

CEDAR VALLEY 99'ER USER GROUP NEWSLETTER



CEDAR RAPIDS/MARION, IOWA

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NEWSLETTER TOPICS

1. Future Meeting Dates
2. Next Meeting Notes
3. Minutes from the March Meeting
4. Tips from the Tigercub #50
5. Upgrade for the Horizon Ramdisk
6. Special Meeting with Sister Pat
7. Annual Election of Officers
8. For Sale/Wanted

FUTURE MEETING DATES

Please mark the following dates on your calendar for future meetings:
APRIL 8 10, MAY 8, JUNE 12.

*****NEXT MEETING*****

Special meeting this Saturday, Apr 8, in Dubuque. See separate article inside. Regular meeting Monday, Apr 10 at West Music, Cedar Rapids. Opening is at 6:30 PM. Jim Green will demonstrate some interesting uses of compact coding called Tinygrams. Other surprises await, so don't miss it!

*** MINUTES FROM THE MARCH MEETING ***

The March meeting was called to order by President Jerry Canady with 15 members in attendance.

Jim Reiss requested that his remarks about PRESS recorded in the February minutes be amended. Jim did not intend to make a statement about its release as reported in the February minutes. He was simply stating an educated guess about the progress being made by its author. It was moved, seconded and passed that the printed minutes as amended above be approved.

Bruce read the treasurer's report for last month. It was moved, seconded, and passed that the report be accepted as read.

OLD BUSINESS: 1. John Johnson reported that he had completed the installation of our SSSD spare disc drive into the recently purchased enclosure. The finished product was on display for all to see. 2. Gary Bishop informed the UG that he was able to put together a DS drive and was willing to sell it to the UG for \$5.00. It was moved, seconded and passed that the UG buy the DS drive. Sorry, John, but now that you have practiced once, the installation of this new DS drive should be much easier. 3. John also reported that it is much too early to hear from the Chicago UG about the program catalog he recently sent. He will keep us informed as information is received. 4. April 8, 1989 has been set as the date of our next meeting. We will be meeting at Marion Hall in Dubuque, Iowa. Sister Pat is looking forward to finally meeting all of us. She has extended an invitation for us to stay for lunch. Car pooling will be used for the trip. To get your name on the list call the secretary. 5. As reported last month, Gary has at last secured the regulating transformer for Sr. Pat. He brought it to the UG meeting so all could see it in action. 6. Jim Green brought several copies of the PD catalog from Tiger Cub Software for distribution to the membership. 7. John reported that the catalog of the UG library he has just completed needs help before distribution to the membership. It is difficult to read on disc and will be expensive to print. He is open to any suggestions about distribution.

NEW BUSINESS: 1. Jerry asked for volunteers to constitute an election committee. The officers of the UG were appointed to serve as the committee. DISCUSSION: 1. FUNNELWEB vn 4.13 has now been received. Included is their updated version of DM1000. 2. BA WRITER vn 1.5 from Italy is also now available in the library. 3. Software payments to fairware authors were again discussed. Please do it! If enough interest is generated, we can do it again as a UG. Bring your list of programs you like to use to the next business meeting. Some possible suggestions included: DISKU, CATLIB, and VALENTINE by Ray Kazmer. Bring your list! 4. Console lock-up problems were again discussed. 5. Jim Green has some FOR SALE and WANTED ads. They will be included in the NEWSLETTER. Jim Reiss announced that TYPEWRITER is now available for \$12 to UG members.

DEMONSTRATION: Gary showed off his EXTENDED BASIC II+ module he reviewed in the February NEWSLETTER.

Submitted by Bill Paeth, Secretary

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Over 120 original programs in Basic and Extended Basic, available on cassette or disk, NOW REDUCED TO JUST \$1.00 EACH!, plus \$1.50 per order for cassette or disk and PP&M. Minimum order of \$10.00. Cassette programs will not be available after my present stock of blanks is exhausted. The Handy Dandy series, and Color Programming Tutor, are no longer available on cassette. Descriptive catalogs, while they last, \$1.00 which is deductible from your first order.

Tigercub Full Disk Collections, reduced to \$5 postpaid. Each of these contains either 5 or 6 of my regular catalog programs, and the remaining disk space has been filled with some of the best public domain programs of the same category. I am NOT selling public domain programs - they are a free bonus!

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These are full disks of 100 or more utility subprograms in MERGE format, which you can merge into your own programs and use, almost like having another hundred CALLS available in Extended Basic. Each is accompanied by printed documentation giving an example of the use of each. NUTS & BOLTS (No. 1) has 100 subprograms, a tutorial on using them, and 5 pp. documentation. NUTS & BOLTS No. 2 has 108 subprograms, 10 pp. of documentation. NUTS & BOLTS #3 has 140 subprograms and 11 pp. of documentation. NOW JUST \$15 EACH, POSTPAID.

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* NOW READY *
* TIPS FROM TIGERCUB VOL.5 *
* Another 49 programs and *
* files from issues No. 42 *
* through 50. Also \$10 ppd *

TIGERCUB CARE DISKS #1, #2, #3 and #4. Full disks of text files (printer required). No. 1 contains the Tips news letters #42 thru #45, etc. Nos. 2 and 3 have articles mostly on Extended Basic

programming. NO. 4 contains Tips newsletters Nos. 46-52. These were prepared for user group newsletter editors but are available to anyone else for \$3 each postpaid.

This educational program is a much expanded version of a routine I published before.

```
100 DIM M$(100)
110 GOTO 150
120 S,K,A$(1),J,M$(1),Y$,Z$,Z,
X,ING$,A,ANS
130 CALL CLEAR :: CALL COLOR
:: CALL SCREEN :: CALL CHAR
:: CALL KEY :: CALL ING ::
CALL HCHAR
140 !@P-
150 CALL CLEAR :: FOR S=0 TO
12 :: CALL COLOR(S,2,8):: N
EXT S :: CALL SCREEN(5):: DI
SPLAY AT(3,1):"LEARNING TO "
"ING" IT V.1.1"
160 CALL CHAR(64,"3C4299A1A1
99423C"): DISPLAY AT(5,1):"
@ Tigercub Software 1987 for
free distribution - no price
or copying fee to be charged
"
170 CALL KEY(3,K,S)
180 A$(1)="No, if the word d
oes not end in B, D, G, M, N
, P, R or T you always just
add ING"
190 A$(2)="No, if the last le
tter is not E and the next-t
o-last letter is not a v
owel, just add ING"
200 A$(3)="No, if the word h
as two vowels just before
the last letter, just add
ING"
210 A$(4)="No, if a word end
s in B, D, G, M, N, P, R or
T with one vowel (but not tw
o vowels!) just before it, y
ou must double the last
letter and add ING"
220 A$(5)="No, if the word e
nds in IE, change the IE to
Y and add ING"
230 A$(6)="No, BE is an exce
ption to the rules,"
240 A$(7)="Some dictionaries
give EYING but EYEING is be
tter"
250 A$(8)="No, if a word end
s in E (ex-cept BE and words
```

```
ending in IE,UE,OE AND YE)
you must drop the E and add
ING"
260 A$(9)="No, if the word e
nds in EE, or OE or UE, just
add ING"
270 A$(10)="No, QUIP, QUIT a
nd QUIZ are exceptions to th
e rule. Double the last
letter and add ING."
280 FOR J=1 TO 100 :: READ M
$(J):: NEXT J
290 FOR J=1 TO 100 :: Y=Y$&
CHR$(J):: NEXT J :: Z=Y$&
300 DISPLAY AT(3,1):""::""
:" Type the word with the
correct ING suffix"
310 RANDOMIZE :: Z=INT(RND*LE
N(Z$)+1):: X=ASC(SEB$(Z$,Z,
1)):: Z$=SEB$(Z$,1,Z-1)&SEB$
(Z$,Z+1,255):: IF LEN(Z$)=0
THEN Z$=Y$
320 CALL ING(M$(X),ING$,A)
330 DISPLAY AT(12,1):M$(X)::
ACCEPT AT(12,15):ANS
340 CALL HCHAR(15,1,32,280):
: DISPLAY AT(10,1):"" :: IF
ANS=ING$ THEN DISPLAY AT(10,
10):"CORRECT!" :: GOTO 310
350 DISPLAY AT(15,1):A$(A):"
": "The word is ";ING$: : G0T
0 310
360 !@P+
370 DATA LODGE,BUY,HOPE,QUIP
,TITHE,WISH,CUT,DRIVE,SEE,EY
E,BO,CRY,TRY,AGREE,QUIT
380 !@P-
390 DATA BOIL,COOL,HURT,BUTT
,CAGE,BE,ROVE,PITY,SAVE,COOL
,RULE,MEASURE,TUNE,RAVE
400 DATA RUN,BEG,STOP,THINK,
ERR,BORE,TEAR,BAR,CARE,BARE,
BEAR,LET,QUIZ,HOT,HEAT,COME
410 DATA DREAM,TAKE,FRY,CADD
Y,FLEE,HOE,SEN,TRIP,HOPE,RIG
,DRAG,SUE,KNEE,BOO,BABY,NURS
E,CRUISE
420 DATA LIE,TIE,DIE,BELIE,V
IE,DODGE,LIVE,DRIVE,LOVE,LEA
VE,HUN,HOP,BEG,BEGIN,BOMB,BO
B
430 DATA ADD,AID,BAT,BOAT,PR
AY,LAY,QUOTE,SNORE,STARE,HIR
E,FIRE,LINE,CRY,SAY
440 DATA BOOGIE,RAGE,RATTLE,
GRATE,LEAVE,STRIVE,DRAW,WRIT
E
450 !@P+
460 SUB ING(M$,ING$,A):: E$=
SEB$(M$,LEN(M$),1):: F$=SEB$
```

```

(M$,LEN(M$)-1,1):: A$="ING"
:: C$="BDEGNPRT" :: V$="AEI
OU"
470 GOTO 500
480 C$,E$,ING$,M$,A$,V$,F$
190 !@P-
500 IF LEN(M$)=4 AND SEB$(M$
,1,3)="QUI" THEN ING$=M$&E$&
A$ :: A=10 :: SUBEXIT
510 IF POS(C$,E$,1)=0 THEN I
NG$=M$&A$ :: A=1 :: SUBEXIT
520 IF E$="E" THEN 550
530 IF POS(V$,F$,1)=0 THEN I
NG$=M$&A$ :: A=2 :: SUBEXIT
540 IF POS(V$,SEB$(M$,LEN(M$
)-2,1),1)<>0 THEN ING$=M$&A$
:: A=3 :: SUBEXIT ELSE ING$
=M$&E$&A$ :: A=4 :: SUBEXIT
550 IF F$="I" THEN ING$=SEB$
(M$,1,LEN(M$)-2)&"YING" :: A
=5 :: SUBEXIT ELSE IF F$="E"
OR F$="O" OR F$="U" THEN IN
G$=M$&A$ :: A=9 :: SUBEXIT
560 IF M$="BE" THEN ING$="BE
ING" :: A=6 :: SUBEXIT
570 IF M$="EYE" THEN ING$="E
YEING" :: A=7 :: SUBEXIT
580 ING$=SEB$(M$,1,LEN(M$)-1
)&A$ :: A=8
590 !@P+
600 SUBEND

```

I still have a sort of an old-fashioned idea that the computer can be a useful educational tool -

```

100 CALL CLEAR :: FOR SET=0
TO 12 :: CALL COLOR(SET,2,8)
:: NEXT SET :: CALL SCREEN(5
):: DISPLAY AT(3,6):"NOUN TO
ADJECTIVE" :: CALL KEY(3,K,
5)
110 CALL CHAR(64,"3C4299A1A1
99423C"):: DISPLAY AT(5,5):"
@ Tigercub Software": "" Fo
r free distribution - no pr
ice or copying fee to be ch
arged."
120 DISPLAY AT(12,1):" One m
oment...loading memory"
130 DATA ROGUE,ROGUISH,HOG,H
OGGISH,PIG,PIGGISH,SWINE,SWI
NISH,THIEF,THIEVISH,KNAVE,KM
AVISH,BRUTE,BRUTISH or BRUTA
L
140 !@P-
150 DATA FAME,FANDUS,TUMULT,
TUMULTUOUS,RIOT,RIOTOUS,SCAN
DAL,SCANDALOUS,MOUNTAIN,NOUN

```

```

TAINOUS,ODOR,ODOROUS or ODOR
IFEROUS
160 DATA CAVERN,CAVERNOUS,VI
LLAIN,VILLAINOUS,DANGER,DANG
EROUS,PERIL,PERILOUS,ADVANTA
GE,ADVANTAGEDUS
170 DATA BARB,BARBED,FORK,FO
RKED,BORDER,BORDERED,WHEEL,W
HEELED,HUNGER,HUNGRY,ANGER,A
NGRY
180 DATA PARLIAMENT,PARLIAME
NTARY,PLANET,PLANETARY,LEGIS
LATURE,LEGISLATIVE,PARISH,PA
ROCHIAL
190 DATA CONGRESS,CONGRESSIO
NAL,ELEPHANT,ELEPHANTINE,FAN
TASY,FANTASTIC,BULL,BULLISH
200 DATA GIRL,GIRLISH,BOY,BO
YISH,BABY,BABYISH,AMATEUR,AM
ATEURISH,FEVER,FEVERISH,DEVI
L,DEVILISH,FOOL,FOOLISH
210 DATA OAF,DAFISH,SHEEP,SH
EEPIISH,CHILD,CHILDISH or CHI
LDLIKE,VIRTUE,VIRTUOUS,PRIDE
,PROUD or PRIDEFUL
220 DATA HATE,HATEFUL,DOUBT,
DOUBTFUL,THOUGHT,THOUGHTFUL,
SHAME,SHAMEFUL,FEAR,FEARFUL,
SORROW,SORROWFUL
230 DATA WISH,WISHFUL,PEACE,
PEACEFUL,EVENT,EVENTFUL,TRUT
H,TRUTHFUL,SKILL,SKILLFUL,MA
N,MANLY
240 DATA WOMAN,WOMANLY,FATHE
R,FATHERLY,MOTHER,MOTHERLY,B
ROTHER,BROTHERLY,SISTER,SIST
ERLY
250 DATA NIGHT,NIGHTLY,HOUR,
HOURLY,MONTH,MONTHLY,ORDER,O
RDERLY,SERIES,SERIAL
260 DATA TIME,TIMELY,GRAVEL,
GRAVELLY,FRIEND,FRIENDLY,WOOL,
WOOLLY,YEAR,YEARLY,SOUTH,S
OUTHERN or SOUTHERLY
270 DATA NORTH,NORTHERN or N
ORTHERLY,WEST,WESTERN or WES
TERLY,EAST,EASTERN or EASTER
LY
280 DATA CHARITY,CHARITABLE,
TERROR,TERRIFIED or TERRIBLE
,HORROR,HORRIFIED or HORRIBL
E or HORRIFIC
290 DATA RAG,RAGGED,MILITARY
,MILITARISTIC,ART,ARTISTIC,C
AT,CATTY,DOG,DOGBY,FOG,FOGBY
,SUN,SUNNY
300 DATA BAG,BAGGY,LEG,LEGGY
,BOG,BOBBY,STUB,STUBBY,FUN,F
UNNY,FUR,FURRY,GUM,GUMMY,AVA
RICE,AVARICIOUS

```

```

310 DATA CLOUD,CLOUDY,RAIN,R
AINY,FLOWER,FLOWERY or FLORA
L,BREED,BREEDY,THIRST,THIRST
Y,AIR,AIRY,BUSH,BUSHY,FISH,F
ISHY
320 DATA SOUP,SOUPY,BLOOD,BL
OODY,FOAM,FOAMY,BEAD,BEADY,S
WAMP,SWAMPY,SILVER,SILVERY,C
OPPER,COPPERY,DUST,DUSTY
330 DATA DIRT,DIRTY,GUILT,GU
ILTY,SALT,SALTY,BRAIN,GRAINY
,DIL,DILY,TRICK,TRICKY,HILL,
HILLY,ROCK,ROCKY
340 DATA SAND,SANDY,SOAP,SOA
PY,SUDS,SUDSY,SILK,SILKY,WOOL,
WOODY,MODESTY,MODEST,PIETY
,PIOUS,DAY,DAILY
350 DATA TREE,TREELIKE,TOY,T
OYLIKE,FINGER,FINGERLIKE,SWA
N,SWANLIKE,WAR,WARLIKE,DISH,
DISHLIKE,PLATE,PLATELIKE
360 DATA SPOON,SPOONLIKE,BIR
D,BIRDLIKE,SNAKE,SNAKY,WIRE,
WIRY,BONE,BONY,SMOKE,SMOKY,F
LAKE,FLAKY
370 DATA NOISE,NOISY,BRINE,B
RINY,TASTE,TASTY,STONE,STONY
,WAVE,WAVY,BORE,BORY,PASTE,P
ASTY,BUBBLE,BUBBLY
380 DATA LABOR,LABORIOUS,ORN
AMENT,ORNAMENTAL,GOVERNMENT,
GOVERNMENTAL,CONTINENT,CONTI
NENTAL,MUSIC,MUSICAL
390 DATA MAGIC,MAGICAL,TOPIC
,TOPICAL,SENSATION,SENSATION
AL,LOGIC,LOGICAL,ALARM,ALARM
ING,ARTERY,ARTERIAL
400 DATA GOLD,GOLDEN,EARTH,E
ARTMEN,GLAMOUR,GLAMOURIZED,D
EPUTY,DEPUTIZED,ENERGY,ENERG
IZED,PART,PARTIAL,FIRE,FIERY
410 DATA ANGEL,ANGELIC,CHERU
B,CHERUBIC,BURDEN,BURDENSOME
,TROUBLE,TROUBLESOME,BEAST,B
ESTIAL
420 DATA HISTORY,HISTORICAL,
GEOGRAPHY,GEOGRAPHICAL,BOTAN
Y,BOTANICAL,BIOLOGY,BIOLOGIC
AL,LITURGY,LITURGICAL
430 !@P+
440 DIM A$(175),B$(175):: FO
R J=1 TO 174 :: READ A$(J),B
$(J):: Z$=Z$&CHR$(J):: NEXT
J :: Y$=Z$ :: RANDOMIZE
450 DISPLAY AT(7,1):""Type
the adjective form of -": ""
460 X=INT(RND*LEN(Y$)+1):: Y
=ASC(SEB$(Y$,X,1)):: Y$=SEB$
(Y$,1,X-1)&SEB$(Y$,X+1,255)::
: IF LEN(Y$)=0 THEN Y$=Z$

```

```

470 DISPLAY AT(12,1):A$(Y)::
ACCEPT AT(12,14):B$ :: IF P
OS(B$(Y),B$,1)=0 THEN 490
480 DISPLAY AT(18,1):"" ::
: FOR D=1 TO 100 :: NEXT D :
: DISPLAY AT(18,1):" That is
the word in my memory b
anks.": "" :: GOTO 460
490 DISPLAY AT(18,1):" The a
djective in my memory bank
s is ";B$(Y):: GOTO 460

```

When one program is run from another by RUN DSK., the screen is not cleared, sprites are not deleted, and screen color, character definitions and sprite magnification are not returned to the default values. This can cause some strange results, which can be prevented by CALLING CLEARALL just before the RUN.

```

1000 SUB CLEARALL :: CALL CL
EAR :: CALL DELSPRITE(ALL)::
CALL SCREEN(8):: CALL CHARS
ET :: CALL MAGNIFY(1)
1001 FOR CH=65 TO 90 :: CALL
CHARPAT(CH,CH$):: CALL CHAR
(CH+32,"00"&SEB$(CH$,1,12)&S
EB$(CH$,15,2)):: NEXT CH
1002 CALL CHAR(96,"000201008
",123,"0018202040202018",124
,"00101010001010100030080804
08083000000205408")
1003 FOR CH=127 TO 143 :: CA
LL CHAR(CH,"0"):: NEXT CH ::
SUBEND

```

The routine in line 1001 can be used, by deleting the +32 if necessary, to modify some of the character sets on my Nuts & Bolts disks.

From an idea in a program by Ed Machonis, here is an improvement to my 28-Column Converter published in Tips #18. After line 160, insert 165 DISPLAY AT(20,1):"Tab setting? 1" :: ACCEPT AT(20,14)SIZE(-2)BEEP:T And change line 290 to - 290 PRINT #2:TAB(T);L\$:: S=S+28 :: GOTO 410

MEMORY FULL! - Jim P.

EASIER UPGRADE FOR YOUR 192K HORIZON RAMDISK

by Gary D. Bishop (c) 1989

If you are one of the hundreds of original Horizon ramdisk owners, you no doubt have longed for or seen the ads to upgrade it to a full 256K. The conversion requires eight 6264 ram chips, and one additional TTL chip. This article describes what I believe is a better way to upgrade the original Horizon cards (not the HRD+ cards capable of 1 Meg of memory).

My method uses two of the 32K by 8 bit static memory chips that are on the market. The argument for using only two of the 42256 or equivalent ram chips is very strong. First, the 6264 chips have 8K of storage capacity for about \$10. The 42256 chips have 32K storage capacity for about \$18. Now it doesn't take a whole wheelbarrow full of economic prowess to figure out that the 42256 chips are a much better deal. If the eight 6264 chips are used, there are 224 solder connections to be installed. This results in some chips being stacked 3 high, resulting in a card thickness that is too large to be installed between adjacent modules in the P box. The 42256 chips are stacked on the only two chips that have no other ones on top, resulting in all chips being stacked only two high. This easily fits between adjacent cards without wasting a space. Convinced yet? If so, warm up your soldering iron, and let's have at it.

The original Horizon ramdisk only partially decoded the upper address lines, resulting in a limit of 192K of memory capacity. The scheme described here fully decodes the upper address bits in a similar fashion to the upgrade kits currently available. The select lines for the added 42256 chips are derived from an added 74LS138 decoder installed on top of the present U1, which is also a 74LS138. All of the necessary parts can be purchased from Bud Mills Services at a very reasonable price. I've tried to purchase them separately through various dealers, but Bud has them beat!

Before we start, you must assume the complete liability for these modifications. Neither Micropendium nor myself can be held responsible for damage caused by improper techniques or wiring errors. Also, care must be used in handling the static sensitive memory chips. This is especially important in the winter months when the humidity is low, and the static built up by just walking across the floor can draw inch long sparks. Now that the weasel words are out of the way, let's have at the hardware.

First, back up all files on your ramdisk, including the operating system files. Then, turn the power off and wait a full two minutes before removing the ramdisk card. I really don't know why TI stresses this, but they are very insistent and determined that this is the way it should be. I figure TI must have known something I don't, so I always wait the full two minutes. Be careful where you put the ramdisk down, such as on metallic benches or on top of tools. The batteries are still in the circuit, and can cause severe burns by heating up misplaced wires and solder. Carefully remove all three batteries, and set them aside in a safe place. As an added precaution, I shorted out the storage capacitor C3 on the board, to remove any last trace of voltage remaining. Next, remove U11, the ram farthest to the left. remove U17, the only ram chip left that doesn't have another chip stacked on it. Remove U1, a 74LS138 decoder.

I shall refer to the additional 74LS138 decoder chip we are about to add as U1T, to distinguish it from the original U1. Prepare U1T by carefully bending out the following pins: 1, 2, 4, 5, 7, and all pins 8 - 15. This should leave only pins 3, 6, 8, and 16 still straight. Position U1T over U1 with pin 1 of both chips lined up. Solder down pins 3, 6, 8, and 16 from U1T to U1. Run a small jumper wire between pins 4 and 5 of U1T, and connect it to pin 8 of U1T. Be sure to use a small piece of insulation as it passes over the other pins, so as not to make contact with them. Solder a 3 inch piece of hookup wire to U1T pins 1 and 2, and a four inch long wire to pin 7. All wire lengths were guessed at, so go

a little long on the length. Its better to have to cut off a small amount later, than have to go back and solder another wire. Solder an 8 inch wire to U1T pin 12. Install the U1/U1T stack back in the original socket.

The wire from U1T pin 1 connects to U10 pin 1. This can be accomplished several ways. The quickest is to just tack it directly to U10, making sure not to allow solder and flux to run into the socket. Temporarily removing U10 from its socket would be a good idea. An alternative is to route the wire to the back side of the board, and attach it to the trace at U10 pin 1. There is no easy way to get a wire from the front side of the board to that back side, so a slight modification of the board is required. I carefully drilled a hole large enough to pass 2 or 3 wires through in the board near U1 pin 1. Two small holes would be better than one big hole. WARNING: Be very sure that there is no trace on either side of the board before you drill. I recommend that you hold the board up to a strong light, and look for a spot that doesn't have traces near it. Mark this location, and choose a drill that is as small as possible to do the job. A final technique for connection is to locate the correct through hole, and carefully remove the solder mask from the top side of the board. The wire can then be put in the hole and soldered directly to the trace. This type of connection is only for the advanced solderers, because it can lift the trace from the board, or sever the through hole plating. The wire can cause a stress if not dressed properly.

The wire from U1T pin 2 connects to U9 pin 11. Again, you may solder directly to the IC, or run the wire to the back side of the board. Make sure your connections are clean and bright. Your data depends on it.

Prepare one of the new 42256 chips to be soldered on top of U17. Do this by bending out pins 1, 20, and 26. This chip is called U17T. Solder a eight inch piece of wire to each of pins 1 and 26 on U17T. Then, position U17T over U17, and solder all pins not bent out: pins 2-19, 21-25, 27, and 28. Install this U17/U17T stack back in the original socket in the lower right corner of the

board. Connect the wire from U17T pin 1 to U9 pin 9. Connect the wire from U17T pin 26 to U9 pin 7. Now connect the wire from U1T pin 12 to U17T pin 20.

Now for the last memory chip. This chip is wired a little differently than the previous chip, because it is piggybacked on U11, which is where the operating system for the ramdisk is stored. U11 is enabled separately, so we have to run a few extra wires. Prepare the last 42256 chip by bending out the following pins: 1, 2, 20, 23, 26. Place U11T on top of the original U11, and solder all pins not bent out: 3-19, 21, 22, 24, 25, 27, 28. Attach about a 3 inch wire to each pin on U11T that is bent out except pin 20. Insert the U11/U11T stack back in the original socket.

Make the following connections: U11T pin 1 to U9 pin 9, U11T pin 2 to U9 pin 6, U11T pin 23 to U9 pin 5, U11T pin 26 to U9 pin 7. Now connect the wire from U1T pin 7 to U11T pin 20. Whew!

The mods are now complete, but double check all your connections and solder joints. I have had extensive experience 0211 with Heathkit electronic kits, and have found a large proportion of problems with them are poor solder connections.

Install the batteries back in their holders. Install the ramdisk back in the P box, and power up. Run your favorite operating system to establish the ramdisk. Before copying over any files, I recommend setting up the first ram drive with 720 sectors, which leaves the second ramdrive with 270 sectors. Use a disk tester utility from your favorite disk manager to format and VERIFY each ram disk. Also, because of the great speed of the ramdisks, I recommend a comprehensive destructive test, just to be sure.

After each disk passes the above tests, copy all your files back onto the ramdisk, and enjoy the new second ramdrive with 270 extra sectors.

VISIT TO SISTER PAT APRIL 8

Our club's first offsite meeting will be held this Saturday, 10 am - Noon, at Marian Hall, 1050 Carmel Drive, Dubuque. Sister Pat Taylor is our hostess, and she has planned a demonstration of many of the graphics packages she has mastered. I've been advised even coffee and doughnuts will be available! She knows the way to our hearts!

Directions - North on 151 to Dubuque, to the Grandview exit (top of the hill after the traffic lights). Grandview runs to the left; Carmel Drive runs right. Marian Hall is nearly the last building on the right, maybe 1/2 mile from the highway 151 exit.

If you need a ride, but have not yet notified the group, call Bruce Winter for carpool information, 393-0610.

Gary

YOUR CHANCE TO BECOME FAMOUS!

The annual election of officers is upon us again, and now is your turn to stand out in the crowd. We want YOU to run for office! Without everyone's participation, our group never changes and grows. We have four elected officers, and none of the jobs is very tough. We also have appointed committee chairpersons, and their jobs are even easier! So give it a try; let us put your name on the ballot. Call Jerry Canady, and let him know that you want his job!

Elections will be held at the April 10 meeting. It is important that you attend, so that we can have the best representation of our divergent membership at the elections.

HARDWARE FOR SALE/WANTED

Many of the officers are approached by former members, asking if there is still a market for their no-longer-used TI hardware. If you are looking for a second or third console, an expansion box, or any other hardware, contact Jim Green or Jerry Canady. We will put you in touch with a seller.

On the wanted side, Jim Green is looking for a stand-alone RS232 interface for a friend from work. His son is trying to set up a bulletin board on his TI 99/4A. Price must be reasonable (cheap?) to be considered. Call Jim at 377-4073.