



PROJECT ATHENA RELEASE NOTES

Athena System Release 7.2

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Draft for Staff Test. This document is subject to change between now and January 1991, the scheduled official time of the Release. In particular, Section 4, describing changes to man pages, and Section 5, describing bug fixes, should be annotated by the time of the release. Please send comments or suggestions for improvement to *pete@athena.mit.edu*. [Notes that appear in square brackets -- such as this one -- are notes or questions to the reader. Pete]

1. Introduction

This document provides technical information about the Release in greater detail than that presented for users in the "Athena 7.2 Release" document. Richard Basch, Jay Berkenbilt, Paul Boutin, Bill Cattey, Tom Coppetto, Jud Harward, Ron Hoffmann, Jonathan Kamens, John Kohl, Bruce Lewis, Ezra Peisach, Ken Raeburn, Mark Rosenstein, Scott Thorne, Lucien Van Elsen, Chris VanHaren, and John Welch all provided technical information. Pete Ralston compiled and edited this document, with help from Richard Basch and Anne Salemme.

A PostScript version of this document is available in `/mit/info/Release.dir/Release72.system.PS`.

This Release of Athena software has been built on and is supported for the following machine architectures:

VAXstation II	DECstation 3100
VAXstation 2000	IBM RT/PC
VAXstation 3100	VAXserver 3600/3900

This Athena release is built almost entirely from source code. For all machines except the DECstation 3100, the release is built from BSD 4.3 Unix, plus Athena modifications and additions. For the DECstation 3100, the release is based on DEC Ultrix 3.1 binaries, plus Athena additions. Work on other platforms, such as the IBM PS/2 and the Apple Macintosh, progresses, but is not part of this release. For the IBM PS/2, work is based on AIX 1.2 with Athena additions; for the Apple Macintosh, work is based on A/UX 2.0 with Athena additions.

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2. New Athena Software

2.1. Athena Dashboard: Dash

Written by Paul Boutin and Craig Fields, Dash will replace xlogout, providing its functionality with a much smaller memory requirement, and provide helpful menus on Athena workstations if the user has a `~/.dashrc` file. A man page exists, and a document on customization is forthcoming.

Dash runs on VAX, RT, and DECMIPS platforms. It should run on the PS/2 by the time of the release.

2.2. Muse and related utilities

Muse is a runtime environment that executes multimedia application script files created with a standard text editor. Application scripts are written in two languages that work together: the Muse data description language, and EventScript, an object- and event-oriented language similar to Hypertalk. On the Athena Visual Workstation, Muse allows applications to combine motion and still video, color pixmaps, simple graphics, text, and a selection of toolbox widgets in interactive applications.

Galatea is a software suite that includes a server (`galatead`) to provide device independent control of videodisc players and audio/video switchers as well as a selection of utility programs to control the server and to provide a simple videoviewer (`gctl`).

There is a new man page for Muse; a man page for galatea is forthcoming.

This is the first time that Muse has been put in the release, so it is not yet part of the standard bug tracking mechanism.

For Muse, see also, "Athena Muse: Reference", by Evelyn Schlusberg, Matt Hodges, and Russ Sasnett. For galatea, see "Video Workstation User's Guide", by Kevin Cunningham and Bill Bryant, and "Galatea, Version 2.0" by Dan Applebaum.

Muse and galatea run on Athena Visual Workstations. They should run on the IBM PS/2 by the time of the release.

2.3. Xinfo

Written by John Welch and Chris Van Haren, Xinfo uses a map of the MIT campus to present information about MIT. The user selects options from a pull-down menu and gets some information on the topic, while the location is pointed out on the map, where applicable. Xinfo will be available both before and after login.

One bug is known: X's used to mark locations on the map are not always redrawn if the map is obscured and exposed.

This program runs on VAX, RT, and DECMIPS platforms. It runs on color machines, too. It may also be brought up on the PS/2 later.

3. Athena Software Changes

3.1. Workstation Privatization

3.1.1. Changes to 'mkxserv'

Various bugs have been fixed. In addition, more extensions have been added to allow a private workstation owner to customize the update procedure.

3.2. Distributed File Systems

3.2.1. Changes to AFS

Version 3.0 of the AFS code has been included in the release.

Clients will now prefer to retrieve data from servers that are on the local subnet, rather than randomly choosing a server that may add to the backbone network traffic.

The mode bits of files shown through the NFS-AFS translator have been improved to better reflect the access granted.

AFS will now be used to provide certain supported systems files.

3.2.2. Changes to NFS

The following header files have been added/changed to reflect the options that Athena supports:

- /usr/include/rpcsvc/mount.h
- /usr/include/nfs/nfs_mapctl.h

NFS mappings now expire. A grace period of 8 hours beyond your Kerberos tickets has been included in the expiration time, so as to reduce impact on the user.

3.2.3. Changes to attach

- detach -clean is no longer a privileged operation.
- nfsid -q -a will no longer print warnings about non-NFS filesystems.
- fsid -q -a will also authenticate the user to attached AFS filesystems.

A new type of filesystem (MUL) has been added that permits one filesystem name to be a pseudonym for attaching several filesystems.

Server NFS mapping and AFS are not supported on the PS/2.

3.3. rkinit

A new command line argument has been added. The manual page for rkinit(1) now describes the new command line argument syntax. Backward compatibility exists.

The following bugs were fixed:

- rkinit now accepts the host after a -host flag instead of only as the first argument. Full backward compatibility is in place.

- The manual page for rkinit was updated to reflect this change.
- Linking against -lrkinit will no longer generate the error message that ranlib needs to be rerun (make install was fixed).

rkinitd does not always exit when the client dies unexpectedly. This will not be fixed for two reasons. First, there is no point in putting effort into the rkinit with kerberos version IV. Second, rkinitd times out in one minute anyway, so the bug is insignificant.

This program runs on VAX, RT, Mac A/UX, PS/2, and DECMIPS platforms.

3.4. Athena Andrew Applications, such as ez

Andrew has been compiled for the PS/2 as well as for the VAX and the RT. The PS/2 platform should be considered as being supported in the same way that the VAX and RT platforms are.

3.4.1. ez

Tabs you see on the screen will now match what you see on the page.

CMU patch level 6 has been installed, so many bugs are fixed. Among them are the following:

- **Plainer** and **Plainest** used to require you to do <ESC>s to set the bounds of the selection before they would work correctly. This restriction has been removed. Plainer and plainest over any arbitrary selection should now work.
- Footnotes appearing inside formatted text no longer print with that formatting. They print in the same format that all footnotes do.
- The **Set Printer** menu command on the **File** card has been replaced by **Printer Setup**.

Some new menu commands exist:

- **Printer Setup** uses a dialog box for setting printer name along with:
 - Print Table of Contents
 - Enumerate contents automatically
 - Print footnotes at end of documents
 - Swap right and left headers on even pages
- **Insert time-stamp** is an object that remembers the date of the last write of the file and prints it.
- **Insert header/footer** is an object to use to set running headers and footers without resorting to troff.

Some commands have changed:

- **enumerate** and **insert bullets** now insert a tab as whitespace instead of a space.
- **denumerate** and **remove bullets** will remove either a space or a tab whitespace.

- **enumerate, insert bullets, denumerate, and remove bullets** all now only affect paragraphs at the same indent level as the first paragraph manipulated. this way, the following works:

1. thing 1
 1. subthing 1
 2. subthing 2
2. thing 2

- Checkpoint filenames are now #<userid><path>#.ckp where userid is the person's user id number and path is the full path name of the file with ' substituted for '/' in the name. for example,

`/site/wdc/.ezinit`

becomes

`/usr/tmp/#11306@site@wdc@.ezinit#.ckp`

New keyboard commands exist:

- **M-x** (also known as **<ESC>x**) is analagous to the GNU Emacs M-x command for calling editor commands by their long name.
- **M-?** (also known as **<ESC>?**) will prompt for a key to describe. You can get a wall chart by doing:

`M-x deskey-describe-bound-keys`

3.4.2. eq

A core dump problem is fixed with equations containing a zilch.

3.4.3. ez2ascii

New styles are converted:

- **verbatim**: no line wrap
- **inputoutput**: leftindent, nowrap
- **syntaxexample**: leftindent, nowrap
- **caption**: center

3.4.4. eos/grade

The following bugs are fixed:

- turnin of a file no longer deletes the file.
- An obscure bug would cause eos to fail silently. This problem is fixed.
- Clicking in the list of papers after deleting a Display window no longer core dumps.

Some new menu commands exist:

- **View in BIG Font** changes the way a file looks in a window without modifying the file to be formatted.
- **View in Default font** undoes the effect of **View in BIG Font**.

Some commands have changed:

- **Change Course** gives completion help when selecting course, and verifies that the course exists. If the EOS server won't allow write accesses, some read-only functions are now supported.
- The **Display** command no longer pops up a new window. It uses the main editor window. Its preference option **DisplayMany** is no longer supported.
- The **Turnin** and **Pickup** dialogue windows now position themselves instead of requiring a user to click to place them.

3.4.5. scribetext

Try out this program to convert scribe files to ez format.

The following bugs are fixed:

- Scribetext no longer aborts if the magic **ANDREWDIR** environment variable is not set.
- Scribetext prints out line number of failure.

New environments are supported:

- **Itemize**
- **Blankspace**
- **Label**
- **Ref**
- **Pageref**
- **Tsymbol**

Limited support exists for these commands:

- **Define** will ignore the contents of the definition rather than choking.
- **Newpage** will work only if the scribe text appears with an argument:
 - `newpage()`
 - `newpage(4)`

3.4.6. psinset

Psinset now uses given print size to attempt to crop postscript into a reasonable size.

3.4.7. zip

- Cleaned up defaults for screen display that more obviously shows how big the picture will be when printed.
- Documented print size stuff better in the help page.

- De-coupled constrain and show grid operations so users can constrain their drawing without waiting for the grid to draw, or can see the grid marks without being forced to line up on them.
- Also enabled grid double/halve to work when constrain is enabled, even if grid is hidden.

One new command exists:

- **Set Print Size** sets the size of the zip object will print.

3.5. Fixes to snmpd

snmpd was changed to use the statsf() call to retrieve disk statistics. The current agent was accessing the raw device directly and it did not always have permission to do so.

These changes run on VAX, RT, and DS3100 platforms.

3.6. timed

The port that "timed" uses has been changed to keep bad network citizens from trying to reset the time on Athena machines. Here are the relevant lines from /etc/services:

```
timed      525/udp    timeserver
athena-timed 3710/udp      # moved timed(525/udp)
```

3.7. delete

When determining how old a file is, lsdel and expunge will now use the ctime of the file rather than the mtime. This way, time to expunge is measured from the time the file was "delete"d, rather than from the time it was last modified by the user. The expunge and lsdel man pages are updated to reflect this change.

Delete will now recognize when it is called as "rm", "rmdir" or "rd" (equivalent to "rmdir") and will emulate rm or rmdir appropriately if it is.

These changes have been tested on VAX, RT, and DECMIPS platforms.

3.8. xdvi

This version of xdvi is the most current available (fixes changes.72, #412). It therefore fixes the following bugs:

- Parsing of obsolete '#geom' and '=geom' options has been removed. These are no longer standard toolkit options, having been replaced by "-iconGeometry" and "-geometry". Also, using C-c C-r within emacs created a file of the form /tmp/#tz000000.dvi that xdvi could not accept, preventing users from viewing automatically updated .dvi files (fixes changes.72, #279).
- Xdvi should no longer core-dump after changing the shrink factor and redrawing the screen.
- xdvi will now be able to display DVI files that use postscript fonts.

In a departure from previous releases, this previewer defaults to magnification level 3 instead of magnification level 4. In addition, new buttons permit users to review their entire document. Command line options permit users to change these options to suit their tastes. All relevant instructions may be found in the man page.

This has been tested on VAX, RT, PS/2, and DECstation platforms.

3.9. dvi2ps

The only changes made to dvi2ps are significant clean-up and neatening of the man page, and restoration into the program of a "rotation" feature that was removed when a new version was released. Both of these changes are minor (fixes changes.72, #667).

dvi2ps runs on VAX, RT, PS/2, and DECstation platforms.

3.10. Kerberos

The only bug fixed is one in the `krb_get_in_tkt()` routine which incorrectly would write to one of its arguments. With GCC, this would be a read-only string, causing a core dump (fixes bugs, #5736).

No man pages have changed.

Kerberos runs on all platforms.

3.11. turnin,pickup,collect,return

The programs and manual pages that have been living in the eos locker are going into system packs for the VAX, RT, DECstation 3100 and PS/2 platforms. The following new files are introduced:

Under `/usr/athena`: `collect`, `fxblanche`, `fxcreate`, `fxdestroy`, `fxls`, `fxping`, `fxpurge`, `pickup`, `return`, `turnin`, `uncollect`.

Under `/usr/man/man1`: `collect.1`, `fxblanche.1`, `fxcreate.1`, `fxdestroy.1`, `fxls.1`, `fxoptions.1`, `fxping.1`, `fxpurge.1`, `pickup.1`, `return.1`, `turnin.1`, `uncollect.1`

3.12. techinfo

A script to start techinfo is included in the new release. Users will only have to type "techinfo", instead of having to add or attach a file system.

Techinfo will run on VAX, RT, and DECstations.

3.13. printing

A bug in syslogging errors repeatedly may exist. A fix to the quota server will be made later. Trying to print over 60+ files fails. Some bogus error messages still exist in `lpr`.

No new man pages exist, but changes have been made to `bill_db.8`, `dump_db.8`, `gdump_db.8`, `lpquota.1`, `lpr.1`, `printcap.5`

Almost every file has changed so that these programs will compile on all platforms.

Changes have been made to various clients:

- lpr, lpq, lprm send syslogs as themselves instead of stating that they are lpd.
- lpd - bind 4.8 case bug fixed to allow running off 18.xx.xx.xx
- lpq -l will return the page cost
- Printcap options:
 1. RA - will restrict printing to hosts in /etc/hosts.lpd only.
 2. AC - can specify a file with usernames to restrict printing from. (negative acl).
 3. PA flag - reverse AC file to be a positive access control.
- lpr - LPROPT environment variable will be processed before other command line options.
- lpquota -g changed to -a and -a to -k. Uses same default printer determination as lpr.
- lpqd - Database locking bugs fixed return dberror no problem instead of user not found.
- s_chkaf - Print real error messages instead of numbers.
Do not loop syslogging if /usr/spool/printer does not exist.
- db consistancy programs written.
- Billing programs updated to reflect bursars needs.

This program runs on VAXes and RTs; DS3100s running ULTRIX 3.1 & 4.0; PS/2s running AIX 1.2; and Macs running A/UX.

3.14. Zephyr

Two new additions, with man pages:

- xzwrite: This program, written by Barry Jaspan, has been in use from the SIPB file system for quite a while.
- libdyn: This is a dynamic-array package Barry Jaspan wrote, for use in xzwrite.

Major visible changes (documented in manual pages):

- library/header files:
 1. If gethostbyname loses on the local host name, the result of "gethostname" will be used rather than the string "unknown". This affects zwgc.
 2. On the DECstation 3100, a ucode version of the library is also installed. This permits better global optimization with the compiler's "-O3" option. No profiling libs on DECstation 3100.
 3. Hostmanager timeout is reduced from 30 seconds to 5 seconds (fixes changes.72, #1184).
 4. Header files now declare more functions and support C++ better.

5. Authenticator caching code fixed (taking care of changes.72, #942).
 - zwgc:
 1. New "minTimeToLive" resource.
 2. Control-buttonpress removes all windowgrams under mouse.
 3. Default .zwgc.desc now removes all opcode-"ping" messages, and displays more information for class "message", like recipient, so as not to confuse people who subscribe to "message,*," without knowing what they're doing. That layout has also been rearranged to avoid long lines.
 4. Removed documentation of unimplemented "-p" option (fixes changes.72, #1139).
 5. Enhanced default formats (fixes changes.72, #855).
 6. Fixed bug with extra "style" string in resource named looked up for foreground color.
 7. Won't crash when X resources are unavailable.
 8. Won't try to access display for -ttymode (fixes changes.72, #880).
 - zhm: Now provides correct size on DECstation 3100.
 - zctl: Error message format cleaned up.
 - server: A serious rewrite was undertaken. Performance should improve.
 - "Old" location requests are no longer supported. These requests are from Zephyr code several versions old; it is unlikely that anybody still uses them.
 - Subscriptions retrieved with "zctl ret" won't be sorted.

Platforms supported and tested are VAX, RT, and DECstation 3100; except for the server, zephyr on the PS/2 is fully supported; changes for A/UX and MacOS platforms are not yet integrated. (Note: The server will not function properly on a DECstation 3100. It should build without error, however.)

3.15. Xlogin

Deleted Programs:

- toehold
- end_session
- activate
- deactivate

Modified Programs:

- session_gate
- show_console
- xlogin
- xsession

New Programs:

- dm
- console
- config_console
- hide_console
- cleanup
- reactivate

Man pages:

- dm.8
- xlogin.8
- console.8
- config_console.1 (includes hide_console & show_console)
- cleanup.8

Toehold has been replaced by a display manager (dm) which starts the X server, the console window, and Xlogin. Xlogin has been completely re-written, and the console window functionality has been split into a separate program. It is now possible to have the console read your resources (with config_console) and to make it appear or disappear (with show_console and hide_console). The new Xlogin handles workstation activation. Workstations will always be activated, but will reactivate every 5 minutes while they are idle by cleaning up, detaching and reattaching the packs. Cleanup now includes killing processes running as users who are not in the password file. Xlogin also allows some programs to be run without logging in. The default xsession script has been changed to be more efficient in how it invokes the session_gate and handles logout.

Xlogin runs on VAX, RT, and DECstation platforms. It should run on the PS/2 by the time of the release.

3.16. Moira

New version of clients/blanche/blanche.c supports additional arguments:

- addlist filename (or al filename): will read from the file a list of members to add to the list.
- deletelist (or dl filename): will read from the file a list of members to delete from the list.

It is also capable of parsing member names with spaces in them. A new man page, man/blanche.1, goes with it.

Support for Zephyr acls in moira and minor bug fixes:

- clients/moira/Makefile: support for zephyr & namespace program.
- clients/moira/namespace.c: this doesn't really go in the release, but is needed to make the makefile happy.
- clients/moira/attach.c: formatting corrections; don't coredump on ^C.
- clients/moira/dcmaint.c: could coredump on certain operations; prompt for

confirmation before starting a DCM.

- clients/moira/f_defs.h: support for zephyr.
- clients/moira/zephyr.c: new file to support zephyr access lists.
- clients/moira/main.c: improved kerberos error message.
- clients/moira/menu.c: AUX port.
- clients/moira/menus.c: added zephyr menu.
- clients/moira/printer.c: don't delete printcap entry on ^C while changing it.
- clients/moira/utils.c: coredump fixes.

3.17. Resolver library

Fixed the name resolver library search routine so that it won't append the default domain on a name which already ends with that domain (i.e., it won't try kerberos.mit.edu.MIT.EDU).

3.18. Fixes to OLC & OLH

Giving the incorrect command "stock foobar" will cause it to go into an infinite loop trying to parse the command line; it should be "stock -topic foobar" instead. (reported to bugs by epeisach; no transaction number)

Bug fixes enable changing instances, replaying by topic/status, and replaying users by underspecified usernames on the decmips.

Bug fixes for the decmips: changing instances and replaying questions with incompletely specified usernames now work.

Almost every file in the source tree was touched in the process of adding prototypes.

Runs on VAX, RT, PS/2, and DECstations; changes affect all platforms in a minor way.

3.19. cview & Xcluster

cview examines a cluster monitor database to determine cluster usage. Invoked without arguments it reports on all clusters, showing how many of each type of workstation are available.

Xcluster displays a map of the MIT campus and marks the location of Project Athena public clusters with an "X". The user can click on the map, and information about the cluster nearest the mouse-click is displayed. The clusters are also listed in a row of buttons below the map, and the user may click one of those buttons instead.

One known bug exists: xcluster requires valid kerberos tickets to run. Also, it may crash if the user clicks near the end of the 30 seconds that is allotted for display of cluster information before reverting to the display of directions.

Changes to the man page have been made.

Both of these programs should run on all platforms, including color workstations.

4. Man Pages

5. Fixed Bugs

The following bugs are known to have been fixed in the 7.2 software release. Where applicable and available, the username(s) listed in parentheses after each bug description identify the user(s) who fixed the bug.

- changes.72, No. 4 Since toehold was replaced with this release, this bug, a delay introduced to permit users to see toehold error messages, was marked closed.
- changes.72, No. 47 Toehold wouldn't kill the X server, apparently when users were listed in /etc/utmp at the time that a user logged out of the X display. Since toehold is not part of release 7.2, this bug no longer matters.
- changes.72, No. 68 Emacs no longer marks an empty buffer changed when M-c, M-u, or M-l are executed. (jfc)
- changes.72, No. 70 An error in the man page on toehold needed updating. Again, since toehold is not in release 7.2, this bug report was closed.
- changes.72, No. 157 Activate would fail instead of running activate.local if it found no cluster information when RVDCLIENT was false. (jik)
- changes.72, No. 159 nfsid -q -a no longer prints warnings about non-NFS filesystems. (probe)
- changes.72, No. 178 emacsclient error messages did little to indicate the source of the error. It now prints the program name when it encounters an error. (jik)
- changes.72, No. 203 /etc/named would remove the /etc/named.pid file before checking to see if another named process was running. The pid file is now saved until after a check for a current named completes. (jik)
- changes.72, No. 221 attach allowed users to attach two AFS file systems on the same mountpoint. This no longer happens. (jik)
- changes.72, No. 223 Toehold may have been crashed when xscreensaver ran for extended periods. Since toehold is not part of release 7.2, this bug report is closed.
- changes.72, No. 227 The default TTL's for RVD, TCP, and UDP packets have all been set to 255 seconds. (jon)
- changes.72, No. 228 Activate now sets a path variable. (jch)
- changes.72, No. 259 The sh_commands_path script was re-written as a Bourne shell script to make it run faster. It also adopts the \$athena_path variable to include more paths than it did previously. (jik)
- changes.72, No. 282 A man page for cfree(3) now exists. (jik)
- changes.72, No. 291 /usr/athena/lib/init/login would handle the \$term variable improperly if the variable contained spaces. This problem is now fixed. (jfc)
- changes.72, No. 303 The hostinfo command now identifies all addresses for hosts that share an alias. In addition, the usage message and man pages have been improved. (jik)

- changes.72, No. 318 emacs version 18.55 can't undump-load xmouse. This fix requires users who customize mouse actions in their .emacs files to use xmouse in default.el. (jik)
- changes.72, No. 320 fingerd has a new -v option that informs users of the machine type and load along with the names of users on a dialup machine. (jfc)
- changes.72, No. 334 The ftpd used to report an uncanonicalized hostname as a destination for bug reports. It now reports a canonicalized default mailing list for Project Athena that may be overridden for local ftp servers. (jik)
- changes.72, No. 366 An improved version of setquota now handles uid's higher than the highest in the quotas file. It also permits the user to set quotas for a range of uid's. Further, setquota will accept either the block special device name or that device's mount point. (jnrees)
- changes.72, No. 392 Toehold accepted both ^S and ^Q flow control. As toehold no longer is a feature of this release, this bug report is closed. (jik)
- changes.72, No. 496 Under high loads, rpc.mountd would abort on showmount -a. This bug is fixed. (probe)
- changes.72, No. 542 X10 include files were broken in the X10 locker. All files should now be in this locker and work properly. (jik)
- changes.72, No. 547 An inconsistency in Scribe's report.mak file resulted in inconsistent numbering for equations and theora. This inconsistency is removed, so this problem with numbering should disappear. (jik)
- changes.72, No. 598 toehold: phantom input?
- changes.72, No. 605 xlogin would loop. The new xlogin is so different that this bug report was closed.
- changes.72, No. 634 Large images would often cause the megapel server to crash because memory sizes were miscalculated. This problem is fixed. (jfc)
- changes.72, No. 668 toehold: deactivates when shouldn't?
- changes.72, No. 673 rkinit would fail when a .klogin file was in a directory unreadable by root. (qjb)
- changes.72, No. 691 If __STDC__ is defined, Intrinsic.h should have declared XtPointer as void* rather than char*. It now does. (raeburn)
- changes.72, No. 694 prochart now works on color displays. (ellis)
- changes.72, No. 714 ez's checkpoint file now includes the user's uid to insure that different users will not have identical checkpoint file names on shared workstations. (wdc)
- changes.72, No. 753 Under AFS, users sometimes received repeated "tokens expired" msgs if their kerberos tickets had expired. This bug is fixed with the new release of AFS.
- changes.72, No. 762 The "add" alias failed to rehash with attached file systems, which sometimes confused users. Add now rehashes in this situation. (jik)
- changes.72, No. 768 The man page on hostinfo was altered to indicate that it looks up the hostname and address, instead of communicating with the internet nameserver. (jik)

- changes.72, No. 785 A usage message for viewscribe was inconsistent with the name of the program. (jik)
- changes.72, No. 808 The syntree locker now works with all supported Athena platforms, making suggested patches for A/UX obsolete. (probe)
- changes.72, No. 845 The man page for XSetLineAttributes(3) used an incorrect name, XSetLineAttribute. The spelling in the man page is now correct.
- changes.72, No. 846 The RT kernel can now tell the difference between an ethernet cable is disconnected and one that is too long. (don)
- changes.72, No. 850 rpc/types.h defined TRUE and FALSE unconditionally, instead of defining them only if they were not already defined. (jik)
- changes.72, No. 862 mount and umount used the wrong uid in requests. Now both use the right uid. (jik)
- changes.72, No. 878 rkinitd would log an error when it received an incorrect passwd. It now does so only in debug mode. (qjb)
- changes.72, No. 882 The mkxserv zephyr command now copies zstat to the local disk. (probe)
- changes.72, No. 887 discuss: built with -g
- changes.72, No. 888 ditroff: built with -g
- changes.72, No. 889 programs built with -g
- changes.72, No. 902 athena.lib/init/Makefile contained a typo that caused problems with AIX 1.1 make. (jfc)
- changes.72, No. 908 attach -q would print unnecessary newlines. This now happens only in verbose mode. (jik)
- changes.72, No. 910 attach was missing a newline between two messages when reporting on a problem with uid maps. This newline now separates these two messages. (jik)
- changes.72, No. 913 Xlib links for the pMAX pointed to /mit/x11/mipslib instead of /mit/x11/decmipslib. (epeisach)
- changes.72, No. 927 toehold: "xlogin", not "xterm"
- changes.72, No. 940 kernel: "panic: empty text" message
- changes.72, No. 941 The kernel now allows for a negative maxtextcache value when checking for cache overflows. (probe)
- changes.72, No. 947 Emacs ispell function failed on DecMIPs machines because it sought a hash table in the wrong place. The path is now fixed and ispell works. (jik?)
- changes.72, No. 958 Man pages on the pMAX were missing words due to an inconsistency between the man macros and the man pages themselves. This inconsistency no longer exists.
- changes.72, No. 960 Show_console was re-written in C to remove a security hole with the program. (probe)
- changes.72, No. 970 RT Xplx: byte-swapped images

changes.72, No. 978 rpc.mountd: svcerr_weakauth confusio
changes.72, No. 981 andrew ahelp dumps core
changes.72, No. 982 decmips matlab:couldn't set terminal
changes.72, No. 985 ditroff/eqn/Makefile bug
changes.72, No. 986 rkinit: -help option; arg ordering
changes.72, No. 993 vax time.h don't match sys/time.h
changes.72, No. 994 grep: -c doesn't print 0?
changes.72, No. 995 xlogin: allows file insertion
changes.72, No. 996 tex thesis typos
changes.72, No. 998 toehold: print newline before login:
changes.72, No. 999 inet_addr: hex addr scrod
changes.72, No. 1000 pmax packs: too many symlinks
changes.72, No. 1001 /etc/services: new AFS names/numbers
changes.72, No. 1008 xlogin: ^U puts password in killring
changes.72, No. 1009 /core: symlink gets deleted
changes.72, No. 1010 Xibm dumps core
changes.72, No. 1011 twm dumps core
changes.72, No. 1014 aklog: missing tkt file problems
changes.72, No. 1015 csnet-cs entry in /etc/services
changes.72, No. 1016 decmips eos: no binaries
changes.72, No. 1017 tex formats should be linked
changes.72, No. 1018 /usr/lib/lisp{/manual} spurious
changes.72, No. 1019 unifdef(1): BUGS bug
changes.72, No. 1020 "mkserver nfs" and RPC
changes.72, No. 1021 vgrindefs: ANSI C keywords
changes.72, No. 1022 res_query always appends domain
changes.72, No. 1024 lpr: "printer requires krb. auth."
changes.72, No. 1027 make VS3100 M38 drives work
changes.72, No. 1028 netconfig: doesn't work?
changes.72, No. 1029 normaldiffs should include hosts.lpd
changes.72, No. 1030 emacs doesn't die when X server does
changes.72, No. 1032 moira filsys info shld be canonical?
changes.72, No. 1034 moira/lpr: users not in quota server
changes.72, No. 1040 lpquota: bogus error from server
changes.72, No. 1046 .so file for pps(8r) is wrong

changes.72, No. 1056 kerberos rcp: 3rd-pary copy fails
changes.72, No. 1060 emacs dumps core
changes.72, No. 1062 xlogin: leave tkts when server dumps
changes.72, No. 1063 vi: has visible line maximum
changes.72, No. 1070 mkserv: "write" and /usr/bin/mesg
changes.72, No. 1073 detach: -clean shldn't be privileged
changes.72, No. 1075 attach: missing #ifdef AFS
changes.72, No. 1084 pmax tn3270: doesn't exist
changes.72, No. 1086 xlogin: bogus arg-parsing error
changes.72, No. 1092 session_gate: loses on big PIDs
changes.72, No. 1107 pmax 7.1 mountd: memory leaks
changes.72, No. 1108 xterm: illegal instruction?
changes.72, No. 1111 turnin: fails silently on mssng file
changes.72, No. 1113 hf77: new version from IBM
changes.72, No. 1114 /.xession: should exec /etc/xterm
changes.72, No. 1116 /bin/size: doesn't print error cause
changes.72, No. 1118 toehold: dumps core
changes.72, No. 1123 nfs do_bio: invalid buffer
changes.72, No. 1130 XrmUniqueQuark missing declaration?
changes.72, No. 1131 kernel NFS: nfs_portmon shld be true
changes.72, No. 1132 pmax tcsh: globbing problems?
changes.72, No. 1133 toehold: remove from packs?
changes.72, No. 1137 moira/dcmaint coredump
changes.72, No. 1138 xmh hangs in text widget
changes.72, No. 1139 zwrite(1): shouldn't mention "-p"
changes.72, No. 1141 zwgc: segfaults if no X resources
changes.72, No. 1142 zctl: doesn't reject bad commands
changes.72, No. 1145 ksrutil(8): KEYFILE, not KEY_FILE
changes.72, No. 1147 lpr/lpd accounting problems
changes.72, No. 1153 lpd: unauthorized printing
changes.72, No. 1156 detach: missing newline in message
changes.72, No. 1159 xlogin: authenticating to homedir
changes.72, No. 1162 2020: hitting tab screws it up
changes.72, No. 1164 attach: screwed up error message
changes.72, No. 1166 cat: -v no read errors displayed

changes.72, No. 1169 vax3100 install problems
changes.72, No. 1172 krb_get_in_tkt: assumes string len
changes.72, No. 1174 /srvd/patch: point to afs?
changes.72, No. 1175 mkserv: ops needs local ksrvutil
changes.72, No. 1177 mkserv nfs: misspelling
changes.72, No. 1181 olc: new question does not appear
changes.72, No. 1201 moira: displayed times an hour off
changes.72, No. 1208 zephyr lib calls abort()
changes.72, No. 1210 mkserv discuss problem?
changes.72, No. 1212 mkserv: -print screws up workstation
changes.72, No. 1213 spinup(8)/spindown(8): scrod
changes.72, No. 1220 andrew: "ATK-No-Version-Number"
changes.72, No. 1235 olh: assumes "attach" is in path
changes.72, No. 1245 named: unnecessary hesiod timeouts
changes.72, No. 1255 undelete: "no" to interactive prompt
changes.72, No. 1277 twm core dump
changes.72, No. 1290 kernel: VS-II kernel freezing?
changes.72, No. 1291 timedc: changes for ultrix
changes.72, No. 1294 xlogin: :0.0 vs unix:0.0
changes.72, No. 1295 inetd: coredumps
changes.72, No. 1304 lpr: changes for pmax
changes.72, No. 1315 mkserv clean: updating inetd.conf
changes.72, No. 1316 mkserv clean: "command garbled"