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Compatible with

- Apple IIe®
- Apple II+
- Apple II

**Beagle Bros<sup>TM</sup>**  
**Micro Software Inc.**

# SILICON SALAD

**MULTI-UTILITY COLLECTION (Includes Tip Disk #2)  
by BERT KERSEY and MARK SIMONSEN**

## APPLE TIP PROGRAMS

Silicon Salad features the "tips and tricks" programs from Beagle Bros Tip Books 5, 6 & 7, and Tips Chart #1, including—

■ A **HI-RES TEXT IMPRINT** routine that takes anything you print on the 40-column text screen and *imprints* it instantly, pixel-for-pixel, onto the hi-res screen.

■ An **AUTO HI-RES** routine that lets you *Brun* Hi-Res pictures (instead of Bload). The single command, "BRUN picture", will cause an image to appear on the pre-specified page, automatically *revealing* that page with the screen split or full. (The page and split/full-screen commands are invisibly imbedded in your hi-res picture.)

■ An Applesoft **ERROR TRAPPER** that **LISTS** the offending program line and visually highlights the illegal statement for you.

■ A super Basic **WORD ALPHABETIZER**. Beagle Bros held a contest last year for the fastest Applesoft sorter, and this one won.

■ A 40-column **TEXT FORMATTER** that converts anything and everything on the text screen into Applesoft PRINT statements that can be added to your programs.

■ A **HELP SCREEN** program that lets you store menus, and so on, on text Page 2.

## BONUS UTILITIES

**DISK SCANNER:** This machine language program scans a disk, looking for and reporting flawed sectors. Bad sectors, if any, are automatically "sealed off" so your programs won't try to use them.

**PROGRAM SPLITTER:** Is hi-res in the way of your Applesoft programs? Use this routine to make programs "jump over" either or both hi-res pages, and make the most efficient *total* use of memory.

**DOS-KILLER:** You only need DOS on disks that will be booted. This program creates greater-capacity "data disks" with 32 extra sectors of storage space.

**KEY-CLICKER:** Makes your Apple emit a subtle click with every keystroke. You define or re-define the sound.

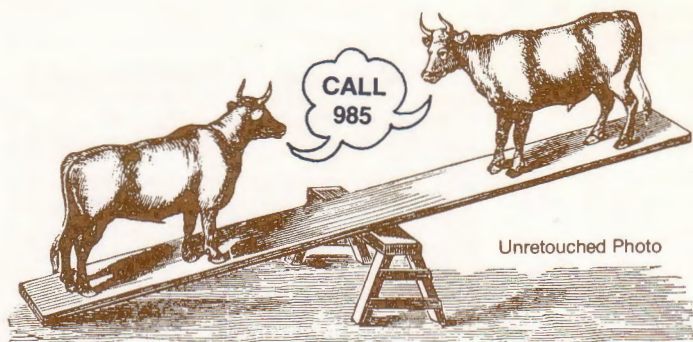
**TWO-TRACK CAT:** Normally you can only store 105 files on a disk. This program lets you store *twice* that many files.

**UNDELETE:** Reveals and undeletes accidentally deleted files.

## TWO-LINERS TOO

These entertaining little gems, from Beagle customers around the world—and elsewhere—can teach you a bunch about programming efficiently in Applesoft.

**INCLUDES PEEKS & POKES CHART  
AND APPLE COMMAND CHART**



## SILICON SALAD

by MARK SIMONSEN and BERT KERSEY

This disk contains many programs—so many, in fact, that they are divided into three groups, selectable from three separate menus, named “M”, “U” and “T”. The HELLO program, which Runs when you boot the disk, lets you select a Menu, or see the Program Notes, which (might) discuss programs or features not described in these instructions.

**All program titles may be displayed by typing “CATALOG”, and accessed with normal commands (such as “RUN Program”), without using a menu.**

### M: THE MAIN MENU

The command “**RUN M**” will Run a Menu of all the miscellaneous Run-able programs on the Silicon Salad disk—not including the Two-Liners and the more useful programming utilities. These are mostly short “trick” programs, games or other items of interest that you will probably want to observe, and then List. To get back to the Program Menu, just type “RUNM”.

### U: THE UTILITIES MENU

The command “**RUN U**” will Run the Utilities Menu, which lets you LOAD (not Run) the more useful Applesoft programming utilities. If you want to Run a utility, type “RUN” after it's loaded. To re-run the Utilities Menu, type “RUNU”.

### T: THE TWO-LINER MENU

The command “**RUN T**” will Run the Two-Liners Menu. “Two-Liners” are short Applesoft programs written in one or two program lines. The 26 Two-Liners on the Silicon Salad disk (all begin with the prefix “TL:”) are all winners in Uncle Louie's semi-perpetual Two-Liner Contest. You can have fun with many of these short programs by changing their variable values and Running them again (just type “RUN”). Note: Our GPLE is very helpful for editing long program lines.

To select a Two-Liner from the “T” Menu, type a letter between A and Z. To exit, type control-C or control-Reset. The command “RUNT” gets you back to the Two-Liner Menu.

### Fun Stuff

Type “CATALOG” and scroll to the end. You will find a “Fun Stuff” category and several miscellaneous programs. Each one may be Run (type “RUN Program Name”). These are freebies not appearing in any menu—no charge for these.





## Selected Programs from Beagle Basic's Tip Book #6

### PROGRAM NAME

### MENU

#### AUTO HI-RES

U

This program will "operate" on a hi-res picture and make it *BRUN*-able, not just *BLOAD*-able. AND, when you *Brun* your picture, it will appear on a pre-determined page, *revealing* that page in split-or full-screen format. Never mess with Poking or Bloading again!

A 3-byte catch: If you *BLOAD* a converted picture, the first three bytes (upper-left sliver of the screen) will be flawed. To fix the flaw, simply *CALL* 8192 (page 1 images) or *CALL* 16384 (page 2 images).

#### BEAGLE BLACKJACK

M

Have fun. The Space Bar acts like an N ("No") key, and as an advancer for skipping the score printouts. Feel free to add enhancements like betting, insurance, and so on—we pay a hefty 1/2% royalties on computer Blackjack games!



#### CALL 64246

Why? Why? Why?

#### CENTERSTRING

Centers strings!

#### CURSOR KILLER

Say so long to your old flashing cursor. Reset gets it back.

#### CURSOR MADNESS

Don't get too close to the screen to view this one.

#### DEC DUMPER

After Running this program, use the "&" command to dump a range of memory in decimal, rather than hex. For example, to look at memory range 768 through 800, use this command: &768, 800

#### HCOLOR COMBOS

A hi-res color mixer.

#### KEYPEEKER DEMO

Demonstrates one way to tell which key has been pressed.

#### ONERR TRY AGAIN

This program patches 48K DOS so that when a DOS error (like "File Not Found") occurs, the cursor will be placed on the same line as the typed statement that caused the error. That way, you can simply *trace over* your statement, making corrections as you go. (This DOS patch kills the *CHAIN* command.)

#### PRINTER DE-BUGGER

Hidden control-characters or inverse screen characters can cause havoc when sent to a printer—causing line-feeds, form feeds, beeps, etc. After you Run this program (only once please), do a *PR#1* to turn on your printer, then *CALL* 768. All control characters will be sent to the printer as lower case. Inverse and Flashing characters will be printed as normal.

#### SUBSTRING SEARCH

This program demonstrates how to find a string within a longer string.



Finally, FINALLY, someone came up with a sentence shorter than "PACK MY BOX WITH FIVE DOZEN LIQUOR JUGS" that contains every letter in the alphabet. Thanks to Gary Gathen of Rochester, Michigan!

### TEXT SCREEN FORMATTER

U

This program lets you format the 40-column text screen and convert the finished product into VTAB, HTAB and PRINT statements that can be appended to any Applesoft program.

To begin, *BLOAD TEXT SCREEN FORMATTER* (or *BRUN* if you want). Then type "*CALL* 25000". The following commands will let you type and format text on the 40-column screen.

#### TO MOVE THE CURSOR

Left Arrow: Move cursor left.  
Right Arrow: Move cursor right.  
Up Arrow: Move cursor up (non-ll; use ctrl-A).  
Down Arrow: Move cursor down (non-ll; use ctrl-Z).

#### TO MOVE THE ENTIRE SCREEN

(keys are in diamond pattern)  
control-S: Move screen left.  
control-D: Move screen right.  
control-E: Move screen up.  
control-X: Move screen down.

#### TEXT APPEARANCE

control-F: Flash.  
control-I: Inverse.  
control-N: Normal.  
ESC: Upper/lower case toggle.  
control-@: Clear the screen.  
control-C: Center text line.  
control-L: Clear to end of Line.  
control-P: Clear to end of Page.  
control-W: Window toggle.  
Return: Carriage return.

#### QUIT AND CONVERT

control-Q: Quit and convert.

When you Quit (control-Q), any program in memory will be replaced by Applesoft statements that will print the screen the way you had it formatted. Type *RUN* to check it out. If you don't like what you see, add a *CALL* 25003 as the last program line, and you will be put back in the Screen Editor when you *RUN*. To start over with a clean screen, *CALL* 25000 again.

The Applesoft code (without any Calls) may be saved on disk or appended to another Applesoft program.

The default starting line and increment are both 10. To change them:

POKE 25006, START-INT(START/256)\*256

POKE 25007, INT(START/256)

POKE 25008, INCREMENT



## Selected Programs from GPLE's Tip Book #7

### PROGRAM NAME

### MENU

#### BOX EYES

M

Demonstrates two things: (1) Most dice, even computer dice, are normal. (2) You can make a nice bar graph on the text screen (who needs graphics?). First bar to the right side of the screen wins!

#### HELP SCREEN

M

This program installs a "Help Page" on text page 2 and lets you view it whenever you want, by typing control-I (for "Info") or pressing the TAB key on your Apple IIe. It's up to you to expand this into a full-blown word processor. Call us when you're finished.

#### METRONOME

M

Turns your \$2000 Apple into a \$29.50 metronome.

#### NO WORD-BREAK

M

This program breaks long strings, like sentences, only at spaces and hyphens. Line 100 determines if you have an Apple IIe or non-IIe. Line 200 is a sample paragraph. Variable WD is the column-width minus 1. HT is the left margin.

#### QUOTE MAKER

M

A subroutine that makes quote marks on the screen.

#### ROUTE 6602

Lo-res has gotten a bad name over the years. This program demonstrates why.

#### SCREEN SHIFTER

M

Run this one and press the LEFT arrow key until a non-space is in the upper left corner of the screen. Then press the RIGHT arrow. The Left Arrow moves the screen memory *down* one byte. The Right Arrow moves it *up*. Due to the nature of this memory move, the upward move *copies* the value of the first byte (Vtab 1, Htab 1) all the way through the screen.

#### SCREEN FILLER

M

Puts the above program to work in a slightly different way.

#### SHUFFLER

M

This program shuffles cards. It doesn't play cards, it just shuffles them.

#### TOWERS OF HANOI

M

This is a puzzle involving three vertical pegs. On peg #1 there is a stack of "disks" (not floppy) of decreasing sizes. The object is to transfer these disks, one at a time, in their *same* order, to peg #2. Use peg #3 as temporary storage. The big stickler is that you can *never* place a disk on top of one that is *smaller*. Run the program and your Apple will solve the puzzle for you. Use the Return key to view the process step by step. You may want to alter the program so that you can make the moves yourself.

One of the neat tricks in this program occurs in Line 1000, which GOSUBS itself repeatedly until N(TS) equals zero.

#### VERTI-CALC

M

Another worthless program. Don't run this one.



## Programs from Double-Take's Tips & Tricks Chart #1

#### BASIC DISASSEMBLER

U

Lets you do a no-pause disassembly of any range of memory. Now you don't have to type endless L's when doing printer dumps.

#### HI-RES TEXT IMPRINT

U

This demo program uses the *IMPRINT* and *HI-RES FONT* files to transfer the text screen onto hi-res. LIST it to see how it works. You may use DOS Tool Kit and certain other fonts if you want (sorry, not Apple Mechanic fonts).

#### LIST CUSTOMIZER

U

Applesoft, for some reason, makes you List in column-width 33. You can change that by poking a new number in program Line 20, and Running this program.

#### PICTURE INVERTER

M

Makes a "negative" image of any hi-res picture.

#### PROGRAM PEEKER

U

Converts short machine language programs into Applesoft:

1. LOAD PROGRAM PEEKER
2. BLOAD your machine language program.
3. RUN
4. Cursor-trace over the text on the screen.

#### TEXT PAGE 2 TRANSFER

U

Transfers any windowed portion of text page 1 to page 2. To avoid clobbering the Applesoft program in memory, do these pokes before loading or running the program: *POKE* 104,12: *POKE* 3072,0

#### TEXT WINDOW DUMP

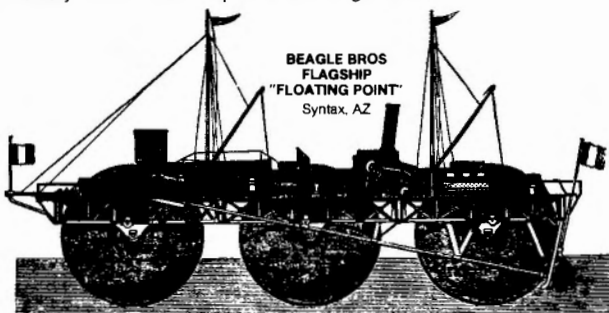
U

Dumps any *windowed* portion of the 40-column text screen to your printer. Poke locations 32-35 to set the window (see your *Peeks & Pokes* Chart).

#### ZERO-PAGE ADDRESS CHECKER

U

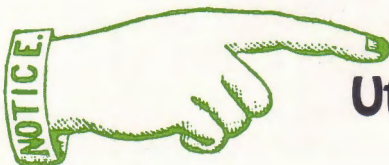
For machine-language programmers— This program checks a range of memory to see if it uses a specified Zero-Page address.





## Selected Programs from Apple Mechanic's Tip Book #5

| PROGRAM NAME  | MENU     |
|---|----------|
| <b>BLACK+WHITE=COLOR</b>  | <b>M</b> |
| Proves once and for all that hi-res colors (HCOLORs 1, 2, 5 and 6) are nothing more than black-and-white (HCOLORs 0, 4, 3 and 7) in disguise.   |          |
| <b>CHARACTER CHART</b>  | <b>M</b> |
| Use this program with your printer to make an ASCII conversion chart that doubles as a handy 0-255 hex/decimal converter.   |          |
| <b>DEC/ROM CONVERTER</b>  | <b>M</b> |
| Not a program you'll use every day.   |          |
| <b>DECIMAL DISASSEMBLER</b>   | <b>M</b> |
| For machine-languages. This program de-hexes monitor listings.  |          |
| <b>DIGIT DISSECTOR</b>  | <b>M</b> |
| Two ways to break a number into its separate digits.  |          |
| <b>DOUBLE HI-RES</b>  | <b>M</b> |
| Proves the existence of 560 horizontal hi-res plots. For <i>real</i> machine language double hi-res, ask about Beagle Bros' Double Hi-Res Graphics utility (requires Apple IIe with Extended 80-Column Card).   |          |
| <b>ERROR TOKENS</b>   | <b>M</b> |
| We honestly don't know why this short program prints all of those Applesoft error messages. Do you?   |          |
| <b>ERROR TRAPPER</b>  | <b>U</b> |
| Type "EXEC ERROR TRAPPER" to add Lines 0 and 63999 to an Applesoft program. Any encountered error will then LIST the offending program line, with an "arrow" (greater-than sign) pointing to the bad statement. |          |
| <b>FANCY FILER</b>  | <b>M</b> |
| Delete this program; it is absolutely worthless.  |          |
| <b>FLASH FIX</b>  | <b>M</b> |
| Not as flashy as FLASH, but aesthetically more pleasing.  |          |
| <b>HI-RES FLIX</b>  | <b>M</b> |
| Does a high-speed switch between hi-res pages 1 and 2. Variables W1 and W2 determine the time each page remains on the screen.  |          |
| <b>NO-TRACE CAT</b>   | <b>M</b> |
| No matter how hard you try, you can't cursor-trace over these file names, because the first character of each has been converted to a <i>control</i> -character.  |          |
| <b>PRINT-USING</b>  | <b>U</b> |
| A fast-and-easy subroutine that converts any decimal number into a rounded-off dollars-and-cents format.  |          |
| <b>SNAKE CARS</b>   | <b>M</b> |
| Another computer dice-rolling program.  |          |



## New Utilities

### PROGRAM NAME

MENU

#### DISK SCANNER

U

**BRUN DISK SCANNER** to search for physically damaged sectors on an unprotected initialized disk. If bad sectors are found, you may have the disk's VTOC updated—any bad sectors will be “sealed off” and not used.

#### DOS-KILLER

U

If DOS 3.3 showed in your catalogs, you would see it occupying a hefty 48 sectors of disk space. Since you only *need* DOS on disks that will be *booted*, DOS-KILLER allows DOS's sectors to be over-written by your programs and files. **RUN DOS-KILLER** to remove DOS. Due to the nature of DOS itself, DOS KILLER will only free 32 sectors instead of 48— a normal “data disk” will now hold 528 (496+32) sectors of information.

#### KEY-CLICKER

U

**RUN KEY-CLICKER** to make each keystroke emit a click. You will be asked to select a value for the click; 12 is our favorite. Any value above 40 or below 1 gets a bit ridiculous. Reset will kill the click. CALL 768 will (probably) re-instate it.

#### PROGRAM SPLITTER

U

Some Applesoft programs are so big that they and/or their variables “over-write” hi-res memory, making it impossible to use hi-res. Program Splitter makes a “hole” in your program, so it “jumps over” one or both hi-res memory areas.

Load your program and renumber it, if necessary, so there are no lines 0-5. Then **EXEC PROGRAM SPLITTER** to add a few new lines to your program. The variables P1 and P2 in Line 0 will determine which hi-res pages will be protected. When you **RUN** your program, it will access a binary file called “**SPLITTER**”.

After you **RUN** your program, *don't* save it; it will occupy far too much disk space. If you want to make program changes, (1) Load the program, (2) make the changes, (3) Save the program, (4) Run it. (Note: Program Splitter probably won't work if you have embedded machine code at the end of your program.)

#### TWO-TRACK CAT

U

A normal disk will hold 105 file names (or 496 sectors, whichever comes first). **RUN TWO-TRACK CAT** with a *freshly-initialized* disk in your drive. Now that disk will hold 210 file names (or 480 sectors, whichever comes first). The Silicon Salad disk itself uses a two-track catalog.

#### UNDELETE

U

If you have a program that has been deleted, this program just *MIGHT* *undelete* it. If the file has *just* been deleted, no problem. If other files have since been written on the disk, maybe not; give it a try anyway. After re-writing the undeleted file, test it to make sure it's all there. Try UNDELETE on disks that friends give you—uncover their deleted files!

#### WORD ALPHABETIZER

M

Our contest winner—50 words sorted in 3 seconds! In Applesoft!!