Beagle Bros Bulletin

Slot Search Results

Holy mackerel! The Beagle Building is still being SWAMPED with Slot Search results. We have enough; PLEASE STOP!! In case you missed Volume 0, Number 0, of the Bulletin, this program returns a number for slots 1-7 in your Apple. Each number relates to the peripheral connected to that slot.

```
5   REM
    ============
    SLOT SEARCH
    ============
10  HOME : FOR X = 1 TO 20
20  FOR I = 1 TO 7:N = 49152 + 256 * I
    :PN =  PEEK (N)
30  VTAB 4 + 2 * I: HTAB 1: PRINT "SLO
    T ";I;": PEEK(";N;")=";PN; SPC( 2)
40  VTAB 4 + 2 * I: HTAB 26
50  B(I) = A(I):A(I) = PN: IF A(I) < >
    B(I) THEN  CALL - 868: PRINT "(E
    MPTY)": GOTO 500
60  INVERSE
100 IF PN = 162 THEN  PRINT "DISK DRI
    VE"
110 IF PN = 24 THEN  PRINT "PRINTER"
500 NORMAL : NEXT I,X: VTAB 22
```

Here are the most popular numbers that we received—

CCS Clock/Calendar Card	8
Heuristics Speech Lab	8
Mountain Apple Clock	8
Super Clock II	8
Thunderclock	8
Graphics Tablet	24
Centronics Printer	24
D.C.Hayes Modem	24
Epson Printer	24
Trendcom Printer	24
Bell Modem	44
Diablo Serial Card	44
H.S.Serial Interface	44
Silentype Printer	44
Smart Term	44
Sup-R-Term	44
Videx	44
IBM Printer Interface	56
Apple Disk Drive	**162**
Lobo 8" Disk Drive	162
M/H ROM Writer	255
Apple Talker	255
Novation Apple Cat Modem	255
ALF Music Card	random
Apple PAL Video Card	random
Eurocolor Card	random
Microsoft Z-80 Card	random

"Random" means no constant number was produced, as if the slot was empty.

EVERYBODY and his brother "enhanced" our program by substituting a zero for the 1 in Line 20, and reported a **13** for their language card in Slot 0, a **13** for their Integer card in Slot 0, a **13** for their disk drive receipt in Slot 0... No, no, **NO!** You can't peek at Slot 0 with this program. If you try, you are instead peeking at the keyboard. You got a 13 because 13 is the ascii value of a CARRIAGE RETURN, the last character you typed (R-U-N-Return)!

Beagle Bros Announces Unlocked Software Policy
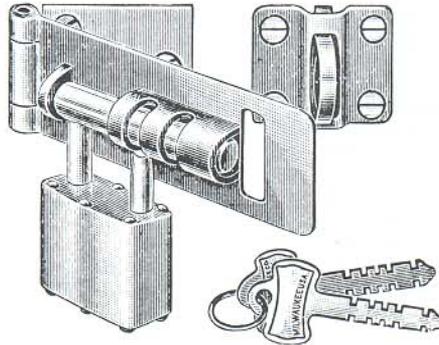
Actually, it's no big announcement; Beagle Bros has been producing unlocked Apple utilities since Day Zero.* We've just decided to say so OUT LOUD. For you newcomers out there, "unlocked" means unprotected, backup-able and compatible with normal Apple DOS. You type "Catalog" and the disk catalogs! Type "List" and you see what makes our programs tick. And you can modify our programs to suit your needs. When it comes to functional, USABLE Apple programming utilities, we don't think you should settle for less.

*Alpha Plot WAS copy-protected for two months. See page 3 for update information.

NEW BEAGLE BROS DISK

Our latest entry into the software market is a nifty new combination utility disk called APPLE MECHANIC. Shape Tables have been tamed at last! Two excellent shape writing programs are on the disk, including a handy character editor for creating full 96-character shape fonts. Three different listable demo programs are included too, that will show you how to use shape table animation and customized hi-res text in your Applesoft programs.

As of 8:30 this morning, Apple Mechanic's BYTE ZAP is the best "disk zap" utility we've seen anywhere (and we've been looking around). Any sector of a disk can be displayed in its entirety in hex, decimal or ascii format. Any byte can then be edited under CURSOR CONTROL and written back to the disk. The Apple Mechanic instructions (with Tip Book #5, of course) are worth a bundle by themselves. Read more on the next page.
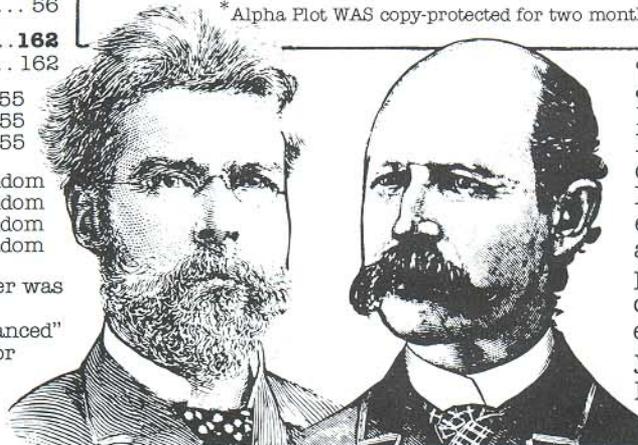
Peeks and Pokes

In case you're new around here, every Beagle Bros disk comes with a free 11" x 17" Peeks, Pokes & Pointers Reference Chart; a collection of all the most usable Apple peeks, pokes, pointers and calls scrounged up from every source imaginable! If you already use the chart, see page 5 for update information.

Beagle Bros
### MICRO SOFTWARE

Contents:

APPLE MECHANIC SHAPE EDITOR/BYTE ZAP MULTI-UTILITY by Bert Kersey

Apple Mechanic lets you perform a wide variety of Apple tasks, ranging from animation to computer music to disk zapping. Combined with our largest documentation book yet (60 pages, almost without advertising), we feel that Apple Mechanic is one of the best software bargains anywhere. Take a look at some of the features—

SHAPE TABLE EDITOR

A shape table is simply a series of hi-res drawings stored in your Apple's memory and/or on disk. Shape tables are excellent animation tools that can be used in a wide variety of applications, from hi-res games to
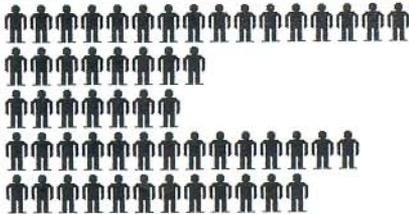
Projected Population, 1981-5

SINE DATA
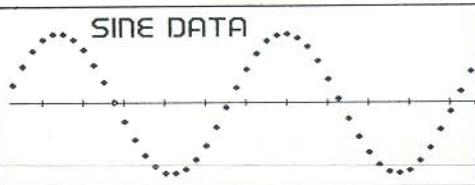
animated titles, charts and professional-looking graphic presentations. Apple Mechanic's Shape Editor makes shape construction a snap. You plot your drawing from the keyboard as it is simultaneously displayed in same-size and enlarged forms on the hi-res screen. The shape is then automatically converted into binary data and inserted into a shape table. The hassle is gone and your creativity is released (that's what computers are FOR, right?).

The Shape Editor has many features— Keyboard-plotting is simple and fast. A correcting feature lets you erase any number of plots by "backspacing" over your in-progress drawing. Any shape you don't like may be redrawn and inserted back into a table. A shape may be sketched or "pre-plotted" on the screen first and then traced for maximum efficiency. Any shape in memory may be imprinted on the plotting screen, and then traced with slight changes for animation purposes. The Shape Editor, like all of the programs on the disk, is compatible with single or multiple disk drives.

DISKS SOLD, 1987

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT
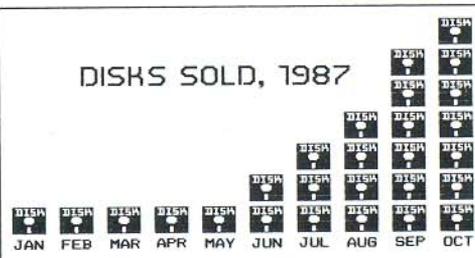
All images on this page were created with Apple Mechanic and dumped to an Epson MX-80 printer. (Printer dump program not included on disk.)

PLEASE PRESS A KEY (A-X)

BeagleBros MICRO SOFTWARE

Welcome to Apple Mechanic! Copyright 1982, Beagle Bros Micro Software

LISTABLE DEMOS

The Apple Mechanic disk features three excellent demo programs that teach a ton about using shape tables and manipulating hi-res from your Applesoft programs. The documentation gives you a complete rundown of Apple's hi-res and shape table commands, including several not covered in your Applesoft manual. Tip Book #5, part of the documentation, has tips on "More Room for Hi-Res Programs", "Hi-Res Flix", "560-Plot Hi-Res", etc. and etc.

A unique **Shape Analyzer** program on the Apple Mechanic disk lets you view any shape (including font characters) in various modes of ROT, SCALE and HCOLOR. You may also use the Analyzer to animate between shapes for comparison or to see a vector breakdown of any shape in memory.

CHARACTER EDITOR

Apple Mechanic lets you create and edit hi-res shape table character fonts directly on the screen. Each font's characters (or pic-

BLOCK: ABCabc
WESTERN: KLMN
apple: ABCDEFG
STENCIL: ABCDE
123456 123456
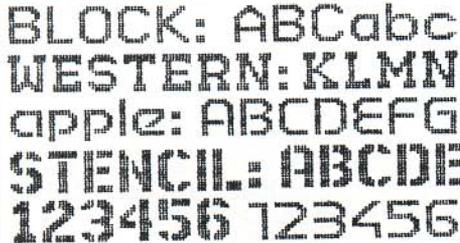
APPLE MECHANIC FONT SAMPLES

tures) may range from 3 to 16 plots high. They may be typed directly on the screen or called to the screen from your Applesoft programs. Several full 96-character fonts are included on the disk, ready to be used as you want. The benefits of these "Shape Fonts" are many— PROPORTIONAL SPACING (more characters per line, easier to read), fast printing speed, no vtab/htab restrictions

SCREEN COPY MAY AUTOMATICALLY BE → CENTERED ←

OR PRINTED EXACTLY WHERE YOU WANT IT.

(characters may be placed ANYWHERE on either screen, even sideways if you want), and the ability to xdraw words over multicolored backgrounds.

Proportional spacing looks better— Apple Mechanic's hi-res type:

Hello Sid. How's your sister?

Brand X hi-res type:

Hello Sid. How's your

BYTE ZAP (on same disk)

Byte Zap is a new Beagle Bros disk inspector utility that lets you rewrite any byte on a disk. Any sector may be displayed on the screen in its entirety in one of five formats, all transferable to your printer. You can cruise through each sector by moving a cursor from byte-to-byte, with each byte simultaneously translated into its hex, decimal AND ascii equivalents. There is no need to "think in hex".

You may change any byte on a disk by selecting the sector you want to see, moving the cursor to that byte and entering a hex or decimal number or ascii character (including flash, inverse, normal, control and lower case). Many pages of tips are included in the documentation for performing disk alterations such as—

☐ Restore Deleted Files
☐ Modify Apple's DOS
☐ Insert Headings in Catalogs
☐ Rename Files Illegally
☐ Make File Names Invisible
☐ Change Greeting Program Names
☐ Change "Disk Volume" Heading
☐ Change DOS Commands
☐ Re-word Error Messages
☐ Repair Blown Disks

Byte Zap also lets you see a "map" of a disk, showing used and unused sectors (may be dumped to your printer). A multi-drive feature lets you quickly compare disks too.

> OTHER "DISK ZAP" PROGRAMS ON THE MARKET CANNOT COMPARE WITH BYTE ZAP IN TERMS OF EASE-OF-USE, EDUCATIONAL VALUE AND PRICE!

AND MORE (of course!)

Apple Mechanic has got it; 475 SECTORS packed with the programs mentioned above and many more—

☐ **SHAPE EDITOR**
☐ **CHARACTER EDITOR**
☐ **6 SHAPE TABLE TYPE FONTS**
☐ **FONT SPLITTER** (reduces font size)
☐ **SHAPE ANALYZER**
☐ **XTYPER** (type directly in hi-res)
☐ **HI-WRITER** (type from your programs)
☐ **3 LISTABLE HI-RES DEMOS** (including a New "Talking Heads" Program!)
☐ **PAGE COPY** (hi-res image shifter)
☐ **BYTE ZAP**
☐ **SONG SUBROUTINES** (music for your Applesoft programs)
☐ **TEXT TRICKS** (We couldn't resist.)
☐ **TWO-LINERS**

We have put the most-recent winning entries from Uncle Louie's famous Two-Liners Contest on the Apple Mechanic disk. And remember, EVERYTHING on the disk is listable, backupable and compatible with normal Apple DOS.

APPLE TIP BOOK #5

As part of the Apple Mechanic documentation, you will receive a whole flock of new Apple tips and tricks. Combined with the programs on the disk and the instructions, Apple Mechanic will be an EXCELLENT addition to your Apple library!

Apple Mechanic $29.50

☐ Apple Mechanic on disk*
☐ Apple Tip Book #5 (60 pages including documentation)
☐ Apple Peeks, Pokes & Pointers Chart

*48K minimum, Applesoft ROM required

ALPHA PLOT HI-RES GRAPHICS/TEXT UTILITY by Bert Kersey & Jack Cassidy

Alpha Plot Self-Portrait Dumped to Printer

Alpha Plot not only lets you draw, title and label an endless variety of pictures, charts and hi-res displays, it lets you manipulate, copy, compare and even combine them. Here is a sampling of what you can do with Alpha Plot and your Apple—

TYPE A PICTURE:
With Alpha Plot's easy-to-use keyboard plotting system (paddles optional), you can quickly lay pictures out on the screen, plotting in any hi-res color or reverse (the automatic opposite of the background color at any point). COLOR MIXES are optional too. Lines, circles, ellipses and boxes (outlined or filled with color) may be plotted with one or two keystrokes. All pictures may be saved to or loaded from disk at any time.

HI-RES TEXT:
Alpha Plot lets you type upper and lower case directly onto the hi-res screen in four sizes, ranging from normal to giant, and no additional hardware is required. Each word or character is positionable at any point on the screen with no dependence on htabs and vtabs. Type color titles and labels; even type SIDEWAYS if you want; an effective feature for graphs.

Alpha Plot's **proportionally-spaced type** will give a professional look to your hi-res presentations. Even the kerning and leading (space between letters and lines of type) is adjustable. People DO notice the difference.

TRACEABLE, ERASABLE LINES:
Alpha Plot's optional Rubber-Band Cursor projects a line between two points so you can make visual adjustments before you draw. "Reverse" lines may also be drawn and then, if you want, be completely erased without disturbing background details. A Hi-Res Grid may be temporarily superimposed on your drawing or removed at any time.

TWO PAGES/TWO DRAWINGS:
You can instantly switch between Apple's two "pages" of graphics and work on two hi-res drawings in memory at once. Pages may even instantly be switched, putting Page One's image onto Page Two and vice versa.

IMAGE MANIPULATORS:
Any two drawings may be temporarily viewed together for comparison or permanently superimposed in four different ways (opaque, transparent, etc.). Any rectangular segment of a hi-res drawing can be moved to any location on either hi-res page. You can, for example, center finished images on the screen, or imprint your logo or name on all of your hi-res pictures.

Also, an instant NEGATIVE of any section of the screen (or the entire screen) is a useful feature. Hi-res images can even be converted to LO-RES and back!

MORE PICTURES PER DISK:
With Alpha Plot's SCRUNCH routine, you can save any hi-res image in as little as one-third the normal memory space (11 sectors instead of the normal 34), depending on the complexity of the image.

HI-RES TIPS:
With Alpha Plot, you will receive a 40-page documentation book, which includes Apple Tip Book #4 and a whole new collection of Apple Tips— shape table hints, animation experiments, a collision graphics demo, and hi-res program listings, all designed to help you make the most of your Apple's amazing graphics capabilities.

Alpha Plot $39⁵⁰

☐ Alpha Plot on disk*
☐ Apple Tip Book #4
  (40 pages including documentation)
☐ Apple Peeks, Pokes & Pointers Chart
*48K minimum, Applesoft ROM required

"Alpha Plot is great! So much easier to use than the other hi-res programs I have seen. The Tip Book and demos on the disk alone were worth the price I paid. I want more... Keep up the good work!"
—B.C., Cincinnati, Ohio

"Thanks to Alpha Plot's Scrunch routine, we get an average of 30 hi-res images per disk instead of 14. We call these images, actually bar graphs, up from our one master Applesoft control program. Thanks Beagle Bros!"
—A.F., New York, NY

ALPHA PLOT UPDATE: If you were an early purchaser of Alpha Plot, you may have received a PROTECTED disk. To exchange it for the unprotected version, mail us your original Alpha Plot (disk only) and $3.00. We will immediately (meaning THAT SAME DAY) mail you an unprotected disk. ALL of our utilities are now unprotected.

DOS BOSS DISK COMMAND EDITOR by Bert Kersey & Jack Cassidy

Dos Boss is a classic utility that you will ENJOY using. Applers around the world are putting Dos Boss to work to customize their systems and truly personalize their personal computers. Just in case you haven't heard, here's what Dos Boss lets you do—

RENAME COMMANDS:
For example, change "Catalog" to "Menu" or even "M" to save keystrokes and reduce errors. Or change "Save" to "Keep", or "Load" to "Ribbit", to protect your programs. Use your imagination; only you will know YOUR commands.

To make a change, simply run Dos Boss, select the command you want changed (say CATALOG), then enter your new command word (say "CAT"), and that's it! Other DOS changes are made with equal ease. For example—

RENAME ERROR MESSAGES:
Syntax Error can be renamed "Cannot Compute" or "Try Again!"; or Disk Full can be "(Burp!)"; anything you want!

SAVE-PROTECT YOUR PROGRAMS:
By manipulating DOS, you can make any unauthorized attempt to save one of your programs halt and produce a "Not Copyable (beep!)" message. Easy-to-follow instructions, a strong Dos Boss feature, are included.

Dos Boss's change features may be appended to any or all of your programs, so that anyone using your disks (booted or not) on any Apple will be formatting DOS the way YOU designed it.

ONE-KEY PROGRAM SELECTION:
Dos Boss's Key-Cat feature simplifies Apple program selection. A single letter will appear next to each file name in your catalog. Pressing the corresponding key will run, brun or exec the chosen program for you automatically. Key-Cat operates with any length of catalog and will report Space-On-Disk at the touch of a key.

CUSTOMIZED CATALOGS:
Why not replace Apple's unnecessary Disk Volume heading with your own disk number, title or name? You can with Dos Boss! Include or omit the volume number as you like.

Convert long catalogs to two or four columns so that all of your file names can appear on the screen at once. Omit or alter sector numbers and language codes too if you want. You can group your programs by file-type (B, A, I, T) when you catalog. OR catalog only the type(s) you want.

PLUS THE DOS BOSS BOOK!
Beagle Bros is big on documentation; with Dos Boss you will receive The Dos Boss Book AND our highly-acclaimed Apple Tip Book #2. Inside, you will find complete Dos Boss instructions, clearly-written from a beginner's viewpoint, plus an easy-to-understand discussion of how and why each Dos Boss feature works. Suggestions for creatively using each feature are included as well. There's more too! Tips on using both sides of your disks, maintaining your drives, sorting words, poking around in DOS, storing disks, 3.3 vs. 3.2, and more!

Dos Boss $24⁰⁰

☐ Dos Boss on disk*
☐ The Dos Boss Book (36 pages)
☐ Apple Tip Book #2 (36 pages)
☐ Apple Peeks, Pokes & Pointers Chart
*32K or 48K minimum, Applesoft ROM required.

UTILITY CITY 21 UTILITIES ON ONE DISK by Bert Kersey

For your Big Apple— Utility City is a useful and entertaining collection of 21 Applesoft utilities, programmed with style, by Beagle Bros. Here is the entire list:

BIGLINER: Lets you renumber Applesoft program lines to 65535 to make them inaccessible. Protect your copyright message or subroutine at the end of your programs. Also down-number lines greater than 63999.

FILENAME ZAP: Lets you create trick file names, from inverse to flash to INVISIBLE; great for making files inaccessible or for dressing up your catalog display.

SCREENWRITER : A unique design tool that lets you compose and format Apple text layouts (title pages, menus, displays, etc.) directly on your monitor. Type directly in inverse, flash & normal and upper & lower case. The cursor is easily moved in any direction. Words on the screen may be re-set centered or flush left or right. Blocks of copy are easily moved. Finished layouts may be dumped to printer or stored on disk.
No relation to On-Line Systems' SCREENWRITER II (an excellent word processor by the way).

MULTI-CAT: Lets you send long catalogs to your printer or CRT in multiple columns (3, 4, 5, etc.) and in any column-width (40, 60, 80, etc.). File & sector codes may be included or omitted. Organize your disk library!

TEXT DUMP: Transfers your text screen to your printer. May be used alone or appended to your Applesoft programs.

SORTFILE: Lets you sort, store and update single-field lists, class rosters, etc., on disk. Listable, changeable and customizable.

RUN COUNTER: Appended to programs to post on the screen the number of times the program has been run, each time it's run.

DATE COUNTER: Similar to Run Counter; reports the last DATE a program was run.

REM ZAP: Makes rem statements temporarily inverse in your listings, until the next PR#0 or reset.

LINE SEARCH: Finds Applesoft program lines in memory for crashed-program repair or "illegal" alteration. Both hex and decimal addresses are reported.

KILL-CAT: Lets control-C (or any key you choose) make a clean break in a long catalog. Any other key continues as usual. Easily appendable to your greeting programs.

KEY-CAT : Lets you select and run programs from catalog with one keystroke (no need to type file names). Instant Space-On-Disk report too. A perfect greeting program.
Also on our DOS BOSS disk.

XLISTER: A re-formatted list utility that turns a confusing-looking Applesoft listing into a set of step-by-step instructions. After loading your program, you type "EXEC XLISTER" and enter the range of lines you want listed (all or part of your program). Each program statement is then listed on a new line, properly spaced in the chosen column-width, with every statement following an IF called out, and FOR-NEXT loops indented (ala Pascal). Xlister is perfect for de-bugging; errors seem to surface in this clear new format. Also use Xlister for making archive printouts (with page breaks) of your finished work.

INT CONVERTER: Automatically converts Integer programs into Applesoft. Integer language required in your Apple.

HEX/DEC/BIN CONVERTERS: Convert from or to hex while your current program stays intact. Accepts positive or negative decimal or hex input and reports hex, positive & negative decimal and binary.

DOUBLE LOADER: Allows you to run any Applesoft file while your current program stays intact (no need to save, load and reload). Make your own utilities more usable!

CONNECT: Appends Applesoft programs together or attaches your favorite subroutines to your programs without retyping.

COMMAND ZAP: Lets you put INVISIBLE functioning Applesoft commands into your listings (for program protection) and create attractive flush left list headings with line numbers and the word "rem" hidden.

CHR$ POKER: Finds text screen locations and values for poking any character in any format directly onto the screen.

BFIND: Reports the most-recently bloaded binary file's start address and length in hex and decimal. An exec file; no need to re-load.

ADDRESS CHECKER: An interesting little "snooper" utility that let's you experiment with and explore Apple's memory.

Utility City $29⁵⁰

☐ Utility City on disk*
☐ Apple Tip Book #3
  (48 pages including documentation)
☐ Apple Peeks, Pokes & Pointers Chart
*48K minimum, Applesoft ROM required

Below is a demo of Utility City's XLISTER program. A sample normal listing is shown and then "Xlisted" in 40 columns. You may select ANY column-width.

NOTICE THE FEATURES:
a. Each program statement appears on a new line, thus unscrambling the listing.
b. The asterisks in the left column indicate that the statement will only be executed if the "IF" above is true.
c. Each FOR-NEXT loop is indented. The example shown is a nested loop, so you see double indentation.

NORMAL LISTING:

```
]LIST
10  REM UTILITY CITY "XLISTER" DE
    MO
15  HGR : HOME : VTAB 23: HTAB 16
    : PRINT "[ TEST ]"
20  FOR X = 20 TO 279 STEP 20: FOR
    Y = 20 TO 191 STEP 20: HCOLOR=
    3: HPLOT X,Y: IF X = Y THEN
    F = 2: HPLOT X - F,Y TO X +
    F,Y: HPLOT X,Y - F TO X,Y +
30  HCOLOR= 6: IF X = 100 OR Y =
    100 THEN HPLOT X - 10,Y - 1
    0: HPLOT X + 10,Y + 10
40  NEXT Y: VTAB 21: HTAB 1 + INT
    (X / 7): PRINT INT (X / 20)
    ;" ": NEXT X: VTAB 23: HTAB
    15: FLASH : PRINT "END";: NORMAL
    : PRINT " OF TEST": VTAB 1
```

XLISTING:

```
]EXEC XLISTER

10      REM UTILITY CITY "XLISTER" DEMO
-----------------------------------
15      HGR
      ¦ HOME
      ¦ VTAB 23
      ¦ HTAB 16
      ¦ PRINT "[ TEST ]"
-----------------------------------
20      FOR X = 20 TO 279 STEP 20
          FOR Y = 20 TO 191 STEP 20
            HCOLOR= 3
            HPLOT X,Y
            IF X = Y THEN F = 2
*  ¦        HPLOT X - F,Y TO X + F,Y
*  ¦        HPLOT X,Y - F TO X,Y + F
-----------------------------------
30          HCOLOR= 6
            IF X = 100 OR Y = 100 THEN
              HPLOT X - 10,Y - 10
*  ¦          HPLOT X + 10,Y + 10
-----------------------------------
40          NEXT Y
            VTAB 21
            HTAB 1 + INT (X / 7)
            PRINT INT (X / 20);"  ";
          ¦ NEXT X
          ¦ VTAB 23
          ¦ HTAB 15
          ¦ FLASH
          ¦ PRINT "END";
          ¦ NORMAL
          ¦ PRINT " OF TEST"
          ¦ VTAB 1
```

# TIP DISK #1 100 TIP BOOK TIPS ON DISK by Bert Kersey

Hey out there! Don't type in all of those programs from the Beagle Bros Tip Books! Here they are; typed for you, tested and ready to run; all 100 PROGRAMS FROM TIP BOOKS 1, 2, 3 and 4. Many are useful; a few are useless; ALL are interesting, listable and copyable. And each program teaches another elusive fact about making your Apple do another one of its things. There are 100 programs total, including fascinating Two-Liners from all over the world (and elsewhere). The Tip Disk is available now at your Apple dealer, or order direct from Beagle Bros and you'll have your Tip Disk in a few days.

Tip Disk #1 $20⁰⁰

☐ Tip Disk #1 on Disk
☐ Apple Peeks & Pokes Chart
☐ Apple Command Chart

Free Command Chart with each Tip Disk!

As of right now, we are including a free Beagle Bros **Apple Command Chart** ($2.50 value) with every Tip Disk. This 11x17 poster, a perfect companion to our Peeks & Pokes Chart, is an alphabetical listing of all 190 Applesoft, Integer and DOS commands and their functions, typeset and printed on heavy-duty stock. For various reasons, Apple has spread their programming instructions over several manuals. Commands that appear in one manual may or may not appear in another (compare the two Applesoft Manuals, for example). With his chart, you can see ALL of Apple's keyboard commands at a glance and experiment with commands you maybe never knew existed!

CHR$(83);
CHR$(73);
CHR$(84);
CHR$(161)
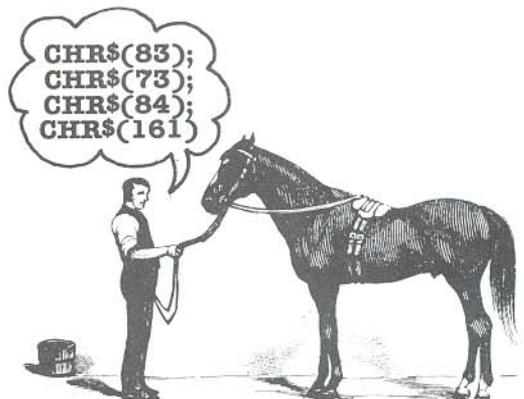
Peek Seeking

We're always on the lookout for usable peeks and pokes that didn't make our now-famous Peeks & Pokes Chart. If you have come up with any, please mail them in; we APPRECIATE your input. Here are a few that you can add to your chart—

POKE 43624,d: Change to Drive d
POKE 43626,s: Change to Slot s
POKE 49384,0: Drive motor Off
POKE 49385,0: Drive motor On
**CALL 40383:** Reconnect DOS
CALL 65121: Monitor disassembler

COUGH! TRADE? MARK? COUGH!

Alright, we've had it up to HERE with these Smith Brothers accusations. The Beagle Bros trade mark is original, but people out there (YOU know who you are) continue to accuse us of logo-lifting. The problem is that we can't FIND any pictures of good old Trade & Mark Smith anywhere. To help defend our case, we are offering a reward of a **FREE Beagle Bros Apple Command Chart** for the first SIXTEEN Smith Brothers Cough Drops boxes we receive in the mail. On your marks...

Picshifter

Even if you don't understand Apple talk about "changing pointers" and so on, type this little program, SAVE it, RUN it and then try the experiments that follow:

```
500  POKE 175,0: POKE 176,64
510  HGR : HCOLOR= 3: HOME
520  FOR Y = 0 TO 140 STEP 20
530  FOR X = 0 TO 260 STEP 20
540  N = X / 15
550  HPLOT X,Y TO X + N,Y TO X +
     N,Y + N TO X,Y + N TO X,Y
560  NEXT : NEXT : VTAB 21
570  PRINT "ADD & DELETE LINES FR
     OM THIS PROGRAM"
580  PRINT "WHILE YOU WATCH THE H
     I-RES SCREEN ABOVE.";
```

Now, as suggested on the screen, add a program line. For example, type—

10 REM (return)

See how the hi-res picture moves? That's because the picture data is now ATTACHED to your program. When you add or delete program lines, you are changing the SIZE of the program and therefore changing the LOCATION of the picture data at the end of the program; it moves up in memory

Is there REALLY a Tip Book #1?

Yes, but you can't have one. Reprinting it hasn't made its way to the top of our priority list (it IS in about 4th place, though). There has been some talk around here about a giant Beagle Bros Apple Tip Book, loose-leaf and fully indexed. We'll let you know. Anyway, from what we've heard, this is one of the most used tips from Tip Book #1:

Things That Gosub in the Night

Around 2 a.m., a ctrl-G can sound like an air raid siren. And sometimes you may want to sneak in a little SILENT game practice, right? It's a simple matter to install a switch on your Apple speaker. Certain switches will attach through the slots in the back of your Apple, and make hole drilling (gasp!) unnecessary.

← SPEAKER
CUT ONE WIRE & ADD SWITCH.
← PLUG
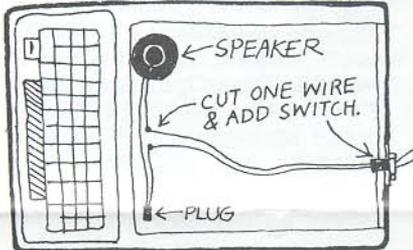
or down while we continue to look at the normal hi-res locations. The picture gets chopped up instead of being cleanly shifted thanks to the strange way Apple stores its screen images. Delete the line that you've added by typing—

10 (return)

and the picture will be restored. If you CHANGE a line that's already in memory, the picture will first jump as if the line had been deleted, then it will shift to its new position, probably proving something about something.

Line 500 in the program makes the end-of-program pointer (at locations 175 & 176) point to just beyond hi-res Page One. After that, your Apple thinks that the picture we draw in Lines 510-560 is part of our program. If you save the program before you run it, it will occupy 2 sectors. After it's run, it's a whopping 58 sectors. In certain applications, this could be a practical way to store a picture and an Applesoft program together (no hplots or bloads necessary). If nothing else, it's an interesting experiment!

Is this the world's fastest BASIC sorter?

Here's a challenge for you— The program below will write 50 random "words" (hopefully all clean). Then it will alphabetize them in approximately 14 brain-boggling seconds! "So what?" you say? Well, if you can write a faster or better sorter, we'd sure like to see it!

```
10 N = 50: REM NUMBER OF WORDS
20 DIM A$(N)
30 HOME : INVERSE : PRINT " ";N;
   " RANDOM WORDS ": NORMAL
40 FOR I = 1 TO N: FOR J = 1 TO
   5 + INT ( RND (1) * 5):A$(I
   ) = A$(I) + CHR$ ( INT ( RND
   (1) * 26) + 65): NEXT : PRINT
   I;".";A$(I): NEXT
50 PRINT : INVERSE : PRINT " SOR
   TED LIST ": NORMAL
60 A = 1:L = 0:Z = 1
70 FOR X = A TO N: FOR Y = A TO
   N: IF A$(X) > A$(Y) THEN A =
   Y: GOTO 70
80 NEXT :L = L + Z:X$ = A$(X):A$
   (X) = A$(L):A$(L) = X$: PRINT
   L;".";X$:A = L + Z: IF A <
   N THEN 70
90 NEXT
```

Rules: Your program must be written in Applesoft and be appended to Lines 10-50 in the program above.

Deadline: All entries must be in our hands by the weekend after next. Entrants must be male or female and at least 2 years of age. Mail (don't phone) your listing to Beagle Bros, Dept. $FF, 4315 Sierra Vista, San Diego, Ca 92103.

Prizes: Forget it. We WILL, however, print the fastest (and most interesting) entries in the next Beagle Bros Bulletin, which is now read by somewhere around 50,000 Applers. FAME will be yours at last!

Oh, all RIGHT! By popular demand, machine language programs WILL be accepted, but for speed-checking purposes, set the number of items in Line 10 to **500.** Program Lines 10-50 must be the same, followed by a CALL and then a printout of the sorted words.

FIGHTING HIGH PRICES

Skyrocketing advertising costs have forced our Ad Department to think smaller. With full-page magazine ads costing over $2000, Beagle Bros is considering a new 1/100 page "mini-ad" (shown here slightly enlarged for clarity). Our chief proofreader, I. O. Socket, last seen leaving for the El Salvador Computer Faire in May, could not be reached for comment.

DosTalk in Softalk

Bert Kersey, Beagle Bros freelance writer, has signed a multi-million dollar[1] 8-year[2] contract with Softalk Magazine to write a monthly column called "DosTalk", discussing the ins and outs of Apple's indispensible Disk Operating System. If you're not reading Softalk, you should be, because it's **FREE for a YEAR.**[3] Just mail your Apple's serial number to—

Softalk Circulation
11021 Magnolia Boulevard
North Hollywood, Ca 91601

[1]NOT TRUE
[2]NOT TRUE
[3]TRUE

More Imposters?

These familiar looking gents are Charles Dow and Edward Jones. The photograph was taken in New York around 1882 about the time they started an outfit called Dow Jones & Company. Charles Petzold of Haddonfield, NJ, sent us the picture, wondering if just MAYBE... No Charles, we have checked, and these guys are NO relation to our Beagle Bros logo folks, Al Gorithm and Len Adollar, but the similarity IS astounding, isn't it?
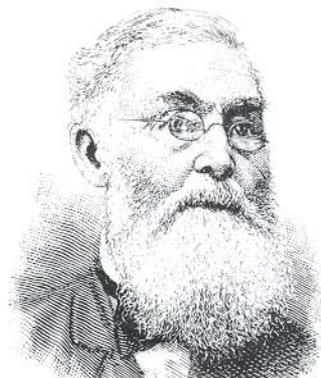
ASK UNCLE LOUIE!

Q. Dear Uncle Louie. I have a 53K Apple with a #49/a7 Axotlotl interface. How do I get it to print hi-res graphics?
A. How should I know?

Q. I live in Nebraska. My girl friend lives 4500 miles away in Greenland. Is it possible for us to be married over the phone lines using two Apples and a modem?
A. No. You need TWO modems.

Q. I am a beginning Appler. My complaint is that there aren't enough tips written for beginners. Can you help?
A. Certainly. In fact, your question has inspired me to start a Beginner's Column catering to ALL of the newcomers out there. Many have reported being frustrated by the lack of detail in the Apple Manuals, so I will start with a problem we have all encountered—

Lesson #1: To open your Apple's cardboard container, you will need a tool called a "chip puller"* to remove the large staples holding the box lid closed. Grasp the exposed part of each staple with the puller and pry up with a clockwise twisting motion. You must be careful not to void your warranty by gouging the box. If you are having trouble, call your Apple dealer at home, any hour; he'll be HAPPY to help.

Next time: Installing the power cord, the RIGHT way.

*Available through Beagle Bros by mail for $929.50. Includes free Peeks & Pokes Wall Chart and free wall.

```
1 HOME : LIST :BUZZ = 49200
2 A$ = "!/-" + CHR$ (92): FOR A =
  1 TO 48:B = PEEK (BUZZ): FOR
  C = 1 TO A: NEXT :X$ = MID$
  (A$,A - INT (A / 4) * 4 + 1
  ,1): VTAB 3: HTAB 9: PRINT X
  $;X$: NEXT : GOTO 2
```

Beagle Bros Game Packs

Beagle Bros Game Packs are different from other games on the rack (and NOT ONE Blow-Up-The-Hi-Res-Monster-Before-He-Blows-You-Up game!). All of our games are well-programmed and family-oriented. And great bargains too! Each disk features three main games, a couple of small bonus programs and a selection of animated display demos; a real disk-full. All games are LISTable and written in Applesoft, so you can LEARN from them. Many customers have reported learning programming techniques from our Game Packs.

GAME PACK #1

1. TEXTTRAIN: Race the on-screen clock with your text-format video "freight train." Real-time track switching and coupling simulations.

2. SUB SEARCH: Find the invisible enemy subs on your scope before your oxygen and fuel run out.

3. PICK-A-PAIR: A colorful party game! Uncover and remember the hidden graphic symbols to win.

GAME PACK #2

1. WOWZO!: Our challenging changeable maze game! Search and capture targets in a flexible maze, and outmaneuver your opponent before time runs out!

2. ELEVATORS: Keyboard control four elevators while racing the clock in a CRT skyscraper.

3. QUICK-DRAW!: Two colorful gunmen shoot it out on your screen.

GAME PACK #3

1. MAGIC PACK: Four brain-bending tricks in one great magic show! Only you and your Apple know how these amazing tricks are done!

2. SLIPPERY DIGITS: A challenging number-action game; a great demo of your Apple's capabilities.

3. OINK!: A nerve-racking dice game with unpredictable results.

GAME PACK #4

1. BUZZWORD: For kids of all ages! Your Apple types a story and you insert the missing words; Or you create a story with Apple's help. Save your stories to disk.

2. TRIPLE DIGITS: A plan-ahead numbers game. Stimulates some real thinking about numbers.

3. CORN GAME: For kids, a guessing game involving three farm animals and an endless supply of corn.

Game Packs 1-4 $24⁰⁰

☐ Game Pack on Disk
☐ Apple Tip Book #2 (36 pages)
☐ Apple Peeks & Pokes & Pointers Chart

(Game Packs are listable, but protected.)

Non-Beagle Bros Disks:

FASTDOS

It's easy to write an ad for FastDos, because what it does is simple— It speeds up almost all functions that deal with your disk drive. We have used FastDos constantly since early this year and now wouldn't think of programming without it. Here is a comparison of how FastDos speeds up Apple's DOS:

Function	Normal	FastDos
Load a 60-sector program ...	16 sec.	4 sec.
Save a 60-sector program ...	24 sec.	9 sec.
Bload a hi-res image	10 sec.	3 sec.
Bsave a hi-res image	16 sec.	7 sec.
Bload INT into language card	13 sec.	4 sec.

The benefits of this added speed are obvious. Our favorite is the measly 3 seconds required to bload a hi-res picture. Hi-res images do a quick "dissolve" onto the screen instead making you wait... and wait... Combined with Alpha Plot's Scrunch routine (which compresses hi-res pictures for disk storage; see page 3 of this Bulletin) or storing additional pictures on hi-res Pages Two and Three, you can make a really nice "slide presentation" that's not so darn restricted by bload time.

Just having DOS's Save function speeded up makes a big difference when backing up programs. After programming for a few minutes, you can quickly save your in-progress program, hardly missing a beat (a 10-sector program takes only TWO SECONDS to save!). Even catalogs jump to the screen faster with FastDos.

To use FastDos, you "update" your existing disks, as many as you want. Then when you boot one of these disks, a speedier DOS takes over. All DOS functions (except INIT) work as expected, only about three times as fast! FastDos is completely friendly and compatible with PLE, Muffin, FID, etc., etc., but you cannot copy updated disks and you cannot copy the FastDos disk itself (with "normal" copying methods).

Another nice FastDos feature is the report of Free Space on Disk every time you catalog, nicely displayed under the normal Disk Volume heading.

```
]CATALOG

DISK VOLUME 002
347 FREE SECTORS  ◄

*A 009 HELLO
*A 088 STAR BORES
*A 044 INVISICALC
*B 008 FILE.DATA
```

FastDos is from Australia, so, depending on your continent, you might not find it at your Apple dealer. Beagle Bros has got a good supply though; call our 800 number or mail us a check, and you'll find a copy of FastDos in your mailbox in just a few days. If you program, you're going to LOVE FastDos.

FastDos $29⁵⁰

(FastDos is copy protected; see above.)

P.L.E.

We've been using and recommending Neil Konzen's PROGRAM LINE EDITOR (P.L.E.) for so long now, that it's often difficult to remember that it's not built in to our Apples. In fact, if we were into promoting Apples, a copy of P.L.E. would be included with each one. Here's what P.L.E. will do for you:

EDITING FEATURES:
P.L.E. lets you change program lines in a flash. There's no more need to cursor-trace over program lines just to make a simple change. Instead, you type ctrl-E-(line number) and the line is displayed on the screen ready to be edited. You can instantly move the cursor to any part of the line you want changed. You can INSERT and DELETE copy as you want; P.L.E. acts like a sophisticated word processor for program lines! As soon as you've got what you want, just hit Return (no need to trace to the end of the line!). P.L.E.'s editing features alone (many not mentioned here) are TREMENDOUS time savers. But wait...there's more!

ESCAPE FUNCTIONS:
P.L.E. lets you program your escape key to perform any function you want. For example, let esc-1 catalog Drive 1 and esc-2 catalog Drive 2. No need to type "CATALOG,S6,D1", etc. Let esc-L LIST or clear the screen or switch to hi-res Page 2... any function you want for any key you want. Once you have programmed your escape key functions, the change is permanent (until you re-program it). All you have to do to install P.L.E. is boot your disk!

OTHER FEATURES:
P.L.E. lets you enter upper and lower case from the keyboard without software patches. P.L.E. lets you program your cursor, making it move as far as you want with each keystroke. P.L.E. is compatible with Applesoft AND Integer. **P.L.E. is INVISIBLE AND INDESTRUCTIBLE as part of DOS.** To use P.L.E., you append it to any "Hello" program (easy to do). Now, when you boot your disks, P.L.E. is installed in memory. P.L.E. is extremely easy to use and is NOT copy protected. Look; just BUY it; if you can't trust a recommendation by Beagle Bros, what CAN you trust?

G.P.L.E.

Global Program Line Editor (G.P.L.E.) has all of P.L.E.'s features and more—

■ Global Editing, including search & replace, search & display and search & edit. If you want to change every occurence of "HORSE" to "COW" or every "GOSUB 500" to "GOTO 20" or ANYTHING to ANYTHING, you can do it in a flash with G.P.L.E.!

■ Type-ahead buffer and DOS Mover.

■ 80-column capabilities; works with most 80-column boards.

■ Control listings by line or by page.

P.L.E. $35⁰⁰
G.P.L.E. $55⁰⁰

Three Ways To Get Beagle Bros Disks:
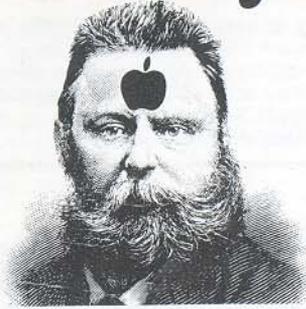
1. GOTO Your Apple Dealer.

Most Apple dealers carry our software. If your dealer doesn't, he can have it in his store for you within a few days by ordering through his favorite distributor or by phoning Beagle Bros collect.

> IF HE GOT AROUND TO STAMPING HIS NAME HERE, THIS IS YOUR APPLE DEALER:

2. Call Us TOLL FREE.

MasterCard, Visa & COD* orders, call:

Nationwide: (24 hours)
800-854-2003 ext.827

California: (24 hours)
800-522-1500 ext.827

Alaska/Hawaii: (24 hours)
800-854-2622 ext.827

Our operators are on duty around the clock, 7 days a week. They can't answer technical questions (they STILL think Disk Drive is a street in Toledo), but they WILL see that your software order is **SHIPPED WITHIN 48 HOURS.** Please be ready with your card number and expiration date.

*(COD orders, add $3.00.)

3. Mail Us a Check.

MAX FILES
16 GOSUBS PL.
SYNTAX, AZ.

Beagle Bros Dept. F
4315 Sierra Vista
San Diego, Ca 92103

RUSH!
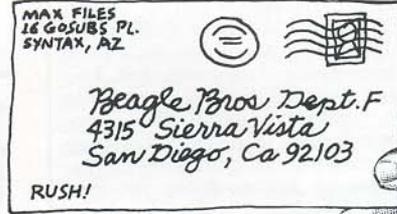
Unlike many mail order houses, Beagle Bros doesn't mess around. The day we get your check (or Visa/MasterCard number) is the day we mail your software.

master charge
THE INTERBANK CARD

COUPON ON PAGE 5

VISA

Beagle Bros™ MICRO SOFTWARE

4315 Sierra Vista
San Diego, California 92103

Orders, call **TOLL FREE** (see above).

UNBREAKABLE

7 0989 36666   7 1572 04117

If you use an Apple, and you're not receiving the Beagle Bros Bulletin, let us know. We LOVE to mail these things to people!