LDOS (tm)LSI
UTILITY DISKS

By: KIM WATT

from

POWERSOFT

a division of Breeze/QSD, Inc.

UTILITY DISK #6 (c)1982

$29.95

Disk #6 Includes:

PCLEAR/CMD- Erases unassigned sectors and Directory slots. Removes ALL traces of "killed" files!

PSS/CMD - Sector Status Utility. Finds WHAT file is assigned to WHAT sector.

PMAP/CMD - Disk-File Mapping Utility. Map a FILE or a disk! Shows exactly WHERE all files are with extents.

LOADING INSTRUCTIONS

- MOD I or III -

1) Prepare a SINGLE density LDOS formatted diskette. This disk may be 35, 40, or 80 tracks, but SINGLE density!
2) Boot the MASTER disk you received in this package in drive 0. You will be prompted to insert the destination diskette, and the files will be "moved" to YOUR diskette with no effort on your part. Single drive owners will need to swap disks a few times.
3) LX-80 users should treat the enclosed MASTER disk as a 35 track single density data diskette.

PSS

The PSS Utility is a Sector Status Utility. It allows the user to easily identify which file is assigned to any sector on a disk. All LDOS supported disk devices may be operated on, including Single/Double Density, Single/Double Sided, 5" and 8" floppies and fixed/removable disk systems. The syntax of the PSS command is:

```
=====================================================
!  PSS,:a,b,c                                       !
!                                                   !
!           :a = drive number (Ø-7, colon optional) !
!           b  = cylinder number                    !
!           c  = sector number                      !
!                                                   !
!  abbr: NONE                                       !
=====================================================
```

When the specified parameters have been entered, PSS will read the designed directory. If not enough memory is available, PSS will abort with a corresponding message. The type of drive will be displayed along with the name, date, and number of free granules. If the sector is not assigned to any files, an appropriate message will be displayed, and an exit made back to LDOS. If it is assigned, the filename, and the relative sector number in the file will be returned.

PCLEAR

The PCLEAR Utility is a comprehensive Disk Clean-Up Utility. It allows the user to easily erase unassigned granules and directory records. All LDOS supported disk devices may be operated on, including Single/Double Density, Single/Double Sided, 5" and 8" floppies and fixed/removable disk systems. The syntax of the PCLEAR command is:

```
=====================================================
!  PCLEAR,:a,D,S,b                                  !
!  PCLEAR,filespec,b                                !
!                                                   !
!          :a  = clear this drive (colon optional)  !
!          D   = clear unused directory records     !
!          S   = clear unassigned granules          !
!          filespec = any valid LDOS filespec       !
!          b   = fill command (default ØØH)         !
!          fill = #cc   = numerical value           !
!               = "cc"  = ascii string              !
!                 (numbers and ascii can be mixed)  !
!                                                   !
!  abbr: NONE                                       !
=====================================================
```

After selecting the desired parameters, one of the following routines will be executed.

If a DISK was specified to be cleared:
If the S option was given, the directory GAT table will be read into memory. All NON ALLOCATED granules will be written to with sectors of the defined fill data.
If the D option was given, then all directory records that do not have bit 4 set (inactive record) will be set to all zeroes.

If a FILE was specified to be cleared:
All sectors assigned to the file will be written to with all the defined data. This will destroy all data belonging to the file.

The user may optionally define what data is to be written into the empty sectors. The default value is zero (ØØH). A single pound sign (#) followed by a one byte numerical value (Ø-255) to be used as the fill byte. The number may be entered in Binary, Decimal, Hex, or Octal by PRECEDING the number with B, D, H or O respectively (default decimal). A quotation mark (") followed by a string will copy this string repetively into the empty sectors. Numerical values and strings may be intermixed.

Example:
PCLEAR,:Ø,d,s,#h4Ø

Fill all unassigned granules with sectors filled with the byte 4ØH and clear all unused directory records.

PCLEAR,deadfile/cmd:3,"message"

Fill all sectors currently assigned to file "deadfile/cmd" with the repetitive string "message".

PCLEAR,:7,s,#95,"Kim was here

Fill all unassigned granules with the string "Kim was here" preceded by the cursor character (ascii 95 decimal). The terminating quote may be left out if it is the last character on the line.

When a file is killed with LDOS, several actions occur. First the first byte of all primary and extended directory records is set to ØØH. All granules assigned to the file are released and made available in the GAT table. All primary and extended directory records have their corresponding HIT bytes set to Ø.

This will KILL a file, and make it inaccessible to LDOS, but all the information is still there. The directory record is still in the directory, but it is indicated as INACTIVE by the system. All data that was assigned to the file is also still on the disk. Only the directory record has been changed, none of the data has been touched. At this point, a couple of minor changes to the directory can reinsatate the file and make it totally available again with full access to the data.

By running PCLEAR on a drive, you may safely remove all traces of both the files data, and it's associated directory record. If you have a disk that has been used several times, chances are that several "killed" files are still on the disk. If this disk was given to a programmer, chances are that the data could be "unkilled". PCLEAR will make sure that even the BEST PROGRAMMER cannot access any of the killed files on your disk, because the information has been completey removed from the disk.

The FILE option of PCLEAR is a very powerful feature, but could be disastrous if you are not careful. This will TOTALLY ERASE ALL DATA ASSIGNED TO THE FILE. Each sector will contain the specifed fill data. This routine could be useful to set all bytes of a file to a known initial value to be used as a data file.

PMAP

The PMAP Utility is a comprehensive Disk/File Mapping Utility. It allows the user to easily locate files sectors, and determine the status of all granules on a disk. All LDOS supported disk devices may be operated on, including Single/Double Density, Single/Double Sided, 5" and 8" floppies and fixed/removable disk systems. The syntax of the PMAP command is:

```
=====================================================
!  PMAP,*,:a                                        !
!  PMAP,*,filespec                                  !
!                                                   !
!           *  = send output to printer              !
!           :a = map this drive                      !
!           filespec = any valid filespec            !
!                                                   !
!  abbr: NONE                                       !
=====================================================
```

Mapping a drive:

The GAT table of the specified diskette will be read into memory. Each cylinder will be mapped granule by granule. The display will show the cylinder number, and a list of all the granules on a sector basis. An example of a single density, single sided disk could be:
Cylinder ØØ: ØØ-Ø4xx Ø5-Ø9xx
The first x position will indicate the status of the Allocation Bit associated with gran, and the sectors ØØ-Ø4 indicate the range of sectors in the first gran. This position will display a graphic block if the corresponding granule is assigned, and a period if the granule is currently available. The second x position indicates the status of the corresponding Lockout Bit for the gran. This position will display an X if the corresponding granule is locked-out, or a space if it is available. All granules indicating locked-out status should also have the corresponding allocation bit set.
NOTE: Rigid drives do not have a lockout table, so that information will not given.

The display will pause each screenful and wait for you to press a key to continue. Press BREAK to abort at any time, or SHIFT @ to pause the display manually. This procedure will continue till all cylinders have been displayed.

Mapping a File:

The associated directory record for the given file will be read into memory. All sectors assigned to the file will be traced through the directory manually. The current sector that is being operated on will be displayed to the video (or printer if specified). An attempt will be made to read each sector as it is computed. If the sector was read successfully, it will be surrounded by a thin line (ascii 95). If a read error was issued by the system, the cylinder and sector number will be surrounded by graphic blocks. At any time, you may abort by pressing BREAK, or pause by pressing SHIFT @. This procedure will continue until the end of file is reached, and an exit is made back to LDOS.

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UTILITY DISK #2 (c)1982

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Disk #2 Includes:

PMOD/CMD - A Disk-File-Memory Modification Utility.

PMOD,aaaa (display memory address)
PMOD,filespec,aaaa (file to display,starting rel. sector)
PMOD :b,c,d (drive,cylinder,sector to display)

UTILITY DISK #3 (c)1982

$29.95

Disk #3 Includes:

PCHECK/CMD - LDOS Directory Check Utility. Checks a drive or a file, (GAT, HIT, BOOT, etc.) for integrity.
PFIX/CMD - FIXES problem discovered by PCHECK/CMD. You may repair GAT or HIT table, repair BOOT sector, or repair FILE records. This program might fix that crashed disk that has you going nuts!

UTILITY DISK #4 (c)1982

$29.95

Disk #4 Includes:

PFIND/CMD - FIND a string, replace a string, find a byte, find a WORD, replace a byte or word! FIND ANYTHING on the disk FAST! Replace it FAST!
PCOMPARE/CMD - Compare a FILE or a sector to any other file or sector. Detects the minutest differences! Send the outputs from above to video or printer.

UTILITY DISK #5 (c)1982

$29.95

Disk #5 Includes:

PREFORM/CMD - Disk Re-Formatter Utility. Fixes CRC errors and "stengthens" the format on older disks. A FORMAT without ERASE utility(5" floppy only)
PVU/CMD - a Disk Verification Utility. Detects bad sectors. Fix them with PREFORM/CMD.
PERASE/CMD - Disk Bulk Eraser (5" floppy only)

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UTILITY DISK #7 (c)1982

$29.95

Disk #7 Includes:

PMOVE/CMD - A SUPER FAST Multiple Copy Utility!
PDIRT/CMD - Read a Mod III TRSDOS directory from LDOS!
PASSGO/CMD - Removes passwords from A file or a WHOLE disk!
PUN/CMD - UN-REPAIR a disk. (Mod I only)
PEX/CMD - A disk exerciser for head cleaning kits.

UTILITY DISK #8 (c)1982

$29.95

Disk #8 Includes:
PMX/FLT-MX80 graphics
PHELP/CMD -Instant HELP! Very complete. Saves time!
PBOOT/FIX - Customize YOUR LDOS Boot graphics and message!
PFILT/FLT - A User Definable Filter. Very flexible!
DVORAK/FLT - DVORAK/QWERTY Keyboard Filter.
DVORAK/JCL - DVORAK Keyboard Table (used with PFILT/FLT)
CODE/JCL - Keyboard EN-Coding TABLE (used with PFILT/FLT)
DECODE/JCL - Keyboard DE-Coding Table (used with PFILT/FLT)