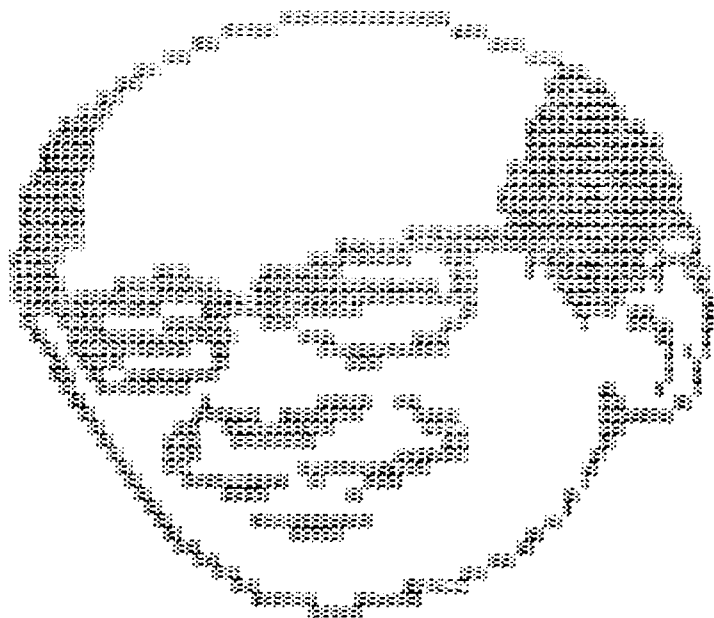


VZ 200/300

HUNTER VALLEY

VZ JOURNAL



SECRETARY - - EDITOR

PRODUCED BI-MONTHLY BY H.V.VZ.U.G.

THIS PUBLICATION WAS PREPARED ON A STAR NX 1000 PRINTER USING DAVE MITCHELL'S PATCH 3.3 WITH E & F WORD PROCESSOR. HI & LO-RES SCREEN DUMPS AND LISTINGS WERE DONE USING LARRY TAYLOR'S PRINTER PATCH V1.4 AVAILABLE FROM VSOFTWAREZ WHILE PATCH3.3 IS AVAILABLE FROM HUNTER VALLEY VZ USERS' GROUP.

PAGE NUMBERING - WITH THIS ISSUE I'VE ADOPTED A NEW PAGE NUMBERING SYSTEM. FIRST NUMBER REFERS TO ISSUE NUMBER WHILE SECOND TO PAGE NUMBER.

FRONT COVER - AS I HAD PROBLEMS WITH PLANNED FRONT COVER DESIGN, AT LAST MOMENT I SUBSTITUTED MY PICTURE WHICH IS'NT A BAD LIKENESS.

NEW SUBSCRIPTION RATES/CLUB NEWS/APOLOGIES & THANK YOU/ETC. . . . . PAGE 3

HINTS AND TIPS ON INPUT STATEMENT, DISK STORAGE & RESISTOR VALUES . . . PAGE 4

REAL TIME CLOCK BY BOB KITCH . . . . . PAGES 5-7

CONTINUING FROM VECTORS & INTERRUPTS FROM LAST ISSUE BOB PRESENTS AN INTERRUPT DRIVEN REAL TIME CLOCK AND AS USUAL WITH BOB'S PROGRAMS IT'S BEAUTIFULLY LABELLED SO UNDERSTANDING PROGRAM CONSTRUCTION AND FLOW IS EASY.

6502/6510 DISASSEMBLER BY JEREMY LEE . . . . . PAGES 8-10

JEREMY PRESENTS US WITH A UTILITY WHICH WILL CONVERT 6502/6510 C.P.U. CODE IN DATA STATEMENTS FOR POSSIBLE USE BY THE VZ. AS THERE ARE MANY COMPUTERS USING ABOVE C.P.U. THERE WOULD BE MANY PROGRAMS WHICH COULD BE COVERTED.

DIRECTORY LABEL UTILITY ERROR . . . . . PAGE 10

AN ERROR HAS CREPT IN ABOVE PROGRAM IN LAST ISSUE WHICH STOPPED PROGRAM FROM WORKING. DAVE SENDS HIS APOLOGIES AND PRESENTS A REMEDY.

RETRIEVE BY DAVE MITCHELL ( ANOTHER DISK UTILITY ) . . . . . PAGES 11-12

THE VZ HAS A HABIT OF WIPING DISKS IF YOU LEAVE THEM IN THE DRIVE WITH DOOR CLOSED AT POWER UP OR RESET. DAVE'S UTILITY JUST MIGHT RETRIEVE THEM.

E & F WORD PROCESSOR DARK TO LIGHT SCREEN MODS BY DAVE MITCHELL -- PAGES 12-13

SOME OF OUR SUBSCRIBERS WITH BLACK & WHITE TV'S FOR MONITORS FIND THE WHITE LETTERING ON DARK BACKGROUND WHEN USING WITH E & F W.P. BIT HARD ON THEIR EYES. THANKS TO DAVE THIS SITUATION CAN BE REVERSED.

CUSTOMIZING E & F WORD PROCESSOR'S PRINT MENU BY NEVILLE HUGHES -- PAGES 14-15

NEVILLE PRESENTS TAPE USERS WITH A WAY TO MODIFY THEIR W.PROCESSOR'S PRINT MENU USING A MONITOR. YOU'LL NOTICE ARTICLE IS VERY SIMILIAR TO DISK VERSION.

VZ USER GROUPS & PUBLICATIONS - WANTED TO BUY - CLUB & COMMITTEE . . . PAGE 16

NOTE - THERE HAVE BEEN CHANGES TO COMMITTEE, SUBSCRIPTION RATES AND THE CLUB HAS DEMONSTRATIONS PLANNED FOR MEETINGS NOW. SEE PAGE 16 FOR COMING EVENTS.

FOR SALE - PATCH 3.3 - EXTENDED DOS V1.3 - MENU/FILE COPIER . . . . . PAGE 17

ONE OR MORE OF THE ABOVE DISK UTILITIES MIGHT BE JUST WHAT YOU WANT. I HAVE ALL THREE AND FIND THEM ALL VERY USEFULL.

H.V.VZ JOURNAL SUPPLEMENT SOFTWARE LIST COMPILED BY EDDIE TOMES -- PAGES 14-18

EDDIE HAS GONE TO A LOT OF TROUBLE IN COMPILING A SOFTWARE LIST OF VZ PROGRAMS WHICH WERE AT ONE TIME COMMERCIALY AVAILABLE. SAD TO SAY, SUCH IS NOT THE CASE ANYMORE AS MANY SOFTWARE SUPPLIERS HAVE FOLDED, BUT ALL IS NOT LOST TAHNKS TO EDDIE AS THERE COULD BE A CENTRAL LIBRARY OF VZ PROGRAMS.

NOTE - THIS SUPPLEMENT IS DESIGNED TO BE REMOVED FROM JOURNAL AND PLACED WITH PREVIOUS SUPPLEMENT AND IS NUMBERED ACCORDINGLY.

COMING ISSUES - DUE TO CIRCUMSTANCES BEYOND MY CONTROL IN LAST FEW MONTHS PLANNED ARTICLES HAVE BEEN POSTPONED AND SHOULD BE BACK TO NORMAL WITH NEXT ISSUE.

## NEW SUBSCRIPTIONS RATES ---- 25/3

LAST ISSUE SAW OUR THIRD YEAR OF OPERATION AND IN THAT TIME THE JOURNAL'S PRICE HAS'NT INCREASED ALTHOUGH POSTAL AND OTHER CHARGES HAVE INCREASED SEVERAL TIMES.

IT'S WITH REGRET THAT WE ANOUNCE A PRICE INCREASE FOR THE JOURNAL AS WE WISH TO KEEP BOTH THE CLUB AND JOURNAL VIABLE IN A DIMINISHING MARKET. AS YOU MAY BE AWARE THERE ARE ONLY THREE VZ PUBLICATIONS LEFT WITH BOTH VZ USER AND VZ LINK GOING UNDER.

AS I MENTIONED IN PREVIOUS ISSUE, YOUR SUPPORT EITHER AS A CONTRIBUTOR, SUBSCRIBER OR CLUB MEMBER IS VITAL TO THE SURVIVAL OF VZ USER GROUPS AND PUBLICATIONS AND ONE CAN'T EXIST WITHOUT THE OTHER, SO PLEASE KEEP UP YOUR SUPPORT.

NOTE - SEE PAGE 16 FOR NEW SUBSCRIPTION CHARGES.

## CLUB NEWS/MEETINGS -----

AT OUR ANNUAL MEETING A NEW COMMITTEE WAS ELECTED WITH THREE OLD AND THREE NEW MEMBERS BEING ELECTED. ORGANISED CLUB MEETINGS WERE ONE RESULT OF NEW COMMITTEE IN ACTION WHICH I LONG ADVOCATED. IT'S OUR INTENTION TO HAVE SOME FORM OF DEMONSTRATION AT EACH MEETING FOR MEMBERS INFORMATION. THE LAST COUPLE WERE VERY WELL RECEIVED SO WE MUST BE ON THE RIGHT TRACK AT LAST.

MY THANKS TO OUR NEW TREASURER, GARY BULLEY FOR HELPING OUT WITH THIS ISSUE AND ALSO STARTING WITH THIS ISSUE, GARY WILL BE POSTING OUT JOURNALS WHICH MEANS YOU SHOULD GET THEM EARLIER THAN PREVIOUSLY.

NOTE - SEE PAGE 16 FOR COMING EVENTS AT H.V.VZ U.G. CLUB MEETINGS

## APOLOGIES & THANK YOU -----

MY APOLOGIES ABOUT LAST COUPLE ISSUES WHICH WERE POSTED LATE AND SOME OF YOUR MAIL WHICH I HAVE'NT BEEN ABLE TO ANSWER. ALSO MY SINCERE THANKS FOR YOUR EXPRESSIONS OF SYMPATHY AT MY MOTHER'S PASSING AWAY, AND WISHES FOR MY WIFE'S AND MY OWN RECOVERY.

IT'S MANY MONTHS SINCE I TOUCHED A SOLDERING IRON OR A VZ, EXEPT FOR PRODUCING JOURNAL AND AS A RESULT I'M WAY BEHIND IN PROJECTS AND ARTICLES FOR JOURNAL. NEXT ISSUE SHOULD SEE THINGS RETURNING TO NORMAL AND I THANK YOU FOR BEARING WITH ME.

## DISCLAIMER -----

EVERY EFFORT IS MADE TO ENSURE THE ACCURACY OF INFORMATION CONTAINED WITHIN BE IT GENERAL, TECHNICAL, PROGRAMMING, ETC. NO RESPONSIBILITY CAN BE ACCEPTED BY H.V.VZ.U.G. OR AUTHOR AS A RESULT OF APPLYING SUCH INFORMATION.

THE HUNTER VALLEY VZ JOURNAL IS SUBJECT TO COPYRIGHT AND NO MATERIAL IN THIS JOURNAL MAY BE REPRODUCED IN PART OR WHOLE WITHOUT THE CONSENT OF THE AUTHOR WHO RETAINS COPYRIGHT.

PROGRAMMING BY ROBERT QUINN :-

WHEN USING THE INPUT STATEMENT YOU NORMALLY CANNOT ENTER A COLON (:) OR A COMMA (,). THE COLON OR COMMA, AND ANY TEXT YOU TYPE IN BEYOND, IN A STRING INPUT IS NOT ACCEPTED AND YOU GET THE DREADED ?EXTRA IGNORED MESSAGE. ALL THIS CAN BE AVOIDED BY STARTING YOUR INPUT STRING WITH QUOTES. TYPE IN THE PROGRAM BELOW AND RUN IT. :-

```
10 CLS
20 INPUT" TESTING , & : IN INPUT STRING ";$
30 GOTO 20
```

TRY ENETERING IN TURN A COMMA AND A COLON AND PRESSING RETURN AFTER EACH ENTRY AND YOU'LL GET :-

?EXTRA IGNORED

NEXT TYPE IN "TEST:DOES IT WORK?, YES! AND PRESS RETURN

BINGO, IT DOES WORK, THE ?EXTRA IGNORED HAS BEEN DEFEATED.

## DOUBLING DISK STORAGE . . . . .

AS YOU MAY OR MAY NOT KNOW THE REVERSE SIDE OF A DISK CAN BE USED FOR PROGRAM OR DATA STORAGE. YOU'LL HAVE TO CUT A MATCHING NOTCH ON OPPOSITE SIDE OF DISK FIRST OTHERWISE YOU'LL GET DISK WRITE PROTECTED ERROR MESSAGE. YOU CAN BUY A COMMERCIAL DISK NOTCHER AS SOLD BY D. SMITH FOR AROUND \$10.00.

THERE IS A CHEAPER ALTERNATIVE. YOU COULD USE SCISSORS OR BETTER STILL PURCHASE A SINGLE HOLE PUNCH FOR AROUND \$1.50-\$2.00 AVAILABLE FROM MOST DEPARTMENT STORES LIKE K-MART, WOOLWORTHS OR NEWSAGENTS, ETC. WITH THE MONEY YOU SAVE YOU COULD PURCHASE ABOUT 8 DISKS.

USING HOLE PUNCH WILL PRODUCE HALF ROUND CUTOUT WHICH WORKS THE SAME AS THE SQUARE ONE. AS A BONUS SINGLE HOLE PUNCH CAN BE USED ALSO FOR IT'S ORIGINAL DESIGN TO MAKE HOLES IN PRINTOUTS TO BE STORED IN RINGBINDERS. IN OTHER WORDS, TWO FOR PRICE OF ONE.

## LSTTL & CMOS RESISTOR VALUES

WHEN DESIGNING SOME OF MY PROJECTS WHOSE CIRCUITS ARE REPRODUCED IN THE JOURNAL INVOLVING LSTTL & CMOS IC'S I KEEP FORGETTING THAT SAME VALUE PULL UP RESISTOR WILL NOT ALLWAYS WORK PROPERLY FOR BOTH AND CAN CAUSE CIRCUIT MALFUNCTION.

LSTTL INPUT - 1K TO +5V FOR UNUSED INPUTS OR DIRECTLY TO GROUND.  
 LSTTL OUTPUT TO LSTTL INPUT - 3K3-4K7 TO +5V  
 LSTTL OUTPUT TO CMOS INPUT - 10K-100K TO +5V  
 CMOS OUTPUT TO LSTTL INPUT - 3K3-4K7 TO +5V

THE ABOVE IS JUST A GUIDE AND MY FAILURE TO OBSERVE PROPER VALUES WITH MIXED IC FAMILIES HAS CAUSED SOME PROJECT BUILDERS TO HAVE FAILURES AND MY SINCERE APOLOGIES TO THEM.

# REAL TIME CLOCK BY R.KITCH - 25/5

NOTE - DO NOT ENTER LEADING ZEROES IN LINE NUMBERS AS THEY ARE RESULT OF BASIC PROGRAM TO WORD PROCESSOR FILE CONVERSION FOR USE BY WORD PROCESSOR.

```

00001 '*****
00002 '*** INTERRUPT DRIVEN ***
00003 '*** REAL TIME CLOCK ***
00004 '*** FOR VZ COMPUTER ***
00005 '*** BY BOB KITCH ***
00006 '***TIME KEEPING ROUTINE***
00007 '*** IS COMPLETELY ***
00008 '*** RELOCATABLE ***
00009 '*****
00010 '
00020 GOTO 100
00026 '
00027 '***USEFUL NUMERIC LOADING SUB-ROUTINES.
00028 '
00029 '***CONVERT UNSIGNED TO SIGNED DECIMAL - PASSED IN UD & SD%.
00030 IF UD>32767 THEN SD%=INT(UD-65536) ELSE SD%=INT(UD)
00035 RETURN
00038 '
00039 '***CONVERT UNSIGNED DECIMAL TO MSB & LSB - IN UD, MS%, LS%.
00040 MS%=INT(UD/256):LS%=INT(UD-256*MS%)
00045 RETURN
00048 '
00049 '***CONVERT SIGNED TO UNSIGNED DECIMAL - PASSED IN SD% & UD.
00050 IF SD%<0 THEN UD=SD%+65536 ELSE UD=SD%
00055 RETURN
00098 '
00099 '***PUT UP INTRO MESSAGE.
00100 CLS:PRINT@4,"REAL TIME CLOCK ROUTINE"
00110 PRINT@197,"LOADING MACHINE CODE"
00199 '
00200 '***LOWER TOM TO ENABLE ROUTINE TO BE STORED.
00210 TM=(256*PEEK(30898)+PEEK(30897))-100: '***RESERVE 99 BYTES.
00220 UD=TM:GOSUB 40:POKE 30898,MS%:POKE 30897,LS%
00230 CLEAR 100: '***RESET POINTERS.
00240 S%=0:M%=0:H%=0:SA%=0:MA%=0:HA%=0
00250 UD=0:TM=0:AD=0:SD%=0:MS%=0:LS%=0: '***INITIALIZE STORAGE
00260 I%=0:J%=0:DV%=0:CS%=0: '***BEFORE DIMEN'ING.
00270 DIM VA%(2,23): '***INITIALIZE ARRAY.
00280 TM=256*PEEK(30898)+PEEK(30897): '***NEW TOM.
00299 '
00300 '***READ IN TIME KEEPING ROUTINE.
00310 FOR AD=TM+1 TO TM+77
00320 UD=AD:GOSUB 30:READ DV%:POKE SD%,DV%
00330 CS%=CS%+DV%
00340 NEXT AD
00350 IF CS%<>8110 THEN PRINT@293,"CHECKSUM NOT CORRECT";CS%:STOP
00399 '
00400 '***INITIALIZE POINTERS IN VA%().
00410 FOR I%=0 TO 23
00420 READ VA%(0,I%):UD=TM+VA%(0,I%):GOSUB 30:GOSUB 40
00430 VA%(0,I%)=SD%:VA%(1,I%)=LS%:VA%(2,I%)=MS%
00440 NEXT I%
00499 '
00500 '***MODIFY DUMMY ADDRESSES IN TIME KEEPING ROUTINE.
00510 POKE VA%(0,4),VA%(1,0):POKE VA%(0,5),VA%(2,0): '***<KOUNT>
00520 FOR I%=1 TO 3: '***<SEC><MIN><HOUR>
00530 FOR J%=I%*6 TO I%*6+4 STEP 2: '***3 OCC'ENCES EACH

```

```

00540      POKE VA%(0,J%),VA%(1,I%):POKE VA%(0,J%+1),VA%(2,I%)
00550      NEXT J%
00560      NEXT I%
00570      SA%=VA%(0,1):MA%=VA%(0,2):HA%=VA%(0,3):'ADDR FOR SEC.MIN.HR
00599      '
00600      '***SET UP JUMP ADDRESS IN INTERRUPT VECTOR.
00610      UD=TM+1:GOSUB 40
00620      POKE 30846,LS%:POKE 30847,MS%      : '***BYTES 2 & 3.
00630      'GO TO 20000      : '***DEBUG JUMP TO PRINTER LISTING.
00699      '
00700      '***SET TIME.
00710      PRINT@293,"***ENTER CURRENT TIME."
00720      PRINT@325,"INPUT HOURS";:INPUT DV%
00730      IF DV%<1 OR DV%>12 THEN GOTO 720 ELSE POKE HA%,DV%
00740      PRINT@389,"INPUT MINS ";:INPUT DV%
00750      IF DV%<0 OR DV%>60 THEN GOTO 740 ELSE POKE MA%,DV%
00799      '
00800      '***STEAL INTERRUPT VECTOR.
00810      POKE 30845,195      : '***JUMP TO TIME ROUTINE.
00899      '
00900      '***DISPLAY TIME ON BOTTOM LINE OF SCREEN.
00910      FOR I%=29120 TO 29151
00920          POKE I%,109
00930      NEXT I%
00940      TS="TIME   ##:##:##"      : '***DISPLAY TEMPLATE.
00950      'CLS      : '***REMOVE REM IF REQ'D.
00960      S%=PEEK(SA%):M%=PEEK(MA%):H%=PEEK(HA%)
00970      PRINT@484,USING TS;H%,M%,S%;
00980      GOTO 960
00999      '
02000      '***TIME KEEPING ROUTINE***
02010      '***ALL ADDRESSES SET TO 255 ARE DUMMY PARAMETERS AND ARE
02020      '***RESET FROM BASIC.
02030      '***REGISTERS USED AF, BC, HL.
03000      '
03010      '      ***COUNT DOWN SECONDS.
03020      DATA 033,255,255: '      LD HL,KOUNT
03030      DATA 053      : '      DEC(HL)
03040      DATA 192      : '      RET NZ
03050      '      ***SECONDS ROUTINE.
03060      DATA 054,050      : '      LD(HL),50
03070      DATA 058,255,255: '      LD A,(SEC)
03080      DATA 060      : '      INC A
03090      DATA 254,060      : '      CP 60
03100      DATA 040,005      : '      JR Z,L1
03110      DATA 050,255,255: '      LD(SEC),A
03120      DATA 024,056      : '      JR L4
03130      '      ***MINUTES ROUTINE.
03140      DATA 033,255,255: ' L1 LD HL,SEC
03150      DATA 054,000      : '      LD(HL),0
03160      DATA 058,255,255: '      LD A,(MIN)
03170      DATA 060      : '      INC A
03180      DATA 254,060      : '      CP 60
03190      DATA 040,005      : '      JR Z,L2
03200      DATA 050,255,255: '      LD(MIN),A
03210      DATA 024,038      : '      JR L4
03220      '      ***HOUR ROUTINE.
03230      DATA 033,255,255: ' L2 LD HL,MIN
03240      DATA 054,000      : '      LD(HL),0
03250      DATA 001,000,001: '      LD BC,256

```

```

03260 DATA 033,042,000: ' LD HL,42
03270 DATA 205,092,052: ' CALL 345CH
03280 DATA 058,255,255: ' LD A,(HOUR)
03290 DATA 060 : ' INC A
03300 DATA 254,013 : ' CP 13
03310 DATA 040,005 : ' JR Z,L3
03320 DATA 050,255,255: ' LD(HOUR),A
03330 DATA 024,011 : ' JR L4
03340 ' ***HOUR RESET ROUTINE.
03350 DATA 033,255,255: ' L3 LD HL,HOUR
03360 DATA 054,001 : ' LD(HL),1
03370 DATA 024,004 : ' JR L4
03380 DATA 000 : ' DS KOUNT
03390 DATA 000 : ' DS SEC
03400 DATA 000 : ' DS MIN
03410 DATA 000 : ' DS HOUR
03420 ' ***SCREEN UPDATE ROUTINE HERE.
03430 DATA 201 : ' L4 RET
03999 '
04000 '***OFFSETS FOR PARAMETER STORAGE ABOVE ROUTINE.
04010 DATA 73 : 'KOUNT
04020 DATA 74 : 'SEC
04030 DATA 75 : 'MIN
04040 DATA 76 : 'HOUR
04200 '***OFFSETS FOR PARAMETERS IN MACHINE CODE ROUTINE.
04210 DATA 2,3 : '<KOUNT>
04220 DATA 9,10 : '<SEC>
04230 DATA 17,18 : '<SEC>
04240 DATA 22,23 : '<SEC>
04250 DATA 27,28 : '<MIN>
04260 DATA 35,36 : '<MIN>
04270 DATA 40,41 : '<MIN>
04280 DATA 54,55 : '<HOUR>
04290 DATA 62,63 : '<HOUR>
04300 DATA 67,68 : '<HOUR>
04310 STOP
04999 '
09999 '***UPDATE DISK FILE.
10000 ERA"RTCLOCK":SAVE"RTCLOCK"
10010 STOP
19999 '
20000 '***DEBUG DUMP TO PRINTER.
20010 '***TO ACTIVATE, TAKE OUT REMARK IN LINE#630.
20020 LPRINT"DEBUG DUMP FROM REAL TIME CLOCK":LPRINT
20030 LPRINT"TM=",TM:LPRINT
20040 LPRINT"INTERRUPT VECTOR",PEEK(30846),PEEK(30847):LPRINT
20050 LPRINT"PARAMETERS"
20060 FOR I%=0 TO 3
20070 LPRINT I%,VA%(0,I%),VA%(1,I%),VA%(2,I%)
20080 NEXT I%:LPRINT
20090 LPRINT"POINTERS IN VA()"
20100 FOR I%=4 TO 23
20110 LPRINT I%,VA%(0,I%),VA%(1,I%),VA%(2,I%)
20120 NEXT I%:LPRINT
30000 END

```

I SAW A MACHINE CODE PROGRAM FOR AN APPLE A WHILE AGO AND I WANTED TO KNOW HOW IT WORKED TO MODIFY IT FOR THE Z-80. THE MACHINE CODE WAS IN DATA STATEMENTS IN A BASIC LOADER PROGRAM AND I COULDN'T BE BOTHERED DISASSEMBLING IT BY HAND. SO I WROTE THIS PROGRAM TO DO IT FOR ME. YOU SIMPLY TYPE THE CODE IN FROM LINE 9000 ON ENDING IT WITH A -1 TO TELL THE COMPUTER WHEN IT'S FINISHED.

THE PROGRAM IS SET UP TO DISASSEMBLE 6502/6510 MACHINE CODE, BUT WITH A LITTLE BIT OF EFFORT CAN BE MODIFIED TO DISASSEMBLE THE CODE OF ANY SIMPLE MICROPROCESSOR. THE Z-80, 8086, AND A FEW OTHERS ARE OUT BECAUSE THEY HAVE PREFIXES TO DO THINGS LIKE MUCKING AROUND WITH THE IX AND IY REGISTERS AND THE PROGRAM JUST CAN'T HANDLE THAT. MODIFYING THE PROGRAM SHOULD BE EASY FOR ANYONE COMPETENT IN BASIC.

BY THE WAY, IF YOU'RE WONDERING WHAT YOU CAN USE THE PROGRAM FOR, REMEMBER THAT THE 6502/6510 IS IN COMPUTERS LIKE THE VIC-20, THE COMMODORE 64,128 ETC, THE BBC, ORIC, ATARI COMPUTERS AND MORE. THESE COMPUTERS MIGHT HAVE A FEW IDEAS THAT MIGHT BE WORTH PUTTING ON THE VZ.

```

10  CLEAR 100
100  GOSUB 7000
110  GOSUB 1000
120  GOSUB 2000
130  INPUT" RETURN TO BASIC (Y/N)";A$:IF A$="Y",END
140  GOTO 110
1000 CLS:PRINT"6502/6510 MACHINE DISASSEMBLER"
1001 REM  ^^ PUT TITLE THERE
1010 PRINT@96," OUTPUT TO SCREEN OR PRINTER      (S,P)
1020 INPUT$
1030 PRINT@160,"
1031 PRINT@96," OUTPUT IN HEX OR DEC.          (H,D)
1032 INPUT$
1033 IF A$="H",HD=1ELSEHD=0
1034 PRINT@160,"
1040 IF A$="P",OD=1 ELSE OD=0
1050 PRINT@96," WHERE DOES CODE BEGIN          (IN DECIMAL )"
1060 INPUT SA
1070 RETURN
2000 DA=0:NA=0:
2010 D=D%(DA):IFD=-1,RETURN
2012 OP=0
2015 FORX=1TO256:IFD=D1(X),OP=X:X=256
2020 NEXT
2025 AM=D2(OP)
2030 IFOP=0,PRINT" CANNOT CONTINUE, NO."D"NOT FOUND.":GOSUB3000
2040 NN=SA+DA:GOSUB4300:GOSUB 2600
2045 P$=P$+" "+D3$(OP)+" ":NA=DA+A1(AM)
2050 IFA2(AM)=1,P$=P$+"("
2060 P$=P$+A4$(AM)
2070 IFA3(AM)=1,GOSUB 2700
2071 IFA3(AM)=2,GOSUB 2800
2072 IFA3(AM)=3,GOSUB 2900
2080 IFA2(AM)=1,P$=P$+")"
2090 POKE30876,OD
2100 PRINTP$:P$="":
2110 DA=NA
2500 GOTO 2010

```



```

2600 NN=D%(DA):GOSUB 4200
2605 S$="":P$=P$+" "
2610 IFA3(AM)>0,NN=D%(DA+1):GOSUB 4200 ELSE P$=P$+S$
2615 P$=P$+" "
2620 IFA3(AM)=1,NN=D%(DA+2):GOSUB 4200 ELSE P$=P$+S$
2650 RETURN
2700 NN=D%(DA+1)+D%(DA+2)*256:GOSUB 4300:RETURN
2800 NN=D%(DA+1):GOSUB 4200:RETURN
2900 NN=D%(DA+1):IF NN>128,NN=NN-256
2910 GOSUB 4200:RETURN
3000 END
4000 REM DEC-HEX (0-FF)
4010 H1=INT(HN/16):H2=HN-H1*16+48:H1=H1+48:IF H1>57,H1=H1+7
4020 IF H2>57,H2=H2+7
4030 HN$=CHR$(H1)+CHR$(H2)
4040 RETURN
4100 REM DEC-HEX (0-FFFF)
4110 H3=INT(HN/256):H4=HN-H3*256:HN=H4:GOSUB 4000:H9$=HN$
4120 HN=H3:GOSUB 4000:HN$=HN$+H9$:RETURN
4200 REM NUMBER CONVERT 1 BYTE
4210 IF SGN(NN)=-1,NG$="-":NN=ABS(NN) ELSE NG$=""
4220 IF HD=1,HN=NN:GOSUB 4000:P$=P$+NG$+HN$+":RETURN
4230 P$=P$+NG$+MID$(STR$(NN)+" ",2,3):RETURN
4300 REM NUM. CONVERT (0-65536)
4310 IF HD=1,HN=NN:GOSUB 4100:P$=P$+HN$:RETURN
4320 P$=P$+MID$(STR$(NN)+" ",2,5):RETURN
7000 DIM D1(256),D2(256),D3$(256),A1(8),A2(8),A3(8),A4$(8)
7010 DIM D%(5000)
7020 RESTORE
7050 READ A,B,C$:L=L+1:IFA=256,7060
7055 D1(L)=A:D2(L)=B:D3$(L)=C$:GOTO 7050
7060 READ AM
7070 FOR X=1 TO AM:READ A1(X),A2(X),A3(X),A4$(X):NEXT
7100 REM READ DATA
7105 L=0
7110 READ D:D%(L)=D:L=L+1:IF D<>-1,7110
7200 RETURN
7210 :
8000 DATA 105,1,ADC
8001 DATA 109,2,ADC
8002 DATA 101,3,ADC
8003 DATA 125,4,ADC
8004 DATA 121,5,ADC
8005 DATA 144,7,BCC
8006 DATA 176,7,BCS
8007 DATA 240,7,BEQ
8008 DATA 48,7,BMI
8009 DATA 208,7,BNE
8010 DATA 16,7,BPL
8011 DATA 80,7,BVC
8012 DATA 112,7,BVS
8013 DATA 24,6,CLC
8014 DATA 201,1,CMP
8015 DATA 205,2,CMP
8016 DATA 197,3,CMP
8017 DATA 221,4,CMP
8018 DATA 217,5,CMP
8019 DATA 224,1,CPX
8020 DATA 236,2,CPX
8021 DATA 228,3,CPX
8022 DATA 192,1,CPY
8023 DATA 204,2,CPY
8024 DATA 212,3,CPY
8025 DATA 206,2,DEC
8026 DATA 198,3,DEC
8027 DATA 222,4,DEC
8028 DATA 202,6,DEX
8029 DATA 238,2,INC
8030 DATA 230,3,INC
8031 DATA 254,4,INC
8032 DATA 232,6,INX
8033 DATA 200,6,INY
8034 DATA 76,2,JMP
8035 DATA 32,2,JSR
8036 DATA 169,1,LDA
8037 DATA 173,2,LDA
8038 DATA 165,3,LDA
8039 DATA 189,4,LDA
8040 DATA 185,5,LDA
8050 DATA 162,1,LDX
8060 DATA 174,2,LDX
8061 DATA 166,3,LDX
8062 DATA 190,5,LDX
8063 DATA 160,1,LDY
8064 DATA 172,2,LDY
8065 DATA 164,3,LDY

```

```

8066 DATA 188,4,LDY
8067 DATA 96,6,RTS
8068 DATA 233,1,SBC
8069 DATA 237,2,SBC
8070 DATA 229,3,SBC
8071 DATA 253,4,SBC
8072 DATA 249,5,SBC
8073 DATA 56,6,SEC
8074 DATA 141,2,STA
8075 DATA 133,3,STA
8076 DATA 157,4,STA
8077 DATA 153,5,STA
8078 DATA 142,2,STX
8079 DATA 134,3,STX
8080 DATA 140,2,STY
8081 DATA 132,3,STY
8082 DATA 170,6,TAX
8083 DATA 168,6,TAY
8084 DATA 138,6,TXA
8085 DATA 152,6,TYA
8086 DATA 136,6,DEY
8087 DATA 181,1,???
8200 DATA 256,0,0
8300 DATA 7 ; ' NO. OF MODES
8301 REM BYTES,BRAC,ADDR/DATA/2'S COMP,STRING
8302 DATA 2,0,2,""
8303 DATA 3,1,1,""
8304 DATA 2,1,2,""
8305 DATA 3,1,1,"X+"
8306 DATA 3,1,1,"Y+"
8307 DATA 1,0,0,""
8308 DATA 2,0,3,""
9000 REM"
9001 REM END WITH "DATA -1"
9010 DATA 160,2,162,0,185,6,0,240,1,232,136,16
9020 DATA 247,189,79,3,141,45,3,142,85,3,162,2
9030 DATA 181,6,208,5,172,85,3,208,3,32,44,3
9040 DATA 202,16,241,198,9,208,235,96,160,0,140,83
9050 DATA 3,160,255,140,84,3,168,240,3,141,48,192
9060 DATA 206,84,3,208,3,206,83,3,136,192,255,208
9070 DATA 243,172,83,3,208,232,96
9080 DATA -1

```

DIRECTORY LABEL LISTING ERROR --

DAVE SENDS HIS APOLOGIES ABOUT THE ERROR WHICH CREPT IN AND PROVIDES A FIX WHICH WILL GET THE PROGRAM UP AND RUNNING. THE PROBLEM WAS IN LINE 40, FIRST BASIC LISTING, NOT SECOND. LINE 40 COULD BE LEFT OUT OR A CORRECTION MADE AS SHOWN.

```
40 FOR I=31524 TO 31530:POKE I,0:NEXT:LIST
```

ABOVE IS LINE 40 AS IT APPEARED IN ISSUE # 24 WHILE BELOW IS  
CORRECTED LINE 40.

```
40 FOR I=31524 TO 31530:POKE I,0:NEXT:POKE 31465,37:LIST
```

AS THE DIR ALLOWS ONLY 8 CHARACTERS FOR FILE NAME IT DOES'NT ALLOW FOR MUCH INFORMATION TO BE STORED ABOUT PROGRAM, SO I USE THE DIRECTORY LABEL UTILITY EXTENSIVELY TO LABEL MY DISKS WITH DATE, PROGRAM INFORMATION, ETC.

# RETRIEVE BY DAVE MITCHELL - 25/11

## ( ANOTHER DISK UTILITY )

AFTER WIPING OUT A FEW DISKS BY LEAVING THE DRIVE DOOR CLOSED WHEN I RESET THE VZ, I SOON LEARNT TO OPEN THE DOOR ( PLACING WRITE PROTECT LABELS ON DISKS WILL ALSO STOP THE PROBLEM ) HOWEVER I FOUND THAT MOSTLY, THE ONLY TRACK THAT WAS WIPED OUT WAS TRACK ZERO AND TRACK 1 TO TRACK 39 WERE INTACT.

ALL I HAD TO DO WAS WRITE A SMALL ROUTINE TO READ FROM DISK SO I COULD RETRIEVE THOSE PROGRAMS THAT WERE LOST. TO RETRIEVE THE PROGRAMS YOU MUST KNOW THE :-

START TRACK ON DISK ( IN HEX [XX] )  
START SECTOR ON DISK ( IN HEX [XX] )  
START ADDRESS OF THE PROGRAM IN MEMORY ( IN HEX [XXXX] )  
AND THE FILENAME AND FILETYPE.

SOME OF YOU WOULD ASK HOW DO WE FIND THEM OUT ??

ALL THIS INFORMATION WAS STORED ON TRACK ZERO (WHICH WAS WIPED OUT) , OR AS YOU KNOW IT - THE DIRECTORY

TRACK 0, SECTOR 0 TO 14 IS USED AS THE DIRECTORY EACH SECTOR HOLDS 8 ENTRIES AND 1 DISK CAN HOLD A MAXIMUM OF 120 FILENAMES NOT 112 AS THE TEC. MANUAL STATES.

EACH ENTRY CONTAINS 16 BYTES OF INFORMATION :-

FILETYPE        1 BYTE  
DELIMITER (:) 1 BYTE  
FILENAME        8 BYTES  
START TRACK    1 BYTE  
START SECTOR   1 BYTE  
START ADDRESS 2 BYTES  
END     ADDRESS 2 BYTES

THE NORMAL DIR COMMAND DOES NOT SHOW THE START, END ADDRESS OR START TRACK, SECTOR. YOU WILL REQUIRE EXTENDED DOS COMMANDS AS WRITTEN BY LARRY TAYLOR OR MYSELF. THERE MAY BE OTHER AUTHORS OF EXTENDED DOS/BASICS THAT I AM NOT AWARE OF.

AGAIN TAKE CARE TYPING IN THE BASIC LOADER AS YOU CAN SEE THE DATA STATEMENTS ARE GROWING LONGER WITH EACH ARTICLE.

ONCE YOU HAVE THE M/C PROGRAM SAVED ON DISK BRUN IT. IF A DISK ERROR OCCURS THE PROGRAM WILL RETURN TO BASIC TYPING -

PRINTUSR(0) WILL RESTART THE PROGRAM.

```
00010 FORI=-28672TO-28188:READA:POKEI,A:B=B+A:NEXT
00020 IFB<>46316THENPRINT"ERROR IN DATA":END
00030 BSAVE"RETRIEVE",9000,91E6
00100 DATA33,6,144,34,142,120,33,229,145,34,97,145,33,99,145,205
00110 DATA20,145,205,35,145,253,119,18,33,123,145,205,20,145,205
00120 DATA35,145,253,119,17,33,146,145,205,20,145,205,35,145,50
00130 DATA96,145,205,35,145,50,95,145,205,84,145,205,53,64,183
00140 DATA194,14,64,253,110,49,253,102,50,237,91,97,145,1,126,0
00150 DATA237,176,237,83,97,145,126,183,40,10,253,119,18,35,126
00160 DATA253,119,17,24,216,27,26,183,40,251,19,19,19,237,83,249
00170 DATA120,33,229,145,34,164,120,34,97,145,205,11,64,251,33
00180 DATA169,145,205,20,145,62,32,18,253,229,209,19,1,8,0,237
```

```

00190 DATA176,33,187,145,205,117,43,205,73,0,254,13,40,249,253
00200 DATA119,9,205,58,3,58,175,122,183,32,250,243,205,80,52,205
00210 DATA84,145,205,68,64,183,194,14,64,205,84,145,205,44,64,254
00220 DATA2,40,8,183,194,14,64,62,13,24,248,19,19,213,26,19,79
00230 DATA26,19,71,26,19,111,26,103,183,237,66,237,75,95,145,209
00240 DATA121,18,19,120,18,19,9,253,126,9,254,84,32,1,35,125,18
00250 DATA19,124,18,205,50,64,183,194,14,64,205,11,64,251,33,205
00260 DATA145,205,117,43,205,73,0,254,89,202,6,144,33,233,122,34
00270 DATA164,120,205,77,27,195,25,26,205,117,43,205,58,5,56,236
00280 DATA26,254,32,40,231,35,201,6,2,17,0,0,126,254,48,56,31,254
00290 DATA58,56,10,254,65,56,23,254,71,48,19,214,7,230,15,72,6
00300 DATA4,203,35,203,18,16,250,179,95,65,215,16,220,120,254,2
00310 DATA210,151,25,123,201,243,205,8,64,1,50,0,205,56,64,201
00320 DATA0,0,0,0,31,32,69,78,84,69,82,32,83,84,65,82,84,32,84
00330 DATA82,65,67,75,32,32,32,58,0,32,69,78,84,69,82,32,83,84
00340 DATA65,82,84,32,83,69,67,84,79,82,32,32,58,0,32,69,78,84
00350 DATA69,82,32,83,84,65,82,84,32,65,68,68,82,69,83,83,32,58
00360 DATA0,32,69,78,84,69,82,32,70,73,76,69,78,65,77,69,32,58
00370 DATA0,32,69,78,84,69,82,32,70,73,76,69,84,89,80,69,32,58
00380 DATA0,13,32,65,78,79,84,72,69,82,32,80,82,79,71,82,65,77
00390 DATA32,89,47,78,32,58,0

```

## W.P. SCREEN MOD BY D.MITCHELL

MODIFICATION TO THE E&F. WORD PROCESSOR FOR LIGHT SCREEN.

WHAT STARTED OUT TO BE JUST A COUPLE OF POKES HAS BLOWN INTO A FULL SCALE MODIFICATION. TO MAKE IT EASIER FOR YOU I HAVE WRITTEN ANOTHER BASIC LOADER.

YOU CAN ALSO CHANGE THE PAGE SKIP ( CTRL P ) & BLOCK MARKERS ( CTRL X ) TO THE UP ARROW LEFT IF YOU WISH.

```

UP    ARROW = 95 ( INVERSE UP    ARROW = 31 )
LEFT  ARROW = 94 ( INVERSE LEFT  ARROW = 30 )

```

THE ADDRESS FOR PAGE SKIP (CTRL P) IS 32015  
 THE ADDRESS FOR BLOCK MARKER (CTRL X) IS 31961

POKE THE ADDRESSES WITH WHICH ONE YOU WOULD LIKE BUT MAKE SURE YOU DON'T POKE BOTH ADDRESSES WITH THE SAME NUMBER. YOU CAN TRY IT OUT WHILE IT IS IN MEMORY BY :-

```
POKE 30862,128:POKE 30863,123:PRINTUSR(0)
```

TYPE IN THE BASIC LOADER SAVE AND THEN RUN, YOU WILL HAVE A BINARY COPY OF THE MODIFICATION. BLOAD THE WORDPROCESSOR AND THEN BLOAD THE BINARY COPY.

NOW YOU HAVE THREE POKES TO DO :-

```
POKE -27566,205:POKE -27565,62:POKE -27564,149
```

THE MODIFICATION IS NOW COMPLETE ALL THAT HAS TO BE DONE IS SAVE THE NEW VERSION OF WORD PROCESSOR.

```
BSAVE"WORDPROC",7880,95A0
```

```
BRUN"WORDPROC" AND TEST THE NEW VERSION
```

NOTE - DO NOT ENTER LEADING ZEROES IN LINE NUMBERS AS THEY ARE  
RESULT OF BASIC PROGRAM TO WORD PROCESSOR FILE CONVERSION.

```

00001 ;WORD PROCESSOR          - SOURCE CODE LISTING AT LEFT
00002 ;MOD. FOR LIGHT SCREEN  - BASIC LISTING BELOW
00003 ;ORG. 953EH
00004 ;05:02:89
00005     XOR    A
00006     LD     (7818H),A
00007     LD     A,60H
00008     LD     (7C3CH),A
00009     LD     (7CF2H),A
00010     LD     (898AH),A
00011     LD     DE,8DE0H
00012     LD     HL,NO1
00013     LD     BC,6
00014     LDIR
00015     LD     DE,7A29H
00016     LD     HL,NO2
00017     LD     BC,23
00018     LDIR
00019     LD     A,6FH
00020     LD     (8D32H),A
00021     LD     (8D41H),A
00022     LD     (8D50H),A
00023     LD     (8D5FH),A
00024     LD     A,70H
00025     LD     (8D6DH),A
00026     LD     (8061H),A
00027     LD     (809AH),A
00028     LD     HL,7A2EH
00029     LD     (7F9DH),HL
00030     RET
00031 NO1  JP     7A29H
00032     NOP
00033     SET    6,A
00034 NO2  RES    5,A
00035     RES    6,A
00036     RET
00037     CALL  8DDCH
00038     CP     40H
00039     RET    Z
00040     CP     1FH
00041     JR     NC,X1
00042 X0    SET    6,A
00043     RET
00044 X1    RES    6,A
00045     RES    7,A
00046     RET

00010 FORI=38206TO38303:READA:POKEI-65536,A:B=B+A:NEXT
00020 IFB<>11406THENPRINT"ERROR IN DATA":END
00030 IFPEEK(16384)<>170THENPRINT"NO DISK DRIVE":END
00040 BSAVE"WP.MOD",953E,95A0
00100 DATA175,50,24,120,62,96,50,60,124,50,242,124,50,138,137,17
00110 DATA224,141,33,131,149,1,6,0,237,176,17,41,122,33,137,149
00120 DATA1,23,0,237,176,62,111,50,50,141,50,65,141,50,80,141,50
00130 DATA95,141,62,112,50,109,141,50,97,128,50,154,128,33,46,122
00140 DATA34,157,127,201,195,41,122,0,203,247,203,175,203,183,201
00150 DATA205,220,141,254,64,200,254,31,48,3,203,247,201,203,183
00160 DATA203,191,201

```

IN ISSUE # 21, PAGES 8-9, DAVE BOYCE HAS SHOWN HOW TO MODIFY THE E & F TAPE WORD PROCESSOR'S PRINT MENU TO DEFAULTS OF YOUR OWN CHOISING. THE PROCEDURE DESCRIBED NEEDED A DISK DRIVE TO CARRY OUT WHICH LEFT TAPE USERS IN THE COLD.

THE REASON WAS THAT WHEN E & F W.P. IS CLOADED FROM TAPE IT AUTORUNS AND MODS CAN'T BE CARRIED OUT. THANKS TO NEVILLE HUGHES TAPE USERS CAN ALSO DO THE MODS NOW, BUT WILL REQUIRE A MONITOR PROGRAM LIKE W.OBRIST'S MONITOR/DEBUGGER. AND NOW TO THE MODS. TYPE IN AND CSAVE TO TAPE THE FOUR LINE MEMORY PEEK PROGRAM.

```
00010 CLS:PRINT:FORL=-27610TO-27599:PRINTTAB(10)L;
00020 PRINTUSING"## ";PEEK(L);:IFPEEK(L)<32THENPRINT:GOTO40
00030 PRINTCHR$(PEEK(L))
00040 NEXT
```

AT BOTTOM OF PAGE THERE ARE FOUR SCREEN DUMPS, TWO OF PRINT MENU AND TWO OF WP-PEEK PROGRAM IN ACTION. THE TWO LEFT ONES ARE BEFORE THE MODS WHILE THE TWO RIGHT ONES ARE AFTER THE MODS.

NEXT CLOAD OR CRUN W.OBRIST'S MONITOR PROGRAM. WHEN THE PROMPT APPEARS 'M >' TYPE IN 'L' AND PRESS RETURN MAKING SURE YOU HAVE W.P. TAPE IN YOUR DATASSETTE AND PLAY KEY HAS BEEN PRESSED FIRST. WHEN LOADED YOU SHOULD SEE THE FOLLOWING INFORMATION :-

```
7B80 - REM START ADDRESS OF W.P. IN MEMORY
957F - REM END ADDRESS OF W.P. IN MEMORY
19FF - REM LENGTH OF PROGRAM IN MEMORY
M >
```

ENTER 'B' AND PRESS RETURN WHICH WILL RETURN YOU TO BASIC.

CRUN"WP-PEEK" AND YOU SHOULD SEE ON THE SCREEN A DISPLAY AS PER BOTTOM LEFT SCREEN DUMP PROVIDED YOUR W.P. HAS'NT BEEN MODIFIED.

```
PRINT TEXT
=====
SCREEN OR PRINTER (S/P) ?P
RIGHT-JUSTIFY (Y/N) ?Y
PAGE WIDTH (20-99) ?31
LEFT MARGIN (0-80) ?00
PAGE LENGTH (10-99) ?62
INTER-PAGE LENGTH (0-9) ?4
AUTO-NEXT-PAGE (Y/N) ?Y
PAGE NUMBERING (Y/N) ?N
FIRST PAGE NUMBER (1-99) ?01
SUPPRESS FINAL F-F (Y/N) ?N
DOUBLE SPACING (Y/N) ?N
NUMBER OF COPIES (1-9) ?1
```

```
PRINT TEXT
=====
SCREEN OR PRINTER (S/P) ?S
RIGHT-JUSTIFY (Y/N) ?Y
PAGE WIDTH (20-99) ?75
LEFT MARGIN (0-80) ?10
PAGE LENGTH (10-99) ?62
INTER-PAGE LENGTH (0-9) ?4
AUTO-NEXT-PAGE (Y/N) ?Y
PAGE NUMBERING (Y/N) ?N
FIRST PAGE NUMBER (1-99) ?01
SUPPRESS FINAL F-F (Y/N) ?N
DOUBLE SPACING (Y/N) ?N
NUMBER OF COPIES (1-9) ?1
```

```
-27610 80 P
-27609 89 Y
-27608 91
-27607 0 >
-27606 62 >
-27605 4
-27604 8 Y
-27603 7 N
-27602 1
-27601 7 N
-27600 7 N
-27599 1
```

```
-27610 83 S
-27609 89 Y
-27608 91 K
-27607 0 >
-27606 62 >
-27605 4
-27604 8 Y
-27603 7 N
-27602 1
-27601 7 N
-27600 7 N
-27599 1
```

THE NUMBERS ON THE LEFT REPRESENT MEMORY LOCATIONS OF THE PRINT MENU DEFAULTS, NEXT THE ASCII NUMBERS FOLLOWED BY ALPHABETIC EQUIVALENTS. KNOWING THE MEMORY LOCATIONS WE CAN POKE THE NEW DEFAULTS IN, IT'S AS EASY AS THAT. AND NOW TO THE MODS AND WE'LL TAKE EACH DEFAULT IN TURN.

SCREEN OR PRINTER (S/P) ?P  
POKE -27610,80 FOR PRINTER - POKE -27610,83 FOR SCREEN.

RIGHT-JUSTIFY (Y/N) ?Y  
POKE -27609,89 FOR YES - POKE -27609,78 FOR NO

PAGE WIDTH (20-99) ?31  
POKE -27608,N - N=20 TO 99 - YOUR CHOICE

LEFT MARGIN (0-80) ?00  
POKE -27607,N - N= 0 TO 80 - YOUR CHOICE

PAGE LENGTH (10-99) ?62  
POKE -27606,N - N=10 TO 99 - YOUR CHOICE

INTER-PAGE LENGTH (0-9) ?4  
POKE 27605,N - N= 0 TO 9 - YOUR CHOICE

AUTO-NEXT-PAGE (Y/N) ?Y  
POKE -27604,89 FOR YES - POKE -27604,78 FOR NO

PAGE NUMBERING (Y/N) ?N  
POKE -27603,89 FOR YES - POKE -27603,78 FOR NO

FIRST PAGE NUMBER (1-99) ?01  
POKE -27602,N - N= 1 TO 99 - YOUR CHOICE

SUPPRESS FINAL F-F (Y/N) ?N  
POKE -27601,89 FOR YES - POKE -27601,78 FOR NO

DOUBLE SPACING (Y/N) ?N  
POKE -27600,89 FOR YES - POKE -27600,78 FOR NO

NUMBER OF COPIES (1-9) ?1  
POKE -27599,N - N= 1 TO 9 - YOUR CHOICE

WELL THAT COVERS ALL THE DEFAULTS. ONLY CHANGE THE DEFAULTS YOU REQUIRE. TYPE IN RUN AND PRESS RETURN AND YOU SHOULD GET A SCREEN DISPLAY WITH YOUR NEW DEFAULTS. DOUBLE CHECK TO MAKE SURE THEY ARE CORRECT AND IF NOT REPEAT PROCESS ON THOSE THAT ARE NOT.

BE VERY CAREFULL WHEN POKING NUMBERS AS A POKE TO THE WRONG MEMORY LOCATION CAN CORRUPT W.P. IF EVERYTHING IS OK THEN IT'S TIME TO SAVE MODIFIED W.P. TO TAPE USING THE FOLLOWING FORMAT :-

ENTER PRINT USR(0) <RET> - AND YOU'LL BE BACK IN THE MONITOR.

ENTER S 7B80 957F B "MOD-WP" - START DATASSETTE WITH NEW TAPE AND PRESS RETURN AND MODIFIED W.P. WILL BE SAVED TO TAPE.

ALL THAT REMAINS NOW IS TO TEST IT OUT. RESET THE VZ AND CRUN YOUR MODIFIED W.P. AND SELECT PRINT MENU AND THE DEFAULTS SHOULD BE AS PER YOUR SPECS. EVEN THOUGH THE MODS ARE MINOR THE W.P. PRINT MENU IS MUCH EASIER TO USE.

# VZ USER GROUPS/PUBLICATIONS-25/16

## CONTRIBUTIONS TO THE HUNTER VALLEY VZ JOURNAL :-

IF YOU ARE THINKING OF CONTRIBUTING TO THE JOURNAL THE  
PREFERRED FORMAT IS BASIC LISTINGS, WORD PROCESSOR OR SOURCE CODE  
FILES ON TAPE OR DISK. FILES FROM THE FOLLOWING WORD PROCESSORS  
CAN BE ACCEPTED :-

E & F TAPE OR DISK, WORDPRO CARTRIDGE AND ALL QUICKWRITE  
WORDPROCESSOR FILES.

## WANTED TO BUY -----

64K RAM PACKS & VZ200 6K RAM BOARDS - CONTACT JOE LEON  
22 DRURY STREET WALLSEND NSW 2287 --- PHONE (049) 51 2756

## CLUB MEETINGS -----

FIRST FRIDAY OF MONTH - NO MEETING IN JANUARY 1990

VENUE - JESMOND NEIGHBOURHOOD CENTRE MORDUE PARADE JESMOND  
( REAR STOCKLAND MALL - BIG W )

AUGUST 4 - COMMODORE 64 DEMONSTRATION  
SEPTEMBER 1 - VZ DISK DRIVE DEMONSTRATION - MODIFICATIONS - ETC  
OCTOBER 6 - SPEECH SYNTHESISER  
NOVEMBER 3 - TO BE NOTIFIED IN SEPT/OCT ISSUE # 26  
DECEMBER 3 - CHRISTMAS MEETING - BRING FAMILY, FRIENDS & PLATE

FUTURE DEMONSTRATIONS - AUCTION NIGHT - USING THE VZ, RITTY,  
EPROM BURNER & ERASER, ETC. IF YOU HAVE ANY IDEAS FOR A  
DEMONSTRATION THEN PLEASE LET US KNOW.

## CLUB COMMITTEE & SUBSCRIPTIONS --

PRESIDENT ----- ROSS WOODS --- (049) 71 2843  
SECRETARY/EDITOR -- JOE LEON ----- (049) 51 2756  
TREASURER ----- GARY BULLEY -- (049) 54 7561  
COMMITTEE MEMBERS - COLIN BRIDGE - ANDREW IRWINE - PETER JONES

SUBSCRIPTION TO - Aust. - 6 MONTHS \$11.00 - 12 MONTHS \$21.00  
H.V.VZ.JOURNAL - N. Z. - 6 MONTHS \$13.00 - 12 MONTHS \$26.00

HUNTER VALLEY VZ USERS' GROUP - P.O. BOX 161 JESMOND 2299  
NEW SOUTH WALES AUSTRALIA

## VZ USER GROUPS & PUBLICATIONS --

J.C.E. D'ALTON 39 AGNES ST. TOOWONG QUEENSLAND 4066  
LE'VZ OOP (VZ MAGAZINE) - VSOFTWAREZ/SOFTWARE/HARDWARE FOR SALE

-----  
VZ DOWN UNDER - VZ MAGAZINE - 6 ISSUES - \$18.00 PER YEAR  
HARRY HUGGINS 12 THOMAS ST. MITCHAM 3132 VICTORIA

-----  
WAVZ - GRAEME BYWATER P.O. BOX 388, MORLEY W.A. 6062

-----  
BRISBANE VZ USERS WORKSHOP - C/O 63 TINGALPA ST. WYNUM WEST 4178  
SOFTWARE FOR SALE - DISK MENU

-----  
NOTE :- WHEN WRITING TO ANY ABOVE OR H.V.VZ. USERS' GROUP FOR  
INFORMATION PLEASE ENCLOSE A S.S.A.E. OR NZ 2 INT. REPLY COUPONS.



PATCH 3.3 WRITTEN BY DAVE MITCHELL WILL CONVERT YOUR E & F TAPE WORD PROCESSOR FOR FULL DISK USE WHILE RETAINING ALL ORIGINAL FUNCTIONS. BELOW ARE ADDED DISK COMMANDS & FUNCTIONS :-

LOAD, SAVE, ERASE, RENAME, DIRECTORY, INITIALIZE, UPDATE, DRIVE 1 & 2, SHIFTLOCK & IMBEDDED PRINTER CONTROL CODES PLUS CTRL+P WHICH BYPASSES PRINT MENU AND PRINTS TO SCREEN OR PRINTER. A ROUTINE IS ALSO PROVIDED TO CONVERT YOUR BASIC PROGRAM OR SOURCE CODE FILES INTO WORD PROCESSOR FILES.

PATCH 3.3 HAS PROVISION FOR IMBEDDING PRINTER CONTROL CODES IN TEXT AND FAST SAVING AND LOADING OF TEXT DATA TO AND FROM DISK USING BLOCK SAVE/LOAD TECHNIQUES. PRINTER CONTROL CODES CAN BE SAVED TO TAPE OR DISK.

BSTWP.F - THIS UTILITY PROVIDED WITH PATCH 3.3 WILL CONVERT BASIC PROGRAMS AND ED/ASS. SOURCE CODE FILES INTO WORD PROCESSOR FILES.

SYSTEM REQUIREMENTS - VZ 300 + 16K RAM PACK - VZ 200 + 26K

PATCH 3.3 IS COPYRIGHT TO AND ONLY AVAILABLE FROM :-  
HUNTER VALLEY VZ USERS' GROUP P.O.BOX 161 JESMOND 2299  
N.S.W. AUSTRALIA - PHONE JOE LEON (049) 51 2756

PRICE - AUS/NZ AU\$20.00 - UPDATE - AUS-\$10.00 - NZ-AU\$11.00.  
UPDATING AVAILABLE ONLY TO PREVIOUS PURCHASERS OF PATCHES.

FOR MORE INFORMATION WRITE TO H.V.VZ.U.G. ENCLOSING A SSAE.

## EXTENDED DOS V1.3 - \$15.00

UPDATED VERSION WITH EXTRA COMMANDS ADDED :-

OLD COMMANDS - MERGE, DIRA, LDIRA, DIRB, LDIRB, OLD, OLD., DEC, HEX, STATUSA AND LSTATUSA. STATUSA AND LSTATUSA ALSO WORKS WITH VERSION 1.0 DOS.

NEW COMMANDS :-

MENU - LOADS AND RUNS BINARY OR TEXT MENU PROGRAM FROM DISK.  
CODE - SIMPLIFIES USING PRINTER CONTROL CODES DIRECTLY OR FROM WITHIN A PROGRAM.  
LTAB - IS FOR SETTING OF LEFT MARGIN.  
MOVE - MOVES BASIC FILE FROM DISK TO CHOSEN MEMORY ADDRESS.  
UPD - ERASES OLD FILE AND SAVES WITH SAME FILE NAME.

## MENU/FILE COPIER - \$15.00

THIS UTILITY WILL READ YOUR DISK DIRECTORY AND PRESENT YOU WITH SEVERAL OPTIONS. USING THE CURSOR YOU CAN RUN/BRUN ANY PROGRAM OR SELECT FILE COPY, REN, ERASE, DRIVE 1 OR 2, ETC. BESIDES COPYING TEXT AND BINARY FILES ALL OTHER FILES CAN BE COPIED AS WELL EXEPT FOR DATA FILES.

FOR PURCHASE OR INFORMATION CONTACT DAVE MITCHELL - (079) 27 8519  
24 ELPHINSTONE ST. NORTH ROCKHAMPTON QUEENSLAND 4701

FOR INFORMATION OR DEMONSTRATION IN NEWCASTLE AREA CONTACT :-  
JOE LEON - (049) 51 2756 - 22 DRURY ST. WALLSEND NSW 2287

COMMERCIAL SOFTWARE FOR D.SMITH VZ 200/300 COLOUR COMPUTER

COMPILED ORIGINALLY :-  
JULY 1986.  
UPDATED :-  
DECEMBER 1986.  
JUNE 1987.  
NOVEMBER 1987.  
SEPTEMBER 1988.

BY:-  
EDDIE TOMES  
3 KILKENNY ST.  
CAPALABA  
QLD. 4157  
PHONE (07) 390 2797 HOME

PLEASE NOTE #####

AS COMPILER OF THIS LIST I DO NOT HOLD COPIES OF, OR HAVE DISTRIBUTION RIGHTS FOR ALL OF THESE PROGRAMS BUT WILL ASSIST IN CONTACTING THE APPLICABLE SOFTWARE HOUSE IF REQUIRED. THE ADDRESSES ARE NOT INCLUDED IN THIS LIST AS A NUMBER HAVE CHANGED OR ARE NO LONGER TRADING AND I WISH TO PREVENT AS MANY PROBLEMS AS POSSIBLE FOR USERS IN OBTAINING THE PROGRAMS OF THEIR CHOICE BY GIVING THE LATEST INFORMATION KNOWN.

TO AVOID ALL THE MENTIONED SOFTWARE BEING LOST TO THE FUTURE VZ USER IT WOULD BE AN ADVANTAGE TO HAVE A CENTRAL LIBRARY TO HOLD A COPY OF THESE PROGRAMS SO THAT THEY WOULD BE AVAILABLE WHEN PRESENT SUPPORT IS NO LONGER AVAILABLE. THIS WOULD BE DONE ONLY ONCE COPYRIGHT RESTRICTIONS HAVE PASSED OR WRITERS PERMISSION HAS BEEN OBTAINED. APPROPRIATE CHARGES WOULD THEN BE APPLIED TO COVER EXPENSES OF TAPES OR DISKS AND POSTAGE ETC.

PLEASE ADVISE ME OF YOUR THOUGHTS ON THIS.

I WOULD BE INTERESTED TO HEAR OF ANY NEW OR OLD SOFTWARE THAT IS NOT LISTED SO THIS CATALOGUE CAN BE UPDATED AT REGULAR INTERVALS. PLEASE ADVISE PROGRAM NAME AND ALSO NAME AND ADDRESS OF WRITER / DISTRIBUTOR TO ENABLE CORRECT RECORDS TO BE KEPT.

A NUMBER OF PROGRAMS APPEAR UNDER SEVERAL SUPPLIERS AND ARE SOLD ON BEHALF OF THE ONE WRITER OVER A PERIOD OF YEARS. ALSO SEVERAL DIFFERENT VERSIONS MAY HAVE BEEN AVAILABLE AS THE PROGRAMS ARE IMPROVED AS TIME GOES BY.

SOME SOFTWARE COMPANIES HAVE EITHER CLOSED OR ARE NOW DISTRIBUTING UNDER NEW NAMES.

LYSCO .... STOPPED SELLING VZ SOFTWARE 31ST. JUL 86 BUT NO FURTHER WORD ON NEW DISTRIBUTOR FOR THESE PROGRAMS.

CELESTRON .... ALSO N. SARAFODIS. THESE PROGRAMS VERY HARD TO OBTAIN EVEN WITH A PERSONAL APPROACH .

COSMIC-..... APPEARS TO HAVE BEEN TAKEN OVER BY DSE.

R.S.MILLER .... CLOSED DOWN.

J.HIRST .... ALSO TRADED AS HI-COM SOFTWARE.

BJELIC .... MOST OF THIS SOFTWARE APPEARS TO BE PIRATE COPIES.

VDU SOFTWARE .... IT HAS CLOSED DOWN IT'S SOFTWARE COMPANY ALTHOUGH THE USER GROUP IS STILL KEEP OPERATING.

CORRECTION .... VSW PROGRAM LISTED AS FLIGHTDECK APPEARS TO BE INCORRECT NAME FOR AIR TRAFFIC CONTROLLER.

# SOFTWARE LIST CONTINUED . . . . . 25/16

CONAN THE BARBARIAN	CEL	STELLAR WARS	VDU
GALACTIC FIGHTER	CEL	TRIVIAL CULT	VDU
GHOULBUSTERS	CEL	VZ MONOPOLY	VDU
JAILHOUSE BREAKOUT	CEL	AIR TRAFFIC CONTROLLER	LAS
LUNAR LANDERS 2020	CEL	BUST OUT	LAS
MINATOUR PERILESS	CEL	COSMIC RESCUE	LAS
REACTOR DDESTRUCTION	CEL	ESCAPE RIVER	LAS
ROYAL POKER	CEL	KENO	LAS
THERMONUCLEAR WAR	CEL	LEARJET	LAS
TITANIUM TRILOGY	CEL	LIGHT PEN PUZZLE	LAS
3D MERCILESS MAZE	CEL	MAGNUM QUEST	LAS
GOLF	CAR	SOLO BATTLESHIPS	LAS
SKIING	CAR	3D MAZE	LAS
STAR PILOT	CAR	VZ WERM	LAS
TARGET	CAR	TEACHER ZAPPER	SOR
ASTRO SAVE	TAI	DRACULA'S MAZE	BNE
BRIGHT IDEA	TAI	OCTAPUS	BNE
CAVERN CHAOS	TAI	BASE DEFENDER	LYO
CIRCUITRY	TAI	MEMORY	LYO
CROSS OVER	TAI	TO THE HILLS	LYO
ENERVAC	TAI	GRAPHICS 1	LYO
FLAG CLIMBER	TAI	GRAPHICS 2	LYO
FIGHTER	TAI	KRICHON	LYO
FUSE	TAI	RALLY	LYO
GHOSTLY MAZE	TAI	DRAW	LYO
GRAVE DIGGER	TAI	VENTURE	LYO
HUNTER	TAI	AIR TRAFFIC CONTROLLER	BJE
MISSILE SAFE	TAI	ASTEROIDS	BJE
MOWER MANIA	TAI	BLACKJACK	BJE
PATTERN GUESS	TAI	CHECKERS	BJE
PHANTOM DRIVER	TAI	CIRCUS	BJE
PIANO SONGS	TAI	DEFENCE PENETRATOR	BJE
SAVE ME	TAI	GALAZIAN ADVENTURE	BJE
SHARK BAIT	TAI	GHOST HUNTER	BJE
SHOOT	TAI	GOLF LESSON	BJE
SNAKE	TAI	HANGMAN	BJE
SNAKE TRAILS	TAI	HOPPY	BJE
SNAKE TRAP	TAI	INVADERS	BJE
THREE HUNDRED	TAI	KNIGHTS & DRAGONS	BJE
WORD TEASER	TAI	LADDER CHALLENGE	BJE
ENCHANTED PRINCESS	MCC	LEARJET	BJE
HI - JINKS	MCC	PANIC	BJE
GAMBLERS PACK	MCC	PLANET PATROL	BJE
GRAPHIC GOLF	MCC	POKER	BJE
SULTANS PALACE	MCC	RALLY X	BJE
TEN PIN BOWLING	MCC	STAR BLASTER	BJE
VZ RACER	MCC	SUPER SNAKE	BJE
STAR TREKER	APE	TENNIS	BJE
THE LOST CROWN	APE	*****	
BLACKJACK ROYALE	VDU	EDUCATIONAL PROGRAMS	
CASTLE GREYSTONE	VDU	*****	
FBI 2001	VDU	ELEMENTRY GEOMETRY	DSE
GALCTIC EMPIRES	VDU	FLASHCARD 1 & 2	DSE
HAUNTED MANSION	VDU	FLASHCARD 3 & 4	DSE ✓
KNIGHTS QUEST	VDU	MATHS ARMADA	DSE ✓
SCOTLAND YARD	VDU	METRIC SPYCATCHER	DSE ✓
SNAKE DUEL	VDU	MUSIC WRITER	DSE ✓

# SOFTWARE LIST CONTINUED . . . . . 25/18

UTILITYS	VSW	COS COSMIC
VZ EPSON PRINTER PATCH	VSW ✓	DAW L.DAWSON
VZ EXTENDED BASIC(S.O.)	VSW ✓	DSE DICK SMITH ELECTRONIC
WEAVING DRAFTS	VSW	GRI GRIFFIN
		HIR J.HIRST
VZ DEBUG	MIL	HVG HUNTER VALLEY VZ GRP
GRAPHICS PACK	MIL	LAS LASERLINK
		LEH G.LEHMAN
ART GALLERY	LAS	LOW B.LOW
COLOUR HARDCOPY	LAS	LYO R.LYONS
COPY/PROTECT	LAS	LYS LYSCO
DISKGUARD	LAS	MCC G.MCCLEARY
DISK TOOL KIT	LAS ✓	MIL R.S.MILLER
DISASSEMBLER	LAS ✓	MTS M. TAYLOR SOFTWARE
DSE WORD PRO PATCH	LAS ✓	PAM PAM SOFTWARE
EDITOR/ASSEMBLER DISK	LAS ✓	RHO C.RHODES
EPSON PRINTER PATCH	LAS	SAR N.SARAFODIS
EXTENDED BASIC (G.W.)	LAS	SOR J.SORTLAND
FAST DISK & MENU	LAS ✓	SUN E.SUNDSTRUP
FILESEARCH	LAS ✓	TAI L.TAIT
MAGIC PAINT	LAS	VDU VZ DOWN UNDER
VZ BASIC COMPILER	LAS	VSW VSOFTWAREZ
VZ CONVERT	LAS	WOB W.OBRIST
COLOUR GRAPHICS	PAM	
MONITOR / DEBUGGER	WOB	
RENUMBER / MERGE	WOB	
VZ EXTRA COMMANDS	LEH	
DISK MENU	BNE	
POSTER SHOP	BNE	
ART GALLERY	BNE	
TAPE I.D.	BNE	
TAPE / DISK LIST	BNE	
PROGRAM COPIER	SAR	
RETRIEVAL PROGRAM	BRO	
COPIER	SUN	
VZ CHIP 8	GRI	
GRAF STAR	VDU	
NAME STAR	VDU	
SHOP STAR	VDU	
SCREEN ED	MTS	
E+F WP DISK PATCH	HVG	
*****		
SOFTWARE DISTRIBUTORS		
DECODING		
*****		
APE APE SOFTWARE		
BJE S.BJELIC		
BNE BRISBANE VZ WORKSHOP		
BRO G.BROWELL		
CAR ADAM CARTER		
CEL CELESTRON		