160
UDWXDEV450	—	8508.400	—	8508.400
UDWXTXSER450	—	5281.810	—	5281.810
TOTALS	4425.580	265256.360	3957.020	273639.360

1.2.3.3.2 Sizes of ULTRIX and UWS RISC Unsupported Subsets – Table 1-3 lists the sizes of the unsupported ULTRIX and UWS RISC subsets in kilobytes for the root, `/usr`, and `/var` directories.

Table 1-3: Sizes of ULTRIX and UWS RISC Unsupported Subsets

Subset	root Size (Kbytes)	/usr Size (Kbytes)	/var Size (Kbytes)	Total (Kbytes)
DXMUNDEMO450	—	4523.520	—	4523.520
UDXBASE450	0.192	3238.700	0.512	3239.400
UDXBIB450	—	291.745	—	291.745
UDXCOURIER450	—	160.374	—	160.374
UDXDCMT450	—	391.685	—	391.685
UDXDOC450	—	3447.050	—	3447.050
UDXEDIT450	—	6328.980	—	6328.980
UDXGAMES450	—	2453.760	—	2453.760
UDXINET450	86.068	828.573	—	914.641
UDXLEARN450	—	723.837	—	723.837
UDXMAN450	—	175.436	—	175.436

Table 1-3: (continued)

Subset	root Size (Kbytes)	/usr Size (Kbytes)	/var Size (Kbytes)	Total (Kbytes)
UDXNEWS450	—	1326.030	—	1326.030
UDXNOTES450	—	1827.580	—	1827.580
UDXRCS450	—	528.940	—	528.940
UDXSHELLS450	—	85.968	—	85.968
UDXTERM450	—	324.438	—	324.438
UDXTOOLS450	—	115.650	—	115.650
UDXUNEXAMP450	—	1054.740	—	1054.740
UDXUNFONTS450	—	13740.100	—	13740.100
UDXUNMAN450	—	652.310	—	652.310
UDXUNMIT450	—	34403.200	—	34403.200
TOTALS	86.260	76622.600	0.512	76709.400

1.2.3.3.3 Sizes of ULTRIX and UWS RISC Boot Upgrade Subsets – Table 1-4 lists the sizes of the RISC boot/upgrade subsets in kilobytes for the root, `/usr`, and `/var` directories.

Table 1-4: Sizes of ULTRIX and UWS RISC Boot/Upgrade Subsets

Subset	root Size (Kbytes)	/usr Size (Kbytes)	/var Size (Kbytes)	Total (Kbytes)
DXMSYSMGNT450	—	3911.780	—	3911.780
UDTBASE451	—	1597.820	—	1597.820
UDTBGX451	—	456.560	—	456.560
UDTBIN451	—	65.534	—	65.534
UDTGENVMUNIX451	—	3236.610	—	3236.610
UDTMIPS3PGMR451	—	3249.650	—	3249.650
UDTPGMR451	—	3249.300	—	3249.300
TOTALS	—	15767.300	—	15767.300

1.2.3.3.4 Sizes of ULTRIX and UWS RISC Encryption Kit Subsets – Table 1-5 lists the sizes of the Encryption Kit subsets in kiloybtes for the root, the `/usr`, and `/var` directories.

Table 1-5: Sizes of ULTRIX and UWS RISC Encryption Kit Subsets

Subset	root Size (Kbytes)	/usr Size (Kbytes)	/var Size (Kbytes)	Total (Kbytes)
UDCCRYPT450	–-	614.400	0.538	614.938
UDCPGMR450	–-	1656.620	–-	1656.620
TOTALS	–-	2271.020	0.538	2271.560

1.2.3.4 Sizes of ULTRIX and UWS VAX Subsets

The following sections list the sizes of the supported, the unsupported, the boot/upgrade, and the encryption subsets that make up ULTRIX and UWS Version 4.5.

Note

The actual subset sizes may vary from these numbers in the external product. These numbers approximate the final sizes: they are calculated from the field test software.

1.2.3.4.1 Sizes of ULTRIX and UWS VAX Supported Subsets – Table 1-6 lists the sizes of VAX supported ULTRIX and UWS subsets in kilobytes for the root, `/usr`, and `/var` directories.

Table 1-6: Sizes of ULTRIX and UWS VAX Supported Subsets

Subset	root Size (Kbytes)	/usr Size (Kbytes)	/var Size (Kbytes)	Total (Kbytes)
DXVDECW450	–-	11964.700	–-	11964.700
DXVMAIL450	–-	3523.000	–-	3523.000
DXVMAN450	–-	4679.380	–-	4679.380
DXVX11450	–-	16439.800	–-	16439.800
DXVXM450	–-	8841.810	–-	8841.810
ULTACCT450	0.043	143.360	–-	143.403
ULTAFM450	–-	901.603	–-	901.603
ULTBASE450	2049.090	10753.400	36.148	12838.600
ULTBIN450	13.251	7259.620	–-	7272.870
ULTBSC450	0.036	209.920	–-	209.956
ULTCDABASE450	–-	5367.820	–-	5367.820
ULTCDAPGMR450	–-	1121.350	–-	1121.350
ULTCOMM450	13.728	759.808	–-	773.536
ULTDCMT450	0.017	187.868	–-	187.885
ULTDCMTEXT450	–-	749.206	–-	749.206
ULTDL450	47.067	1657.410	–-	1704.480

Table 1-6: (continued)

Subset	root Size (Kbytes)	/usr Size (Kbytes)	/var Size (Kbytes)	Total (Kbytes)
ULTEXAMPLES450	–-	718.950	–-	718.950
ULTEXER450	–-	589.221	–-	589.221
ULTINET450	291.297	3487.650	107.521	3886.470
ULTINTLPGMR450	–-	326.715	–-	326.715
ULTINTLRT450	–-	110.724	–-	110.724
ULTKERB450	–-	933.634	539.796	1473.430
ULTMAN450	–-	3579.130	–-	3579.130
ULTMANPGMR450	–-	1279.360	–-	1279.360
ULTMH450	0.512	4868.170	1.024	4869.710
ULTMOP450	32.702	228.436	49.716	310.854
ULTNFS450	113.680	832.100	258.546	1204.330
ULTPASCAL450	–-	720.861	–-	720.861
ULTPGMR450	0.040	3765.640	–-	3765.680
ULTPRESTO450	–-	97.280	0.539	97.819
ULTPRINT450	16.575	2069.640	0.512	2086.730
ULTRPCDEV450	–-	457.109	53.248	510.357
ULTRPCRT450	0.014	275.750	871.841	1147.600
ULTSCCS450	–-	720.185	–-	720.185
ULTSEC450	256.951	575.091	–-	832.042
ULTSMSCAMP450	–-	102.219	–-	102.219
ULTSPD450	–-	848.360	–-	848.360
ULTUMAIL450	62.507	616.912	–-	679.419
ULTUUCP450	0.020	366.774	631.305	998.099
ULTVAXC450	–-	878.598	–-	878.598
UWS3DFONT450	–-	3922.590	–-	3922.590
UWSDECW450	–-	9143.050	–-	9143.050
UWSFONT15450	–-	3955.250	–-	3955.250
UWSFONT450	–-	2918.010	–-	2918.010
UWSMAIL450	–-	1733.880	–-	1733.880
UWSMAN450	–-	364.243	–-	364.243
UWSMANPGMR450	–-	1562.800	–-	1562.800
UWSSER450	–-	7344.430	56.739	7401.170
UWSSYSMGNT450	–-	2237.650	–-	2237.650
UWSX11450	–-	4313.880	–-	4313.880
UWSXDEV450	–-	4598.340	–-	4598.340
TOTALS	2897.530	145102.360	2606.940	150607.360

1.2.3.4.2 Sizes of ULTRIX and UWS VAX Unsupported Subsets – Table 1-7 lists the sizes of the unsupported ULTRIX and UWS VAX subsets in kilobytes for the root, `/usr`, and `/var` directories.

Table 1-7: Sizes of ULTRIX and UWS VAX Unsupported Subsets

Subset	root Size (Kbytes)	/usr Size (Kbytes)	/var Size (Kbytes)	Total (Kbytes)
DXVUNDEMO450	–-	4115.760	–-	4115.760
ULXAPL450	–-	269.805	–-	269.805
ULXBASE450	1.511	1959.670	0.512	1961.690
ULXBIB450	–-	194.057	–-	194.057
ULXCOURIER450	–-	103.618	–-	103.618
ULXCPM450	–-	28.934	–-	28.934
ULXDCMT450	–-	368.336	–-	368.336
ULXDOC450	–-	3447.050	–-	3447.050
ULXEDIT450	–-	6328.980	–-	6328.980
ULXF77450	–-	732.618	–-	732.618
ULXGAMES450	–-	2223.420	–-	2223.420
ULXHYPER450	–-	80.771	–-	80.771
ULXICON450	–-	346.396	–-	346.396
ULXINET450	52.276	450.230	–-	502.506
ULXINGRES450	–-	2608.420	–-	2608.420
ULXLEARN450	–-	652.284	–-	652.284
ULXLISP450	–-	3216.460	–-	3216.460
ULXMAN450	–-	310.709	–-	310.709
ULXMOD2450	–-	1035.540	–-	1035.540
ULXNEWS450	–-	1326.030	–-	1326.030
ULXNOTES450	–-	1176.320	–-	1176.320
ULXRCS450	–-	543.056	–-	543.056
ULXSHELLS450	–-	54.224	–-	54.224
ULXSPMS450	–-	1213.530	–-	1213.530
ULXTERM450	–-	324.438	–-	324.438
ULXTOOLS450	–-	54.210	–-	54.210
ULXUNEXAMP450	–-	1054.120	–-	1054.120
ULXUNFONTS450	–-	9838.670	–-	9838.670
ULXUNMAN450	–-	652.310	–-	652.310
ULXUNMIT450	–-	21926.800	–-	21926.800
ULXVARIAN450	–-	2736.110	–-	2736.110
TOTALS	53.787	69372.900	0.512	69427.200

1.2.3.4.3 Sizes of VAX Boot Upgrade Subsets – Table 1-8 lists the sizes of the VAX boot/upgrade subsets in kilobytes for the root, `/usr`, and `/var` directories.

Table 1-8: Sizes of ULTRIX and UWS VAX Boot Upgrade Subsets

Subset	root Size (Kbytes)	/usr Size (Kbytes)	/var Size (Kbytes)	Total (Kbytes)
DXVSYSMGNT450	–-	2814.980	–-	2814.980
ULTBASE451	–-	382.530	–-	382.530
ULTBIN451	–-	11.055	–-	11.055
ULTGENVMUNIX451	–-	1581.060	–-	1581.060
ULTPGMR451	–-	1188.670	–-	1188.670
TOTALS	–-	5978.300	–-	5978.300

1.2.3.4.4 Sizes of VAX Encryption Kit Subsets – Table 1-9 lists the sizes of the VAX Encryption Kit subsets in kilobytes for the root, `/usr`, and `/var` directories.

Table 1-9: Sizes of ULTRIX and UWS VAX Encryption Kit Subsets

Subset	root Size (Kbytes)	/usr Size (Kbytes)	/var Size (Kbytes)	Total (Kbytes)
ULCCRYPT450	–-	376.832	0.538	377.370
ULCPGMR450	–-	1268.590	–-	1268.590
TOTALS	–-	1645.420	0.538	1645.960

1.2.4 Booting the System

There are no system boot issues.

1.2.5 RIS and DMS Notes

The following notes pertain to RIS and DMS.

1.2.5.1 ULTRIX RIS Servers and Digital UNIX Clients

The capability of a ULTRIX RIS server to support and serve Digital UNIX clients is to be retired with this release of the ULTRIX operating system.

1.2.5.2 Space Needed to Install ULTRIX and UWS in RIS and DMS Areas

Table 1-10 lists the space (in kilobytes) needed to install the Version 4.5 subsets in a RIS area.

Table 1-10: Space Needed in RIS Areas

Component	RISC Space (kilobytes)	VAX Space (kilobytes)
BOOT/UPGRADE	20635	7931
Supported	131108	79362
Unsupported	49069	49443
Encryption	2266	1666

Instructions for determining the size of a DMS area are contained in the *Guide to Sharing Software on a Local Area Network*. The approximate sizes of the software subsets for Version 4.5 are shown in the tables earlier in this chapter.

1.2.5.3 DMS Modify Option Could Fail with Client on Different Subnet

The DMS Modify option could fail to modify a client system that is on a subnet different from the server system. The symptom of this failure is a client system panic during its boot process.

To work around the problem, you must compile a new version of the client's `netblk.c` file, then reboot the client.

From the server system, take the following steps:

1. As superuser, locate the client's `/dlclient?/hostname.root/etc` directory, substituting the name of the client for `hostname`:

   ```
   # find /dlclient? -name hostname.root -print
   ```

2. Change directory to the client's `/dlclient?/hostname.root/etc` directory.
3. Compile the `netblk.c` file. For example:

   ```
   # cc -c netblk.c
   ```

4. After the file `netblk.c` has been compiled to produce file `netblk.o`, reboot the client system.

1.2.6 After the Upgrade or Installation

The following sections pertain to tasks you can perform after you complete the upgrade or installation.

1.2.6.1 Change the disktab File after All Upgrades

To acquire any new device support in ULTRIX and UWS Version 4.5, after an upgrade, you must change the `disktab` file. This task is required when you upgrade a system. Do not perform this task when you install a system.

After you have rebooted the new kernel to complete the upgrade, and before you delete any files, perform the following steps:

1. Save a copy of the `/etc/disktab` file by copying it to another file. For

example:

```
# cp /etc/disktab /etc/disktab.sav
```

2. Copy the upgrade procedure file `/etc/.new..disktab` to `/etc/disktab`, by using the following command:

```
# cp /etc/.new..disktab /etc/disktab
```

3. If you have customized the previous `/etc/disktab` file, you can use the copy you have saved to edit these customizations into the new `/etc/disktab` file.

1.2.6.2 Ensuring that lockd and statd are Running

After upgrading your server to Version 4.5, make sure that `lockd` and `statd` are running and included in the server's `/etc/rc.local` file. If these daemons are not running, you may not be able to boot your `ris` or `dms` clients.

1.2.6.3 Removing ''proto'' Files After Install or Upgrade

When you install or upgrade your system to Version 4.5, certain customizable files, such as `disktab`, are first installed with the prefix `.proto..` and then copied to their actual file names. For example, the `disktab` file is `.proto..disktab`.

These ''proto'' files are not deleted by the installation or upgrade procedures. These files are not needed. You can delete them once your installation or upgrade is complete.

1.2.6.4 Deleting genvmunix After an Installation

After a Version 4.5 system is installed, you can delete the subset containing `genvmunix` to save space. Use the `setld` command to delete the subset UDTGENVMUNIX451 for RISC systems, the subset ULTGENVMUNIX451 for VAX systems.

Additionally, you can delete the `/usr/genvmunix` file after you have copied it to `/genvmunix` at the conclusion of an installation.

1.2.6.5 Delete Lock Files When Reconfiguring from Motif to XUI

If you reconfigure your system to change your DECwindows user interface environment from OSF/Motif to XUI, you must delete a lock file that is not automatically deleted.

Whenever you delete the DXMXM450 (RISC) or DXVXM450 (VAX) subset, you must also delete the lock file `/usr/etc/subsets/UDWXDEV450.lk` (for RISC systems) or the file `/usr/etc/subsets/UWSXDEV450.lk` (for VAX systems).

If you do not delete the lock file, you will be unable install the UDWXDEV450 (RISC) or UWSXDEV450 (VAX) subset. The procedure checks for the lock file and, when found, assumes the subset is already installed.

1.2.7 Subset Changes

This section discusses subset kitting changes for this version.

1.2.7.1 System Management Subset Changes

In earlier versions, the UDWSYSMGNT subsets did not take into account that there are two versions of `dxpresto`, one for the XUI interface and one for the Motif interface. Regardless of which interface you chose during installation, you obtained the `dxpresto` for the XUI interface.

A new subset, DXMSYSMGNT/DXVSYSMGNT for the Motif interface has been added to the kit. The system management subsets are now split into two subsets, one for the XUI interface and one for the Motif interface.

1.2.7.2 Prototype Subset for RISC Systems

A prototype subset has been added to the kit for RISC systems only. The subset is identified as:

```
UDTBGX450 Prototype bind, gated, xnpt Utilities
```

1.2.7.3 Subsets for Software Product Descriptions

Optional subsets have been added for the Version 4.5 Software Product Descriptions for the ULTRIX product and the ULTRIX Worksystem Software product. The subsets contain text and PostScript files for the product SPDs:

- ULTSPD450 is the VAX subset
- UDTSPD450 is the RISC subset

The files are installed into these locations:

- PostScript versions:

  ULTRIX: `/usr/doc/ultrix_v45.ps`

  UWS: `/usr/doc/ultrix_uws_v45.ps`

- Text versions:

  ULTRIX: `/usr/doc/ultrix_v45.txt`

  UWS: `/usr/doc/ultrix_uws_v45.txt`

Hardware 2

There are no new hardware features for this release. ULTRIX and UWS Version 4.5 supports all of the configurations –- processors, graphics options, disks, tapes, and so on –- supported in Version 4.4 and earlier versions. There are no current hardware issues for processors, graphics options, or peripheral devices. For a complete list of hardware devices supported in ULTRIX and UWS, see the *ULTRIX Version 4.5 Software Product Description* (SPD).

ULTRIX Software 3

The first section in this chapter discusses new features of and changes to the ULTRIX software components. The second section in this chapter contains notes that discuss current ULTRIX software issues, if any exist, for the following topics:

- Conformance to standards and external specifications
- Commands and utilities
- System calls
- Library routines
- Software development
- Printing
- Networks and communications
- SCSI/CAM

3.1 New Features and Changes

There are some small changes in the ULTRIX software.

3.1.1 New candc Diagnostic Data Collection Utility

The `candc` utility is a shell script that examines the core image of the operating system to extract diagnostic data. Once started, `candc` operations are automatic. Refer to `candc`(8) for information about the utility.

3.1.2 New Option to param.c File

An option to the `param.c` file has been added. The option is `usrsms`, a configurable parameter which is the address that defines the lower boundary of the shared memory segments allocated above the stack segment. No shared memory segments are allowed to be in the address space between `usrsms` and the start of the user stack segment. The default value of `usrsms` is (unsigned) 0x60000000, which applies to each process using shared memory. Using a larger number, for example 0x70000000, makes available more space for the shared memory segments of a process, but reduces space for its stack growth. (The user stack segment starts at an address around 0x7fffc000 and grows towards the data segment and shared memory segments, if any.) Therefore, Digital recommends that you do not use a number for `usersms` that is significantly larger than 0x60000000 unless a process requires an unusually large amount of shared memory.

3.1.3 New ypserv(8yp) Command Option

A new option, `-l`, has been added to the `ypserve` command. This option turns on log messages. Related `portmap` messages are logged to the `/var/yp/portmap.log` file. Related `ypserv` messages are logged to the `/var/yp/ypserv.log` file. Any fatal errors, such as not being able to open the `/etc/securenets` file, or access denials are logged to `stderr`. Any access denials to remote hosts are logged to the `/var/yp/portmap.log` file. Grants of permission to access resources are logged to the `/var/yp/ypserv.log` file. If a SIGUSR1 signal is sent to either portmap or ypserv, the logging state toggles.

3.1.3.1 Portmapper Requires New Control File, /etc/securenets

The control file `/etc/securenets` has been added. This file specifies which YP clients are permitted to request maps. You must configure the `/etc/securenets` file to reflect the domain(s) where it is installed. The file consists of entries with a net mask and a net address. You must specify in this file all the physical networks, subnets, and specific hosts that need to communicate with either the portmapper or the YP server. For example, if your domains are defined as the following:

```
255.255.0.0     134.200.0.0
        # all the hosts on the network 130.200 are allowed.
255.255.255.0   134.210.23.0
        # all the hosts on the sub-net 130.210.23 are allowed.
255.255.255.0   134.220.23.14
        # The specific host with the IP 130.220.23.14 is allowed.
```

The `/etc/securenets` file for the previous domains would contain the following entries:

```
#This file contains the domain mask and addresses that are
#allowed to receive maps from ypserv and ypxfr and may do
#RPC programs against portmap.
#format(the first entry is netmask, and the second entry is netaddr)
       255.255.255.255        130.200.96.49
       255.255.255.255        130.200.96.12
       255.255.0.0            130.201.96.0
```

3.2 ULTRIX Notes

The following sections contain notes about the ULTRIX software.

3.2.1 Device Driver Problem with tms Tape Driver

There is a `tms` driver problem that occurs when a user attempts to read 64K bytes from a TK70 tape. The driver returns 64K as the number of bytes read, regardless of the actual block size on the tape and does not read anything into the user's supplied buffer.

If the user requests 64K-1 bytes, the driver functions properly and returns the actual number of bytes read. The `restore` and `rrestore` commands have been modified not to attempt to read 64K records by default, but manifestations of this bug can be seen with other applications, such as `dd`, which manipulate tape and can be configured to use a block size of 64K.

3.2.2 Printing Notes

The following sections discuss printing issues.

3.2.2.1 The lprsetup Command

When using the `lprsetup` command to remove an entry from the `printcap` file, the comments associated with the entry are not removed. If you want to remove the comments, you must edit the file.

After using the `lprsetup` command, the DEClaser 2200 and DEClaser 3200 printers require an additional change to select the default tray. You must add `+I<tray>` after the input and output filter specification in the `printcap` file. The `<tray>` is replaced with one of the `lpr` command tray specifications of top, middle, bottom, or `lcit`. No space should exist between the +I and the tray name. For example:

```
:if=/usr/lib/lpdfilters/DECprinter +Itop:
:of=/usr/lib/lpdfilters/DECprinter +Itop:
```

3.2.2.2 The DECprinter Print Filter

You can now specify in the `printcap` file the default tray for the DEClaser 2200 and 3200 printers. For example:

```
:if=/usr/lib/lpdfilters/ln03of +Itop:
:of=/usr/lib/lpdfilters/ln03of +Itop:
```

Existing `pcf` files that were edited to specify the default trays will still work.

The DECprinter filter was designed to switch automatically to landscape mode when the width of a document exceeded a specific column position as specified in the `pcf` file. This feature did not work correctly in Version 4.4 and has not been corrected. To work around the problem, edit the `pcf` file to change the 'landscape width:' value to 0. For example, change `landscape width:81` to `landscape width:0`.

The filter has been modified to recognize the following `lpr` options: `lpr -Dodd` and `lpr -Deven`.

ULTRIX Worksystem Software 4

The first section of this chapter discusses new features of and changes to the UWS software components. The second section of this chapter contains UWS system notes, if any exist, for the following topics:

- Standards and compatibility
- X Servers
- User environment
- OSF/Motif

4.1 New Features and Changes

The following sections discuss new features of and changes to this release.

4.1.1 X Servers

The following sections discuss new features of and changes to the X servers.

4.1.1.1 X11R5 Xws Now Supports MX and PX

The `Xws` X11R5 X server now supports the MX (PMAG-AA) and PX (PMAG-CA) graphic options. All of the graphics options that `Xws` supported in Version 4.4 remain supported. If you are upgrading from Version 4.4 and you have an MX or PX graphics option, edit the `/etc/ttys` file to change the X server name from `Xws_R4` to `Xws` in the following line:

```
0: "/usr/bin/login -P /usr/bin/Xprompter -C /usr/bin/dxsession"
none on secure window="/usr/bin/Xws bc -once"
```

The installation or upgrade procedure edits the `/etc/ttys` file on your system to start the correct X server.

To determine the graphics option on your system, become superuser and enter the `/etc/sizer -gt` command on RISC systems or the `/etc/sizer -wt` command on VAX systems.

Whether you run an X11R4 or X11R5 X server depends solely upon the graphics option you have. It does not depend upon or affect whether you are running the X11R4 XUI environment or the X11R5 OSF/Motif environment.

If you wish, you may run the X11R4 X servers (`Xws_R4` or `Xtx_R4`) on systems that would normally use the X11R5 X servers (`Xws` or `Xtx`).

The X11R4 and X11R5 X servers support the same fonts, with one exception. The X11R5 X servers support scaled fonts and the X11R4 servers do not support scaled fonts.

4.1.2 X Window System, Version 11

There are no new features or changes to X Window System support.

4.1.3 LinkWorks Components Have Been Retired and Renamed

The LinkWorks components, `lwkmanager` and `lwksetup`, along with their associated libraries, have been retired. In Version 4.4, the source files for the LinkWorks components were removed from the UWS source kit. In Version 4.5, the LinkWorks binary files have been removed from the UWS binary kit.

The name ''LinkWorks'' is now used for a new product with a different function. The retiring LinkWorks components have been renamed DEClinks.

As a result, the user interface to the present LinkWorks capability, which allows users of applications to create links to other applications, is no longer present in ULTRIX and UWS.

The DECwindows applications that used DEClinks (Bookreader, Cardfiler, and Calendar) have been modified to remove that feature.

Applications that link against the DEClinks library `/usr/lib/liblwkdxm.a`, need to be modified before they can be built on ULTRIX/UWS Version 4.5, because the DEClinks library is no longer provided.

Applications that use DEClinks and which were built on an earlier version of ULTRIX can be run on Version 4.5: however, the DEClinks functions are no longer supported and do not work.

4.2 UWS Notes

The following notes discuss UWS software issues.

4.2.1 Problems with the ~/default.DXterm Resource File

When you use the Save Options menu item, `dxterm` saves its entire resource database to a file named `/default.DXterm` in your home directory. This can cause problems in the following situations:

- You use `dxterm` on screens with different depths
- You try to override some settings in the resource file with command line switches
- You use the `-setup "` switch to prevent `~/default.DXterm` from being read

To avoid these problems, do the following when using `dxterm` resource files:

1. Do not use the Save Options menu item to create the resource file. Use it only to determine the resource names and default values.
2. Edit the resource file manually to only contain the resources that are different than the system default values.
3. Use an alternate to having a `~/default.DXterm`. Specify the alternate resource file name with the `–setup` switch. Or, use the `-xrm` switch to specify any resources you want to change.

4.2.2 X Servers

The following sections discuss current X Server software issues.

4.2.2.1 X11R5 X Server Problem with Backing Store

When using the X11R5 `Xws` X server on a color DECstation 2100 or 3100, a color DECstation 5000/25 or 33, or a DECstation 5000 with a CX or MX graphics option, the X server may not correctly restore areas of the screen saved in backing store. To avoid this problem, turn off backing store by adding the `-bs` and `-su` options to the X server command line in the `/etc/ttys` file.

4.2.2.2 X11R5 X Server Problem Accessing Fixed Font from emacs

When using the X11R5 `Xws` X server on a color DECstation 2100 or 3100, a color DECstation 5000/25 or 33, or a DECstation 5000 with a CX or MX graphics option, the X server may get a segmentation fault when running the emacs editor with the font set to "fixed". To avoid this problem, you may use the X11R4 `Xws_R4` X server by changing the X server command line in the `/etc/ttys` file.

Documentation 5

The first section of this chapter discusses new features of and changes to the ULTRIX and UWS hardcopy documentation, online reference pages, and online documentation CD-ROM. The second section of this chapter discusses any current documentation issues or problems.

5.1 New Features and Changes

This section discusses new and changed hardcopy documentation, online information, and ULTRIX Online Documentation (OLD) CD-ROM information.

5.1.1 Hardcopy Documentation

The following hardcopy documentation has changed:

- The *Release Notes* have been revised to contain notes about Version 4.5 of ULTRIX and UWS.
- The *ULTRIX and UWS System Notes* was added to the documentation set in Version 4.3A. This manual contains software and documentation notes from Version 4.4 and earlier *Release Notes* that are still relevant to current releases.

Note

The printed reference pages have not been revised since Version 4.0 of ULTRIX and UWS. Thus, no new reference pages or corrections to existing reference pages have been made to the printed manuals. However, the online reference pages have been maintained. We strongly recommend you use the online reference pages for reference, either by using the `man` command or by using Bookreader (if you have a UWS license).

5.1.2 ULTRIX Online Reference Pages

The following list contains new and changed online reference pages:

`accept(2)`

`addnode(8)`

`ar(1)RISC`

`at(1)`

`candc(8)`

`chpt(8)`

cp(1)

cut(1)

dd(1)

getsysinfo(2)

getutent(3)

grep(1)

init(8)VAX

malloc(3)RISC

portmap(8)

printcap(5)

pstat(8)

ranlib(1)RISC

sendmail(8)

services(5)

sh(1)

sigsetjmp(3)

stat(2)

swapon(8)

tar(1)

ypserv(8)

5.1.3 UWS Online Reference Pages

The following list contains new and changed online reference pages:

dxmail(1X)

Xtx_R4(8X)

Xws_R4(8X)

Xwst3d(8X)

Xqvsm(8x)

5.1.4 ULTRIX Online Documentation CD-ROM Notes

The order numbers for obtaining ULTRIX Online Documentation (OLD) CD-ROMs are:

- QA-GEW8A-H8: Use this order number to obtain the most recent ULTRIX OLD CD-ROM.

- QT-GEW8A-C8: Use this order number to obtain a subscription to the ULTRIX OLD CD-ROM.

5.2 Documentation Notes

There are no new documentation issues. Refer to the *System Notes* manual for information about current documentation issues and features not documented elsewhere.

Problems Resolved in Version 4.5 A

This appendix discusses ULTRIX and UWS customer-reported software problems that have been resolved in Version 4.5.

Tables A-1 through A-4 list ULTRIX problems resolved; Table A-6 lists UWS problems resolved. The tables display the topic or the name of the component, a description of the problem, and, when applicable, a reference to the identification code for the problem.

Table A-1: ULTRIX Problems Resolved in Version 4.5 (A-E)

Component	Problem Resolved	Problem ID
`accept(2)`	The `accept` system call terminated upon receipt of a SIGALRM. Now, it restarts if the signal is received while it is blocked.	QAR 12554
`ar(1)RISC`	The `ar -z` command (repress building of symbol table) failed. This problem has been corrected and three previously undocumented options, -s, -h, and -z, have been added to `ar`(1.)	QAR 13302, QAR 13639, QAR 13386
`arp(8c)`	A previous change to the `arp` command restricted its use to the superuser. This fix was too extreme, preventing all users from using, for example, the `arp -a` command.	QAR 13582, QAR 13563
`automount(8nfs)`	The `automount` utility did not unmount file systems that were mounted with a relative pathname.	SPR HPAQ13090
`bindsetup(8)`	The `bindsetup` command used an obsolete template for the `named.ca` file. Because the list of root name servers in `named.ca` was out of date, customers who wanted to go outside their own zones had to get the current list of root name servers from `nic.ddn.mil,` and edit the `named.ca` file to add them. Running `bindsetup` overwrote their `named.ca` file and they had to fix it again.	CLD HPAQC3C83
`binmail(1)`	Two security-related problems have been resolved.	SSRT394-U-282, SSRT494-U-287
	If the timestamp string in a received mail message was missing the seconds field, `/usr/ucb/mail` did not properly parse the mail file.	SPR HPXQA1766

Table A-1: (continued)

Component	Problem Resolved	Problem ID
	The `binmail` utility caused the `comsat` server to occasionally provide empty mail message excerpts when reporting incoming mail.	CLD HPAQA8F1B
`cam`	A problem which caused the `elcsd` daemon to hang, thus preventing any further `scsi/cam` error logging, has been corrected.	SPR UVO101041
	SCSI bus resets on a DS5100 resulted in a hung system.	QAR 13751
`cc(1)`	RISC only. C programs that were compiled using the -S option could fail with an out of range message similar to the following: `ugen:libmld: Internal: st_pdn_idn: idn (xxxxxxxx) less than 0 or greater than max (15479)` The value for `xxxxxxxx` was always a very large number.	CLD HPAQA2AE2
	RISC only. The C compiler would crash when it compiled a program that required expansion of deeply nested macros. The compiler front end has been fixed to solve this problem.	QAR 13975
	RISC only. The compiler allowed C++ style comments in a C program, thereby producing failures when compiling with the `-P` option. The compiler front end has been modified to not allow C++ style comments in a C program.	SPR HPXQ454B2
	RISC only. The attempt to compile a C program that contained any redefinitions of old style formal parameters resulted in a hang. The compiler front end now reports and handles any redefinitions of formal parameters.	QAR 13842
	RISC only. Some sizeof references that formerly compiled did not compile under the Version 4.5 compiler.	QAR 12630
	RISC only. If a syntax error occurred in the variable declaration section of the code before function definitions, the compiler produced an incorrect line number for the location of the syntax error.	SPR GOZ10044
	RISC only. The compiler dumped core with an assertion failed message when an unindexed array was used to reference a structure.	SPR HPXQ31D40
	RISC only. The compiler aborted the compilation of a C program that contained very long if-else selection statements with the `yacc` stack overflowed error. The old version of the compiler, which is invoked by using the `-oldc` option, successfully compiled the same program.	SPR ICAX48727

Table A-1: (continued)

Component	Problem Resolved	Problem ID
	Attempting to compile a C program with option –O or –O2 caused the system to crash with a segmentation fault as the program was being optimized. Compiling the same program without using either option succeeded without errors.	SPR HPXQ3890F
	Compiling a C program that contained a `#define` directive with a long token-string (the body of the macro), produced a segmentation fault and caused the system to crash. Typically, the token string in these cases was greater than 4,000 bytes. The C compiler front end, `cfe`, has been changed to solve this problem.	QAR 13675
`comsat(8c)`	A security related problem has been resolved.	SSRT294-U-272
	The `comsat` command did not notify users with 8-character login ids of incoming mail.	CLD UMG00433
`cpio(1)`	The `cpio` program no longer restores symbolic links that do fit the match pattern. Additionally, a `cpio` directory operation no longer fails to report the presence of a 65,536th file in an archive.	CLD ICA35088, CLD ICA37943
`csh(1)`	The `csh` built-in command `nohup` did not work. A script that used `nohup` to ignore the SIGHUP signal was killed when the SIGHUP signal was sent to it. Now, a script that uses `nohup` actually ignores the SIGHUP signal.	SPR HPXQ44EAF
	A `csh` memory leak has been corrected.	CLD EVT100800
	A problem that caused the `csh` shell's internal representation of its path variable to become corrupted has been corrected.	QAR 13890
`crash(8)`	The `crash` utility has been modfied to correctly display the tty struct of a LAT process. Previous versions of the utility dumped core when attempting to display a LAT tty.	SPR VN0100008
`ctrace(1)`	The `ctrace` utility caused some programs produced by compiling ctrace output to dump core when executed.	QAR 12529, QAR 13336
`cxref(1)`	The `cxref` utility was unable to handle ANSI prototype declarations.	QAR 13045
`dbx(1)`	The `dbx` utility failed with a register dump when printing the parameters of a Fortran routine performing the `where` (stack backtrace) command. Fortran character parameters have a hidden parameter at the end of the parameter list in the symbol table which cannot be printed. The `dbx` utility now interprets the hidden parameter as the end of the parameter list for the given procedure.	QAR 13732

Table A-1: (continued)

Component	Problem Resolved	Problem ID
	The dbx utility no longer returns the message: <funcname> not call-able if the function type is a value that already has a type definition.	QAR 13381
	The dbx utility set breakpoints incorrectly when encountering Fortran if statements.	SPR HPAQ82698
	The dbx utility could not always print Fortran n dimensional arrays.	CLD MGO100442
	A problem related to the dbx utility's ability to set break points and step through Fortran programs that contain alternate entries has been resolved.	CLD HPXQ72E39
	RISC only. the dbx utility produced kernel address (0xffffe010) not mapped messages when issuing the following command: p $casesense.	QAR 13846
	The dbx utility was unable to step through or set break points properly in Fortran programs containing the format statement.	SPR UVO100490
	The dbx utility dumped core when run on a stripped executable such as /bin/umount. The dbx utility no longer dumps core when run on stripped executables.	QAR 05217
decuniversal_of	The lg02of and lg31of print filters now determine if a form feed needs to be sent before the reset command to eject any remaining data.	
	With ln03of, la75of, lg02of, and lg31of print filters, you can now print up to 70 lines of text on A4 paper in portrait mode and more than 66 lines of text in landscape mode. You can set up the the filter for A4 paper to specify the page length in the printcap file, for example: :if=/usr/lib/lpdfilters/ln03of +z70: The +z option specifies the real page length in lines. The printcap pl option limits the number lines to print per page. If you want to print 70 lines on 70 line (A4) paper then set both the +z and pl values to 70.	SPR SOO100051, CLD UVO100561
dms(8)	DMS clients with small amounts of memory paniced with an I/O error in swap error just after completion of their system configuration.	QAR 12384
dump(8)	Several dump command problems have been resolved.	QAR 13650
	The QIC tape running at 16000 BPI defaulted to 320MB even if the length of the tape was specified in the dump command.	SPR HPXQB43A5

Table A-1: (continued)

Component	Problem Resolved	Problem ID
egrep(1)	The egrep command dumped core when asked to search for a long expression.	SPR UVO100863
elcsd(8)	The elscd daemon sometimes failed without an error indication when it was unable to locate an entry for elcsd/udp in the services data base. Now, the elscd daemon attempts to use a default port number (704) and logs all ALERT errors to /dev/console as well as to syslog.	QAR 2149
enroll(1)	RISC only. The enroll command created a key file with all zeros regardless of the specified key, causing secret mail functionality to fail. The problem was caused by a library header file which assumed RISC machines were big-endian. The header file, /usr/include/mp.h, now implements the "half" structure in a little-endian way for RISC machines.	CLD HPXQ56F25
execve(2)	The system call has been changed to prevent system hangs when a program's gnode is locked due to a lack of kernel virtual memory.	CLD STLB20323

Table A-2: ULTRIX Problems Resolved in Version 4.5 (F-M)

Component	Problem Resolved	Problem ID
find(1)	The -depth option of the find command failed when the -name file name option was one of the predicates in the expression being tested.	SPR HPAQ28C24
fpc(3)	RISC only. Signal handlers for floating point exceptions (SIGFPE) did not receive adequate exception status to describe the exception condition. The structure was there, but the data was cleared. Valid exception data is now being passed to the signal handler.	QAR 13312
fseek(3s)	Executing the fseek subroutine from the beginning of a file with an odd offset caused subsequent output to the file to be written to the wrong place on the file. The fseek subroutine has been fixed to solve this problem.	CLD HPAQ64A29, CLD MGO100696
fsck(8)	The fsck command would not clear the clean bit if it determined that there was some filesystem damage. Now, the fsck command clears the clean bit if there is filesystem damage and the superblock is writable.	CLD HPAQC5A53
fta(4)	The fta driver could cause a system to hang if: 1) the system was built with DEFTA support, 2) the device was not enabled by ifconfig, and 3) lat was turned on. Additionally, the driver has been modified to more completely report the DEFTA module type.	QAR 13660
	RISC only. The FDDI connection with the DEFTA FDDI adapter and the R4000 CPU could be frequently disrupted or even lost as the system reported apparent FDDI errors such as frame length, frame alignment, and checksums. The errors were reported even when there were no real FDDI errors.	CLD HPXQ360CB
	The FDDI connection on a DECstation configured with the DEFTA FDDI adapter and the R4000 CPU could be lost after the system reported many apparent FDDI hardware errors. The system reported that the adapter was shut down and went off-line. However, this report occurred when there were no real FDDI errors. The DEFTA device driver has been modified to resolve this problem.	CLD HPXQA6B9C, CLD HPXLC22D3
ftp(1c)	The ftp program ignored directory information in a wildcard copy using the mget command. As a result, errors were produced for files copied to any nonexistent local directories.	CLD-MGO100458

Table A-2: (continued)

Component	Problem Resolved	Problem ID
fza(4)	A process hung in D state when accessing remote files in a network file system through the FDDI network. This usually occurred after the network recovered from a previous traffic disruption. The device driver for DEFZA FDDI controller 700/700C has been fixed to solve this problem.	CLD MGO100242
	A system with the DEFZA FDDI controller 700/700C could hang when the system was heavily loaded with FDDI network traffic: mbuf consumption suddenly and substantially increased, and continued to do so. Eventually, the system became unusable. This problem occurred when user datagrams were not transmitted by the FDDI adapter and were stuck in the FDDI network interface output queue.	CLD WEASB5886
getcwd(3)	Programs that used the getcwd routine took too much time to complete when automounted file systems had symbolic links from the root directory to each mount point. Sometimes, the target of this link did not respond quickly (or at all) to stat system calls, because the algorithm used in the getcwd routine may have had to stat many (or all) of the entries in the root directory, and perhaps wait for slow mountd servers (or time out on dead NFS servers). Further, the getcwd routine hung if the server of any mount point was down.	QAR 13749
gethostent(3n)	The global variable svc_lastlookup did not address the proper svc_lastlookup value. A new _svc_lastlookup[] array variable was added to solve this problem.	CLD UMG00384, CLD HPXQ56FA9, CLD HPAQ651EA
getpwent(3)	The setpwent routine caused a password file locking problem when aborting from the passwd command.	SPR ICAX48870
getservent(3n)	A memory leak occurred when the getservbyport was called. A change to the getservent code corrected this problem.	QAR IS0100028
getwd(2)	The getwd system call no longer returns an error when a dangling link from the automount trigger point is encountered during a search back up the tree. Previously, the call returned the message: pwd: getwd: No such file or directory. Now, the dd.st_dev variable is set to zero when the getmnt routine returns -1, allowing the pwd command to continue (and to return the correct results).	QAR 13749

Table A-2: (continued)

Component	Problem Resolved	Problem ID
hosts(5)	The make_hosts script created invalid CNAME resource records when the host name in the hosts file contained uppercase characters.	QAR 13078
ifconfig(8c)	The ifconfig utility incorrectly reported the IFF_OACTIVE bit as IFF_PFCOPYALL, and did not report the state of IFF_PFCOPYALL or IFF_802HDR.	QAR 13702
inet(3n)	A root application attempting raw socket I/O could cause the system to issue the m_copy3 panic message.	QAR 13845
inetd(8c)	The inetd daemon did not restart running processes that were marked wait in its configuration file if it received a HUP signal.	SPR HPAQ31BF2
	The inetd daemon did not return all the characters to the local machine under UDP or TCP protocol.	QAR 13909
install	If an existing filesystem on a system that was being upgraded had symbolic links for paths that the installation procedure expected to be directories, the upgrade would abort, while making recovery impossible without a complete reinstallation.	QAR 13951
kinit(8krb)	A bug in the libckrb.a library caused the named daemon to run out of file table entries. The problem was caused by a library routine which did not close the /etc/resolv.conf file in an error situation. The named daemon eventually issued the following message: named: accept: Too many open files.	SPR 78VB90099
ksh(1)	The Korn shell built-in getopts option has been fixed to work as documented in the reference pages. Additionally, the if command now handles multiple expressions.	SPR MGO100027, SPR MGO100028
	Running the ksh shell on some customized shell scripts could cause a bus error and a core dump.	CLD MGO101247
	The ksh shell could hang the system when it attempted to execute ksh scripts.	QAR 13853
	If a ksh script that had the same name as another executable already in the user's path was invoked by specifying its full pathname and the script was in or below the user's current directory, the ksh shell executed the file it found in its path search rather than the script.	SPR HPAQ68A7E
	The ksh shell prevented normal I/O redirection to special files (/dev/null in particular) when the noclobber option name was used.	QAR 13862

Table A-2: (continued)

Component	Problem Resolved	Problem ID
	An invalid pointer to the next argument caused some scripts to fail with segmentation faults and bus errors.	CLD ZUO100153
	Executing two `su` commands in a `csh` script to a `ksh` user stopped the output from the second `su` process. The Korn shell did not handle the SIGTTOU signal properly.	SPR ICAX44686
`ld(1)`	The `ld` command could dump core with the following message: `Fatal Error in: /usr/lib/cmplrs/cxx/ld - core dumped`.	CLD HGOQ90038
`lockd(8c)`	A condition which could cause the `lockd` daemon to go into an infinite loop has been eliminated.	CLD HPXQ38419, CLD KAOQ41533
`login(1)`	The `login` utility has been fixed to correctly log the user name in the `/var/spool/mqueue/syslog` file after repeated login failure attempts.	QAR 13709
`ln03rof(8)`	The LN09 printer did not print 8-bit characters correctly when using the `ln03rof_decmcs` and `ln03rof_isolatin1` DECMCS PostScript filters.	CLD MGO100988
`lprm(1)`	The `lprm` command could not remove print jobs from a queue when a system had more than one network interface and the following conditions applied: One interface was configured with the hostname of the system and the other interface was configured with a different name, and the print jobs were submitted using the `lpr` command through the interface that was not configured with the hostname of the server. Attempts to remove such a request failed with a permission denied message.	SPR UVO101898
`lprsetup(8)`	A security-related problem has been resolved.	SPR T394-U-275
`lseek(2)`	The `lpd` line printer daemon caused the print filter to corrupt the printer output by making the filter reread a block of the input file. The cause of this problem was `lseek`, which the daemon called: `lseek` was not operating atomically.	CLD 9WFBB3708
`lta(5)`	The `ltareset` routine received a kernel segmentation violation panic that was caused by a terminal server sending a server portname longer than 16 bytes to the `lat` server.	CLD UVO101401
`mail(1)`	The `/usr/bin/mail` utility created `/tmp/maa*` files with improper ownership when the `/usr/spool/mail` file system was full.	CLD EVT100615

Table A-2: (continued)

Component	Problem Resolved	Problem ID
	The `/usr/bin/mail` utility, by using the `-r` option, allowed normal users to change the sender field of messages being sent.	CLD ZPOQ30236
	The `/usr/ucb/Mail` and `/usr/ucb/mail` utilities processed mail escape sequences when the mail session was not interactive.	QAR 13700
`make(1)`	Applications that used enumerated constants in arithmetic expressions dumped core with segmentation violation error messages.	QAR 13651
`more(1)`	The `more` command no longer generates a usage error when the `-n` option is specified.	CLD HPAQ32014
`msgrcv(2)`	Systems configured with MSGMAX and MSGMNB values of 32768 or more panicked with the message `bad rmfree` when an attempt was made to receive a message of size 32768 or more. The `msgrcv` system call now properly receives the message.	QAR 13293

Table A-3: ULTRIX Problems Resolved in Version 4.5 (N-R)

Component	Problem Resolved	Problem ID
nawk(1)	The nawk command, getline, when reading from a named pipe, sometimes hung because the buffered output was not flushed after all the writes were performed.	QAR 13281
	A local variable in the function line list (but not a formal parameter) used as an array did not get cleared the second time the function was called.	QAR 13864
nfs(5nfs)	The client crashed when the application that had the sticky bit set on the server was executed. The server/client set attributes routines have been modified to fix the problem.	CLD 9WFBB1863
	NFS servers no longer issue the nfsd holding lock panic when they are requested to create a file that contains slash (/) in the file name.	CLD HPAQ151C9
	When a user tried to modify a file on an NFS-mounted filesystem with quotas enabled, and that user's quota was then exceeded, the file was deleted and no errors were reported to the user.	CLD HPAOB35A9
	An NFS server could crash with the panic message smp_lock_long: beyond sleep count when a file on it was being accessed by an NFS client.	CLD EVT100737
	An NFS server could panic when one client removed the files that another client was writing to. The server then panicked with either of the following messages: gnode is inactive or gfs_lock:locking unrefed gnode.	CLD EVT100672
	File copies on NFS mount points did not work correctly if full path names were specified.	CLD HPAQ86D35
	Kernels panicked if entries at the end of directory blocks were too short to be valid entries. The nfs_putrddirres routine was modified to print a bad directory error message if this happens.	CLD ZPOQ40019
	An SMP machine with multiple CPUs heavily utilized as an NFS file server crashed with the smp_lock_long: lock position messup and segmentation fault panic messages. The system usually had many nfsd daemons running.	CLD HPXL35428
nslookup(1)	The nslookup command did not return the name of a site when it was looked up by address.	SPR UVO101899
	The nslookup command dumped core when run using an IBM/AIX version 3.25 system as a name server.	SPR UTO100334

Table A-3: (continued)

Component	Problem Resolved	Problem ID
pack(1)	The pcat command did not handle wildcards. This problem has been fixed by correcting the unpack module to handle the pcat command properly.	SPR ICAX46672
pixie(1)	The pixie program dumped core when it was run on a stripped executable.	SPR HPXQB1216
pstat(8)	The pstat -s command now displays the available swap space in units of 32KB and 1KB buffers. Additionally, the time it takes for the display to return has been improved.	QAR 13836
rdump(8c)	The rdump command dumped core when the /etc/dumpdates file was missing.	QAR 13576
	Several rdump command problems have been resolved.	QAR 13650
recv(2)	The recv system call always terminated upon receipt of a SIGALRM. Now, it restarts if the signal is received while it is blocked.	QAR 12554
restore(8)	The restore command exited, reporting a failure to open the /dev/tty file when it was used with the rsh command. Now, when the same failure occurs, the command issues the message Opening /dev/null instead. No interactive restoration is possible.	CLD HPAQC5600
	When dumping a filesystem which has been processed by the newfs command with a fragment size of 8192, extra pad blocks are written to the dump tape. Because the blocks are unexpected padding, the restore command issues a warning similar to the following: resync restore, skipped 4 blocks. This message was spurious. Also, dumps can now be created and restored with a 64k blocksize where supported by the output media.	CLD HPAL91B53
	These restore and rrestore command problems have been resolved: 1) The maximum blocking factor that the rrestore command could handle was restricted to the maximum size of a socket. This restriction has been eliminated. 2) A segmentation fault that could occur when using the b option has been eliminated. Now, when read errors occur, the correct blocking factor is used.	OSF CLD 7HRBB1511
	Several restore command problems have been resolved.	QAR 13650

Table A-3: (continued)

Component	Problem Resolved	Problem ID
rlogin(1c)	With a YP distributed passwd database and overrides in the local /etc/passwd file, an rlogin command to a system failed with a variety of errors. For example: Login incorrect; can't find login directory and invalid shell.	SPR ICA44254, SPR ICA43081, QAR 9861, QAR 10456
	A rlogin command failed because the local password file contained an entry overriding some yp password file fields and the user had a .rhosts file that normally allowed him to log in to the system without specifying a password.	QAR 10456
rlogind(8c)	A security problem has been resolved.	CLD VMG00549
rmt(8c)	The rmt command hung if requested to process a 64KB read.	QAR 13650
rrestore(8c)	Several rrestore command problems have been resolved.	QAR 13650
	A security problem has been resolved.	CLD UMG00565
rshd(8c)	The rshd command caused control not to be returned to the user's terminal until all processes started on the remote system.	CLD HPAQ66C46, CLD 774SA3852
route(8c)	Users can add and delete a network route of class B that has a 10-bit subnet identification.	CLD MGO100613
routed(8c)	A memory leak problem caused the routing daemon gated to grow without bounds when the RIP protocol with the broadcast option was used. The daemon has been fixed to solve this problem.	CLD CFS26222, CLD CFS25064

Table A-4: ULTRIX Problems Resolved in Version 4.5 (S-Z)

Component	Problem Resolved	Problem ID
s5make(1)	The s5make command produced segmentation faults when making files that required multilevel macro translations.	SPR HPXQ85B25
sed(1)	The sed command dumped core when performing a substitution on an input line of 4096 characters or more.	SPR TKTR81132
sendmail(8)	VAX only. The sendmail program sometimes dumped core on VAX systems.	CLD HPALAAA94
	Mail queues would not empty out if the quota limit for a user was exceeded on the filesystem that contained that user's mailbox.	CLD HPAQ41595
	A boolean option, G, has been added to the sendmail command. This option turns on and off the fuzzy feature. By default, the G option is true. To turn it off, either set on the command line using -o flag or set it in the configuration file. For more information, see sendmail(8).	SPR ICAX46310
	Security-related problems have been resolved.	CLD UMG00512, CLD UMG00567
setjmp(3)	RISC only. The setjmp() and sigsetjmp() routines allowed a process to be killed with a sendsig: can't grow stack message.	QAR 13841
sh(1)	An interactive sh script did not exit when issuing the exit command.	SPR HPXQ107AE
	The sh shell did not return 0 when an if statement was executed and no then or else list was executed.	SPR HPAQC3D68
	The sh shell caused temporary files to remain after issuing an exec command rather than deleting them.	QAR 1322l
sh5(1)	Executing two su commands in a sh5 script to a ksh user stopped the input/output from the second su process.	CLD STLQB1290
snmpd(8n)	The snmpd daemon issued a success return if it received a request to change the status of a network interface. In reality, no actual change to the hardware interface occurred. The set interface routine has now returns an error instead of a success for this requested function.	CLD E20BA0995
	Under severe stress conditions, many occurances of the message: SNMPD: SNMPIN: error in PROC_SNMP_MSG, CODE -4 appeared in the error log. Eventually all the available system resources were consumed.	CLD E32BA92404

Table A-4: (continued)

Component	Problem Resolved	Problem ID
sys	RISC only. An R4000-specific problem that caused applications to fail when they were executing instructions from their data space and running over the network has been resolved.	CLD 9WFB92855
	The wasted swap space numbers for the `pstat` command were incorrect.	CLD CXO-10708, CLD WEAS-91714, CLD 9WFBA5745
	Now, a child process of a SYSTEM_FIVE process no longer inherits the SYSTEM_FIVE signal handling characterics. As a result, System V handling of the SIGCHLD signal does not affect POSIX child processes.	CLD HPAQC9495
	If a process had interval timers enabled through the `setitimer` routine, they were inherited by any child processes it forked, even though the `exec` system call had reset all the signal handlers that normally catch them. The state of interval timers is no longer preserved across the `exec` system call.	QAR 6622
	RISC only. An SMP machine with multiple CPUs could crash with the trap panic when the second CPU was started manually.	CLD UVO102678
	Output to a console device `/dev/console`, which was first opened in termio raw mode, could be blocked indefinitely if output was stopped by the system when it ran out of buffer space to store characters written to the console. For example, this problem could occur when many user processes wrote to the console. When console output was blocked, any attempt to write to it failed. A command appeared to be hung indefinitely if it had to wait for the write to be completed.	CLD HPAQC68F4
	LAT buffers were not always freed, eventually causing the kernel to run out of MBUFs.	CLD EVT100950
	Segmentation violations occurred while running executables that contained a static const declaration followed by a static variable that was initialized within the declaration.	
	BSD executables were being run with a non-BSD compatibility mode when non-BSD processes issued an `exec` system call.	CLD UVO100771
	If a process waiting to open a file that was already opened by another process with mode O_BLKANDSET was killed before the open completed, the system panicked with a segmentation violation.	CLD UVO100699

Table A-4: (continued)

Component	Problem Resolved	Problem ID
	Multiple processes having the same parent sometimes hung if they tried to lock the same file. A change to the `fcntl` code in the kernel has resolved this problem.	CLD HPAQ52EOE
	RISC only. RISC systems did not use kernel memory efficiently when most kernel memory allocation requests were for memory fragments of small size. Systems with a small amount of physical memory ran out of kernel memory when the latter was in great demand. A new option to the `param.c` file has been added to allow more efficient use of kernel memory for such systems. To choose the option, set the `guardpages` variable in the `param.c` file to be zero. The default value of `guardpages` is GUARDPAGES.	CLD 9WFBC5758, CLD 7BXB35390
	RISC only. The expanded data segment of RISC could overlap a shared memory segment beneath it in the user address space. The shared memory system has been fixed to correct this problem.	CLD GOZ10080
	An option to the `param.c` file has been added. The option is `usrsms`, a configurable parameter which is the address that defines the lower boundary of the shared memory segments allocated above the stack segment. See Section 3.3.1 for more information.	CLD GOZ10080
	An SMP system with TCP loopback enabled could panic with the message `m_free has bad m_cltype` when a CPU attempted to close a TCP connection which was already closed by another CPU. The CPU panicked because it accessed the deallocated memory of the connection.	CLD UVO100512, CLD UVO1905
	SoftPC users were not allowed to eject the CD by pushing the eject button on the CD-ROM drive, or by using program-eject code after SoftPC had accessed the CD-ROM. As a result, SoftPC programs that used more than one CD could not run.	QAR 13070
	The `pty` ports were getting hung and they could not be closed or reused until the system was rebooted. The TS_ISOPEN flag was cleared in the `ptycclose` subroutine to solve this problem.	CLD KAOQC1010
	Occasionally, `m_copy3` panics occurred on a page fault. Processes, when halted, occasionally restarted with sockets pointing to `mbufs` that were freed by other processes. The `fasttcp_sosend` kernel routine was fixed to solve this problem.	CLD MGO100219, CLD E20BB0796, CLD WEASB2930, CLD MGO100331, CLD MGO100332, CLD UVO100741

Table A-4: (continued)

Component	Problem Resolved	Problem ID
	A process using the `vmstat -K` command to read the dynamic portion of KSEG2 (through `/dev/kmem`) could cause a system panic with either the `smp_lock_long: lock position` or the `tlbmiss on invalid kernel page` message. The problem was caused by a lack of protection of the PTE for the specified page. The PTE is now properly protected in the `/dev/kmem` driver.	CLD HPAQ7541E
`stdio`	The `tmpnam` routine of `libc.a` has been fixed to prevent the corruption of substrings used in strings that contain the temporary file names.	SPR TKTBB5043
`swapon(2)`	The `swapon` system call returned ENODEV if the device being configured was not configured into the kernel as a potential swap device. The system call now returns EINVAL in this situation.	QAR 13872
`tar(1)`	The `tar` command failed while issuing reports such as `THIS IS A DIRECTORY` (the result of a perror with errno 2), and neither the directory nor the file were extracted. Now, the missing directory (and subsequently the file) is extracted.	QAR 13784
	The `tar` command hung whenever extracting a file from a tape where the second file on the tape had a blocksize of zero.	SPR UVO102580
`telnet(1c)`	The maximum segment size of a TCP packet was set to zero when a PC running KEALNK PC/TCP established a telnet connection, resulting in a kernel trap. The `tcp_input` module was modified to fix the problem.	CLD MGO100633
	A `telnet` command to a local host with a specified port number resulted in a delay prior to the login prompt because the connection ran out of stack frames before completing the loopback negotiations. The number of stack frames has been increased to prevent this from happening.	CLD HPAQ81F4B
`termcap(3x)`	The `tnchktc` routine in `/usr/lib/libtermlib.a` has been fixed to correctly check the null string termination of the TERM environment variable.	SPR HPXQB87FD
`test(1)`	The `test -w` command in a shell script with set group id bit set did not function correctly. The `test` command only used the real gid and the real uid, instead of the effective gid and uid.	SPR HGOQ10130
`tty(4)`	The `tty` driver allowed a user to exhaust the `clist` buffers, thereby making the system appear to be hung.	QAR 8387, SPR GOZ100050

Table A-4: (continued)

Component	Problem Resolved	Problem ID
uerf(8)	The lpscomm routine caused a number of unaligned data access messages to be sent to the system error log.	QAR 13831
vi(1)	The temporary file created by the vi editor was named in the format of ExPID. Now, the format is changed to Ex[a-z]PID. The change has been made to prevent the failure of the vi -r command on heavily loaded systems.	CLD WEABC1258
ypserv(8yp)	A security-related problem has been solved.	CLD UVO101416
	No error message was issued when the /etc/securenets file was missing when booting system.	QAR 13968
	More loopback information has been added to the /etc/securenets file.	QAR 13979
	The ypserv and portmap daemons now support a -l switch, which logs /etc/securenets violations into /var/yp/ypserv.log and /var/adm/portmap.log, respectively.	
	Some examples in the /etc/securenets file have been corrected.	QAR 13971, QAR 13972
	The ypserv and portmap daemons did not support subnet validation of client requests. Now, they do, using the /etc/securenets file.	SPR HPAQ2CA38
	The ypserv server did not always respond to Sun or PC clients.	QAR 13253

Table A-5: UWS Problems Resolved in Version 4.5

Component	Problem Resolved	Problem ID
dxdb(1X)	The dxdb utility caused a segmentation fault when the user attempted to open an executable file that was specified as a source file.	SPR HPAQ53161
dxterm(1X)	When a DECterm was started with the -e option to run another process in the DECterm and the DECterm subsequently exited, the process that was started kept running instead of exiting.	CLD MGO100687
	When a DECterm was started with the -e option to run another process in the DECterm, that other process could not be killed with the xkill client.	CLD MGO100771
	DECterm sessions started with the -ls switch did not update the /usr/adm/wtmp file. As a result, the sessions were not shown by the last command.	CLD UVO101372
	Sometimes, the DECterm fonts were tiny and unreadable.	
	The Can't find font -*-Terminal-*-*-*--*-100-*-*-*-*-*-* warning message displayed when DECterm started.	QAR 5145
	The command line used to start DECterm did not always display properly by the ps command.	
install	The UDWSYSMGNT subsets previously did not take into account that there are two versions of dxpresto, one for the XUI interface and one for the MOTIF interface. Previously, no matter which interface you choose during installation, you obtained the XUI version of dxpresto. Now, a new subset, DXMSYSMGNT/DXVSYSMGNT for the MOTIF version has been added and the SYSTEM MANAGEMENT subsets are now split into two subsets, one for the XUI interface and one for the MOTIF interface.	QAR 5354
Xserver	X11R5 only. The X11/R5 server could not access fonts from an NFS filesystem mounted from a HP or SUN system.	CLD BRO100296
	X11R4 only. The X server Rws_R4 on PMAG-AA graphics hardware copies more area than that specified by the XCopyArea function if the x coordinate of the destination origin and the width of the distination rectangle have certain values; for example 0 and 20, respectively.	CLD HPAQ25D90

Table A-5: (continued)

Component	Problem Resolved	Problem ID
	X11R4 only. The X11R4 X server caused the message `fixed up unaligned access` to be sent to the system error logger when the X server was displaying certain fonts.	CLD UVO101007
	X11R4 only. The X11R4 server did not support the CapBut cap-style on PXG graphics cards.	CLD TKTRA1562
	X11R4 only. Intermittent server crashes and unaligned data access errrors occured on the X11R4 server because pcf fonts did not define all font entries.	CLD UVO100349, CLD WEASC5225
	X11R4 only. The HX graphics option on the X11R4 server failed to draw dotted lines correctly.	CLD UVO10109
`xterm(1X)`	When displaying both VT and Tektronix 4014 terminal windows, the escape sequence that switches the active window between the two windows did not have any effect.	QAR 05352
	The `xterm` program would log to `/var/adm/utmp` only if the loginShell resource was true. The default behavior has been changed to always have `xterm` log to `/var/adm/utmp`. The previous behavior can be enabled by setting the new `xterm` resource utmpEnable to False.	CLD HPAQ62B7B, QAR 13447

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