

Tips, Tricks and Techniques

Chart #1: Available only with purchase of DOUBLE-TAKE

Hi-Res Text Imprint

Run this program to superimpose text Page 1 (or any windowed portion) onto the hi-res screen. Inverse and Flashing characters will both appear as Inverse. You may use DOS Tool Kit fonts, Flex Text fonts, or the "HI-RES FONT" file on the Double-Take disk. After running this program, make the transfer with a **CALL 24576**. If you want to transfer the imprint to hi-res Page 2, change the variable in line 20.

```
10 FOR I = 24576 TO 24692: READ V: POKE I,V
: NEXT
20 PG = 1: REM HI-RES PAGE 1
30 DS = CHR$(4): PRINT DS"BLOAD HI-RES FON
T,AS6100"
40 POKE -16304,0: POKE -16302,0: POKE -
(16301 - PG),0: POKE -16297,0: POKE 2
30,PG * 32: CALL 24576
50 DATA 166,34,138,133,28,32,36,252,160,0,1
65,40,133,42,165,41,41,3,5,230,133,43,1
77,40,201,32,176,5,105,192,206,82,96,20
1,96,176,5,105,128,206,82,96,201,128,17
6,5,105,64,206,82
60 DATA 96,201,160,144,49,41,127,24,42,42,4
2,72,42,41,3,9,96,141,80,96,104,41,248,
141,79,96,162,0,189,0,96,73,0,81,42,145
,42,24,165,43,105,4,133,43,232,224,8,14
4,235,169
70 DATA 0,141,82,96,200,196,33,144,157,166,
28,232,228,35,144,142,96
```

The way the program appears here, it will "Xdraw" text in hi-res. Try the following pokes after the program is Run, then **CALL 24576**—**ERASE/DRAW**:

POKE 24659,234: POKE 24680,234
DRAW: POKE 24659,17: POKE 24680,42
XDRAW: POKE 24659,81: POKE 24680,42



Zero-Page Address Checker

Applesoft, DOS and the Monitor all like to crowd onto Apple's Zero-Page. This program will check a range of memory to see if it uses a specified Zero-Page address. For example, to see where Applesoft uses address 26, enter 53248 and 63487 as the Start and End locations.

```
10 FOR I = 768 TO 874: READ V: POKE I,V: NEXT
20 INPUT "ENTER START ADDRESS ? ":ST: INPUT
"ENTER END ADDRESS ? ":EN: INPUT "ENTER
ADDRESS ? ":AD: PRINT
30 POKE 59,INT(ST/256): POKE 58,ST-INT
(ST/256) * 256: POKE 868,INT(EN/2
56): POKE 867,EN-INT(EN/256) * 25
6: POKE 869,AD: CALL 768
40 DATA 162,0,32,140,248,164,47,192,1,200,1
9,177,58,205,101,3,208,12,162,4,189,102
,3,197,46,240,29,202,16,246,165,47,56,1
01,58,133,58,165,59,105,0,133,59,165,58
,205,99,3,165,59,237,100,3,144,201
50 DATA 96,169,164,32,237,253,165,59,166,58
,32,65,249,169,15,133,36,165,59,166,58,
32,36,237,169,31,133,36,165,59,164,58,3
2,242,226,32,46,237,32,142,253,76,30,3,
0,0,0,129,89,77,145,133
```



Picture Inverser

This program will make a "negative" of any hi-res image (white becomes black, green becomes orange, etc.). Bload a picture first, then Run this program. All that is necessary to invert a picture again is a **CALL 768**. If you want to invert Page 2 instead of Page 1, change the variable in line 20, or do these pokes before you **CALL 768**—

POKE -16299,0: POKE 769,64: POKE 791,96
To go back to Page 1—
POKE -16300,0: POKE 769,32: POKE 791,64

```
10 FOR I = 768 TO 794: READ V: POKE I,V: NEXT
20 PG = 1: REM HI-RES PAGE 1
30 POKE -16304,0: POKE -16302,0: POKE -
(16301 - PG),0: POKE -16297,0: POKE 7
69,PG * 32: POKE 791,(PG + 1) * 32: CALL
768
40 DATA 169,32,133,28,169,0,133,27,168,177,
27,73,255,145,27,200,200,247,230,28,165
,28,201,64,208,239,96
```

List Customizer

Applesoft makes you LIST in column-width 33, a strange number if you ask us. This program allows variable-width listings, fits more copy on the screen, and facilitates ESCape editing. After running the program, use "&" instead of "LIST". Change line 20 (or **POKE 867, width**) to change the List width.

```
10 FOR I = 0 TO 192: POKE 768 + I, PEEK (54
949 + I): NEXT
20 POKE 867,40: REM WIDTH
30 POKE 933,135: POKE 934,3: POKE 945,135: POKE
946,3: POKE 1014,0: POKE 1015,3
```

Text Window Dump

Most text dump programs don't take the text window into consideration. This one does. That means you can dump the entire screen or any windowed portion of it to your printer. After running the program, only lines 20 and 30 are needed to dump the screen again.

```
10 FOR I = 768 TO 818: READ V: POKE I,V: NEXT
20 DS = CHR$(4): PRINT DS"PR#1": PRINT CHR$
(9)"N"
30 CALL 768: PRINT DS"PR#0"
40 DATA 166,34,138,32,36,252,160,0,177,40,
201,32,176,2,105,192,201,96,176,2,105,1
28,201,128,176,2,105,64,201,160,176,2,1
05,96,32,237,253,200,196,33,144,222,32,
142,253,232,228,35,144,208,96
```



Beagle Bros
Micro Software Inc.

Program Peeker

This program converts short* machine-language programs into Basic, printing the most-recently Bloaded file on the screen as Data statement(s) and a For-Next loop. After running the program, type NEW and cursor-trace over the printout to enter the code into a program or subroutine that may then be appended to any program. You must Bload your binary program after loading and before running this program.

```
10 ST = PEEK (43634) + PEEK (43635) * 256
20 EN = ST + PEEK (43616) + PEEK (43617) *
256 - 1
30 CNT = 0: LINE = 1010: PRINT
40 PRINT "]]]]]]]] FOR I = ":ST;" TO ":EN;" : R
EAD V: POKE I,V: NEXT I"
50 FOR I = ST TO EN
60 IF CNT = 0 THEN PRINT : PRINT "]]:LINE:
" DATA ": PEEK (I): GOTO 80
70 PRINT "]]: PEEK (I):
80 CNT = CNT + 1: IF CNT = 50 THEN PRINT :C
NT = 0: LINE = LINE + 10
90 NEXT I: PRINT
```

*There is a much longer program on page 77 of the old DOS Manual (pre-Apple IIe) that uses an Exec file to accomplish the same thing. Use it for converting larger binary programs.



Basic Disassembler

This program lets you do a no-pause disassembly of any range of memory from Basic, saving you from typing endless L's when doing printer dumps. Just Run the program, enter the addresses, and watch it go.

```
10 INPUT "ENTER START ADDRESS ? ":ST: INPUT
"ENTER END ADDRESS ? ":EN
20 SH = INT (ST / 256): SL = ST - (INT (ST /
256) * 256): EH = INT (EN / 256): EL = E
N - (INT (EN / 256) * 256)
30 POKE 59,SH: POKE 58,SL
40 CALL -415
50 CH = PEEK (59): CL = PEEK (58): IF (CH >
EH OR (CH = EH AND CL > = EL)) OR CH <
SH THEN END
60 GOTO 40
```

Text Page 2 Transfer

Here is a handy utility that transfers all of text Page 1 (or any windowed portion) to text Page 2. This could be used for writing on both text pages (use those four text lines on hi-res Page 2) or putting lo-res graphics on Page 1 while preserving your text on Page 2. To avoid clobbering the Applesoft program in memory, do the following pokes before loading or running a program—

POKE 104,12 : POKE 3072,0

After the the program is Run once, just **CALL 768** to perform a transfer.

```
10 FOR I = 768 TO 808: READ V: POKE I,V: NEXT
20 CALL 768
30 DATA 166,34,138,32,36,252,160,0,165,41,
41,3,9,4,133,41,177,40,72,165,41,41,3,9
,8,133,41,104,145,40,200,196,33,144,229
,232,228,35,144,218,96
```