

NOTE TO USER

ZEUS 3.2

Ø3-Ø237-Ø2

**Zilog, Inc.
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SECTION 1 GENERAL INFORMATION

1.1. Introduction

ZEUS is a multi-tasking, multi-user, interactive, UNIX* operating system that runs on the System 8000. It supports programs in segmented and non-segmented mode. This release is compatible with UNIX System III as released by Bell Laboratories.

1.2. Documentation

The following documents are necessary for the operation of ZEUS 3.2.

- ZEUS Reference Manual (03-3255-01)
- ZEUS Reference Manual Update (U3-3255-A1)
- ZEUS Utilities Manual (03-3250-01)
- ZEUS Utilities Manual Update (U3-3250-A1)
- ZEUS Languages/Programming Tools Manual (03-3249-01)
- ZEUS Languages/Programming Tools Manual Update (U3-3249-A1)
- ZEUS Administrator Manual
 - for model 11 (03-3254-02)
 - for model 21 or 31 (03-3246-04)
- Field Upgrade Procedure CPU Rework for ZEUS 3.2 (03-0317-01)

1.3. Materials Checklist

Cartridge Tape, ZEUS Operating System, Version 3.2

14-0087-00

1.4. Compatibility With Earlier Releases

ZEUS 3.2 is Zilog's second release of a UNIX System III compatible kernel. This release includes the first ZEUS kernel to run in segmented mode. The kernel provides binary compatibility with user programs developed under previous ZEUS releases. A program which runs under ZEUS 2.n or 3.1 should also run under ZEUS 3.2. (Refer to SECTION 2: "NEW ITEMS AND FEATURES" for more information about the kernel.)

* UNIX is a Trademark of Bell Laboratories.

The ZEUS 3.2 release requires a new jumper configuration in order to run the new segmented kernel and a new set of system power-up diagnostic (SPUD) PROMS on the CPU board which reflect that new jumper configuration. (Please see the System 8000 Hardware Reference Manual for a description of the jumper configurations.) If the system is shipped with ZEUS 3.2 installed, these changes on the CPU board have already been made by Zilog and are of no further concern. If not, and the user intends to install ZEUS 3.2, the changes must be made on site by a Zilog Field Service Representative. Please refer to the Field Upgrade Procedure for ZEUS 3.2 for details.

Note that segmented programs compiled and linked under ZEUS 3.2 will not execute successfully under earlier releases of the ZEUS operating system. This is due to a change in the user's default stack segment under the new segmented kernel.

New Bell System III programs that are not included in this release are: tp, typo, errdead, errdemon, errpt, errstop, prfld, prfstat, prfdc, prfsnap, prfpr, bfs and sar. The following programs are still at the Version 7 release, although Bell has released them in System III: awk, m4, clri, fsck, mkfs and cpp.

1.5. Operating System Installation

If the system has just been received from the factory, ZEUS 3.2 will already be installed. In this case, please refer to the ZEUS Administrator Manual, Section 2 for start-up procedures. It should not be necessary to reload the operating system onto the system.

If the ZEUS 3.2 release tape has been received to update a system currently running an earlier release of ZEUS, the following procedure should be used to upgrade the system to ZEUS 3.2. Note that this procedure is intended only for those systems which have a standard drive \emptyset disk configuration. Systems with non-standard configurations must have a standard ZEUS 3.2 installed, and then must be reconfigured. Please read the entire installation procedure before beginning.

THE USER SHOULD HAVE A CURRENT BACKUP OF ALL FILESYSTEMS BEFORE BEGINNING THIS PROCEDURE.

1. Bring the system into single-user mode with the commands:

```

/bin/sync
/bin/sync
kill -1 1
      (optionally, 'INIT 1' if a System III kernel
      is installed)

```

2. When the single user prompt (#1) appears on the console screen, mount the usr filesystem with the command:

```

/etc/mount /dev/usr /usr

```

3. Since the root and usr filesystems will be replaced, user-specific files from these filesystems should now be saved. These files would include, but not be limited to:

```

/etc/passwd
/etc/group
/etc/motd
/etc/ttytype
/etc/inittab      (for ZEUS 3.15 only)
/etc/ddate
/etc/checklist   (for ZEUS 3.15 only)
/usr/spool/mail

```

Put the tape on which the files are to be saved into the cartridge tape drive and backup the files with the command:

```

/bin/tar cv /etc/passwd /etc/group /etc/motd /etc/ttytype
      /etc/inittab /etc/ddate /etc/checklist /usr/spool/mail

```

Note that any additional user-specific files which are to be saved should be added to those above.

4. Flush the system buffers by issuing the commands:

```

/bin/sync
/bin/sync

```

5. Press the RESET button on the front of the system.
6. At this point, the hardware modifications can be made to the system. See the Field Upgrade Procedure for specific instructions. When the hardware modifications have been completed, continue to step 7.

7. Remake the filesystems for root and usr using stand-alone mkfs. Load ZEUS 3.2 onto the system from the release tape using stand-alone restor. To do this, follow the instructions in steps 1 - 39 of Section 3.2 of the ZEUS Administrator Manual. Do not continue past step 39.
8. The system will be in single-user mode after step 39 has been completed. Label the filesystems with the commands:

```
/etc/labelit /dev/rusr /usr 1
/etc/labelit /dev/rtmp /tmp 1
/etc/labelit /dev/rz /z 1
```

Mount the usr filesystem and move the secondary boot with the commands:

```
/etc/mount /dev/usr /usr
/bin/mv /boot /usr/boot
```

9. The user-specific files saved in step 3 of this procedure should now be re-loaded onto the system with the command:

```
/bin/tar xv
```

10. If the default timezone on the system needs to be changed, this may be accomplished by modifying the "PST8PDT" string in /etc/rc, /etc/cshprofile, /etc/profile and /etc/inittab. The TIMEZONE default in /usr/sys/h/sysparm.h must also be changed and a new kernel generated. If options a. or e. of step 13 below are to be performed, the above change should be made when generating the kernel to include those options. See Section 5 of the ZEUS Administrator Manual for complete instructions.
11. Any additional termcap entries for terminals not supported in the default termcap file on the release tape should be added at this time. In addition, if serial printers need to be set up for the system, the necessary actions should be performed.
12. If the system does not have any additional options, installation of ZEUS 3.2 is now complete. The contents of tmp, z and any filesystems on additional drives have not been affected and will not need to be reloaded. Backups of the current root and usr filesystems should be made. The system may then be brought into multi-user mode with the command:

INIT 2

13. If the system does have additional options, select them from the list below. Follow the instructions specified for that option prior to bringing the system into multi-user mode. Some possible options are:

a. Additional Disk Drives.

Since this installation procedure modifies only the root and usr filesystems, the contents of tmp, z and any filesystems on additional drives are unaffected and do not need to be remade and/or restored.

To set up any additional drives, follow the instructions in Section 4.2.2 of the ZEUS Administrator Manual, with the exception of step 11 and steps 14 thru 18. Step 11 should not be performed because it would remake the filesystem. Steps 14 thru 18 set up the lost+found directory in the filesystems specified. These filesystems should already contain the lost+found directories, so these steps are not necessary.

Note that, if a sysgen is being done to add additional drives, any addition of a 9-track drive (see e. below) should also be done at this time.

b. Additional Serial Ports.

To set up additional serial ports, follow the instructions in Section 7.4.2 of the ZEUS Administrator Manual. If /etc/inittab and /etc/ttytype were saved as part of the user-specific files in step 3 of this procedure above, it is not necessary to perform steps 1 and 2 of Section 7.4.2.

c. Additional Cartridge Tape Drives.

Add nodes for any additional cartridge tape drives with the mktape command. See the ZEUS Reference Manual, mktape(M) for the specific command.

d. Additional Parallel Printers.

To set up nodes for any additional parallel printers, see the instructions in Section 7.1 of the ZEUS Administrator Manual.

e. 9-Track Tape Drive.

To set up the nodes for a 9-track tape drive, see `mkmt(M)` in the ZEUS Reference Manual. A new kernel must also be generated for which the response to "Do you have a 9-track tape drive" is "y".

1.6. Optional Software Installation

Because the number of utilities available with ZEUS 3.2 is extensive, not all of them can fit on a system with a standard disk configuration. The end of the ZEUS 3.2 release tape contains six tar files, each of which contains a separate software package. (Please refer to Appendix A for the tape format.) These files at the end of the tape are large but independent and separate entities. The list of packages is as follows:

- `acct` - package for system usage accounting
- `gopt` - optional global optimizer for the C compiler
- `learn` - interactive tutorial for new UNIX users
- `sccs` - source code control system (similar to Zilog's ZSC)
- `zmenu` - menu generator
- `nroffv7` - Version 7 nroff

If the system has additional disk space, any or all of these packages can be extracted from the tape. A C shell script, `/etc/package`, is included in this release to allow retrieval of these programs. This script is interactive and prompts for all needed information. If the package will fit, the appropriate files are extracted from the release tape.

The user is cautioned that enough disk space must be made available to accommodate this software. If the standard disk configuration is in use, existing unwanted programs must be removed or reconfiguration of the disk(s) must be performed. To aid in deciding which programs can be removed, a dependency list is included in Appendix B. See `sysgen(M)` in the ZEUS Administrator Manual for more information on reconfiguration.

The amount of extra disk space needed to retrieve these files is as follows:

- `acct` - 49 blocks on the root filesystem
and 311 blocks on the `/usr` filesystem
- `gopt` - 281 blocks on the root filesystem
- `learn` - 1327 blocks on the `/usr` filesystem

sccs - 646 blocks on the /usr filesystem

zmenu - 99 blocks on the /usr filesystem

nroffv7 - 248 blocks on the /usr filesystem

The following example shows how to extract a file using /etc/package: (The underlined text shows the user's response)

Enter the tape drive number or <CR> for default drive 0: 1

Using tape drive 1.

The following packages are available:

1. acct.
2. gopt.
3. learn.
4. sccs.
5. zmenu.
6. nroffv7.

Enter the package number you wish to install (1-6): 2

Installing the gopt package.

The gopt package requires 281 free blocks on the root filesystem.

There are 315 free blocks left on the root filesystem.

Do you wish to proceed? (y/n): y

Taring off the package.

NOTE

Invalid inputs are rejected and re-requested.

If there is not enough space to extract the desired package, /etc/package will inform the user of this fact. More space must be created using the methods described above and the /etc/package must be run again. Please note that to install all the packages on a system, at least 6500 blocks are needed in the root, and at least 15000 blocks are needed in the /usr filesystem.

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SECTION 2 NEW ITEMS AND FEATURES

This section covers changes from ZEUS 3.15 to ZEUS 3.2.

2.1. ZEUS 3.2 Operating System

The ZEUS kernel in Release 3.2 runs in segmented mode. As a result, it allows the user more freedom in system configuration, because the text and data space available for kernel use has been increased. A number of different communications protocols (as they become available) can be configured into ZEUS; the number and sizes of system buffers can be increased (see the ZEUS Administrator Manual) for improved system throughput. In addition, support for the Zilog Floating Point Processor board has been incorporated in ZEUS 3.2. Users who purchase this optional board can benefit from a substantial increase in floating point performance.

The NMI Page

System failures must sometimes be examined by a Zilog Service Representative to correct a problem. To help Zilog personnel determine the state of a system with a problem, the system supplies more information in response to the START/NMI button. Pressing the START/NMI button causes the kernel to print to the system console information about the state of the machine at the instant the button was pressed. The information printed includes:

- ⊕ a banner telling which mode the CPU was in when interrupted
- ⊕ more detailed information on the CPU's state: the state pointer, the last vectored interrupt (eventid), flag and control word (FCW), program counter (pcseg and pcoff), and contents of the general purpose registers
- ⊕ the system stack pointer
- ⊕ a list of any pending interrupts (commands issued to various peripherals from which there has yet been no response)
- ⊕ nature of the last interrupt handled

Information about the process that was interrupted is as follows:

- ⊕ if a program was interrupted, the program name (if applicable) is given, as well as the real user id of its owner
- ⊕ if interrupted inside the operating system, "scheduling or idle"
- ⊕ information about the segments of the current program
- ⊕ the state of the scheduler, its flags and on what process, if any, it is sleeping

2.2. ZEUS Utilities

ZEUS 3.2 Utilities

In addition to System III versions of nroff, troff, tbl and uucp, this release includes several new utilities:

- | | |
|--------------|---|
| ct | A new "call terminal" utility which calls a terminal and spawns a login process. |
| cw, checkcw | Preprocessors for troff files to be typeset in the CW font. |
| mm, mmt, mvt | New utilities used to print formatted documents, view graphs and slides. |
| mmchek | This program is used to find errors in files containing "mm" macros. |
| fsdb | A new filesystem debugger that can be used to patch up a damaged filesystem after a system crash. |

A new version of the segmented linker (sld) is being released with ZEUS 3.2. In addition to fixing a number of bugs, it offers the following enhancements: (1) the maximum number of global symbols and of segment table entries are user definable (both default to 2000); (2) the new sld allows the user to specify the offset of a section from a specific segment, either with respect to the top or the bottom of the segment.

2.3. Languages and Assembler

The C compiler for ZEUS 3.2 has not changed to any great extent. The major modifications have been bug fixes and improved floating point code.

A new version of the System 8000 assembler, "cas", has been included with ZEUS 3.2. This version of the assembler makes it fully functional both as a 'back-end' to the C compiler and as an assembler for user-written assembly language modules and programs. The major enhancements to the assembler, other than a number of bug fixes, are: (1) a listing option, invoked with a "-l" in the command line (see cas(1) in the ZEUS Reference Manual); (2) an error reporting and recovery facility from both syntax and semantic errors.

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SECTION 3 LIMITATIONS

3.1. Known Bugs

The following limitations exist with the release:

The "me" macros do not work with the System III version of nroff. To use these macros, extract the V7 version of nroff from the packages section at the end of the release tape.

An error exists in the "SCCS" section of the ZEUS Utilities Manual (part number: 03-3250-01). The following declaration exists on page 5-3 under Section 5.1.1 of "SCCS":

```
static char Version[] = "%M% %I %H";
```

The declaration should read:

```
static char Version[] = "%M% %I% %H%";
```

The global optimizer (provided in the packages section of the tape as an option) is still in an experimental stage. The '-Ol' and '-Or' options for cc(1) cause invocation of the global optimizer, and hence can produce undefined results. All other options for cc(1), including '-O', work as defined.

The permuted index in the ZEUS Reference Manual makes reference to a 'tc(1)' entry. No such utility exists under ZEUS.

There are some errors in the mt(4) section of the ZEUS Reference Manual. The options listed for the REQUEST argument in the ioctl call should read as follows:

3.2. Space Limitations

Because of the increase in the number of utilities available with ZEUS 3.2, a shortage of available disk space in the root and usr filesystems may be experienced. The following suggestions should help alleviate such a shortage. The first set pertains to /usr:

The sysgen program produces a number of files in /usr/sys/conf which are not needed after the sysgen process is complete. These files (ver.c, z.c, boot.image (if a secondary boot was made), conf2.o and event.o) can be removed from that directory to create more space in /usr.

There may not be enough room in /usr to generate a kernel without using the '-f' option of sysgen (e.g., "sysgen -f /tmp/zeus"). This option causes sysgen to create the new kernel in any filesystem, thus allowing creation of the kernel in a filesystem with available space. See sysgen(M) for details.

Some (or all) of the entries in /usr/games can be removed to free up space.

The following pertain to freeing space in the root:

The ZEUS Administrator Manual suggests executing commands like "mv * /zeus /ozeus" when it is desirable to save a copy of the kernel (e.g. when a new kernel is being made). If the root is lacking space, the saved kernel can be moved to a different filesystem (/tmp, for example) to make room for the new one.

Since /zeus is linked to /zeus2_3.2 on the release tape, it is possible to inadvertently leave /zeus2_3.2 in the root when installing a new kernel there. Care should be taken that all links to the old kernel are removed.

If the Zilog Floating Point Processor board is not installed on the system, /fpp.u.code (the file containing microcode for that hardware) can be removed or moved to a filesystem with more space.

If the Intelligent Communications Processor hardware is not installed on the system, /etc/icpcntrl and /etc/icpload can be removed or moved to a filesystem with more space.

If the system is not a Model 20 or a Model 30, pb.image can be removed from the root. It is not needed for other models.

3.3. Additional Information

To change the default timezone on the System 8000, it is necessary to modify the "PST8PDT" string in /etc/rc,

/etc/cshprofile, /etc/profile, and /etc/inittab. In addition, during the sysgen procedure, the TIMEZONE constant must be changed.

A maintenance kernel (zeus.maint) for a default configuration formerly included on the release tapes is no longer provided. If needed, one can be constructed by following the sysgen procedure detailed in the ZEUS Administrator Manual. The maintenance kernel should be constructed to reside in /tmp instead of the root.

/dev/console should be linked to /dev/ttyl in order to avoid an error message from /etc/ttyconfig when attempting to configure /dev/ttyl as either a modem or a terminal. The link exists on the release tape.

The user interface with sysgen(M) has been changed to reflect the availability of new System 8000 models. These changes involve requesting model specific information for the type of drive on the system. For 'md' type drives, sysgen asks for a model number (1-3) corresponding to a Model 11, Model 11 PLUS or an entry reserved for future use, respectively. For 'smd' type drives, sysgen asks for a model number (1-2) corresponding to a Model 31 or an entry reserved for future use, respectively.

The user interface with stand-alone restor has also been changed to reflect the availability of new System 8000 models. These changes display the size of the drives onto which the restor is being made.

The default tty setting for ZEUS 3.2 is 8 bits per character, no parity. This setting follows the norm for UNIX implementations.

The NBUF1 thru NBUF5 constants in /usr/sys/h/sysparm.h can each be increased to 125 in order to provide more system performance. These changes increase the size of the system buffers in the kernel. Note that as the buffers grow, the size of the kernel increases, reducing the amount of memory available for user processes. On systems with sufficient memory and high disk utilization, an improvement in system performance may be seen. Since the optimal values for these constants are dependent upon memory availability and the type of system usage, the system administrator may experiment to find the values appropriate for each installation. Note that NBUF1 should be increased first up to the maximum value, then NBUF2 (if necessary), then NBUF3, etc.

APPENDIX A
ZEUS 3.2 RELEASE TAPE FORMAT

The 3.2 Release Tape consists of 17 files. The first 11 files are in dump format while the last 6 are tar files. To extract the last 6 files, use the C shell script "/etc/package" (see SECTION 1 of this Note to User under "Optional Software").

The tape format is as follows:

file 0: tb.image (primary bootstrapper)
file 1: boot.image (secondary bootstrapper)
file 2: stand-alone format instructions
file 3: stand-alone mkfs
file 4: stand-alone restor
file 5: common root files
file 6: special model 21 root files
file 7: special model 11 root files
file 8: special model 31 root files
file 9: special model 11 PLUS root files
file 10: special reserved root files
file 11: special reserved root files
file 12: common /usr files
file 13: special model 21/31 /usr files (with manual pages)
file 14: acct files (accounting package - tar format)
file 15: gopt (global optimizer package - tar format)
file 16: learn files (tar format)
file 17: sccs files (source code control system - tar format)

file 18: zmenu files (menu generator - tar format)

file 19: nroffv7 files (Version 7 nroff - tar format)

**APPENDIX B
FILE DEPENDENCY LIST**

This appendix describes file dependencies (indented files are the dependencies). Please refer to this list when removing unwanted files to determine if other files are affected.

```

/bin/adb
    /bin/csh
    /bin/sh
bin/acctcom
    /usr/adm/pacct
    /etc/group
    /etc/passwd
    /dev
    /dev/null
/bin/ar
/bin/as
    /lib/as2
    /lib/as2d
    /lib/asz2
    /lib/asz2d
/bin/bc
    /bin/dc
    /usr/lib/lib.b
/bin/cas
/bin/cat
/bin/cc
    /bin/cas
    /bin/ld
    /bin/mv
    /bin/sh
    /copt/passes/
    /lib/clist
    /lib/popt
    /lib/cparse
    /lib/codgen
    /lib/cpp
    /lib/crt0.o
    /lib/libc.a
    /lib/mcrt0.o
    /z/bin/lib/
/bin/chkdiff
    /bin/chkout
    /bin/diff

```

```
        /bin/rm
        /usr/bin/expr
/bin/chkin
        /bin/sh
        /bin/diff
        /etc/passwd
/bin/chkout
        /etc/passwd
/bin/chkwhat
/bin/chmod
/bin/cmp
/bin/cp
/bin/csh
        /bin/login
        /bin/newgrp
        /bin/sh
        /dev/null
        /etc/cshprofile
        /etc/passwd
/bin/date
/bin/dc
        /bin/csh
        /bin/sh
/bin/dd
/bin/df
/bin/diff
        /usr/lib/diffh
/bin/dog
/bin/du
/bin/echo
/bin/echo2
/bin/ed
        /bin/csh
        /bin/sh
        /usr/lib/makekey
/bin/edit (linked to /bin/vi)
        /bin/csh
        /bin/sh
        /dev/null
        /dev/tty
        /etc/termcap
        /lib/ex2.13strings
        /usr/lib/ex2.13preserve
        /usr/lib/ex2.13recover
        /usr/preserve/
/bin/egrep
/bin/ex
        /bin/edit
/bin/fgrep
/bin/file
/bin/find
```

```
        /bin/csh
        /bin/pwd
        /bin/sh
        /dev/tty
        /etc/group
        /etc/passwd
/bin/get file
/bin/get s
/bin/gpasswd
        /bin/mail
        /bin/sh
        /dev/tty
        /etc/group
/bin/grep
/bin/hd
/bin/kill
/bin/ld
/bin/ln
        /bin/cp
/bin/local
/bin/ls
        /etc/group
        /etc/passwd
/bin/mail
        /bin/csh
        /bin/sh
        /bin/uux
        /etc/passwd
        /usr/spool/mail/
/bin/make
        /bin/ar
        /bin/as
        /bin/cc
        /bin/chkout
        /bin/cp
        /bin/csh
        /bin/ld
        /bin/mv
        /bin/rm
        /bin/sh
/bin/mkdir
/bin/more
        /bin/csh
        /bin/sh
        /bin/vi
        /etc/termcap
        /usr/lib/more.help
/bin/mv
        /bin/cp
/bin/newgrp
        /bin/sh
```

```
    /dev/tty
    /etc/group
    /etc/passwd
/bin/nice
    /bin/csh
    /bin/sh
/bin/nl
/bin/nm
/bin/nohup
    /bin/csh
    /bin/sh
    /dev/tty
/bin/od
    /bin/hd
/bin/page (linked to /bin/more)
/bin/passwd
    /dev/tty
    /etc/passwd
/bin/pr
    /dev/tty
/bin/printenv
/bin/ps
    /dev/kmem
    /dev/mem
    /dev/swap
    /ZEUS
/bin/pstat
    /dev/kmem
    /dev/mem
    /ZEUS
/bin/putfile
/bin/pwd
/bin/regcmp
/bin/remote
/bin/rm
    /bin/rmdir
/bin/rmail (linked to /bin/mail)
/bin/rmdir
/bin/rsh
/bin/scc
    /bin/cs
    /bin/sld
    /bin/sh
    /bin/mv
    /lib/cpp
    /lib/scparse
    /lib/scodgen
    /lib/spopt
    /lib/clist
    /lib/scrt0.o
    /lib/slibc.a
```



```

                /lib/smcrt0.o
                /z/bin/lib/
/bin/sh
                /bin/csh
                /dev/null
                /etc/profile
/bin/size
/bin/sld
/bin/sleep
/bin/sort
/bin/stty
/bin/su
                /bin/sh
                /dev/tty
                /etc/passwd
/bin/sum
/bin/sync
/bin/tail
/bin/tar
                /bin/csh
                /bin/sh
                /bin/mkdir
                /bin/pwd
                /usr/bin/awk
                /usr/bin/sed
                /dev/ct0
                /dev/rct0
/bin/tee
/bin/test
/bin/time
                /bin/csh
                /bin/sh
/bin/touch
/bin/tr
/bin/uname
/bin/uucp
                /bin/mkdir
                /bin/sh
                /dev/null
                /etc/passwd
                /usr/lib/uucp/OLD-devices
                /usr/lib/uucp/L-dialcodes
                /usr/lib/uucp/L.sys
                /usr/lib/uucp/MYNAME
                /usr/lib/uucp/R stat
                /usr/lib/uucp/SEQF
                /usr/lib/uucp/USERFILE
                /usr/lib/uucp/uucico
                /usr/lib/uucp/uuxqt
                /usr/spool/uucp/
/bin/uulog

```

```

/bin/sh
/dev/null
/usr/lib/uucp/OLD-devices
/usr/lib/uucp/L-dialcodes
/usr/lib/uucp/L.sys
/usr/lib/uucp/uucico
/usr/lib/uucp/uuxqt
/usr/spool/uucp/
/bin/uuname
/usr/lib/uucp/L.sys
/usr/lib/uucp/
/usr/spool/uucp/
/bin/uupick
/bin/uustat
/etc/passwd
/usr/lib/uucp/
/usr/spool/uucp/
/bin/uuto
/bin/uux
/bin/sh
/dev/null
/etc/passwd
/usr/lib/uucp/OLD-devices
/usr/lib/uucp/L-dialcodes
/usr/lib/uucp/L.sys
/usr/lib/uucp/MYNAME
/usr/lib/uucp/USERFILE
/usr/lib/uucp/uucico
/usr/lib/uucp/uuxqt
/usr/spool/uucp/
/bin/vi
/bin/edit
/bin/view
/bin/edit
/bin/whereis
/bin/who
/etc/group
/etc/passwd
/bin/whodo
/bin/date
/bin/ed
/bin/ps
/bin/rm
/bin/sort
/bin/who
/bin/write
/bin/csh
/bin/sh
/bin/xargs
/bin/echo
/dev/tty

```

```
        /bin/sh
        /bin/csh
/dev/dumpdev
        /etc/dump
        /etc/restor
        /etc/sdump
        /etc/srestor
/dev/resdev
        /usr/bin/reserv
/dev/tardev
        /bin/tar
/etc/GETTY
/etc/INIT
/etc/adduser
        /bin/cat
        /bin/chmod
        /bin/echo
        /bin/egrep
        /bin/gets
        /bin/mkdir
        /bin/mv
        /bin/passwd
        /bin/rm
        /bin/rmdir
        /bin/sort
        /bin/tail
        /dev/null
        /etc/chmog
        /etc/group
        /etc/passwd
        /usr/bin/expr
        /usr/bin/sed
/etc/checklist
/etc/chgrp
        /etc/group
/etc/chmog
        /etc/group
        /etc/passwd
/etc/chroot
        /dev/tty
/etc/chog
        /etc/chmog
/etc/chown
        /etc/passwd
/etc/clri
/etc/cron
        /bin/sh
        /dev/null
        /usr/lib/crontab
/etc/datem
        /bin/date
```

```
/etc/cshprofile
/etc/dcheck
/etc/ddate
/etc/devnm
    /dev
/etc/down
    /bin/cp
    /bin/echo
    /bin/rm
    /etc/halt
    /etc/shut
/etc/dqueuer
    /bin/mail
    /bin/sh
    /etc/passwd
    /usr/lib/lp
    /usr/lib/lp_ban
    /usr/lib/lp_nf
    /usr/lib/text
    /usr/spool/queuer/config
    /usr/spool/queuer/
        requestdir/
    /usr/spool/queuer/
        statusdir/
/etc/dump
    /dev/rct0
    /dev/zd4
    /etc/ddate
/etc/dumpdir
    /bin/echo2
/etc/fsck
    /etc/checklist
    /etc/passwd
/etc/fsdb
/etc/GETTY
    /dev/
    /etc/login
    /etc/utmp
    /usr/adm/wtmp
    /etc/ttytype
    /etc/termcap
/etc/getty
    /dev/
    /etc/login
    /etc/utmp
    /usr/adm/wtmp
    /etc/ttytype
    /etc/termcap
/etc/group
/etc/halt
    /bin/cp
```

```
    /bin/date
    /bin/echo
    /bin/kill
    /bin/rm
    /bin/sleep
    /bin/sync
    /etc/wall
/etc/icheck
/etc/icpload
    /etc/
    /dev/
/etc/inittab
/etc/INIT
    /dev/console
    /bin/sh
    /bin/csh
    /etc/rc
    /etc/inittab
    /etc/ttytype
    /etc/termcap
    /etc/getty
/etc/init
    /dev/console
    /bin/sh
    /bin/csh
    /etc/rc
    /etc/inittab
    /etc/ttytype
    /etc/termcap
    /etc/getty
/etc/install
    /bin/sh
    /bin/echo
    /bin/chmod
    /bin/mv
    /bin/cp
    /etc/chgrp
    /etc/chown
    /bin/find
    /usr/bin/expr
    /bin/cd
    /bin/sed
    /dev/null
/etc/labelit
    /dev/rmt
    /dev/rct
/etc/link
/etc/login
    /usr/adm/wtmp
    /dev/
    /usr/spool/mail
```

```
/etc/ttytype
/dev/tty??
/bin/login
/bin/csh
/bin/passwd
/etc/motd
/etc/passwd
/bin/sh
/etc/makenewfs
/bin/cp
/bin/echo
/bin/get s
/bin/mkdir
/bin/rm
/etc/chmog
/etc/labelit
/etc/mfs
/etc/mkfs
/etc/umfs
/etc/makewhatis
/bin/ed
/bin/rm
/bin/sort
/etc/chmog
/usr/bin/expand
/usr/bin/getNAME
/usr/man
/etc/man.dbmgr
/bin/chmod
/bin/df
/bin/du
/bin/find
/bin/mkdir
/bin/rm
/dev/tmp
/etc/mfs
/bin/cat
/bin/echo
/dev/null
/dev/tmp
/dev/tmp
/dev/usr
/dev/usr
/dev/z
/dev/z
/etc/mount
/tmp/
/usr/
/z/
/etc/mkfs
/etc/mkmt
```

```

        /etc/mknod
        /etc/chmog
/etc/mknod
/etc/mktape
/etc/motd
/etc/mount
/etc/mvdir
        /bin/echo
        /usr/bin/basename
        /usr/bin/expr
        /etc/link
        /etc/unlink
/etc/ncheck
        /etc/checklist
/etc/passwd
/etc/profile
/etc/rc
        /bin/echo
        /etc/umfs
        /bin/uname
        /etc/rc_csh
/etc/rc_csh
        /bin/cat
        /bin/date
        /bin/echo
        /bin/rm
        /bin/sleep
        /bin/sync
        /dev/console
        /dev/null
        /dev/rroot
        /dev/rtmp
        /dev/rz
        /etc/cron
        /etc/datem
        /etc/dqueuer
        /etc/fsck
        /etc/mfs
        /etc/ttyconfig
        /etc/umfs
        /etc/update
/etc/reservrc
        /bin/mkdir
        /bin/rm
        /bin/rmdir
        /etc/chmog
/etc/restor
        /bin/mkdir
        /dev/rct0
/etc/rmuser
        /bin/chmod

```

```
    /bin/egrep
    /bin/find
    /bin/ls
    /bin/mv
    /bin/passwd
    /bin/rm
    /usr/bin/sed
    /dev/null
    /etc/group
    /etc/passwd
/etc/sdump
/etc/setlp
    /dev/lp
/etc/setmnt
    /ZEUS
    /dev/kmem
    /bin/mkdir
/etc/shut
    /dev/console
/etc/srestor
    /bin/mkdir
    /dev/
/etc/sysgen
    /bin/cc
    /bin/chmod
    /bin/cp
    /bin/ld
    /bin/make
    /bin/rm
    /bin/sh
    /bin/size
    /bin/vi
    /usr/sys/sys/LIB1
    /usr/sys/conf/BOOTLIB
    /usr/sys/conf/UNET.D.LIB
    /usr/sys/conf/confl.o
    /usr/sys/conf/conf2.o
    /usr/sys/conf/event.o
    /usr/sys/conf/fpe.o
    /usr/sys/conf/make.ZEUS
    /usr/sys/conf/mch.o
    /usr/sys/conf/ver.c+
    /usr/sys/conf/z.save.c
    /usr/sys/dev/LIB2
    /usr/sys/dev/lpl.d.o
    /usr/sys/dev/lpl.o
    /usr/sys/dev/lp2.d.o
    /usr/sys/dev/lp2.o
    /usr/sys/dev/md.d.o
    /usr/sys/dev/md.o
    /usr/sys/dev/smd.d.o
```



```

        /usr/sys/dev/smd.o
        /usr/sys/dev/zd.d.o
        /usr/sys/dev/zd.o
        /usr/sys/h/sysparm.h
/etc/taperrc
    (linked to /etc/reservrc)
/etc/termcap
/etc/termcap.new
/etc/termcap.others
/etc/ttyconfig
    /dev/kmem
    /ZEUS
/etc/ttytype
/etc/umfs    (linked to /etc/mfs)
/etc/umount
/etc/unlink
/etc/update
/etc/upkeep
/etc/wall
/lib/as2
/lib/asz2
/lib/cpp
/lib/clist
/lib/codgen
/lib/cparse
/lib/gopt
/lib/cnvt.o
/lib/doprnt.o
/lib/ex2.l3strings
/lib/libc.a
/lib/libl.a
    /lib/libc.a
    /usr/include/math.h
/lib/liby.a
    /lib/libc.a
/lib/popt
/lib/scodgen
/lib/scparse
/lib/slibc.a
/lib/slibl.a
/lib/slibm.a
    /lib/libc.a
    /usr/include/math.h
/lib/smcrt0.o
/lib/spopt
/lib/sliby.a
/usr/adm
/usr/adm/acct/fiscal
/usr/adm/acct/nite
/usr/adm/acct/sum
/usr/adm/sa

```

```
/usr/bin/300
/usr/bin/300s
/usr/bin/450
/usr/bin/LOAD
      /usr/bin/SYS
/usr/bin/SEND
/usr/bin/SYS
/usr/bin/admin
      /bin/csh
      /bin/sh
      /etc/passwd
/usr/bin/apropos
      /usr/lib/whatis
/usr/bin/arswap
/usr/bin/at
      /bin/sh
      /usr/lib/atrum
      /usr/spool/at/
/usr/bin/awk
      /bin/sh
/usr/bin/banner
/usr/bin/basename
      /bin/test
      /usr/bin/expr
/usr/bin/bdiff
      /bin/diff
/usr/bin/cal
/usr/bin/calendar
      /bin/egrep
      /bin/mail
      /bin/rm
      /bin/test
      /dev/null
      /etc/cron
      /etc/passwd
      /usr/bin/sed
      /usr/lib/calprog
/usr/bin/cb
/usr/bin/cdc
      /etc/passwd
      /bin/sh
      /bin/csh
/usr/bin/checkcw
/usr/bin/checkeq
/usr/bin/code
/usr/bin/col
/usr/bin/comb
      /usr/bin/admin
      /bin/rm
      /usr/bin/get
      /usr/bin/delta
```

```
    /usr/bin/sed
    /bin/ed
    /usr/bin/prs
    /bin/echo
    /bin/mv
    /etc/passwd
/usr/bin/comm
/usr/bin/cpio
    /bin/mkdir
    /dec/tty
/usr/bin/cref
    /bin/sort
    /usr/lib/cref/cign
    /usr/lib/cref/crpost
    /usr/lib/cref/ctab
    /usr/lib/cref/upost
/usr/bin/crypt
    /dev/tty
    /usr/lib/makekey
/usr/bin/csplitt
/usr/bin/ct
    /usr/adm/ctlog
    /etc/getty
    /etc/passwd
    /usr/spool/uucp
    /usr/lib/uucp
/usr/bin/ctags
    /bin/mv
    /bin/rm
    /bin/sort
    /usr/bin/fgrep
/usr/bin/cu
    /bin/sh
    /dev/null
    /usr/lib/uucp/L-devices
    /usr/spool/uucp/
/usr/bin/cut
/usr/bin/cw
    /usr/lib/font/ftCW
/usr/bin/cxref
    /bin/ex
    /bin/grep
    /bin/rm
    /bin/sort
/usr/bin/daytime
/usr/bin/delta
    /bin/csh
    /bin/sh
    /etc/passwd
    /usr/bin/bdiff
/usr/bin/deroff
```

```
/usr/bin/diff3
    /bin/diff
    /bin/rm
    /bin/test
    /usr/lib/diff3prog
/usr/bin/diffmk
    /bin/diff
    /bin/ed
    /bin/test
/usr/bin/dircmp
    /bin/cat
    /bin/cmp
    /bin/diff
    /bin/find
    /bin/pr
    /bin/rm
    /bin/sort
    /usr/bin/comm
    /usr/bin/sed
/usr/bin/dirname
    (linked to /usr/bin/basename)
/usr/bin/env
/usr/bin/eqn
    /usr/pub/eqnchar
/usr/bin/error
    /dev/tty
    /etc/passwd
/usr/bin/expand
/usr/bin/expr
/usr/bin/false
/usr/bin/fgrep
/usr/bin/flow
    /bin/sh
    /bin/sort
    /bin/sort
    /dev/null
    /lib/cparse
    /lib/cpp
    /usr/bin/col
    /usr/bin/nroff
    /usr/bin/tbl
/usr/bin/get
    /etc/mtab
    /etc/passwd
/usr/bin/getNAME
/usr/bin/getopt
/usr/bin/grpck
    /etc/group
    /etc/passwd
/usr/bin/head
/usr/bin/help
```

```
    /usr/lib/help/  
/usr/bin/hyphen  
/usr/bin/id  
    /etc/group  
    /etc/passwd  
/usr/bin/isrio  
/usr/bin/join  
/usr/bin/learn  
    /bin/mkdir  
    /bin/rm  
    /bin/sh  
    /usr/lib/learn/  
/usr/bin/lex  
    /lib/libl.a  
    /usr/lib/lex/ncform  
/usr/bin/line  
/usr/bin/lint  
    /bin/rm  
    /bin/sort  
    /lib/cpp  
    /usr/include/setrer.h  
    /usr/include/sgtty.h  
    /usr/include/stdio.h  
    /usr/include/sys/stat.h  
    /usr/include/sys/types.h  
    /usr/include/time.h  
    /usr/lib/lintl  
    /usr/lib/lint2  
    /usr/lib/llib_lc  
    /usr/lib/llib_lm  
    /usr/lib/llib_port  
/usr/bin/logname  
/usr/bin/lorder  
    /bin/nm  
    /bin/rm  
    /bin/sort  
    /usr/bin/join  
    /usr/bin/sed  
/usr/bin/lpr  
    (linked to /usr/bin/nq)  
/usr/bin/m4  
    /bin/csh  
    /bin/sh  
/usr/bin/man  
    /bin/cat  
    /bin/mkdir  
    /bin/more  
    /bin/view  
    /etc/chmog  
    /usr/bin/neqn  
    /usr/bin/nroff
```

```
        /usr/lib/tmac/tmac.an
        /usr/man/
/usr/bin/mesg
        /dev/tty
/usr/bin/mkmenu
/usr/bin/mkstr
/usr/bin/mm
/usr/bin/mmt
/usr/bin/mvt
/usr/bin/mmchek
/usr/bin/neqn
        /usr/pub/eqnchar
/usr/bin/news
        /etc/passwd
        /usr/lib/news/
/usr/bin/nq
        /bin/mkdir
        /bin/pwd
        /bin/sh
        /etc/passwd
        /usr/spool/queuer
        requestdir/
/usr/bin/nroff
        /usr/lib/term/
        /usr/lib/tmac/
        /usr/lib/suftab
        /usr/lib/macros/cmp.n.d.
        /usr/lib/macros/ucmp.n.
/usr/bin/objdu
/usr/bin/objhdr
/usr/bin/objsu
/usr/bin/pack
/usr/bin/paste
/usr/bin/pcat
/usr/bin/plz
        /bin/as
        /bin/ld
        /bin/rm
        /lib/cpp
        /lib/crt0.o
        /lib/libc.a
        /usr/bin/plzcg
        /usr/bin/plzsys
        /usr/bin/uimage
        /usr/lib/libp.a
/usr/bin/plzcg
        /usr/bin/plzcg
        /usr/lib/plzcg.errs
        /usr/lib/plzcg2
        /usr/lib/plzcg2d
        /usr/lib/plzcg3
```

```
    /usr/lib/plzcg3d
/usr/bin/plzsys
/usr/bin/prof
/usr/bin/prom
    /dev/tty
/usr/bin/prs
    /etc/mtab
    /etc/passwd
    /bin/csh
    /bin/sh
/usr/bin/ptx
    /bin/sort
    /usr/lib/cref/eign
/usr/bin/pwck
    /etc/passwd
/usr/bin/quot
    /etc/passwd
/usr/bin/ranlib
    /bin/ar
    /bin/sh
/usr/bin/reserv
    /dev/rct0
    /etc/passwd
/usr/bin/reset
/usr/bin/rev
/usr/bin/rmdel
    /etc/passwd
    /bin/sh
    /bin/csh
/usr/bin/sact
    /etc/passwd
/usr/bin/sccsdiff
    /usr/bin/sed
    /bin/echo
    /usr/bin/bdiff
    /bin/cat
    /bin/rm
    /bin/pr
    /usr/bin/get
/usr/bin/script
    /bin/csh
    /bin/sh
    /etc/passwd
/usr/bin/sdiff
    /bin/diff
    /bin/ed
/usr/bin/sed
/usr/bin/slink
    /bin/ld
/usr/bin/spell
    /bin/rm
```

```
/bin/sort
/bin/tee
/bin/who
/dev/null
/usr/bin/deroff
/usr/bin/sed
/usr/dict/hlista
/usr/dict/hlistb
/usr/dict/hstop
/usr/dict/spellhist
/usr/lib/spell.
/usr/bin/spellin
/usr/bin/spellout
/usr/bin/split
/usr/bin/sprof
/usr/bin/str
    /usr/bin/lpr
    /bin/vi
    /usr/lib/problems/scr_b_date
    /usr/lib/problems/seqno
    /usr/lib/problems/strfile
/usr/bin/strings
/usr/bin/strip
/usr/bin/strprint
    /usr/bin/lpr
    /bin/pr
    /bin/rm
    /usr/lib/problems/
/usr/bin/tabs
/usr/bin/talk
/usr/bin/taper
    (linked to /usr/bin/reserv)
/usr/bin/tbl
/usr/bin/timex
    /dev/kmem
    /zeus
/usr/bin/troff
    /usr/lib/tmac/
    /usr/lib/suftab
    /usr/lib/font/ft
    /usr/lib/macros/cmp.t.d.
    /usr/lib/macros/ucmp.t.
/usr/bin/true
/usr/bin/tsort
/usr/bin/tty
/usr/bin/uimage
/usr/bin/uniq
/usr/bin/units
    /usr/lib/units
/usr/bin/unget
    /etc/passwd
```



```
/usr/bin/unpack
/usr/bin/users
/usr/bin/val
/usr/bin/vls
    /etc/passwd
    /etc/termcap
    /usr/lib/screen/vlshelp
/usr/bin/vnews
    /etc/passwd
    /etc/termcap
    /usr/lib/news
    /usr/lib/screen/vnewshelp
/usr/bin/vtzset
/usr/bin/wc
/usr/bin/what
/usr/bin/whatis
    /usr/lib/whatis
/usr/bin/whoami
    /etc/passwd
/usr/bin/whois
    /etc/passwd
/usr/bin/xargs
    /bin/csh
    /bin/echo
    /bin/sh
    /dev/tty
/usr/bin/xq
    /etc/passwd
    /usr/spool/queuer/logfile
    /usr/spool/queuer/
    requestdir/
/usr/bin/xstr
/usr/bin/yacc
    /lib/liby.a
    /usr/lib/yaccpar
/usr/bin/zmenu
    /bin/sh
    /bin/csh
    /etc/termcap
    /etc/utmp
    /etc/ttys
    /dev/
/usr/bin/zmprint
    /bin/sh
    /bin/csh
    /etc/utmp
    /etc/ttys
    /dev/
/usr/games/adventure
    /usr/games/lib/adventure
/usr/games/arithmetic
```

```

/usr/games/backgammon
/usr/games/craps
/usr/games/fortune
    /usr/games/lib/fortunes
/usr/games/hangman
    /usr/dict/words
/usr/games/lib/adventure
    /bin/cat
    /etc/passwd
    /usr/games/lib/advheader
    /usr/games/lib/adv saver
/usr/games/quiz
    /usr/games/quiz.k/
/usr/games/vhm
    /etc/termcap
    /usr/dict/words
/usr/games/wump
/usr/include/alarm.h
/usr/include/ar.h
/usr/include/assert.h
/usr/include/core.h
/usr/include/ct.h
/usr/include/ctype.h
/usr/include/curses.h
    /usr/include/stdio.h
    /usr/include/sgtty.h
/usr/include/disasm.h
/usr/include/dumprestor.h
/usr/include/errno.h
/usr/include/execargs.h
/usr/include/fatal.h
    /usr/include/setret.h
/usr/include/fcntl.h
/usr/include/ff.h
    /usr/include/stdio.h
    /usr/include/sys/types.h
/usr/include/grp.h
/usr/include/iocalls.h
/usr/include/local/uparm.h
/usr/include/macros.h
    /usr/include/sys/stat.h
/usr/include/math.h
/usr/include/misc.h
/usr/include/mnttab.h
/usr/include/mp.h
    /usr/include/stdio.h
/usr/include/nlist.h
/usr/include/pwd.h
/usr/include/regex.h
/usr/include/s.out.h
/usr/include/saio.h

```

```
/usr/include/screen.h
/usr/include/segio.h
/usr/include/setret.h
/usr/include/sgtty.h
/usr/include/signal.h
/usr/include/spool.h
/usr/include/ssignal.h
/usr/include/stdio.h
/usr/include/sys/acct.h
/usr/include/sys/buf.h
/usr/include/sys/callo.h
/usr/include/sys/conf.h
/usr/include/sys/ct.h
/usr/include/sys/dir.h
/usr/include/sys/elog.h
/usr/include/sys/fblk.h
/usr/include/sys/file.h
/usr/include/sys/filesys.h
/usr/include/sys/ino.h
/usr/include/sys/inode.h
/usr/include/sys/ioctl.h
/usr/include/sys/lockblk.h
/usr/include/sys/map.h
/usr/include/sys/mmu.h
/usr/include/sys/mount.h
/usr/include/sys/mx.h
/usr/include/sys/param.h
/usr/include/sys/pk.h
/usr/include/sys/prim.h
/usr/include/sys/proc.h
/usr/include/sys/s.out.h
/usr/include/sys/sgmnt
/usr/include/sys/stat.h
/usr/include/sys/state.h
/usr/include/sys/sysinfo.h
/usr/include/sys/sysparm.h
/usr/include/sys/system.h
/usr/include/sys/text.h
/usr/include/sys/timeb.h
/usr/include/sys/times.h
/usr/include/sys/tty.h
/usr/include/sys/types.h
/usr/include/sys/user.h
/usr/include/sys/termenv.h
/usr/include/sys/termio.h
/usr/include/time.h
/usr/include/tp_defs.h
/usr/include/types.h
/usr/include/ustat.h
/usr/include/utmp.h
/usr/include/uucp.h
```

```
/usr/include/uucpdefs.h
/usr/include/varargs.h
/usr/include/whoami.h
/usr/lib/acct/acctcms
/usr/lib/acct/acctcon1
    /usr/lib/acct/holidays
/usr/lib/acct/acctcon2
/usr/lib/acct/acctdisk
/usr/lib/acct/acctdusg
/usr/lib/acct/acctmerg
/usr/lib/acct/accton
    /usr/lib/acct/pacct
/usr/lib/acct/acctprcl
    /etc/passwd
/usr/lib/acct/acctprc2
/usr/lib/acct/acctwtmp
/usr/lib/acct/chargefee
    /bin/echo
    /etc/passwd
    /bin/test
    /usr/lib/acct/nulladm
    /bin/cd
/usr/lib/acct/ckpacct
    /bin/cp
    /bin/cd
    /bin/chmod
    /bin/lm
    /bin/rm
/usr/lib/acct/dodisk
    /bin/date
    /bin/find
    /bin/sort
    /usr/lib/acct/acctdisk
    /bin/chmod
    /etc/chown
    /bin/mv
/usr/lib/acct/fwtmp
/usr/lib/acct/holidays
/usr/lib/acct/lastlogin
    /bin/cd
    /usr/lib/acct/nulladm
    /bin/cat
    /bin/sort
    /usr/bin/sed
    /bin/rm
/usr/lib/acct/monacct
    /bin/mv
    /bin/rm
    /usr/lib/acct/nulladm
    /usr/lib/acct/prtacct
    /bin/pr
```

```

/usr/lib/acct/nulladm
    /bin/chmod
    /bin/cp
    /dev/null
/usr/lib/acct/prctmp
    /bin/cat
/usr/lib/acct/prdaily
    /bin/cd
    /bin/pr
/usr/lib/acct/prtacct
    /bin/cat
    /usr/lib/acct/acctmerg
    /bin/pr
/usr/lib/acct/remove
    /bin/rm
/usr/lib/acct/runacct
    /bin/date
    /bin/chmod
    /bin/lm
    /bin/cd
    /bin/mail
    /bin/rm
    /bin/mv
    /usr/lib/acct/
/usr/lib/acct/sdisk
    /bin/cd
/usr/lib/acct/shutacct
    /usr/lib/acct/acctwtmp
    /usr/lib/acct/turnacct
/usr/lib/acct/startup
    /usr/lib/acct/acctwtmp
    /usr/lib/acct/turnacct
/usr/lib/acct/turnacct
    /usr/lib/acct/nulladm
    /usr/lib/accton
    /bin/mv
    /bin/rm
/usr/lib/acct/wtmpfix
/usr/lib/atrun
    /bin/csh
    /bin/mv
    /bin/sh
    /dev/null
    /etc/cron
    /usr/spool/at/
/usr/lib/crontab
/usr/lib/calprog
/usr/lib/cref/crpost
/usr/lib/cref/upost
/usr/lib/diff3prog
/usr/lib/diffh

```

```

/usr/lib/ex2.l3preserve
    /bin/sh
    /etc/passwd
    /usr/preserve/
/usr/lib/ex2.l3recover
    /usr/preserve/
/usr/lib/help/cb
/usr/lib/help/cm
/usr/lib/help/co
/usr/lib/help/prs
/usr/lib/help/rc
/usr/lib/help/un
/usr/lib/help/ut
/usr/lib/learn/C/
/usr/lib/learn/editor/
/usr/lib/learn/eqn/
/usr/lib/learn/files/
/usr/lib/learn/ftuser/
/usr/lib/learn/macros/
/usr/lib/learn/morefiles/
/usr/lib/learn/play/
/usr/lib/learn/Linfo
/usr/lib/learn/Xinfo
/usr/lib/learn/ftuser/count
/usr/lib/learn/ftuser/fetch
/usr/lib/learn/tee
/usr/lib/libciasm.a
/usr/lib/libcurses.a
    /lib/libc.a
    /usr/include/curses.h
    /usr/lib/libterm.lib.a
/usr/lib/libdm.a
    /lib/libc.a
/usr/lib/libmp.a
    /lib/libc.a
    /usr/include/mp.h
/usr/lib/libp.a
    /lib/libc.a
/usr/lib/libPW.a
    /lib/libc.a
/usr/lib/libscreen.a
    /lib/libc.a
    /usr/lib/libcurses.a
    /usr/include/screen.h
/usr/lib/libterm.lib.a
    /lib/libc.a
/usr/lib/libz8000.a
    /lib/libc.a
    /usr/include/disasm.h
/usr/lib/lint1
/usr/lib/lint2

```

```

/usr/lib/lp
/usr/lib/lp_ban
/usr/lib/lp_nf
/usr/lib/macros/
/usr/lib/makekey
/usr/lib/more.help
/usr/lib/plzcg2
/usr/lib/plzcg3
/usr/lib/slibcurses.a
    /lib/slibc.a
    /usr/include/curses.h
    /usr/lib/slibterm.a
/usr/lib/slibdm.a
    /lib/slibc.a
/usr/lib/slibmp.a
    /lib/slibc.a
    /usr/include/mp.h
/usr/lib/slibscreen.a
    /lib/slibc.a
/usr/lib/slibterm.a
    /lib/slibc.a
/usr/lib/slibz8000.a
    /lib/slibc.a
    /usr/include/disasm.h
/usr/lib/spell
/usr/lib/text
    /bin/stty
    /dev/null
/usr/lib/tmac
/usr/lib/tmac/tmac.e
/usr/lib/uucp/OLD-devices
/usr/lib/uucp/L-devices
/usr/lib/uucp/L-dialcodes
/usr/lib/uucp/MYNAME
/usr/lib/uucp/USERFILE
/usr/lib/uucp/uucico
    /bin/sh
    /dev/null
    /etc/passwd
    /usr/lib/uucp
    /usr/lib/uucp/OLD-devices
    /usr/lib/uucp/L-dialcodes
    /usr/lib/uucp/L.sys
    /usr/lib/uucp/MYNAME
    /usr/lib/uucp/USERFILE
    /usr/lib/uucp/uuxqt
    /usr/spool/uucp
/usr/lib/uucp/uuclean
    /bin/sh
    /etc/passwd
    /usr/lib/uucp/OLD-devices

```

```

    /usr/lib/uucp/L-dialcodes
    /usr/lib/uucp/L.sys
/usr/lib/uucp/uuclear
    /bin/echo
    /bin/rm
    /usr/lib/uucp/uuclear
/usr/lib/uucp/uustart
    /bin/uulog
    /usr/lib/uucp/uucico
/usr/lib/uucp/uuxqt
    /bin/diff
    /bin/mail
    /bin/mkdir
    /bin/rmail
    /bin/sh
    /dev/null
    /etc/passwd
    /usr/lib/uucp/OLD-devices
    /usr/lib/uucp/L-dialcodes
    /usr/lib/uucp/L.sys
    /usr/lib/uucp/MYNAME
    /usr/lib/uucp/uucico
/usr/man/
/usr/man/man0/tools/buildptx
    /bin/ed
    /bin/grep
    /bin/pr
    /bin/pwd
    /usr/bin/nroff
    /usr/bin/ptx
    /usr/man/man0/ptxmac.lp
    /usr/man/man0/tools/extr.script
    /usr/man/man0/tools/join.script
    /usr/man/man0/tools/ptxign
    /usr/man/man0/tools/ptxin.script
/usr/pub/ascii
/usr/pub/dmalias
/usr/pub/greek
/usr/pub/termlist
/usr/spool/uucp/LOGFILE
/usr/spool/uucp/SEQF
/usr/src/Makefile
/usr/src/getfile.c
/usr/src/local.c
/usr/src/putfile.c
/usr/src/remote.c
/usr/sys/h/sysparm.h
/usr/sys/
/usr/tmp
/zeus.maint
/zeus3.1

```