

# TRS8BIT



WELCOME TO THE SEPTEMBER EDITION OF TRS8BIT. JUST A QUICK THANK YOU FOR THE FEEDBACK, KIND COMMENTS IN GENERAL AND IN PARTICULAR ABOUT ROY'S HARD DISK ARTICLE IN THE LAST ISSUE. IT SEEMS AT LEAST TWO PEOPLE HAVE BEEN ASSISTED BY IT. HOW ABOUT LETTING US ALL KNOW HOW YOU'RE GETTING ON?

CONTRIBUTIONS HAVE BEEN A BIT THIN ON THE GROUND, MOST PROBABLY DUE TO THE AUGUST HOLIDAY TIME, BUT I HOPE THAT I'VE MANAGED TO FIND ODD LITTLE BITS OF INTEREST FOR YOU!

THE USUAL ONE-LINER MAKES AN APPEARANCE AND A NUMBER OF SNIPPETS IN 'AT THE READY PROMPT' WHICH I'VE BEEN PLAYING AROUND WITH. I'VE PRODUCED A CHART OF 'LOOK AT A GLANCE' PRINTER INFORMATION TO ASSIST IN CHECKING FOR COMPARABLE OPTIONS. THERE'S AN ARTICLE BY ANON. WHO DOESN'T LIKE 'MOD'. PERHAPS, IN HIS YOUNGER LIFE, HE WAS A ROCKER EH?

STAR-BILLING GOES TO A CRACKING ARTICLE BY EC KILPATRICK FOR ALL YOU HARDWARE BUFFS OR ANYONE WANTING TO FIT 48K INSIDE THEIR KEYBOARD.

THIS ALL CAME ABOUT BECAUSE I 'WON' SOME 8 BIT, 64K RAM CHIPS WHICH WERE FOR SALE ON EBAY AND I WAS SURE THAT, IN THE BACK OF MY MIND, THERE WAS AN ARTICLE WHICH HAD A USE THEM. SURE ENOUGH, I FOUND IT.

IT WAS ORIGINALLY PUBLISHED IN NATGUG NEWS IN SEPTEMBER 1984 AND I'VE MANAGED TO INCORPORATE ALL THE LATER, ADDITIONAL AMENDMENTS THAT WENT WITH IT. THE CHIPS ARE MARKED-SHARP LH2164-15

\*\* NOW IF ANYONE WOULD LIKE TO TRY IT OUT I'D BE MORE THAN HAPPY TO SEND THE RAM CHIPS FOR YOU TO USE \*\*

IF YOU'RE INTERESTED, PLEASE EMAIL ME WITH YOUR DETAILS AND I'LL SEND THE CHIPS OFF TO YOU.

THIS LOOKS TO ME LIKE MAJOR SURGERY AND IS WAY PAST MY MEAGRE DIY ABILITIES.

I CAN'T EVEN GUARANTEE THAT THE CHIPS ARE SUITABLE OR EVEN STILL USABLE BUT IT WOULD BE REAL FUN TO TRY IT OUT. JUST THINK OF IT, HARDWARE MODS ON A 30 YEAR OLD MICRO-COMPUTER! I DON'T RECOMMEND ATTACKING YOUR ONE AND ONLY REMAINING MODEL 1 THOUGH!

N.B. THIS OFFER IS, BY ITS VERY NATURE, ON A FIRST-COME FIRST-SERVED BASIS! THERE WOULD BE NO CHARGE, BUT A SHORT ARTICLE FOR TRS8BIT TELLING US HOW WELL (OR OTHERWISE) THE MODS WENT, WOULD BE MOST APPRECIATED.

ALSO, WHILE I'M THINKING ABOUT FREEBIES, I'VE, ONCE AGAIN THANKS TO EBAY, ACQUIRED A NUMBER OF 'NEW-OLD-STOCK' RIBBONS FOR AN EPSON LX80. IF YOU'RE HAVING TROUBLE SOURCING A REPLACEMENT JUST LET ME KNOW. THE REFERENCE NUMBERS QUOTED ARE 8MM X 6M F35703ZA.

AND... WHILE HELPING ON A CLEARANCE, I CAME ACROSS A

PART-BOX OF NEW, 8" FLOPPY DISKS. SO IT YOU RUN A MODEL 2 OR ANY MACHINES WITH 8" DRIVES AND YOU'RE HAVING DIFFICULTIES GETTING MEDIA, AGAIN, PLEASE LET ME KNOW. THEY ARE MEMOREX, SINGLE SIDED, DOUBLE DENSITY, SOFT SECTORED WITH 77 TRACKS.

TALKING OF MODEL 2'S, ONE SOLD ON THE UK'S EBAY FOR £75. THERE HAS BEEN QUITE A FEW TANDYS SOLD OVER THE LAST FEW WEEKS, WITH MODEL 1'S FETCHING BETWEEN £18 AND £35 AND MODEL 4'S FETCHING BETWEEN £50 AND £90. THERE'S BEEN CONSIDERABLY MORE SALES OF ACCESSORIES, BOOKS AND SOFTWARE TOO, FOR ALL MODELS. AS AT THE TIME OF WRITING, THERE IS A VIDEO GENIE FOR SALE IN AN EBAY 'SHOP'. THE PRICE IS £80 IT'S NICE TO KNOW THERE'S STILL A BIT OF INTEREST OUT THERE.

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AT THE  
READY>  
PROMPT



ONE REALLY NEAT FEATURE OF DISK BASIC IS THAT IT ALLOWS THE USE OF HEX AND OCTAL CONSTANTS. I.E. IF YOU ISSUE THE COMMAND PRINT &H5BBB, IT RETURNS THE ANSWER 23483, THE DECIMAL EQUIVALENT. THIS SAVES ME HAVING TO GET OUT MY TANDY

PC-6 COMPUTER ANY TIME I NEED A CONVERSION FIGURE!

HERE'S A FEW OLD CHESTNUTS, BUT JUST IN CASE YOU DON'T HAVE THEM TO HAND;  
TO DISABLE THE MODEL 1'S BREAK KEY POKE 16396,23  
AND, JUST AS HANDY, TO ENABLE THE BREAK KEY POKE 16396,201.

IF YOU CAN'T REMEMBER WHAT YOU'VE SET MEMORY SIZE TO WHEN STARTING LEVEL II BASIC, HERE'S AN EASY WAY TO HELP.  
PRINTPEEK(16561)+PEEK(16562)\*256+2.

IF PEEK(293) = 73, THE MACHINE YOU'RE ON IS A MODEL 3. ANY OTHER VALUE AND IT'S A MODEL 1.

THESE WORK FINE WITH MATTHEW REED'S M1 EMULATOR

IF YOU'RE ON A MODEL 1 - POKE 15360,1  
PRINT PEEK(15360) THIS WILL PRINT A 1 IF THE R/S LOWER-CASE MOD HAD BEEN FITTED. IF NOT, THE RESULT WILL BE 65

THERE'S A LITTLE 'BUGLETT' IN SOME EDITIONS OF TRS-DOS 2.3 WHICH I HAD FORGOTTEN ABOUT. THE PASSWORD PROTECTION GIVES UP AFTER ONE TRY. THE FIRST TIME YOU TRY TO COPY AN UNCOPYABLE FILE IT WILL GIVE THE ERROR MESSAGE "FILE ACCESS DENIED". TRY TO COPY IT AGAIN - THIS TIME YOU SHOULD SUCCEED!

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HERE'S A ONE-LINER FROM AN ORIGINAL IDEA BY MICHAEL LYON  
0 IFW>0GOTOELSECLS:D=400:B=20:L=B:S=1:E=.4:C=.05:F=.5:FORW=1T052  
:FORX=-LTOLSTEPS:Y=SQR(ABS(D-X\*X)):IFD<X+2 Y=F:SET(Y\*S+B,X+20):B  
=B+C:D=D-E:NEXT:L=-L:S=-S:NEXT:ELSESET(Y\*S+B,X+20):B=B+C:D=D-E:N  
EXT:L=-L:S=-S:NEXT:GOTO

48K IN THE  
MODEL 1 KEYBOARD  
EC KILPATRICK

NOW THAT GENERAL  
NORTHERN HAVE GONE OUT OF  
BUSINESS, WE THOUGHT IT  
WOULD BE A GOOD IDEA TO SEE  
IF IT WAS POSSIBLE TO  
MODIFY THE MODEL 1 KEYBOARD  
TO READ 48K WITHOUT HAVING  
TO ADD A DECODER BOARD.

WITH CONSIDERABLE HELP FROM  
MY GOOD FRIEND GUY  
GRANTHAM, WHO HAD ALREADY  
MODIFIED HIS VIDEO GENIE,  
WE HAVE SUCCEEDED. HERE IS  
HOW WE DID IT.

THE MEMORY SIGNALS COMBINED  
WITH RAS\* AND CAS\* TO  
READ:-

UP TO 16K RAM REQUIRE A15  
LOW AND A14 HIGH  
FROM 16K TO 32K REQUIRE A15  
HIGH AND A14 LOW  
FROM 32K TO 48K REQUIRE A15  
HIGH AND A14 HIGH  
THEREFORE, TO READ ALL 48K  
EITHER A14 OR A15 OR BOTH  
MUST BE HIGH AT THE  
RELEVANT TIME.

ORIGINALLY THE COMPUTER  
COULD ONLY RECOGNISE UP TO  
16K OF RAM BECAUSE IT WAS  
ONLY DECODED TO READ MEMORY  
WHILE A15 WAS LOW, DUE TO  
Z73 (PINS 4,5,6 OR GATE)  
CONTROLLING Z21 (2 LINE TO  
4 LINE DECODER) AT PINS 14  
AND 2.

THESE SIGNALS WILL BE  
RETAINED FOR VIDEO,  
KEYBOARD AND ROM, BUT NO  
LONGER USED TO GENERATE THE  
MEM\* AND RAM\* SIGNALS BY  
OPENING LINKS 2,3,4,5 ON  
X3.

NEW CONNECTIONS ARE  
REQUIRED TO GENERATE THE  
MEM\* SIGNAL WHICH COMES

FROM PIN 6, Z74.

THIS SIGNAL NOW HAS TO BE  
ACTIVE LOW WHENEVER THERE IS  
A RD\* ACTIVE, EXCLUDING  
CALLS TO RESERVED MEMORY  
3000H TO 37FFH WHICH IS  
REQUIRED FOR DISK AND  
PRINTER I/O, OR TO THE  
KEYBOARD AT 3800H TO 3BFFH,  
OR AGAIN TO THE SEPARATE  
VIDEO RAM AT 3C00H TO 3FFFH.  
ALL THESE INVALIDATING  
CONDITIONS ARE MET WHEN A15  
AND A14 ARE LOW AND A13 AND  
A12 ARE HIGH, AS PROVIDED BY  
THE OUTPUT FROM Z21 PIN 12  
TO INPUT PIN 4 OF Z36. SO BY  
CUTTING THE TRACE TO PIN 5  
OF Z74 AND LINKING PIN 4 OF  
Z36 TO THIS PIN, THE  
REQUIRED CONDITIONS OF MEM\*  
ARE MET FOR 48K RAM.

Z73 PINS 8,9,10 ARE NOW  
SPARE BY VIRTUE OF CUTTING  
THE TRACE TO Z74 PIN 5. THIS  
GATE, TOGETHER WITH 2 OTHER  
ORIGINALLY 'SPARE' GATES,  
Z73 PINS 11,12,13 AND Z37  
PINS 8,9,10 WILL BE USED TO  
DECODE THE ROW AND COLUMN  
ADDRESSES OF THE 64K RAM  
CHIPS.

PINS 9 AND 10 OF Z73 MUST  
HAVE THEIR INCOMING TRACES  
CUT AND REPLACED BY LINKS TO  
A14 AND A15 AT Z21 PIN 15  
AND Z73 PIN 4 RESPECTIVELY.

Z73 PIN 8 OUTPUTS THE (A15  
OR A14) CONDITION REQUIRED  
IN THE FIRST PARAGRAPH TO  
ADDRESS THE TOP 48K OF THE  
MEMORY MAP.

THIS SIGNAL IS INVERTED BY  
THE SPARE NOR GATE OF Z37  
(8,9,10) AND COMBINED WITH  
RAS\* IN THE SPARE OR GATE OF  
Z73 (12,13) WHICH, IN TURN  
FROM PIN 11 FEEDS THE  
EXISTING RAM\* CONNECTION AT  
Z74 PIN 10.

NOTE :- PINS 8 AND 9 OF Z37  
MUST BE SEPARATED AND ONLY  
ONE OF THEM MAY BE CONNECTED  
TO PIN 8 OF Z73, AS ALTHOUGH

PIN 9 APPEARS TO BE 'FLOATING' IT IS NOT POSSIBLE TO BE 100% CERTAIN ABOUT PIN 8, SO IT MUST BE TIED TO PIN 7 (EARTH). A14 AND A15 MUST ALSO BE LINKED TO PINS 14 AND 13 OF THE DATA SELECTOR Z51, WHILE IT'S OUTPUT AT PIN 12 WILL BE LINKED TO THE NUMBER 9 PINS OF EACH OF THE 64K RAMS.

HERE ARE THE DETAILED CHANGES NECESSARY :-

OPEN UP THE KEYBOARD AND LOCATE THE FOLLOWING CHIPS ON THE 'TRACE' SIDE OF THE BOARD. Z21, Z36, Z37, Z51, Z73 AND Z74. (I STUCK A SMALL NUMBER LABEL ON EACH CHIP TO MAKE SURE I COULD ALWAYS READ THEM AND LOCATE PIN 1).

LAY THE KEYBOARD COMPONENT SIDE DOWN WITH THE KEYS AWAY FROM YOU.

CUT THE FOLLOWING TRACES, BETWEEN PINS 8 AND 9 OF Z37 (A SOLDER SUCKER IS NEEDED HERE), CLOSE TO PINS 9 AND 10 OF Z73, (PIN 10 ON THE COMPONENT SIDE) AND PIN 5 OF Z74.

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NOTE:-

SOME LATE ISSUE BOARDS ALSO HAVE THE TRACES OF PINS 12, 13 AND 14 OF Z73 JOINED TOGETHER SO THE TRACE BOTH SIDES OF PIN 13 MUST ALSO BE CUT.

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USING THIN INSULATED WIRE CONNECT THESE PINS IN THIS ORDER :-

FROM Z73 PIN 11 TO Z74 PIN 10  
FROM Z73 PIN 12 TO Z73 PIN 5  
FROM Z73 PIN 10 TO Z73 PIN 4 AND ON TO Z51 PIN 13  
FROM Z73 PIN 13 TO Z37 PIN

10  
FROM Z73 PIN 9 TO Z51 PIN 14 AND ON TO Z21 PIN 15  
FROM Z73 PIN 8 TO Z37 PIN 9  
FROM Z74 PIN 5 TO Z36 PIN 4  
FROM Z37 PIN 8 TO Z37 PIN 7

NOW X3 HAS TO BE MODIFIED, AS MENTIONED EARLIER, STARTING FROM PIN 1, LEAVE THAT AS IS. PINS 2,3,4 AND 5 HAVE TO BE OPEN AND PINS 6,7 AND 8 CLOSED. A SMALL SCREWDRIVER CAN BE USED TO OPEN AND A BLOB OF SOLDER TO CLOSE AS NEEDED.

BEFORE THE 16K RAM CHIPS ARE REMOVED, THE SYSTEM CAN BE TESTED BY SWITCHING THE COMPUTER ON IN LEVEL 2 MODE AND ENTERING 'PRINT MEM', THE ANSWER SHOULD BE EITHER 48340 OR 48338 DEPENDING ON WHICH TYPE OF ROMS ARE FITTED. THE FIGURES ARE ONLY 2 REFLECTIONS OF THE EXISTING 16K AND AS SUCH, CANNOT BE USED.

PROVIDING THE SYSTEM WORKS THIS FAR, THEN FITTING THE 64K RAMS CAN BE CARRIED OUT. REMOVE THE 16K RAMS AND PUT THEM SAFELY AWAY. WITH THE KEYBOARD STILL LAID OUT WITH THE KEYS AWAY FROM YOU, CUT THE 12V TRACE AT PIN 8 OF Z19. CUT THE -5V TRACE AT THE CAPACITOR PIN BELOW PIN 1 OF Z13. FIT A THICK WIRE FROM THE +5V PIN ABOVE PIN 7 OF Z1 TO THE PIN ABOVE PIN 8 OF Z17.

FOLD THE KEYS OVER ON TOP OF THE BOARD AND TURN THE WHOLE ASSEMBLY OVER. VERY CAREFULLY BEND UP PIN 9 OF EACH OF THE 64K RAM CHIPS (NOT TOO FAR OR THEY MAY BREAK) AND INSERT THEM IN TO THE EMPTY RAM SOCKETS THE SAME WAY ROUND AS THE 16K CHIPS, MAKING SURE THAT EACH PIN 9 IS CLEAR OF THE TOP OF THE SOCKET, AS THAT MIGHT BE AT +5V. (CONTACTS MAY BE

SLIGHTLY PROUD ON SOME TYPES OF SOCKETS). WIRE ALL THE NUMBER 9 PINS TOGETHER AND CONNECT A WIRE FROM PIN 12 OF Z51 TO THE NEAREST PIN 9 OF THE RAMS.

CAREFULLY \*\*RECHECK\*\* THAT THE +12V TRACE IS DEFINITELY CUT AND THE SYSTEM IS READY TO GO. IT IS NOT ESSENTIAL TO CUT THE -5V RAIL BUT IT SHOULD BE DONE AS A SAFETY MEASURE. CUTTING THE ORIGINAL +5V RAIL IS A VERY COMPLICATED JOB AND IS BEST LEFT ALONE, HENCE THE COMMENT ABOUT PINS 9 BEING WELL CLEAR OF THE SOCKET AS THAT IS STILL AT +5V.

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NOTE:-  
DO NOT USE TEXAS 64K RAMS AS THEY HAVE A DIFFERENT REFRESH SYSTEM AND CANNOT BE USED WITHOUT FURTHER MODIFICATIONS TO THE COMPUTER CIRCUITRY.  
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I DON'T LIKE MODS  
ANON.

MOD IS AN ARITHMETIC FUNCTION FOUND ON THE MODEL II. AS WITH SWAP,

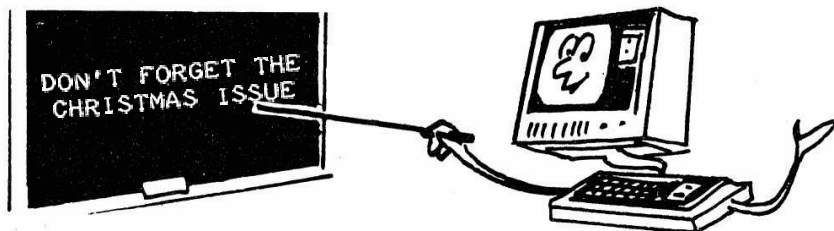
THIS FUNCTION IS USEFUL, BUT IT CAN VERY EASILY BE DUPLICATED ON A COMPUTER WITHOUT THIS FUNCTION, SUCH AS THE MODEL I OR MODEL III.

MOD SIGNIFIES THE INTEGER REMAINDER WHEN A DIVISION OPERATION IS PERFORMED. AN ELEMENTARY SCHOOL STUDENT LEARNING DIVISION WOULD LEARN THAT 5 DIVIDED BY 3 IS ONE REMAINDER 2. THUS, 5 MOD 3 EQUALS 2. IN A SIMILAR FASHION, ONE COULD DERIVE THAT 103 MOD 25 EQUALS 3.

THE MOD FUNCTION ON THE MODEL 2 TAKES THE FORM A MOD B. ITS EQUIVALENT ON THE MODEL I OR MODEL 3 WOULD BE A - INT (A/B) \* B. THUS, THE EQUIVALENT OF 103 MOD 25, AS IN OUR PREVIOUS EXAMPLE, WOULD BE 103 - (INT (103/25) \* 25), WHICH, AS STATED ABOVE, SIMPLIFIES TO 3.

MOD DOES NOT SAVE A SIGNIFICANT PORTION OF EXECUTION TIME. IT DOES MAKE CODE USING THIS FUNCTION A BIT EASIER TO READ, BUT THIS, I BELIEVE, IS FAR OUTWEIGHED BY THE INCOMPATIBILITY IT CAUSES. SINCE IT IS EXTREMELY EASY TO "CONSTRUCT" A MOD FUNCTION WHICH WILL WORK ON VIRTUALLY ANY VERSION OF BASIC, I WOULD STRONGLY ADVISE AGAINST USING THIS FUNCTION.

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TRS8BIT "AT A GLANCE" TRS-80 PRINTER COMPARISON CHART (CIRA EARLY 1980'S)

	Centronics 737 LP II	Epson MX-80	Oki Microline 80	CGP-115	Quickprinter 2	DMP-100	Cannon BJ-10sx
<b>WEIGHT (LBS)</b>	12	12	14	1.8		8.6	3.7
<b>SIZE</b>	5 x 14.5 x 11	4.2 x 14.7 x 12	4.25 x 13.5 x 9.75	8.5 x 8.5 x 3	3.5 x 7 x 9.5	16 x 8.25 x 5.3	31 x 22 x 4.85
<b>INTERFACE - PARALLEL/SERIAL</b>	P	P	P	Both	Both	Both	P
<b>SPEED</b>	50 cps @ 10 cpi	80 cps @ 10 cpi	80 cps @ 10 cpi	12 cps	64 cps	50 cps @ 10 cpi	110 cps @ 10 cpi
<b>BI-DIRECTIONAL</b>	N	Y	N	N	N	N	Y
<b>PRINT-HEAD LIFE - CHARS.</b>	150 million	50 - 100 million	200 million	n/a	30 million	?	n/a
<b>DESCENDERS</b>	Y	Y	N	Y	N	N	Y
<b>NO OF WIRES IN HEAD</b>	9	9	9	n/a	n/a	7	n/a
<b>DENSITIES CHARS/LINE</b>	40, 66, 80, 132	40, 66, 80, 132	40, 80, 132	40, 80	9, 18 cpi	40, 80	5, 8.5, 10, 12, 17
<b>GRAPHICS</b>	N	Y	Y	Y	Y	Y	Y
<b>SLASH ZERO</b>	N	N	Y	Y	Y	Y	N
<b>LINE SPACING - LINES PER INCH</b>	6	6 or 8	6 or 8	software selectable (fwd & rev)	6	6, 9	variable
<b>MAX PAPER WIDTH</b>	9.5 fanfold, 8.5 cut	10 fanfold	9.5 fanfold, 8.5 cut	4.5	2.38 ins - fixed	9.5 fanfold	8 ins
<b>TRACTOR OR FRICTION FEED</b>	F	T	Both	F	F	T	F
<b>MAX COPIES</b>	3	3	3	1	1	1	1
<b>INK</b>	ribbon, mobius loop	ribbon, cartridge	ribbon, .5 typewriter	4 colour pens	Aluminum coated paper	inked roller cassette	bubble jet cartridge

# HIDE YOUR CODE!

BY PHILIP CASE

HERE'S A TIP ABOUT USING CONTROL CODE FUNCTIONS TO MAKE YOUR PROGRAMS HARDER FOR OTHER PEOPLE TO LIST, EXAMINE AND/OR AMEND. IF YOU REMEMBERS, CHR\$(23) PUTS YOUR MODEL 1'S SCREEN INTO THE ENLARGED MODE (32 CHARACTERS PER LINE). CONSEQUENTLY, ANYTHING THAT'S ON THE SCREEN IN THE 62 CHARACTER MODE WILL LOSE EVERY OTHER LETTER WHEN YOU SWITCH INTO THE ENLARGED MODE. YOU CAN ILLUSTRATE THIS BY TYPING ANYTHING ON THE SCREEN, PRESSING SHIFT/RIGHT ARROW, THEN PRINTING CHR\$(23) (HOME CURSOR). BY DOING THIS YOU ARE ENTERING A CONTROL CHARACTER IN THE IMMEDIATE MODE. YOU CAN PUT THESE CODES IN YOUR BASIC PROGRAM CODING BY ADDING A 'REM'ARK AT THE END OF AN IMPORTANT LINE, THEN AND ASTERISK (\*). HERE'S AN EXAMPLE -

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10 FOR A=1TO10:NEXTA:REM*
THIS LINE WILL STILL
FUNCTION IN THE REGULAR
WAY. AFTER EDITING THE
LINE, GO BACK AND FIND THE
LOCATION IN MEMORY WHERE
THE ASTERISK ACTUALLY
RESIDES. ONE FOUND, POKE
THE ADDRESS WITH 23. THEN
LIST THE LINE. THE LINE
AUTOMATICALLY CAUSES THE
COMPUTER TO CHANGE INTO THE
ENLARGED FORMAT.
BY USING DIFFERENT
COMBINATIONS OF THIS
TECHNIQUE, YOU CAN MAKE IT
A REAL PAIN FOR ANYONE TO
ALTER OR ANALYSE YOUR BASIC
CODE. AS AN IDEA, POKING 28
WILL HOME THE CURSOR, AND
POKING 31 WILL ERASE TO THE
END OF SCREEN!
NICE ONE EH?
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FOR THOSE OF YOU WHO VISIT THE WEB-SITE ON A REGULAR BASIS, YOU'LL ALREADY KNOW I'VE PUT OUT A REQUEST FOR HELP ON AN ARTICLE TO CONVERT A PROGRAM FROM APPLE II BASIC TO LEVEL II BASIC. IT IS SUPPOSED TO PRODUCE A SUDOKU PUZZLE, ON A 9 X 9 GRID. I JUST THOUGHT THAT PRODUCING SUDOKUS ON A LEVEL 2, MODEL 1 WOULD BE JUST AMAZING AND MAKE A GREAT NOVELTY IDEA FOR THE CHRISTMAS EDITION. (WHICH, BY THE WAY, SHOULD BE AVAILABLE EARLY DECEMBER 2008.)

I ALSO 'WON', ON EBAY, A DPM-100 PRINTER BUT, SO FAR, I HAVEN'T BEEN ABLE TO GET IT RUNNING USING THE TANDY PRINTER TO KEYBOARD INTERFACE CONNECTOR AS YET. IT SEEMS TO POWER UP OK, BUT THEN JUST SITS THERE - LOOKING AMAZING, BUT DOING NOTHING!

I'M STILL LOOKING FOR MORE INFORMATION REGARDING THE 'ACULAB FLOPPY TAPE' PLEASE LET ME KNOW IF YOU COME ACROSS ANYTHING OF INTEREST. IT WOULD BE MOST APPRECIATED.

WELL, I THINK THAT JUST ABOUT WRAPS UP THIS ISSUE. IF YOU'VE ANY SPECIAL REQUESTS OR IDEAS FOR THE XMAS ISSUE PLEASE ASK AND I'LL DO MY BEST TO INCLUDE THEM. IN THE MEAN TIME -

TAKE CARE  
DUSTY

