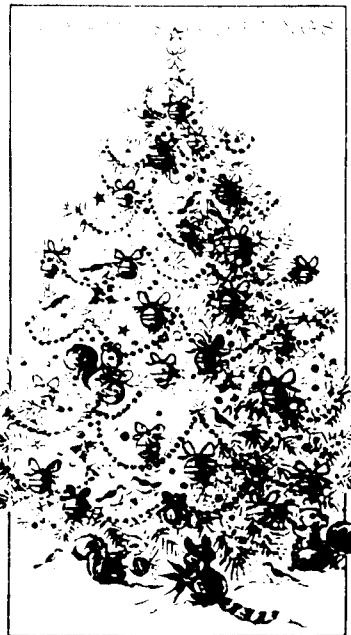
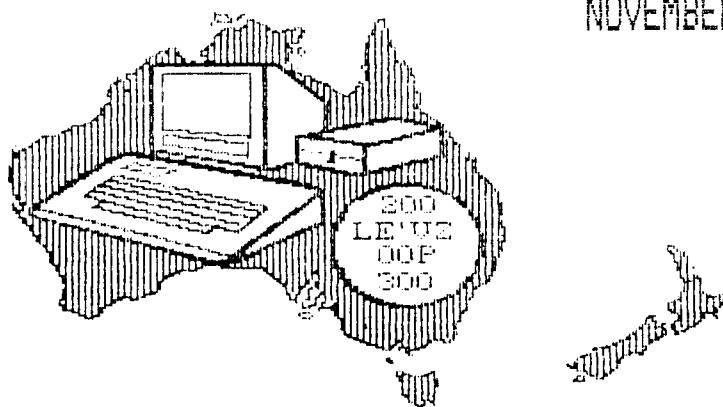


* LE'V2 200/300 *

Owner's Operators Programmers

** THE SOUTH PACIFIC MAGAZINE FOR VZ COLOUR COMPUTERS **

NOVEMBER 1987. #18 A\$2.00.



EDITORIAL



Greetings Readers, Oila.

I am starting this Editorial in the middle of September, just after the football grand-finals, after the last of Australias skiable snow and during Brisbanes Warana Festival. So what you say. Well it means that I am starting it before our hectic season gets under way. Brisbane-ites are beginning to become rather excited as the **World Expo 1988** is taking shape. It is certainly going to be an event to remember. We have never been to one so we are really enthusiastic about it. It will effect everyone in some way, even to folk who do not attend. The high technology will "blow ones mind". Laser effects will be seen every night. About 38 countries are to be represented, boy what a show.

For those interested, you can receive a swag of information by telephoning EXPO 88 on (07)840 1988, or write to:- P.O. Box 1988, Southbank, QLD 4101, Australia.

Before I get to VZ items, I must mention the proposed Australia Card. I realise some folk will say that LE'VZ is not the place to talk about such things, but I say that with this very important matter I have a duty to do so. We are NOT in favour of the Australia Card in this house-hold. Most OOPs should know that **any data-base is not entirely secure**.

I will mention just one incident in regards to the Commonwealth Electoral Commission's new computerised system. As recently reported in the press, there were about 500,000 people sent "Please explain" notices of why they did not vote. Our married daughter voted with her husband and received one of these notices. Was she hopping mad!!

Of course the "Hackers" would have a field day wouldn't they. I am sure I wouldn't want my data being manipulated. **would you?** Did many folk read in the press about a notorious "Hacker" called **Blue Thunder**? I wrote a short item about him in LE'VZ #12 June 1982, warning people not to send money to an R.F.D. Box number. It referred to Teleteltron Software. His court case was held on the 7th of September in Melbourne to decide his case. There were many counts of fraud to answer, amounting to around \$4600.00. Much of his hacking was via Westpac Mastercard. What do you think of that??

On page 12 I have printed a bigger list of folk who have volunteered to answer your questions on most aspects of VZ computing. I find that I just do NOT have the time to answer most technical, hardware and programming queries. **Please contact these folk directly.** Contact the one/s who relate to your problem. Always enclose an S.A.S. Envelope for written replies. "telephone at a reasonable time.



We will be combining our **Christmas Mini-Expo** with the **BVZUW** on Saturday the 3rd. of December at the location of the **BVZUW**, WHICH IS:- Capalaba State High School, School Rd., Capalaba, QLD.

See report elsewhere in this LE'VZ. This one will be bigger and better than the last Mini-Expo. I will have a video unit in operation to keep the "non-computerists" occupied. See page 8 for more details.

Next year is certainly going to be an exciting one with EXPO 88 and our **Bi-Centennial celebrations**.

Finally there is the most important celebration of all almost with us again; that being **Christmas**. Marie and I wish that you and your family have a **happy and joyous Christmas time**, and hope that you experience the true meaning of this special occasion. Last but not least, we also wish you and yours a healthy and happy **New Year 1988**.

GOD bless, John and Marie D'Alton.

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* * A THREE YEAR INDEX * *

LE'VZ FROM #1 JUNE '84 TO #17 AUGUST '87.

This index covers from our first LE'VZ 200 OOP which was only a single A4 sheet to the previous LE'VZ 200/300 OOP #17 August.

As mentioned on page 11 of this LE'VZ, back issues are available from #8 to the current issue. If there is a particular article or item in the first seven issues that you would like, please see if you can obtain/borrow that LE'VZ to enable you to get the item that you are after. Failing that, I may be able to copy that item ONLY for you at 20 cents per A4 page.

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BOB KITCH'S VIDEO ARTICLE

I am sorry to announce that Bob's article that was printed in LE'VZ #13 and #14 has to end there. There is quite a lot more to it, but due to unforeseen problems I can't continue it. For people who want to follow his article up, please refer to Australian Electronics Magazines issue September and October 1986. (J.W.)



DIGITAL DISPLAY FOR VZ200/VZ300.

By Frank Rees.

27 King St., BOORT. VIC 3537.

When I was studying the Dream 6800 computer, a programme to use the Dream as a frequency meter was published. It was in written in a language called CHIP 8 and 6800 based on a similar programme for CHIP 8 computers. The RCA VIP which was CHIP 8 and 1802. The large characters of CHIP 8 made a wonderful digital display which can be read across the room and I used it in final adjustments to a Dream F.S.K. tape system 1200/2400 Hz frequency.

More recently I saw but did not fully read a similar programme for the Apple in Australian Electronics Monthly by "Dreamer" friend Mr.Roger Graham, and now an Amstrad version by another hobby friend, Mr.Peter Lukes, which was also published in AEM.

This and a letter from a VZ owner friend, Mr.Graeme Knight in Bendigo got me thinking. How about one for other computers, but with the big character set of CHIP 8 or better. The VZ, MC10 AND CO CO have a lot in common including the 6847 sound and video chip, so my first thought was to write a display programme for all, then write a frequency measuring routine and hardware in turn. Naturally the display programme would have many other uses plus could be used to show how a multi-character set could be prepared for a given purpose.

Where to start?

I decided to use the S64 A 2X2 graphic mode and a 5X7 matrix using 3X4 of the 2X2 characters in C64 graphic set. My pocket computer, the first Sharp/Tandy provided a set of characters to model from, and 0 to 9 plus decimal point was made the minimum requirements for the project.

At this point it would be best to look at the illustration of the numeral three (3) and see how the code was prepared.

A string of these large characters can be added as seen in the programme, each of the large numbers is three characters of graphic left to right and there are four lines down for each number. Look at data lines 1030 to 1033. These four lines are required for the numeral three (3). The line number is used to help identify. The third number in line numbers mentioned is three then last is 0 to 3. This indicates first to last of screen character lines to build height of the numeral three (3). See fig. 1 again.

The characters are read into the number array so that a simple formula N X 4 finds start of storage of four rows of three columns each for the required numeral to be displayed. Note that while the MC10 book and the VZ keyboard show graphic characters correctly, the MC 10 keyboard and the VZ book shows the characters inverted.

A simple routine will get the code for you. Try :-

```
10 INPUT CH$:PRINT ASC(CH$):GOTO 10
```

For the VZ add:-

5 COLOR 1

Now type the graphic character, see if its what you want and note the code number for it.

I hope you enjoy the article. Letters are welcomed and promptly answered.

Frank Rees.

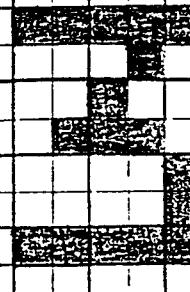
```

100 REM#####
110 REM#####
120 REM$ DIGITAL DISPLAY UNIT FOR.. MC-10, CO-CO, VZ ..
130 REM$#
140 REM$#
150 REM$# FRANK REES 27 KING ST. BOORT 3537 VICTORIA AUSTRALIA 2%
160 REM$#
170 REM$#####
180 REM SG4 2X2 GRAPHICS
190 REM LARGE NUMBER DISPLAY
200 REM LARGE NUMBERS 0-9 + DECIMAL POINT = 11 NUMBER CHARACTERS
210 CLEAR200
220 DIM CH$(43) : REM ARRAY 0-43 = 44 ELEMENTS
230 REM 4 LINES PER NUMBER CHARACTER X 11 CHARACTERS = 44
240 BEG = 193: REM BEGINNING OF DISPLAY
250 LOC = BEG: REM LOCATION OF NEXT NUMBER CHARACTER TO DISPLAY
260 CLS:GOSUB1000
265 COLOR 1: REM THIS LINE VZ ONLY
270 REM 8 CHARACTERS PER LINE MAX.
280 REM 4 LINE HIGH NUMBER CHARACTERS
290 REM GRAPHIC CHARACTERS 2X2
300 REM 32 GRAPHIC CHARACTERS PER LINE .
310 REM 4 LINES HIGH NUMBERS
320 CLS:PRINT@ 100,"ENTER A NUMBER 0-99999.99"
330 PRINT" ";:INPUT N
340 IF N > 99999.99 THEN GOTO 320
350 N=INT(N*100): REM FIX AT 2 AFTER DECIMAL POINT
360 NS=STR$(N):L=LEN(NS)-1:REM -1 TO REMOVE SPACE FOR + OR - SIGN.
370 NS=MIDS(NS,2,L): REM SAVE ALL BUT THE SPACE FOR SIGN.
380 IF LEN(NS)<7 THEN NS="0"+NS:GOTO 380
390 LOC=BEG: REM START CENTER LEFT.
400 FOR X=1 TO 5: REM DISPLAY FIRST 5 NUMBERS COUNT.
410 N=VAL(MIDS(NS,X,1))
420 GOSUB 530:REM DISPLAY LARGE NUMBER.
430 NEXT X
440 N=10:GOSUB 530: REM DISPLAY DECIMAL POINT
450 FOR X=6 TO 7:REM DISPLAY 2 NUMBERS AFTER DECIMAL POINT
460 N=VAL(MIDS(NS,X,1))
470 GOSUB 530
480 NEXT X
490 PRINT:PRINT" AGAIN YES/NO (Y/N)"
500 ANS=INKEYS:IF ANS="" GOTO 500
510 IF ANS<>"N" THEN GOTO 320
520 CLS:END
530 FOR C=0TO3
540 PRINT@LOC,CH$(C+NX4); R- @
550 LOC=LOC+32
560 NEXT C
570 LOC=LOC-(32X4)+4: REM NEXT X,Y
580 RETURN
590 END

```

CONTINUED...

LINE	ARRAY	CODE	CODE	CODE
1030	CH\$(12)=	131	130	135
1031	CH\$(13)=	142	132	143
1032	CH\$(14)=	143	143	133
1033	CH\$(15)=	131	131	143
	FIG ONE			



DIGITAL DISPLAY UNIT CONTINUED ...

```

1000 CHS(0)=CHR$(137)+CHR$(131)+CHR$(141)
1001 CHS(1)=CHR$(133)+CHR$(143)+CHR$(133)
1002 CHS(2)=CHR$(133)+CHR$(143)+CHR$(133)
1003 CHS(3)=CHR$(139)+CHR$(131)+CHR$(143)
1010 CHS(4)=CHR$(142)+CHR$(133)+CHR$(143)
1011 CHS(5)=CHR$(143)+CHR$(133)+CHR$(143)
1012 CHS(6)=CHR$(143)+CHR$(133)+CHR$(143)
1013 CHS(7)=CHR$(139)+CHR$(131)+CHR$(143)
1020 CHS(8)=CHR$(137)+CHR$(131)+CHR$(141)
1021 CHS(9)=CHR$(143)+CHR$(142)+CHR$(135)
1022 CHS(10)=CHR$(142)+CHR$(135)+CHR$(143)
1023 CHS(11)=CHR$(131)+CHR$(131)+CHR$(135)
1030 CHS(12)=CHR$(131)+CHR$(130)+CHR$(135)
1031 CHS(13)=CHR$(142)+CHR$(132)+CHR$(143)
1032 CHS(14)=CHR$(143)+CHR$(143)+CHR$(133)
1033 CHS(15)=CHR$(131)+CHR$(131)+CHR$(143)
1040 CHS(16)=CHR$(143)+CHR$(136)+CHR$(143)
1041 CHS(17)=CHR$(137)+CHR$(138)+CHR$(143)
1042 CHS(18)=CHR$(131)+CHR$(130)+CHR$(135)
1043 CHS(19)=CHR$(143)+CHR$(139)+CHR$(143)
1050 CHS(20)=CHR$(129)+CHR$(131)+CHR$(135)
1051 CHS(21)=CHR$(131)+CHR$(131)+CHR$(141)
1052 CHS(22)=CHR$(141)+CHR$(143)+CHR$(133)
1053 CHS(23)=CHR$(139)+CHR$(131)+CHR$(143)
1060 CHS(24)=CHR$(142)+CHR$(131)+CHR$(143)
1061 CHS(25)=CHR$(132)+CHR$(140)+CHR$(143)
1062 CHS(26)=CHR$(133)+CHR$(143)+CHR$(133)
1063 CHS(27)=CHR$(139)+CHR$(131)+CHR$(143)
1070 CHS(28)=CHR$(131)+CHR$(131)+CHR$(133)
1071 CHS(29)=CHR$(143)+CHR$(137)+CHR$(143)
1072 CHS(30)=CHR$(143)+CHR$(133)+CHR$(143)
1074 CHS(31)=CHR$(143)+CHR$(135)+CHR$(143)
1080 CHS(32)=CHR$(137)+CHR$(131)+CHR$(141)
1081 CHS(33)=CHR$(134)+CHR$(140)+CHR$(135)
1082 CHS(34)=CHR$(133)+CHR$(143)+CHR$(133)
1083 CHS(35)=CHR$(139)+CHR$(131)+CHR$(143)
1090 CHS(36)=CHR$(137)+CHR$(131)+CHR$(141)
1091 CHS(37)=CHR$(134)+CHR$(140)+CHR$(133)
1092 CHS(38)=CHR$(143)+CHR$(142)+CHR$(135)
1093 CHS(39)=CHR$(139)+CHR$(135)+CHR$(143)
1100 CHS(40)=CHR$(143)+CHR$(143)+CHR$(143)
1101 CHS(41)=CHR$(143)+CHR$(143)+CHR$(143)
1102 CHS(42)=CHR$(142)+CHR$(141)+CHR$(143)
1103 CHS(43)=CHR$(139)+CHR$(135)+CHR$(143)
2000 RETURN

```

* * ENHANCED BASIC CLS * *

I made a boo-boo in LE'VZ #17 in that I did not print all of the M/L routine in Larry Taylor's article. This concludes his article. SORRY.

(J.D.)

```

.0033 ;
0034 ; START OF THE PROCESSING
0035 ; ROUTINE FOR NEW COMMAND.
0036 ;
0037 NVCT EXX ; SAVE ALL REGISTERS
0038 LD HL,1D5BH ; CHECK TO
0039 POP DE ; SEE IF THE
0040 OR A ; RETURN
0041 SBC HL,DE ; ADDRESS
0042 PUSH DE ; IS 1D5BH
0043 EXX ; RESTORE ALL REGISTERS
0044 JP NZ,1D78H ; IF NOT GO TO NORMAL PROCESSING
0045 PUSH HL ; SAVE STRING ADDRESS
0046 CALL 1D78H ; GET NEXT VALUE FROM STRING
0047 JR NZ,CONT ; IF NOT ZERO THEN CONTINUE
0048 POP POP HL ; ELSE RESTORE STRING ADDRESS
0049 LD DE,(VCTR) ; RETRIEVE ORIGINAL VECTOR
0050 PUSH DE ; AND JUMP
0051 RET ; TO IT
0052 CONT CP 84H ; CHECK FOR CLS TOKEN
0053 JR NZ,POP ; IF NOT FOUND RETURN TO CALLER
0054 INC HL ; MOVE TO NEXT VALUE IN STRING
0055 LD A,(HL) ; GET NEXT VALUE AFTER CLS TOKEN
0056 SUB 30H ; REDUCE IT TO RANGE 0-8
0057 JR Z,EXEC ; IF ZERO THEN EXECUTE COMMAND
0058 LD B,B ; LOAD B REG WITH UPPER LIMIT
0059 CMPR CP B ; CHECK IF A=B
0060 JR Z,EXEC ; IF YES THEN EXECUTE COMMAND
0061 DJNZ CMPR ; REDUCE B AND CONTINUE CHECK
0062 JR POP ; NO MATCH SO RETURN TO CALLER
0063 EXEC POP DE ; RETRIEVE OLD STRING ADDRESS
0064 POP DE ; RETRIEVE OLD RETURN ADDRESS
0065 LD DE,1D1EH ; LOAD NEW RETURN ADDRESS
0066 PUSH DE ; SAVE NEW RETURN ADDRESS
0067 INC HL ; MOVE TO NEXT VALUE IN STRING
0068 PUSH HL ; SAVE CURRENT STRING ADDRESS
0069 ADD A,A ; MULTIPLY CLS
0070 ADD A,A ; VALUE BY 16 TO
0071 ADD A,A ; CALCULATE THE
0072 ADD A,A ; COLOUR OFFSET
0073 JR NZ,SKIP ; IF RESULT NOT ZERO THEN SKIP
0074 INC A ; IF ZERO INCREASE TO ONE
0075 SKIP ADD A,7FH ; ADD 127 TO GET GRAPHICS BLOCK
0076 ;
0077 ;CLEAR SCREEN ROUTINE
0078 ;
0079 LD HL,7000H ; LOAD START OF SCREEN ADDRESS
0080 LD (7B20H),HL ; SET CURSOR POSITION
0081 LD DE,7001H ; LOAD START OF SCREEN PLUS ONE
0082 LD BC,01FFH ; NUMBER OF BYTES TO MOVE
0083 LD (HL),A ; LOAD GRAPHICS BLOCK INTO HL
0084 LDIR ; DO A BLOCK FILL OF THE SCREEN
0085 POP HL ; RETRIEVE STRING ADDRESS
0086 RET ; RETURN TO 1D1EH TO CONTINUE
0087 ENDP DEFB 0 ; END OF PROGRAM MARKER

```

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QUEENSLAND, AUSTRALIA.
PHONE (07) 371 3707
LE'VZ 200/300 OOP IS PUBLISHED APPROXIMATELY EVERY
THREE MONTHS.

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PAPER FOR TI-99/4A
PRINTER/PLOTTER

Mr John Radziejowski informs me that these are available at The Calculator Shop in the Elizabeth Street Arcade in Brisbane. This could be helpful for local OOPs.
Size is 114 mm wide by about 50 mm diameter
for A\$1.40 per roll.
(V2).

World Expo 88

BRISBANE, AUSTRALIA. APRIL 30-OCTOBER 30

STOCK CONTROL PROGRAMME -

By Mr. David Martin. Part one.

David wrote this to help his father in his landscaping business. It is Public Domain and can still be improved upon. Perhaps YOU can adapt it for your own use.

```

8 GOT050
10 REM SEARCH ON NO
12 FOR I=0 TO NO-1
14 IF VAL(B$)=0THENNEXT
16 IF VAL(B$)=A(I,4)THENRETURN
18 NEXTI
20 RETURN
50 REM STOCKLIST VER 1.9 BY D MARTIN 22/8/86
70 CLEAR5000
80 B$="" :B$="" :P$=""
90 L$="-----"
105 Z$="ENTER PRODUCT:-"
110 DIMA$(150),S$(150)
115 DIMA(150,9)
130 GOT0200
150 IFP<OTHENA(I,N)=0:RETURN
160 IF PC>OTHENA(I,N)=F
161 RETURN
200 CLS:Z=0
210 PRINT@8,"STOCK CONTROL"
220 PRINT"OPTIONS:-"
230 PRINT"0 PRINT REF CODES & SUPPLIERS"
240 PRINT"1 ENTER/CHANGE STOCK ITEM"
250 PRINT"2 VIEW ITEM DETAILS"
260 PRINT"3 DELETE OLD STOCK ITEM"
270 PRINT"4 SALES"
280 PRINT"5 ORDER STOCK"
290 PRINT"6 ENTER STOCK RECEIVED"
300 PRINT"7 PRINT ITEMS TO RE-ORDER"
310 PRINT"8 SAVE STOCK FILE"
315 PRINT"9 VIEW NAMES IN FILE"
320 PRINT"CHOOSE OPTION (0-9)"
330 PRINT"OR HIT (SPACE) FOR MORE OPTIONS"
340 IFINKEY$()""THEN340
350 IFINKEY$=""THEN350
360 D#=INKEY$
361 SOUND30,1
365 IFO$="" THEN500
370 IFO$<"0"OR0$>"9"THEN340
380 I=VAL(D$)
385 IFI=0THEN 9000
390 IFI=1THEN1000
400 IFI=2THEN2000
410 IFI=3THEN3000
420 IFI=4THEN4000
430 IFI=5THEN5000
440 IFI=6THEN6000
450 IFI=7THEN7000
460 IFI=8THEN8000
470 IFI=9THEN12000
500 CLS
501 PRINT@8,"STOCK CONTROL"
502 PRINT"OPTIONS:-"
503 PRINT"1 ENTER STOCKFILE"
504 PRINT"2 END PROGRAM"
505 PRINT"3 TO TOTAL THIS FILE"
506 PRINT"4 TO PRINT STOCKLIST"
550 PRINT"CHOOSE OPTION (1-4)"
555 PRINT"OR HIT (SPACE) FOR MORE OPTIONS"
560 IFINKEY$()""THEN560
570 IFINKEY$=""THEN570
580 IFINKEY$="" THEN200
600 D#=INKEY$
610 IFO$<"1"OR0$>"4"THEN560
620 I=VAL(D$)
630 IFI=1THEN10000
640 IFI=2THENPP=10:GOT08010
650 IFI=3THEN15000
660 IFI=4THEN19000
1000 CLS
1005 IFND=150THEN1070
1010 PRINTZ$;
1020 INPUTB$:IFB$=""THEN200
1025 IFASC(B$)>57ORASC(B$)<49THEN1030
1026 GOT02500
1030 FORI=0TONO-1
1040 IFA$(I)=B$THENZ=0 :GOT02085
1050 IFA$(I)=""THENNO=NO+1:GOT01110
1060 NEXTI
1070 PRINT"NO MEMORY LEFT"
1075 PRINT@394,"PRESS ANY KEY TO RETURN TO MENU"
1076 IFINKEY$()""THEN1076
1077 IFINKEY$=""THEN1077
1078 CLS:GOT0210
1090 GOT01075
1110 A$(I)=B$
1112 PRINT@32,"PART # ";A(I,4);:INPUTA:IFA=OTHENA=A(I,4)
1114 FORG=0TONO-1
1115 IFG=ITHENNEXX
1116 IFA(G,4)=ATHENPRINT"# IN USE ":GOT01112
1118 NEXT:A(I,4)=A
1120 PRINT@64,"AMOUNT IN STOCK ";A(I,0);:INPUTP
1122 N=0:GOSUB150
1140 IFA(I,0)<OTHEN1120
1160 PRINT@96,"AMOUNT ON ORDER ";A(I,1);:INPUTP
1170 N=1:GOSUB150
1180 IFA(I,N)<OTHEN1160
1200 PRINT@128,"RE-ORDER LEVEL ";A(I,2);:INPUTP
1210 N=2:GOSUB150
1220 IFA(I,N)<OTHEN1200
1230 PRINT@160,"W/SALE PRICE ";A(I,5);:INPUTP:N=5:GOSUB150
1235 PRINT@192,"TAX RATE ";A(I,6)*100;;INPUTP:P=P/100:N=6
1236 GOSUB150
1240 PRINT@224,"RETAIL PRICE ";A(I,7);:INPUTP:N=7:GOSUB150
1280 PRINT@256,"SUPPLIER:-";S$(I);
1290 INPUTG$:IFG$()""THENSS$(I)=G$
1320 PRINT"ANY FURTHER NEW ITEMS(Y/N)"
1330 IFINKEY$()""THEN1330
1340 IFINKEY$=""THEN1340
1350 Y$=INKEY$
1360 IFY$="Y"THEN1000ELSE200

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GOTO PAGE SEVEN.

2000 CLS:IFZ=999THEN3000
 2005 Z=99
 2010 PRINTZ\$;" OR NUMBER "
 2020 INPUTB\$:IFB\$=""THEN200
 2025 IFASC(B\$)>570RASC(B\$)<49THEN2040
 2026 GOT02500
 2040 FORI=0TOND-1
 2050 IFA\$(I)=B\$THEN2080
 2060 NEXTI
 2070 PRINT"WRONG INFO ENTERED PRESS RETURN"
 2075 INPUTW
 2076 GOT0200
 2080 IFZ=999THEN3000
 2085 CLS:K%0
 2086 IFI>NOGOT0200
 2087 IFI<0GOT0200
 2090 PRINT"PRODUCT:-";A\$(I)
 2100 PRINT"PART # ";A(I,4)
 2110 PRINT"STOCK IN HAND ";A(I,0)
 2120 PRINT"STOCK ON ORDER ";A(I,1)
 2130 IFA(I,2)>A(I,0)THEN A(I,3)=A(I,2)-A(I,0)-A(I,1)ELSE A(I,3)=0
 2131 A(I,8)=(A(I,5)+(A(I,5)*A(I,6)))*A(I,0)
 2132 A(I,9)=A(I,7)*A(I,0)
 2135 IFA(I,3)<0THEN A(I,3)=0
 2137 IFK%1THENRETURN
 2140 PRINT"RE-ORDER LEVEL ";A(I,2)
 2150 PRINT"RE-ORDER QUANTITY ";A(I,3)
 2155 PRINT"W/SALE ";USING"#####.##";A(I,5);
 2156 PRINT"+TAX";USING"#####.##";A(I,5)+(A(I,5)*A(I,6))
 2160 PRINT"RETAIL ";USING"#####.##";A(I,7);
 2161 PRINT"-TAX";USING"#####.##";A(I,7)-(A(I,5)*A(I,6))
 2165 PRINT"SUPPLIER ";S\$(I)
 2166 PRINT"TOTAL W/SALE";USING"#####.##";A(I,8)
 2167 PRINT"TOTAL RETAIL";USING"#####.##";A(I,9)
 2169 IFZ=996GOT02175
 2170 PRINT@352,"PRESS A>>) TO CHANGE."
 2175 PRINT@384,"PRESS I(N) FOR NEXT RECORD"
 2176 PRINT@416,"PRESS K(VY) FOR PREVIOUS RECORD"
 2180 PRINT@448,"ANY OTHER KEY TO RETURN TO MENU"
 2190 IFINKEY\$<>"THEN2190
 2200 IFINKEY\$=""THEN2200
 2205 IFZ=996GOT02215
 2210 IFINKEY\$="C"THENCLS:PRINT"PRODUCT DETAILS:-";A\$(I):GOT01112
 2215 IFINKEY\$="N"THENI=I+1:GOT02085
 2216 IFINKEY\$="P"THENI=I-1:GOT02085
 2220 CLS:GOT0200
 2500 REM SEARCH ON NUMBER
 2510 GOSUB10
 2520 IFVAL(B\$)=A(I,4)THEN2080
 2540 GOT02070
 3000 Z=0:CLS:PRINTZ\$;" OR NUMBER"
 3010 INPUTB\$:IFB\$=""THEN200
 3020 IFASC(B\$)>570RASC(B\$)<49THEN3030
 3022 GOT03500
 3030 FORI=0TOND-1
 3040 IFA\$(I)=B\$THEN3070
 3050 NEXTI
 3060 Z=999:GOT02070
 3070 PRINT"PRESS (U) TO ~~UNDO~~ ANY OTHER KEY FOR MENU"
 3081 IFINKEY\$<>"THEN3081
 3082 IFINKEY\$=""THEN3082
 3083 IFINKEY\$="D"THEN3089ELSE200
 3099 A\$(I)=""

3090 S\$(I)=""
 3110 FORK=0TO8
 3120 A(I,K)=0
 3130 NEXTK
 3140 FORT=ITOND-1
 3141 A\$(T)=A\$(T+1)
 3142 S\$(T)=S\$(T+1)
 3143 A(T,0)=A(T+1,0):A(T,1)=A(T+1,1):A(T,2)=A(T+1,2)
 3144 A(T,3)=A(T+1,3):A(T,4)=A(T+1,4):A(T,5)=A(T+1,5)
 3145 A(T,6)=A(T+1,6):A(T,7)=A(T+1,7):A(T,8)=A(T+1,8)
 3146 A(T,9)=A(T+1,9)
 3147 NEXTT
 3150 NO=NO-1
 3155 IFNO<1THENNO=0:GOT0200
 3170 Z=0: GOT0200
 3500 REM SEARCH ON NUMBER
 3510 GOSUB10
 3520 IFVAL(B\$)=A(I,4)THEN3070
 3540 GOT03060
 4000 CLS:PRINTZ\$;" OR NUMBER "
 4020 INPUTB\$
 4030 IFB\$=""THEN200
 4032 IFASC(B\$)>570RASC(B\$)<49THEN4040
 4034 GOT04200
 4040 FORI=0TOND-1
 4050 IFA\$(I)=B\$THENCLS:GOT04090
 4060 NEXT I
 4070 GOT02070
 4090 PRINTA\$(I)," ";A(I,4)
 4092 PRINT"TOTAL STOCK=";A(I,0)
 4095 PRINT"ENTER NUMBER SOLD"
 4100 INPUTA
 4110 IFA<0THEN4100
 4112 IFA=0THEN200
 4115 IFA(I,0)-A(I,0)ANDA(I,1)>0THENPRINT"AWAITING DELIVERY OF ";B\$
 4120 IFA>A(I,0)ANDA(I,1)>0THENPRINT"AWAITING DELIVERY OF ";B\$
 4125 IFA(I,0)+A(I,1)<PRINT"ORDER";ABS(A(I,0)+A(I,1)-A);"OF";B\$
 4130 A(I,0)=A(I,0)-A
 4135 PRINT"SOLD ";A;" ";A\$(I):K%1:GOSUB2130
 4140 PRINT"ANY OTHER STOCK SOLD (Y/N)"
 4150 IFINKEY\$<>"THEN4150
 4160 IFINKEY\$=""THEN4160
 4170 IFINKEY\$="Y"THEN4000ELSE200
 4200 REM SEARCH ON NUMBER
 4210 GOSUB10
 4220 IFVAL(B\$)=A(I,4)THENCLS:GOT04090
 4240 CLS:PRINT"NUMBER NOT FOUND PRESS RETURN FOR MENU"
 4250 INPUTVV:GOT0200
 5000 CLS:PRINTZ\$;" OR NUMBER"
 5020 INPUTB\$
 5030 IFB\$=""THEN200
 5040 IFASC(B\$)>570RASC(B\$)<49THEN5050
 5042 CLS:GOT05500
 5050 FORI=0TOND-1
 5060 IFA\$(I)=B\$THEN5110
 5070 NEXTI
 5080 PRINT"PRODUCT NOT FOUND PRESS RETURN":INPUTFF:GOT0200
 5110 PRINTA\$(I)," ";A(I,4)
 5115 PRINT"AMOUNT ALREADY ON ORDER ";A(I,1)
 5120 PRINT"ENTER AMOUNT FOR ORDER"
 5130 INPUTA
 5140 IFA<0THEN5130
 5150 PRINT"ORDER FOR ";A;" OF "

CONTINUED IN LE' VZ #19.

* COMPETITION *

BY JEREMY LEE.

Hi. I am interested in running a competition for the VZ-200/300 involving the programming skill of the user. To find out whether it is worth my while, I would like all who are interested to write to me or care of the club, (the addresses are below) and if enough people are interested, a rules notice will be posted out. If not, a notice will be posted in LE'VZ. It's not too hard, and a entry fee of \$2 is required (after postage of rules with entry form).

Mr Jeremy Lee, c/o P.O. Box 221, ASHGROVE, QLD. 4060.
AUSTRALIA or : Enclose a S.A.S.E.
C/O. Bob Jones, BVZUW,
63 Tingalpa St. WYNNUM WEST. 4178. QLD. AUSTRALIA.

* WORD PUZZLE. *

Here is a little puzzle to give you a rest from programming. There are sixteen words hidden amongst the letters. The words are of different length, mostly computer related and are printed in any direction. That is horizontal, vertical, diagonal and perhaps zig-zag fashion. The answer print is on page 12. Have fun.

B O T N Z S I F Q P B W E G W	CORRESPONDENCE
S C J M A G A Z I N E F B C Q	NOMENCLATURE
K O W N O B B I R E D I E O U	BICENTENNIAL
I M O N I T O R D O C R J R I	QUICKWRITE
I P E X P O B E T E U O B R C	FOOTBALL
N I F J D A B B N T U P I E K	DEBUGGER
G L B Z S U A T A R A B T S W	COMPILER
J E E I G L E L N S B A K P R	MAGAZINE
I R C G L N C A C O P X X O I	MONITOR
G I E J I N L A G F S X G N T	JOURNAL
U R B A E W L J X Y B L N D E	SKIING
L T L M I J E P J Q Y C H E P	PASCAL
F Z O F K M D G L E K W Q N H	RIBBON
I N W B A E L C Z E Q I D C F	BASIC
U F M N P M R T A K F E U E O	EXPO
	BIT

--- HINTS- HINTS- HINTS---

Mr David Garnsworthy invites readers to buy *Goldsoft* As4.50 per month from a Tandy store. The MC10 programmes convert easily. For the various graphics programmes, insert MODE(1). The ECB 32k programmes using text easily fit within 22k of a VZ.

Mr Ken Brazier advises that the early DSE *Omibus* books do have some bugs printed in the programmes, but DSE have issued correction sheets. Ask your DSE store.

I would like to let folk know that the VZ Data Recorder audio cable with the two 3.5mm plugs on one end and a stereo plug on the other, can be purchased from Many electronics parts stores. In Brisbane they are available from Delsound Pty Ltd for \$2.95, with the ARISTA brand name.

QUICKWRITE WORD PROCESSOR V4.

EXTRA GOOD NEWS!!!

We will be releasing Version V4 in December. This does not mean that Version V3 is obsolete.

Version V3 will still be current, as they are two different units. This is being printed with V4, hence the different type face styles.

See our software on page 14 for more details on V4. The main differences being that the user designs a library of type face styles and saves them to disc. The other is that the change of typeface style can be achieved anywhere in the text.

We hope to produce a VHS VIDEO demonstrating both V4 and V3, please let us know if you would like to view one.

Owners of V3 can purchase V4 at a discount price of AUD\$20.00, otherwise the price is AUD\$40.00.

As stated elsewhere, YOU have to familiarise yourself with the control codes of your printer. It is not possible for these to be printed in the QUICKWRITE MANUAL as there are quite a few variations. I have owned this Citizen 120-D printer for almost a year and I am still learning how to use it.

For owners of V3, you will be receiving an "Upgrading Memo" shortly. There is a problem when using the older type printer interfaces. The printer control codes cannot be sent to the printer although the text is OK. If YOU are having this trouble, please let us or Mr.L.Milburn know about it, as I can assure you that it is really worthwhile getting

QUICKWRITE operating smoothly.

QUICKWRITE IS ONLY OBTAINABLE FROM US.

All discs are numbered and operating manuals have multicoloured printing.

V SOFTWAREZ. J.D.

*** CHRISTMAS MINI-EXPO. ***

As mentioned in my Editorial, I will be combining this with the BVZUW meeting in December. The date is Saturday the 5th. and the address: Capalaba State High School, School Rd. CAPALABA.

TIME 9 am. to about 5 pm.

Bob Jones suggests that the usual BVZUW official part of the workshop should be waivered for the day.

All folk are welcome, whether an OOP, BVZUW member or a visitor. Even non-computerists will be catered for.
FREE ENTRY FOR ALL.

THERE WILL BE:

- * A lucky door prize.
- * A video recorder set up to demonstrate software and show some items that are not VZ related.
- * About ten different VZ systems running.
- * Continuous software demonstrations.
- * Software for sale at discount prices.
- * Books and magazines for sale.
- * A box of old hardware items for the taking.
- * Voice synthesisers with talking VZs.
- * Free and Public Domain software.
- * An opportunity for all folk to sell VZ equipment.
- * Show and demonstrate your favourite item/s.
- * Convenience store nearby for peckish folk.
- * Plenty of parking.
- * * * And much more.

Contact me for details. John D'Alton.

(VZ).

EDO
Editions One to Six in this LE'VZ. Part 2 to concinue are pages seven
to eight, will be printed in LE'VZ #19. (J.D.)

Part 1 -
Part 2 -

LISTING OF VZ200/300 MAGAZINE ARTICLES - as at 15/09/87

Since its introduction in early 1983, over two hundred articles on the VZ-200 and 300 have appeared in the magazines. Some articles review the hardware and others describe peripherals. Some excellent games have been published and a very useful set of utility routines have emerged.

This bibliography for the VZ computer is a must for the serious VZ-User.

Compiled by:-

R.B. KITCH, 7 Eurella St., Kenmore, Qld. 4069. Phone: (07)378-3745.
PLEASE ADVISE OF ANY ADDITIONAL ARTICLES .or.. CHANGES, ALTERATIONS OR BUGS IN LISTINGS to assist other Users.

UTILITIES

Oct.	83	APC	52,4	BASIC program conversion. (Surya)
Jan.	84	APC	20-21	Beginners tips. (White)
Nov.	83	APC	57,9	Program conversion Pt. 2 (Surya)
Nov.	83	APC	89-95	BASIC converter chart. (Surya)
Feb.	84	APC	140-1	Program conversion Pt. 2 (Surya)
Mar.	84	APC	42-3	Program conversion - Apple II (Surya)
Apr.	84	APC	71-2	Program conversion - TRS 80/System 80 (Surya)
May	84	APC	75-6	Program conversion - Atari (Surya)
Jun.	84	APC	67	Program conversion - Sinclair (Surya)
Jul.	84	APC	129-30	Program conversion - BBC (Surya)
Mar.	84	ETI	63	More functions for the VZ-200. (Olney)
Apr.	85	ETI	117	Notes and errata for Olney.
Jul.	84	BB	56	Some more routines. (Middlemiss)
Jul.	84	MBO	3-4	VZED - three new functions.
Aug.	84	MBO	2	VZ-200 output latch.
Aug.	84	MBO	9,15,16	Memory peek VZED. (Carson)
Aug.	84	MBO	3-4	Microsoft ROM BASIC Level I bug.
Apr.	85	APC	97	VZ-200 bug. (Tritscher)
Aug.	85	APC	31	VZ bug. (Tritscher)
Aug.	84	APC	94	VZ-200 moving message and trace. (Batterson)
Nov.	84	APC	76	Trace function. (Breffit)
Nov.	84	APC	125	VZ-200 correction. (Kelly)
Sep.	84	CI	19	VZ200 Input. (Woolf)
Sep.	84	BB	63	Poking extra functions. (Clark & Hill)
Oct.	84	ETI	135-7	Extending VZ-200 BASIC. (Olney)
Nov.	84	APC	125-6	TRON/TROFF function for VZ-200. (Thompson)
Nov.	84	APC	208-12	MON-200 machine code monitor. (Stamboulias)
Nov.	84	PCG	55-56	Iprinter. (Quinn)
Nov.	84	PCG	suppl.	VZ-200 reverse video.
Dec.	84	BB	64	Enlarged characters. (Velde)
Feb.	85	APC	171	BASIC understanding. (Hobson)
Feb.	85	AFC	20	VZ-200 into puberty - Olney's extended BASIC.
Feb.	85	APC	19-26	Calculating grey line. (Baker)
Mar.	85	CI	12-14	Renumber. (Marsden)
Apr.	85	PCG	62-64	Find. (Stamboulias)
Apr.	85	APC	19	Use of RND in dice and card games. (Holland)
Apr.	85	APC	103	VZ variable definition. (Stamboulias)

Page 1 of 8

(1)	Apr.	APC	95	Variable GO TO on VZ. (Olsen)
(1)	Jul.	APC	176	Correction to VZ variable GO TO.
(1)	May	APC	52-3	Lysco support for VZ-200. (Young)
(3)	May	ETI	99-101	VZ-200 hardware interrupt. (Olney)
(1)	May	APC	110	Background VZ. (Williams)
(1)	Aug.	APC	130	VZ-200 instant colour. (Willows)
(1)	Aug.	APC	130-3	Reversed REM. (Quinn)
(1)	Sep.	APC	145	Real-time clock. (Griffin)
(1)	Oct.	APC	218	APC benchmark BASIC programs.
(1)	Oct.	APC	147	VZ deletions. (Quinn)
(1)	Nov.	VZ	189	VZ EDITOR/ASSEMBLER tips. (Lam)
(1)	Nov.	ETI	94-5	Olney's Level II BASIC for VZ200/300. (Rowe)
(2)	Feb.	APC	127	Machine language calls.
(1)	Mar.	APC	chart	APC BASIC converter chart 1986.
(3)	Mar.	YC	103-5	VZ-200 cassette inlays. (Butfield)
(2)	May	APH	54-55	VZ and photography. (Kohen)
(1)	Jun.	APC	209	VZ pause.
(3)	Aug.	ETI	86-89	VZ software mods. (CHIP-8 Editor) (Griffin)
(5)	Oct.	ETI	28-33	VZ CHIP-8 Interpreter. (Griffin)
(4)	Sep.	AEM	89-92	Screen handling on VZ. Part I. (Kitch)
(4)	Oct.	AEM	110-112	Screen handling on VZ. Part II. (Kitch)
(2)	Oct.	AEM	113,4,21	Reference list of VZ articles. (Kitch)
(1)	Oct.	ETI	47	Labeler. (Gallagher)
(5)	Oct.	ARA	38-42	Amateur radio logger. (Johnson)
(1)	Nov.	EA	35	Speaker enclosure calculator. (Allison)
(1)	Dec.	AEM	90-95	Memory mapping on VZ. (Kitch)
(6)	Mar.	AR	10-12	Feedline calculations. (Buhré)
(3)	Apr.	ETI	100-101	OP amp noise. (Allison)
(2)	Apr.	ARA	20-24	Beam Headings. (Baker)
(5)	May	AEM	86-88	VZ Epson printer patch. (Taylor)
(3)	Jun.	AEM	74,75,79	VZ Epson printer patch Pt II.
(2)	Aug.	AEM	82-83	VZ expanded EPROM (Meager)
(1)				GAMES
(1)	Nov/Dec	SYN	22-24	Projectile Plotting (Grosjean)
(2)	Dec.	APC	161-3	Missile Command. (Whitwell)
(2)	Feb.	BB	50-51	Caddy and Reaction Test. (Hartnell)
(1)	Jan.	YC	65	Graphic Sine Waves for VZ-200. (Nickasen)
(2)	Apr.	APC	178-80	Moon Lander. (Alley)
(3)	Jul.	APC	174-8	Blockout. (Pritchard)
(1)	Jul.	MBO	7,22	Battleships. (Carson)
(2)	Jul.	MBO	7,20,21	Junior Maths. (Carson)
(1)	Aug.	MBO	9,16	Contest Log VZED. (Carson)
(1)	Aug.	MBO	9,16	Dog Race VZED. (Carson)
(1)	Aug.	MBO	9,16,17	High Resolution Graphics Plotting. (Thompson)
(3)	Oct.	PCG	55-7	Tips for Ladder Challenge. 'Panik' and 'Asteroids'.
(1)	Nov.	PCG	82	'POKEs to 'Ghost Hunter'.
(1)	Jan.	PCG	54	Golf Simulation. (McCleary)
(2)	-	BYC	146-7	Golf Simulation. (McCleary)
(2)	Mar.	CFG	4-5	Golf Simulation. (McCleary)
(1)	-	BYC	147	Knight's Cross. (Lucas)
(1)	Jan.	APC	129-31	Sketcher. (Leon)
(1)	Jan.	YC	88-89	Punch. (Rowe)
(2)	Jan.	PCG	44-48	Space Station Defender. (Shultz)
(5)	Feb.	CI	27-28	Lost. (Potter)
(2)	Mar.	YC	105-9	Decoy. (Rowe)
(1)	CI	-	-	Mouse Maze. (Crandaill)

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Nov. 86 AHC 44 Letter. (Kennedy)

GENERAL PROGRAMMING

Apr.	81	ETI	87-93	Extra Z80 opcodes. (Dennis)
Jun.	81	ETI	97	More uncovering Z80. (Dennis)
Jul.	81	ETI	83	Z80 uncovered. (Garbler)
Feb.	82	YC	64-66	Understanding Assembler (Bell) Part I
Mar.	82	YC	74-77	(8080) Part II
Apr.	82	YC	61-63	" Part III
May	82	YC	60-62	" Part IV
Jun.	82	YC	99-101	" Part V
Jul.	82	YC	1-74	" Part VI
Sep.	82	YC	57-59	" Part VII
Nov.	82	YC	45-46	" Part VIII
Dec.	82	YC	93-97	" Part IX
Jan/Feb	83	YC	52-55	" Part X
Mar.	83	YC	61-62	" Part XI
Aug.	83	YC	62-68	" Part XII
Oct.	83	YC	87-89	" Part XIII
Nov.	83	YC	102-104	" Part XIV
Feb.	84	YC	93-94	" Part XV
Apr.	84	YC	123-126	" Part XVI
Jan.	83	PE	3/1-3/5	PE Micro-file #3 - Z80. (Coles)
Mar.	84	APC	73-85	Teach yourself assembler Pt. 1 (Overaa)
Apr.	84	APC	57-64	(8080, 280, 6502) Pt. 2 (Overaa)
May	84	APC	89-98	Pt. 3 (Overaa)
Jun.	84	APC	53-60	Pt. 4 (Overaa)
Jul.	84	APC	61-64	Pt. 5 (Overaa)
Aug.	84	APC	110-116	Pt. 6 (Overaa)
Sep.	84	APC	145-151	Pt. 7 (Overaa)
Jan.	85	APC	122-124	Sort at input. (Itthell)
Feb.	85	APC	103-109	The basic art - algorithms, structures. (Liardet)

(-)

The numbers in brackets are the number of sheets in each article.
A dash (-) indicates that the article is on the same sheet as the item above.
If Users wish to obtain copies of the articles referred to in this bibliography, they may -

- i) contact me for copies ...or...
 - ii) buy back copies of the magazine from the distributor ...or...
 - iii) borrow from your local library.
- I can supply copies FOR YOUR OWN USE ONLY at 20c. per sheet.
- Kindly add postage to your request as follows:
- | No. of Sheets | Qld. | Interstate (Surface) |
|---------------|------------|----------------------|
| 1 - 3 | \$0.36 | \$0.36 |
| 4 - 8 | \$0.50 | \$0.55 |
| 9 - 18 | \$0.65 | \$0.75 |
| 19 - 45 | \$0.90 | \$1.00 |
| 46 - 90 | \$1.45 | \$1.90 |
| > 90 | expensive! | |

FURTHER LITERATURE RELATING TO THE VZ200/300 COMPUTER

As an extension to my list of magazine articles, I have produced the following list of books (I have copies of all of the publications). The books relate to the VZ computer specifically, Microsoft BASIC Level II or the Z-80 microprocessors, as used in the VZ200/300. Additionally, I hold a lot of additional technical information, ROM listings, Users Group newsletters, software etc.

TECHNICAL BULLETINS FOR VZ COMPUTERS

- # 88 Printing out System-80 screen graphics. (2)
- # 91 Programming the VZ-200 computer's joysticks. (3)
- # 92 Finding where variables are stored by the VZ-200's BASIC. (3)
- # 93 Problems with the X-7208 printer/plotter and Microsoft BASIC. (1)
- # 94 Using the X-3245 FP-40 printer/plotter with the VZ-200 & System-80. (1)
- # 98 Printing lower case and control characters on the VZ200/300. (1)
- # 111 VZ-300 Mailing List tape to disk file conversions. (1)
- # 114 Obtaining colour on the VZ300. (1)
- # 116 Fixing the Printer bug in the VZ Editor-Assembler. (1)

BOOKS ON VZ COMPUTERS

- | | | | |
|----------------|-----------------------------|--|------|
| Henson, T. L., | 1983 | "Introduction to Computing". DSE, 114 p. | (60) |
| MC | Micro Choice (UK) | | |
| PCG | Personal Computer Games | | |
| PCN | Personal Computer News (UK) | | |
| PR | Practical Electronics (UK) | | |
| SYN | Sync (US) | | |
| WM | Which Micro (UK) | | |
| YC | Your Computer | | |
| YCU | Your Computer (UK) | | |
- Hartnell, T., & Predebon, N., 1983 "Getting Started". DSE, 121 p. (68)
- Hartnell, T., 1983 "Further Programming". DSE, 135 p. (74)
- Hartnell, T., Hartnell, T., & Pringle, G., 1983 "The Giant Book of Games". DSE, 179 p. (94)
- 1983 "First Book of Programs". DSE, 58 p. (60)

*** * POKING EXTENDED BASIC * ***
COMMANDS.

BY Gordon Browell.

If you have not obtained or do not wish to use either of the special EXTENDED BASIC units, ie TU6 or TU10, then these methods can be used. One of them was used in Bioplot sent in by Mr Davis of Mildura which was printed in #13 of LE'VZ. The command used was `(ON GOTO)`.
(J.D.)

***** IN BRIEF. *****

TELECOM is no longer selling its Computerphone because projected sales figures were never reached.

Sophisticated software will help eighteen Australians participate in one Australian Bicentennial project. Tim McCartney-Snape, Jon Chester and several Army climbers will tackle Mount Everest.

The Grand Prix Office for the Adelaide leg of the big car race in November will use an accommodation system running on a Hewlett-Packard 3000.

Australian "hackers" succeeded in penetrating top secret European computer systems, as well as Nasa, Prime, and General Motors systems.

*** WORD PUZZLE ANSWERS. ***

S C . M A G A Z I N E F B C Q
K D . N O B B I R . O I E O U
I M O N I T O R D O C R J R I
I P E X P O B E T E U O B R C
N I . . . A B B N T U P I E K
G L . . . S U A T A R A . T S W
. E . I G L E L N S . . . P R
. R C G L N C A C . . . O I
. E . I N L A . . . N T
. R . A E . L . . . D E
. L M E .
. O N .
. N C .

Suppose you wanted to use MEM. This is the command for returning the amount of unused memory. Following are three methods of putting the TOKEN for MEM into a program. As MEM must be preceded by the command PRINT the address for PRINT must be 31469, therefore MEM must be POKE into 31470. To do this we reserve that address by typing in a DUMMY CHARACTER before making the POKE. The DUMMY CHARACTER used here is the HASH sign, #.

FIRST LINE METHOD

`10 PRINT# (RETURN)
POKE31470,200 (RETURN)`

When LISTed line 10 appears as...10 PRINT
The command is invisible but the token for MEM is in place and when RUN will give the unused memory space.

GOSUB METHOD

MEM in the first line may be inconvenient. This method lets you use MEM anywhere in your program. The line to receive the token must be entered first, as...

`20 PRINT# (RETURN)
POKE31470,200 (RETURN)`

Now enter...

`10 GOTO100 (RETURN)
30 RETURN (RETURN)`

Line 100 now becomes the true beginning of the program and GOSUB20 can be used anywhere, whenever MEM is required.

PEEK ADDRESS METHOD

To put MEM anywhere in a program requires the determining of the EXACT address. While a program is being entered, at the spot where MEM is required, enter the dummy character #.

The program should be correct up to this point. Let's assume the last line of the incomplete program is...
`130 CLS:PRINT"MEMOR":#`
Now enter directly the following...
`PRINTPEEK(30969)+256*PEEK(30970)-40`

The number returned is the address of #.

POKE this number with 200 (for MEM). If the number is greater than 32767 subtract 65536. You can now continue entering your program from the NEXT line number. Care must be taken not to overwrite the invisible MEM.

VeeZed INVISIBLE COMMANDS

RANDOM 10 # POKE31469,134
Reseds RND(n) to give a different series of RANDOM numbers.

DEFINT 10 A,B POKE31469,153
Defined all variables beginning with A and B as INTEGERS.

DEFSNG 10 #C,D POKE31469,154
Defines all variables beginning with C and D as SINGLE PRECISION (6/7 floating point).

DEFDBL 10 #E,F POKE31469,155
Defines all variables beginning with E and F as DOUBLE PRECISION (16/17 floating point)

ONAGOTO100,200,300 POKE31469,161
10 #AGOTO100,200,300

ONAGOSUB100,200,300 POKE31469,161
10 #AGOSUB100,200,300

ONERROR10TO1000 ON = POKE31469,161
10 ##60TO1000 ERROR = POKE31470,158

ONERRORGOSUB1000 ON = POKE31469,161
10 ##60SUB1000 ERROR = POKE31470,158

RESUME 10 # POKE31469,159
After ERROR return to error point.
10 #190 POKE31469,159
After ERROR GOTO100.
10 #100NEXT POKE31469,159
After ERROR return to line AFTER error point.

AUTO 10 # POKE31469,183
Automatically prints line numbers beginning at 10 incrementing by 10s.
10 #10,10 POKE31469,183
Automatically prints line numbers beginning at 100 incrementing by 10s.

NOTE: If AUTO is halted by BREAK, POKE30945,175 to restart AUTO from where it was halted.

VARPTR 10 # (X) POKE31469,192
Used to locate Memory Address of a variable.

STRING\$ 10 PRINT#(12,45) POKE31470,196
Will PRINT 12 Asterisks (ASCII 45). Maximum length of string is 256 characters.

MEM 10 PRINT# POKE31470,200
Returns the amount of unused memory.

FRE 10 PRINT#(A) POKE31470,218
Returns the number of unused BYTES.
10 PRINT#(A) POKE31470,218
Returnd the number of unused BYTES in the reserved String spaces.

CINT 10 #Z POKE31469,239
Removes all digits after the decimal point.

CSNG 10 #Z POKE31469,240
Converts numeric variable from DOUBLE to SINGLE PRECISION.

CDBL 10 #Z POKE31469,241
Converts numeric variable from SINGLE to DOUBLE PRECISION.

FIX 10 A#= (n) POKE31470,242
Removes all digits to the right of the decimal point. Does not round-off negative numbers.

ERL 10 PRINT# POKE31470,194
Returns the line number from which a program branched to ERROR routine.

ERR 10 PRINT# POKE31470,195
Returns value related to type of ERROR.

POS 10 A#= (X) POKE31471,220
Returns current CURSOR position.
(X) is dummy argument.

LE'VZ FORMATS.

To help me time-wise to make LE'VZ a better magazine, and yourself to get the most out of it, please read this page.

ALL PRICES are in Australian Dollars.

CURRENT ISSUE price is A\$2.00 which includes surface/air postage within Australia and Air Mail to New Zealand. If you require more than one copy at one time, extra money must be sent to cover postage.

LE'VZ IS (C) COPYRIGHT.

NEW MEMBERS must start by sending \$4.00 as I do not charge a yearly subscription. This makes it worth while entering your name, address and other data into our DBASE. You then receive the current issue if it is in a certain time period between the main send LE'VZ runs. If that is close to the next issue, you will receive that and not the "old" current issue. New Members can send more than \$4.00, as long as it is in multiples of \$2.00.

Present OOPs have their \$ credit printed at the top of their name and address label if sent in the main run. If your credit is less than \$2.00., then a little reminder slip is included with the LE'VZ sent, stating that this is your last issue. Some folk have various money amounts left over from other software or hardware purchases put into their LE'VZ credit, and so odd \$ amounts do occur.

BACK ISSUES are from #8 to the current issue. The price is \$3.00 each. This includes surface/air postage within Australia and Air Mail to New Zealand. If you require more than two copies at one time, extra money must be sent to cover postage.

We usually have most Back Issues in stock. We send what we have and back order the others for you if required. If they are not sent within a couple of months, or with the next Current issue, please remind us.

GENERAL LIST refers to OOPs who want their name, address and data made available to other OOPs when asked for. You may like to contact OOPs in your state, or OOPs with VZ200s. Not all OOPs want their name and information made public, so if that applies to you, you must answer N (no). IF YOU DO NOT WANT YOUR INFO MADE PUBLIC, ANSWER N (no) ON THE DATA SHEET. IF YOU DO NOT ANSWER Y (yes) OR N (no) THEN YOU WILL AUTOMATICALLY BE PUT ON THE GENERAL LIST.

Remember, you may receive letters from OOPs months after you may have sold your VZ.

ANY COMMUNICATION to me that requires a written reply must be accompanied by a Self Addressed Stamped Envelope. Do not expect an immediate reply, as I may need to contact others to formulate an answer.

Always state your record number. That could be between A02 and A98, B01 and B98 or C01 and CXX. I have about 240 financial and unfinancial folk to keep track of. From LE'VZ #15, your record number and \$ credit are printed at the top of your name and address label.

DO NOT TELEPHONE ME ON SUNDAY!!!

CIRCUIT, ROM and PROGRAMME LISTING PRINTOUTS can be sent to you at 20c per A4 page plus postage. Do not ask for the complete VZ ROM listing as it is very long and is about 15MM in thickness.

LETTERS TO THE EDITOR are welcome either as general comments, complaints or asking for help. As with contributors, please ensure that your typewriter or printer prints clear and DARK. In the new 35 character normal size print, IE. 90MM line length, right justified or wrapped. If you have to write by hand, use a RED pen and write in the format just mentioned.

ADVERTISING is a free service to OOPs who are financial, for personal use only. Please use the above 35 character format. About 100 words or less.

CONTRIBUTIONS are very welcome. Please write your letter on a separate piece of paper to your contribution, which allows separate filing of material. You can send in programme listings in M/L or BASIC. Hardware modification or equipment drawings. Hints and any useful information. As above, use the new 35 character format except if it is a large circuit, drawing or photo. If it is a full page contribution reduce by photo copying so that there is a 20MM margin all the way around.

In fact I would like to receive more hardware contributions. Also photos of your equipment would interest others. There is a little problem here though as different photo copyiers reproduce certain colours differently. We can but try.

BASIC AND M/L PROGRAMME LISTINGS need special requirements. Programme listings in M/L or BASIC can be sent as printed in normal size print which I can reduce-copy to make the master. Please make sure the print is dark and clear. The better approach is to send the programme on disc or tape. This enables me to give it a short test -- check that it does at least does RUN. I can then print it in reduced mode while **(LISTING)** it.

TAPE/DISC CONTRIBUTIONS are therefore the best to send in this regard. This applies to programme listings or text. In regards to text, please send on E&F Wordprocessor tape which I can convert to QUICKWRITE Wordprocessor files or QUICKWRITE files on disc. Send in a padded post bag, and we will return it to you as soon as possible. We will pay the return postage. In this way if it is a programme, it can be later issued as a PUBLIC DOMAIN programme. You must let me know if you will allow this to happen.

VPROGRAMMEZ-VHINTZ-VHARDWAREZ book. People have suggested that I print a second book. Please let me have permission in WRITING if you would like any of your contributions included in it.

Finally, I do not promise to print any or all contributions, this is at my discretion.

INFORMATION CONTACTS

Here are some other folk who you can contact. Always include a SASE, if you require a written reply. If you don't live in the same country, send a couple of International Reply Coupons. These are available at Post Offices throughout the world. Please use good judgement if you telephone, perhaps not on Sundays. Check with the person concerned.

Graphics, M/L, printer info, educational.

Mr. Larry Taylor, 4 Columbia Court, SPRINGWOOD, QLD. 4127. 'phone (07) 208 1258.

M/L, hardware, BASIC programming and his special list of all types of info.

Mr. Bob Kitch, 7 Eurella St., KENMORE, QLD. 4069. 'phone (07) 378 3745.

Software list.

Mr. Eddie Tomes, 3 Kilkenny St., CAPALABA, QLD. 4157. 'phone (07) 390 2797.

Printer/Plotters.

Mr. Stan Noble, 307 Mt. Crosby Rd., CHIWAR, QLD. 'phone (07) 395 5140.

Communications, Modems, RTTY.

Mr. Irving Spackman, 78 Waima Crescent, TITIRANGI. AUCKLAND. New Zealand.

RTTY Units.

Mr. Col Paton, VK4BCP, 225 Pallas St., MARYBOROUGH, QLD. 4650 'phone (075) 221 090.

Chip 8 programming.

Mr. Jeremy Lee, c/o P.O. Box 221, ASHGROVE, QLD. 4060 'phone (07) 379 7988.

And also that every man should eat and drink, and enjoy the good of all his labour, it is the gift of GOD.

* SOFTWARE FOR SALE FROM VSOFTWAREZ *



39 Agnes St., TOOONG. QLD. 4066. AUSTRALIA. (07) 371 3707.

NOVEMBER, 1987.

All prices are correct at time of printing, but may change without notice.
All articles available while stocks last. All prices in A\$.

All tape software includes postage up to four tapes.

When ordering software, always state := which computer VZ200 or VZ300, if you have an expansion RAM unit, and if you have a disc drive system connected or denote as below.

VZ1 = unexpanded VZ200. VZ2 = unexpanded VZ300.
VZ3 = expanded VZ200. VZ4 = expanded VZ300.

IE. TB15 = Tape only unit of B15. DB5 = Disc only unit of B5.
T/DE4 = Tape or Disc unit available of F4. TU4 = unit only available on Tape of U4. DU22 = unit only available on Disc of U22.

The price stated is for a Tape unit. If a Disc unit is required, add \$5.00. to the Tape price. The price of a Disc unit is as stated.

We accept BANKCARD and VISACARD, as well as bank, building society, credit union, private cheques, or Aust Post money orders.

Make cheques payable to J.D'ALTON or VSOFTWAREZ.

* * * NEW SOFTWARE * * *

DU56. DISKOPS4. \$10.00. VZ3-VZ4.

This is actually called DISKOPS4 + 2. It supercedes DU47 DISKOPS2 AND DU47A DISKOPS2 which are now Public Domain at the same price of \$10.00.

There are three separate utilities on the disc, and are for use with the DSE. Editor Assembler unit. There are eleven additional commands. Instructions are included. DISKOPS4 + 2 patches in permanently with ED/ASS. It then allows LOADING, SAVEing of source code and BSAVEing object code to/from disc. BSAVEing is the same as TO: for tape.

It also includes the normal disc BASIC commands. If a disc error occurs, then DISKOPS4 + 2 BASIC is entered. ASS is to enable the return to the ED/ASS. BASIC does the reverse.

Users of DISKOPS1 and 2 are also catered for.

DB57 QUICKWRITE V4 \$40.00. VZ3-VZ4.

This new version DOES NOT replace QUICKWRITE V3. The main difference being that V4 allows the user to imbed special character codes ANYWHERE in the text. This includes a single word or even part of a word, anywhere in a line of text. If you refer to LE'VZ #17 on page 14, I printed a short article about how to use

the printer control codes for QW V3. The last one directs the printer to print in three styles, using thirteen codes. With QW V4 these are designed by the user and are represented by A SINGLE CODE CHARACTER and saved onto disc. A whole set of fonts can be built up by the user. I have been testing it for some months now and you should have seen some results in LE'VZ #17.

QW V4 will also recognise the QW V3 square bracketed control codes. Printing a section of the text is also allowable, even one word.

KILL and RETRIEVE are additional Disc commands. Better editing/viewing facilities. Scrolling forward, backward, to beginning and end of text is easy to achieve.

Purchasers of QW V3 can buy QW V4 at a discounted price of AUD\$20.00. An instruction booklet is of course included.

QUICKWRITE IS ONLY OBTAINABLE FROM US.

If anyone requires a short description of any of our software, please refer to previous LE'VZs as all software is initially given a brief description as NEW SOFTWARE. The alternative is to send for our catalogue, VLISTZ. Make sure you send a S.A.S. envelope, 230MM x 100MM.

I would like to mention that a BASIC COMPILER and some other very interesting software is available by sending a S.A.S.E. to:-

Mr. Gavin Williamson, 20A Brunker Rd., BROADMEADOW, NSW. 2292
'Phone (069) 621 678.

--- HELP - HELP - HELP ---

Help. Mr Leslie Milburn would like someone who can assist in or write a PASCAL or C compiler.
Mr Leslie Milburn, 11 Swordfish Ave, RABY. NSW. 2566.
Phone (02) 603 5981.

+ EXISTING SOFTWARE. +

D/TU2	EDITOR/ASSEMBLER	\$ 20.00. VZ3-VZ4.
D/TB1	CASH BOOK LEDGER	\$ 20.00. VZ3-VZ4.
TU4	COLOUR GRAPHICS	\$ 10.00. VZ3-VZ4.
D/TE1	KEYBOARD	\$ 8.00. VZ1-VZ4.
D/TE2	WORDMATCHING	Deleted.
D/TE3	MEATPIES	\$ 10.00. VZ3-VZ4.
D/TU3	UTILITYS	\$ 15.00. VZ2-VZ4.
TU5	WEAVING DRAFTS	\$ 10.00. VZ1-VZ4.
D/TE4	MATHS COUNTDOWN	\$ 10.00. VZ3-VZ4.
D/TE5	COORDINATES	\$ 10.00. VZ2-VZ4.
D/TE6	TOWER of HANOI	\$ 8.00. VZ1-VZ4.
D/TE7	MICROSCOPE	\$ 8.00. VZ3-VZ4.
D/TE8	BLOCK PUZZLER	\$ 10.00. VZ1-VZ4.
TE20	PLUS and MINUS	\$ 10.00. VZ1-VZ4.
TE24	MATHS	\$ 15.00. VZ3-VZ4.
TE25	QUEENSLAND	\$ 10.00. VZ1-VZ4.
TE27	EUROPEAN CAPITALS	\$ 10.00. VZ1-VZ4.
TE30	CAMPING	\$ 10.00. VZ1-VZ4.
D/TG2	MANSION and NOVA	Deleted.
D/TG3	VZ MONOPOLY.	Deleted.
TU12	SEARCHTAPE	Deleted.
D/TG13	SCOTLAND YARD	\$ 12.50. VZ3-VZ4.
DB4	LE'VZ D'BASE	\$ 98.00. VZ3-VZ4.
TB15	DATABASE-VZ	\$ 25.00. VZ3-VZ4.
TG35	HAUNTED MANSION	\$ 12.50. VZ3-VZ4.
TU6	VZ EXTENDED BASIC	\$ 20.00. VZ1-VZ4.
TU7	PROTECT	Deleted.
TU8	CMERGE/DELETE/REN	Deleted.
TU9	MONITOR DEBUGGER	\$ 25.00. VZ1-VZ4.
	This new version finds VZ memory size itself.	
TU10	EXTENDED BASIC	\$ 12.50. VZ3-VZ4.
TU11	ARRAY/RESTORE	\$ 14.95. VZ3-VZ4.
	You must have TU10 to use TU11.	
D/TU12	FILESEARCH	Deleted.
DE1-8	EDUDISK	\$ 50.00. VZ3-VZ4.
T/DE9	MEATPIES V2.	\$ 15.00. VZ3-VZ4.
TU18	LOAD XX80 FILES.	\$ 20.00. VZ1-VZ4.
	This new version finds VZ memory size itself.	
T/DG36	BLACKJACK.	\$ 20.00. VZ3-VZ4.
T/DG37	POKER MACHINE.	\$ 20.00. VZ3-VZ4.
T/DG38	WORD SQUARES.	\$ 10.00. VZ2-VZ4.
T/DG39	COMPUTER MONOPOLY.	Deleted.
T/DG40	TRIVIAL CULT.	\$ 15.00. VZ2-VZ4.
T/DG41	SCOTLAND YARD 2.	\$ 15.00. VZ3-VZ4.
DB5	LE'VZ STATEMENT.	\$ 185.00. VZ4.
DB16	CHEQUE LEDGER D.	\$ 60.00. VZ3-VZ4.
D/TU19	COPY/PROTECT.	\$ 30.00. VZ1-VZ4.
DU20	DISC GUARD.	\$ 60.00. VZ1-VZ4.
T/DU21	VZ-EPSON PRINT/P.	Deleted.
DU22	DISK COPY.	\$ 10.00. VZ1-VZ4.
D/TU48	FILESEARCH.	
D/TG51	BLOCK 1.	\$ 15.00. VZ2-VZ4.
DPD1	PUBLIC DOMAIN.	\$ 10.00. VZ1-VZ4.
DPD2	PUBLIC DOMAIN.	\$ 10.00. VZ1-VZ4.

* NEW SOFTWARE *

D/TG44	MONOPOLY.	\$ 17.00. VZ3-VZ4.
D/TG45	MONOPOLY.	\$ 19.50. VZ4.
D/TG50	ESCAPE RIVER.	\$ 15.00. VZ3-VZ4.
D/B46	QUICKWRITE.	\$ 40.00. VZ3-VZ4.
DU47	DISKOPS1.	\$ 10.00. VZ3.
DU47A	DISKOPS2.	\$ 10.00. VZ4.
D/TG42	AIRTRAFFIC CONTROLLER.	\$ 20.00. VZ3-VZ4.
D/TG43	LEARJET.	\$ 20.00. VZ3-VZ4.
T/DU49	VZ-EPSON PRINT/PATCH.	\$ 15.00. VZ1-VZ4.
D/TG54	GOLF.	\$ 15.00. VZ3-VZ4.
DU1	CONVERT2.	\$ nil VZ3-VZ4.
	See DB46 QUICKWRITE.	
D/TG53	GALACTIC EMPIRES.	\$ 15.00 VZ3-VZ4.
D/TE10	SNERTLE.	\$ 10.00. VZ2-VZ4.
D/TG51	BLOCK 1.	\$ 15.00. VZ2-VZ4.
D/TG52	SOLO BATTLESHIPS.	\$ 15.00. VZ2-VZ4.
D/U56	DISKOPS4 + 2.	\$ 10.00. VZ3-VZ4.
DB57	QUICKWRITE V4.	\$ 40.00. VZ3-VZ4.

BRISBANE VZ USERS WORKSHOP.

WORKSHOP HELD ON THE 1-8-87.

We were pleased to welcome 3 new faces to our workshop which brought our attendance to 10.

Jeremy Lee, who is one of our regular members, demonstrated his program called "ANIMATION". He wrote this program specifically to enter a competition being held by Griffith University for their open day. The program illustrates some of the computer systems commonly in use today. I have since learnt that Jeremy's program took out the \$150 first prize in this competition, congratulations Jeremy. Anyone wishing more information on Jeremy's program can contact him through our Co-ordinator Bob Jones, 63 Tingalpa st., Wynnum West, QLD, 4178. Phone (07) 396 0376, or c/o P.O. Box 221, ASHGROVE, QLD, 4060, PHONE (07) 379 7988.

Mr. & Mrs. Shannon, who were attending for the first time, presented the workshop with an interesting problem, they had been using their VZ to store the titles of their C.D. (Compact Disc) collection, however the small program that they were using was not able to "alphabetise" their list, so Larry Taylor set to work on the Dick Smith "DATA BASE" with his "DISK DOCTOR" and after a short time, he was then able to list the program and modify it to the point where it would accept the C.D. data. Larry has since done further modifications to this program which speed it up considerably.

WORKSHOP HELD ON THE 5-9-87.

Our attendance was again 10 and we were all pleased to hear from Bob Jones that he has negotiated a 50% reduction in the fees for the class room that we use for the workshop, a welcome exception to modern trends.

Thanks also to John Benfer for arranging with SPENCERS OFFICE AUTOMATION for a substantial discount on several Brother M1109 dot matrix printers, \$410 each plus \$35 for pin feed.

We were very fortunate to welcome Mr. Irving Spackman to our September workshop, Irving is a lecturer at the Auckland Teachers College and also an amateur radio operator, so we were delighted when he accepted our invitation to address the meeting.

Irving first used the VZ in connection with his radio interests and now also uses it for satellite tracking, he also remarked that the VZ outperformed a few well known computers in this field. Many thanks Irving for an extremely interesting address.

WORKSHOP HELD ON THE 3-10-87.

With an attendance of 9 we started our meeting with John D'Alton outlining plans for a "MINI VZ EXPO" in December. John is hoping to hold the EXPO at CAPALABA STATE HIGH SCHOOL in conjunction with the "BVZUW" monthly meeting.

Bob Jones made the suggestion that a "BVZUW MEMBER PROFILE" be included in our monthly report, so hopefully this should commence with our next report. Bob also proposed that we start a software library so that members can become familiar with the many pieces of software that are now available for the VZ. It will also help members to choose the best software for their needs before making a purchase. Many thanks to Larry Taylor for endorsing this proposal by making his software available to the workshop.

Recently, while on a trip to Coffs Harbour, Eddie Tomes paid a visit to their local electronics store, (Coffs Harbour Electronics). They are not a Dick Smith store, however they do sell the VZ 300. Apparently each unit they sell has to be slightly modified to cope with local power supply fluctuations.

Demonstrations were the order of the day for the rest of the meeting, I gave a small demonstration of the Hunter Valley VZ User Groups' E & F word processor patch, this excellent piece of software, converts the tape version of the E & F word processor to full disk control, (currently selling for only \$10. from H.V. VZ U.G.). Next Larry demonstrated the Laserlink D.O.S. V 2.0 EPROM that he had just installed in his disk controller. This eeprom gives an extra 11. D.O.S. commands as well as decreasing loading time by approximately 25%, (\$35. from LASERLINK). Larry then demonstrated his A.E.M. 4505 VOICE SYNTHESIZER. John D'Alton gave a further demonstration of QUICKWRITE WORDPROCESSOR V.3 so that we contributors to LE'VZ can use it efficiently. John donated this W.P. to the BVZUW some time ago and is for general use by members.

So as you can see we had a very interesting and informative afternoon. That's all for now.

JOHN WILKINS.

P.S. Along with other famous faces the VZ now makes regular appearances on "A COUNTRY PRACTICE". Spotted by a keen eyed Eddie Tomes.

VZ OOPS IN NEW ZEALAND ON GENERAL LIST.

This is a list of New Zealand OOPs who are on the General List. You can contact these if you wish but always enclose a Self Addressed Stamped Envelope in your letter if you require a written reply. If you telephone, please do so at a reasonable hour and perhaps not on Sunday.

Mr John Ramsden, 9 Cowley Drive, HAMILTON.
No 'phone #.
Mr T.J.McLeod, 132 George St.,, INVERCARGILL.
No 'phone #.
Mr Vinod-Patel, P.O. Box 293, MATAMATA,
No 'phone #.
Mr Peter Hill, P.O. Box 1972, CPO. AUCKLAND.
No 'phone #.
Mr John Mason, 59 Lancaster Rd., BIRKDALE.
'phone 437 318.
Mr Irving Spackman, 78 Waima Crescent, TITIRANGI. AUCKLAND.
No 'phone #.

***** DATA SHEET *****

Date 19..... Code # if known This LE'VZ number 18.
 Surname..... Mr, Mrs, Miss and Christian name.....
 Address..... Post Code

Telephone number. STD()..... onto General List Yes/No.....

Computer. VZ200 and/or VZ300..... Any other computer.....

Printer and/or plotter..... Disc system Yes/No.....

RAM Expansion..... K. Tape recorder. VZ DTR or other.....

RS232 terminal.... Yes/No..... Modem Yes/No..... Brand.....

Interest. Business, games, M/L, BASIC, hardware, etc.....

X

I request a? OOPs
(Owners-Operators-Programmers) to
complete, cut out and send back to me.
As mentioned elsewhere in this LE'VZ,
this is useful for OOPs who may like to
contact other OOPs who live in their
vicinity, etc. Answer N (No) if you do
not wish your name put on this General
List. If the answer is Y (Yes) or not
answered at all, you will be put on the
General List.

HARDWARE AND FIRMWARE FOR SALE.

VSOFTWAREZ, 39 Agnes St., TOOOWONG. QLD. 4066.
AUSTRALIA. Phone (07) 371 3707.

Unlike our software prices, these do NOT include postage. Always include extra money with your order and we will send any surplus back in the parcel or put it towards any credit you may wish, such as to LE'VZ, if you are an OOP. If you wish to receive LE'VZ, read page 11.

Prices are in Australian dollars (AUD) as at the 1st. of November 1987. Items available while stocks last. There is NO WARRANTY on used items, but all are tested OK.

NATIONAL tape recorder	used	\$ 20.00.
.	.	.
16K RAM Pack	used	\$ 45.00.
VZ200 rubber membrane keys	new	\$ 18.00 each.
GP100 Printer. Good condition.	used	\$160.00 each.
C10 blank tapes	new	\$ 6.50 for five.
C20 blank tapes	new	\$ 7.00 for five.
Floppy discs NASHUA DDSS bulk, so they are not in packs.	new	\$ 18.00 for ten,
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VZ 300 Disc Drive	used	\$250.00.
VZ Disc Drive power pack.	used	\$ 20.00.
VZ Disc Drive Controller	used	\$ 50.00.
16K RAM Pack with VZ200/VZ300 changeover switch	used	\$ 60.00.
Printer interface	used	\$ 25.00.
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CITIZEN 120-D Printer	new	\$490.00 including sales tax.
We are now Agents to sell this printer. It is the best printer in its price range. As you can see elsewhere in this LE'VZ, I have printed just a few of its printer/font styles.		
Its recommended price is \$586.00 s/tax included. There is a 12 month warranty, backed up by DATATRONICS who are in most capital cities in Australia, so if problems should occur, the unit need only be sent to the nearest centre. Cartage costs are of course extra, paid by the purchaser, so include about \$20.00. for this.		
BOOKS.		
VPROGRAMMEZ-VZ-VZ	new	\$ 18.50 each.
Surface postage in Australia and NZ is included. This is my own special book for beginners and advanced VZers.		
BASIC Easier and Faster TRS80	new	\$ 10.00 each.
By Lewis Rosenfelder.		

OTHER VZ USER GROUPS & CLUBS.**AUSTRALIA.****AD LIB Vee Zed MICRO.**

Mr. Gordon Brownell, 13 Brooks St., BIGGENDEN. QLD. 4621.

VZ USER.

Mr. Mark Harwood, P.O. Box 154, DURAL. NSW. 2158.

VZ DOWN UNDER.

Mr. George Seegie, 5 Cameron Court, WANTIRNA. VIC. 3152.

HUNTER VALLEY VZ USERS GROUP.

C/O P.O. Box 161, Jesmond. JESMOND. NSW. 2299.

WAHZ ENTHUSIASTS GROUP.

Mr. Graeme Bywater, P.O. Box 388, MORLEY. WA. 6062.

NEW ZEALAND.**CHRISTCHURCH VZ USERS GROUP.**

Mr. Daniel Ayers, 188 Langdon Rd., CHRISTCHURCH. NZ.

VZ LINK.

Mr. Peter Hill, P.O. Box 1972 C.P.O. AUCKLAND. NZ.

COMPLETE VZ SYSTEM FOR SALE.

Mr. and Mrs B.S. Colbert need to sell their entire set-up as they have changed to a Commodore C64 because their friends all have C64'S. I wish them cheerio and thank them for their being OOPs for the last year or so.

The system is:-

VZ300, 16K RAM Pack, Disc Drive System, Joysticks, DSE. Data Recorder, Printer Interface and lots of software.
\$400.00 the lot. They would prefer not to break up the system to sell, but as one lot.

Their address is:-

P.O. Box 299, STAWELL. VIC. 3380.. PHONE (053) 582 833.

