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LE'VZ 200 OOP

MARCH 1985. #6 $1.00.   J.C.E. D'ALTON.

Hullo computing friends (OOPs),
     The great news first is that the Disc Drives
and Controllers are now available from DSE. I have had
mine for only a few days now and it certainly speeds
things up many times. My Data Base with 82 names,
addresses and various information takes over 5 mins. to
 <CSAVE> / <CRUN> but only 40 seconds by Disc....wow.
     As well it is more convenient. I will give
a report on it in the next LE'VZ.
     Some have suggested that I mention more articles
that are in various magazines, such as the one about
 the DSE Word Processor in EA as LE'VZ #5. This would assist most OOPs
without you having to go through the ever increasing number magazines.
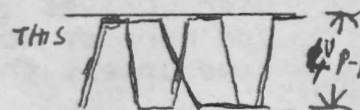ie...

     GAMES SCORES.   There is a section in PERSONAL COMPUTER GAMES
where top scores of various games on different PCs achieved by people is
listed, ie PCGs Feb '85 VZ200 Defence Penetrator 135,000.   PCGs Feb
'85 VZ200 games review. Defence Penetrator and Star Blaster.   PCGs
Feb '85 About modems.   Todays Computers Feb '85 Three page listing
of printers.

     Is there anyone who would like to act as a VZ contact? That is if
you would like to make a little card about 30 cm square and ask your
local DSE store or DSE Reseller to display it near their computer
section, would you please let me know. I have great cooperation by the
Brisbane DSE store managers in this regard, in fact they welcome it as
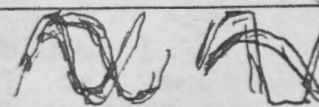it relieves some of the "pressure" put on them by irate customers.

     My demonstration / lecture a couple of weeks ago that I gave to the
Qld Spinners Weavers and Dyers Guild was quite sucessful, showing their
members Russell Harvey's Weaving Drafts software.

     I   am   still   receiving   complaints   regards tape <CLOADing>,
<CRUNning>,DATA <INPUT># and <PRINT>#. The only solution is to use the
VZ DTR, the most expensive white one or use an automatic volume device
with an ordinary CTR.   I did a short test with two VZ DTRs and found
that the mains power (240 v) can drop to approx. 80 volts before
inoperation results. This drops the 9 volt DC. to the VZ DTR down to 4.2
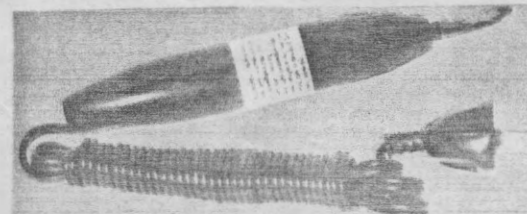volts. At this point the speed drops.
 The signal voltage at 9 volts is approx. 4 volts peak
 to peak, this drops to 4 volts peak to peak at 4 volts
 DC. So you can see that the tolerence is quite
 large. The wave shape is and should be ...rather clean.

     It is nesessary to check your CTR with
 an Oscilloscope and if the waveform is not flat
top and bottom and/or jumps about you are
always going to have trouble. If trouble still
persists and the R/P head is clean and not
worn then a demagnetiser may do the trick.
The one pictured is sold at TANDY stores for
 around $12.00.

Some times the computer will lockup or crash for no apparent reason. This may be due to spikes on the mains supply to your residence, caused by lightning, heavy electrical machinary etc. A piece of equipment in your home could also cause it, vacuum cleaner, refrigerator etc. In any case a mains power filter may be required. Note that even the biggest mainframe computers are also prone to the same problems, so don't blame it on the little VZ 200. If you buy another computer you may still have the same problems.

The Gold Coast is one particular area that is troublesome, so if you know of any other areas, please let me know.

In regards to lightning, Mr P Maude of Yawalpah, between Brisbane and the Gold Coast had his system hit by lightning a few weeks ago, and the VZ 200, RAM unit and printer were all "blown up" even though they were not switched on at the time. But they were plugged into the power sockets!!!! SO BE WARNED!!!!

A new OOP, Fred Olsen of Bethania near Brisbane has been involved with the System 80 for some time, has delved into the operating system ROM and Communications RAM area of it and the VZ 200, both of which as most know have a similar system. This also applies to the TRS 80. He has a printout of all above with much of it decoded. If anyone would like information in this regard let me know, or write to Fred Olsen, 6 McEwen St., BETHANIA. QLD 4205.

He showed me an area in RAM that is not used in the basic VZ 200 that can be used for short M/L programmes. From 7A2A to 7A9B =112 bytes.

* * * BUGS * * *

Allan Tarbit says that there are no bugs in these programmes which he has running OK from the DSE Second Book of Programmes.

Battleships, Grand Prix, Attack of the Killer Tomatoes, Plotter Fun, Morse Tutor, Inventory and Renum.

L Tavener of Auckland NZ says there is a bug in the DSE tape CHESS. In levels 4 to 6 there is a time fault in that it takes the computer hours or days to move " if at all". Can anyone throw some light on the problem??

* * * VZ 300 * * *

The VZ 300 is due for release by DSE in May 1985. $199.00 for the basic machine. It is compatible with the VZ 200, tape software, VZ DTR Disc Drives etc. The main feature seems to be the full sized keyboard and more on board RAM. I would suggest you stay with the VZ 200 for some time unless the bigger keyboard is the attraction for you.

* * * BASIC TUITION * * *

I would to remind you that I do tuition of Beginners BASIC at my home, so for anyone in the Brisbane area who is interested, please contact me for details.

* * * SOFTWARE LIBRARY * * *

I have altered the headings to show the owner of the tape. If you do not know where to obtain a tape then write to myself as I am now Distributor for the writers.

1 tape code, 2 name of Programme, 3 owner of tape, 4 whether (C) copyright or (PD) Public domain, 5 who owns the copyright, 6 Price if any, 7 memory required.

```
U10  Disassembler       J.D'Alton    (C) DSE.         $10.00.    24K
U2   EDITOR/ASSEMBLER    I.Webber     (C) I.Webber     $20.00     24K
```
     This is writen in basic. Has most of the usual features.
```
B1   VZ Cashbook Ledger J.D'Alton     (C) J.D'Alton    $20.00     24K
B2   VZ Database        J.D'Alton     (C) J.D'Alton    $20.00     64K
B3   Mailing List       J.D'Alton     (C) DSE.         $10.00.    24K
U4   Colour Graphics    P.Mc.Lennan  (C) P.Mc.Lennan   $10.00     24K
```
     A menu driven BASIC Programme based on analytic geometry and trigometric equations, with interaction on a number of subroutines and tips on using the others. You get help on the way.
```
E1   Keyboard           L.Taylor.    (C) L.Taylor  $8.00        6K
```
     A keyboard familiarization Programme with 6 speed levels.
```
E2   Wordmatching       L.Taylor     (C) L.Taylor  $10.00      24K
```
Practice in Homonyms, Synonyms and Antonyms.
```
E3   MeatPies           L.Taylor     (C) L.Taylor   -$10.00     24K
```
     Educational decision making business simulation.
```
U3   Utilitys           I.Webber     (C) I.Webber   $15.00      24K
```
     This is THE software that many of you have been waiting for. Has a menu of 8 options.   Create new Programme   List mem in ascii Poke ascii into mem   Enter statements into mem   Transfer control to Programmes   Renumber   Find the address of a BASIC line Copy a Programme to another location in memory. It is written in BASIC for the advanced Programmer to enable relocating Programmes and if required to merge them. Supplied with the tape are three pages of instructions.
```
U5   Weaving Drafts     R.Harvey     (C) R.Harvey   $10.00       6K
```
     This great little Programme in basic is for those into designing weaving Patterns. You enter in the harness lifts in sequential order then the threading from left to right, the number of pattern repeats and the number of harnesses in each lift. The pattern is drawn in low res. then after you enter the number of repeats it is drawn in high res.
```
E4   MATHS COUNTDOWN    L.Taylor.    (C) L.Taylor.    $10.00.    24K
```
     A top class maths unit with addition, multiplication, subtraction and division including long division. Various levels. The rocket takes off when a group of answers are correct.
```
E5   COORDINATES        L.Taylor.    (C) L.Taylor     $10.00.    24K
```
Work with any four quadrants is available.
```
E6   TOWER ofHANOI      L.Taylor.    (C) L.Taylor     $8.00.      6k
```
     Shift 3,4 or 5 blocks (discs) to another Position in so many moves.
```
E7   MICROSCOPE         L.Taylor.    (C) L.Taylor     $8.00.     24K
```
     Questions on various Part of a microscope.
```
E8   BLOCK PUZZLER.     L.Taylor.    (C) L.Taylor     $10.00.     6K
```
     Very entertaining. The old block game where one square piece is left out so that you can re-arrange the letters.

* * * ERRATA * * *
In the last LE'VZ I typed the SOUND hint incorrectly.

SOUND30,5;27,3;22,2   The semi-colon ";" between each pair of numbers NOT a colon":"
    DISC DRIVES.   I typed "Printer" instead of "RAM" when saying about the expansion socket.

* * * SOFTWARE REVIEW * * *

DSEs MUSIC WRITER.
    A very good unit allows you to "write" music by moving a cursor around on the music staff. Editing, saving and loading to/from tape is possible. The use with a colour TV or Monitor is really required.

* * * WORLD TIMES * * *
    I am sorry but I have run out of room for R.Davis's programme, but will give you the rest of it in #7 LE'VZ.

    W OBRISTs Software.
    I recommend all his software for beginner and expert alike.
    The Extended Basic 1.0 gives the extra commands as Steve Olneys plus twenty six (26) Disc commands.
    For those who have or can obtain TRS 80 1 and/or System 80 tapes, the "LOAD XX-80" tape will enable you to load them directly into the VZ 200. Of course some of the screen format commands and pokes will need changing, but it gives us now a great range of ready made software to tap into.

LATE COMMENTS

There are two versions of the Disc Controller that I know of
to date. VI.I and VI.2.   Even at this early stage the
differences are showing up.   The "DIR' does not appear to
work on the VI.I. Please let me know any QUIRKS you are
experiencing.   J.D.

HAPPY EASTER

        GOD BLESS, hope you and yours have a happy and peacefull
EASTER.........John.

✻ • • • BATTLESHIPS • • • •

```
1 LPRINTCHR$(14)"*      B A T T L E S H I P S      *"
10 CLEAR2000:CLS:COLOR,1:PRINT@170,"BATTLESHIPS";:GOSUB1000
20 N$=INKEY$:N$=""
30 PRINT@418,"FOR INSTRUCTIONS PRESS <Y>"
40 PRINT@463,"OTHERWISE <N>"
50 N$=INKEY$:IFN$=""THEN50
60 IFN$="N"THEN105
70 IFN$="Y"THEN80
80 CLS:PRINT"THE COMPUTER IS CONTROLLING TEN  SHIPS:":PRINT
81 PRINT"   1 BATTLESHIP","   2 CRUISERS"
82 PRINT"   3 DESTROYERS","   4 SUBMARINES"
84 PRINT:PRINT"THEY ARE OF DIFFERENT SIZES -
85 PRINT"      ▣▣▣▣ = BATTLESHIP.
86 PRINT"      ▣▣▣  = CRUISERS
87 PRINT"      ▣▣   = DESTROYERS
88 PRINT"      ▣    = SUBMARINES
89 PRINT:PRINT"THEIR POSITIONS ARE KNOWN ONLY   TO WEEZED";
90 PRINT" HEADQUARTERS.":GOSUB1100:GOSUB1100
91 CLS:PRINT@100,"YOUR TASK?"
92 PRINT@258,"...TO SINK THE WEEZED FLEET!":GOSUB1100
93 CLS:PRINT"YOUR SHOTS ARE ORDERED BY GIVING TWO NUMBERS."
94 PRINT:PRINT"THE FIRST NUMBER IS THE LINE,";
95 PRINT:PRINT"     THE SECOND IS THE COLUMN."
96 PRINT:PRINT"A MISS IS SIGNIFIED BY A STAR *"
97 PRINT:PRINT"YOUR SCORE WILL BE SHOWN ALONG"
98 PRINT" WITH YOUR BEST PREVIOUS SCORE."
99 PRINT:PRINT:PRINT"   G O O D    H U N T I N G !!!"
100 GOSUB1100:GOSUB1100:SOUND30,9:CLS
105 X=0
110 A=100
115 DIMG(100)
120 D=0
125 CLS:PRINT@196,"STANDBY - ARRANGING FLEET"
130 C=0
140 FORB=1TO100
150 G(B)=0
160 NEXT
170 E=4
180 F=1
190 H=INT(RND(X)*2)
195 W=0
200 IFH=0THENJ=RND(9)
202 IFH=1THENJ=RND(4)
204 IFH=1THENK=RND(9)
206 IFH=0THENK=RND(4)
220 L=0:P=10*J+K
250 FORM=0TO(E-1)
255 IFH=0THENR=P+M
260 IFH=1THENR=P+10*M
280 IFL=0ANDG(R)<>0THENW=W+1
290 IFL=1THENG(R)=E
300 NEXT
305 IFW>0ANDW<10THEN190
306 IFW=10THEN100
310 IFL=1THEN400
320 L=1
330 GOTO250
400 F=F+1
410 IFF<4THENE=3
420 IFF>3ANDF<7THENE=2
```

```
430 IFF>6THENE=1
440 IFF=11THEN700
445 GOTO190
450 PRINT@435,"      ";:INPUTS
458 IFS<11THEN450
460 IFS>99THEN450
465 T=INT((S)/10)
470 U=S-T*10
472 IFG(S)=5THEN450
475 IFG(S)=4THENS1$="▣"
480 IFG(S)=3THENS1$="▣"
485 IFG(S)=2THENS1$="▣"
490 IFG(S)=1THENS1$="▣"
495 IFG(S)=0THENS1$="*"
500 V=U*2+T*32+101
510 PRINT@V,S1$:SOUND1,6
520 C=C+1
530 IFG(S)>0THEND=D+1
535 G(S)=5
540 PRINT@418,"SHOTS:";C;
550 IFD<20THEN450
555 SOUND4,4;8,4;11,4;16,8
560 IFA<82THENPRINT@457,"BEST SCORE:"A
570 IFC<ATHENA=C
580 PRINT@482,"ANOTHER GAME? Y=YES   N=NO";
590 N$=INKEY$:IFN$=""THEN590
595 IFN$="Y"THEN120
597 IFN$="N"THENCLS:END
600 IFN$<>"Y"THEN580
610 IFN$<>"N"THEN580
700 CLS:PRINT@39,"***BATTLESHIPS***"
720 PRINTTAB(7)"1 2 3 4 5 6 7 8 9":PRINT
730 FORN=1TO9
740 PRINTTAB(4);N;". . . . . . . . ."
750 NEXT
760 GOTO450
1000 FORI=1TO2000:NEXT:SOUND25,6:RETURN
1100 FORI=1TO5000:NEXT:SOUND10,2:RETURN
```

MANY THANKS TO MR. DAVIS
FOR THIS PROGRAMME.

HAPPY TYPING....

WORLD TIMES.

```
1 CLEAR 1000:DIME$(36):GOSUB 900:CLS
2 REM R.G.DAVIS 8 AVOCARDO ST   MILDURA
3500
4 PRINT"  WORLD TIMES       BY R.G.DAVIS":
PRINT:PRINT
6 PRINT"ENTER YOUR LOCAL TIME"
8 PRINT"IN 24 HOUR MODE EG..22,36":PRINT
11 INPUT H,M
12 Z=H-10:O=M
14 GOSUB 320:GH=Z:GM=O
15 MODE(1):GOSUB500
16 Y1=59
21 Z=GH:O=GM
30 E$="LONDON":C1=2:C2=4:X3=61:Y3=22:GOS
UB110
36 E$="MOSCOW":Z=GH+2:O=GM+30:C1=2:C2=4:
X3=74:Y3=21:GOSUB110
40 E$="MILDURA":Z=GH+10:O=GM:C1=2:C2=3:X
3=112:Y3=49:GOSUB 110
50 E$="LOS ANGELES":Z=GH-8:C1=4:C2=2:X3=
18:Y3=29:GOSUB 110
60 E$="NEW YORK":Z=GH-5:O=GM:C1=4:C2=2:X
3=34:Y3=28:GOSUB 110
70 E$="RIO DE JANEIRO":Z=GH-3:C1=2:C2=3:
X3=46:Y3=45:GOSUB110
100 GOTO 21
110 X1=0:GOSUB320:C$=STR$(Z)
120 GOSUB130
121 C$=STR$(O):X1=X1+4
122 GOSUB130
125 GOTO 200
130 D=LEN(C$)
131 IFD=2THEN A$(0)=E$(0)ELSEGOTO135
132 N=0:GOSUB 1010:N=1:Y1=59:GOSUB1100:X
1=X1+4
135 FORU=2TOD
140 E=VAL(MID$(C$,U,1))
150 N=0:A$(0)=E$(E):GOSUB1010:N=1:GOSUB1
100
160 X1=X1+4:NEXT:RETURN
200 X1=32:REM LETTERS
212 L=LEN(E$)
220 FORU=1TOL
221 L$=MID$(E$,U,1)
222 Q=ASC(L$):Q=Q-55
223 IF Q<0THEN X1=X1+4:GOTO240
230 N=0:A$(0)=E$(Q):GOSUB1010:N=1:Y1=59:
GOSUB1100:X1=X1+4
235 IFQ=22 OR Q=32 THENX1=X1+2
240 NEXT
```

```
250 FORI=1TO10
252 COLORC1:SET(X3,Y3)
254 FORN=1TO100:NEXT:SOUND1,2
256 RESET(X3,Y3)
258 FORN=1TO100:NEXT
260 NEXT:COLORC2:SET(X3,Y3)
270 COLOR1:Y=59:FORI=1TO5
272 FORN=21TO95
274 SET(N,Y):NEXT
276 Y=Y+1:NEXT
278 RETURN
320 IF O>59 THEN O=O-60:Z=Z+1
322 IF O<0 THEN O=O+60:Z=Z-1
324 IF Z<0 THEN Z=Z+24
325 IF Z>23 THEN Z=Z-24
326 RETURN
500 FORI=28672 TO 30505:READ A:POKEI,A
505 NEXT
510 RETURN
600 DATA 0,0,0,0,0,0,0,0,0,3,255,255,255
,255,0,0,0,0,0,0,0,0,0,0,0
601 DATA 0,0,0,0,0,0,0,0,0
602 DATA 0,0,0,0,0,0,0,0,0,3,255,255,255
,255,0,0,0,0,0,0,0,0,0,0,0
603 DATA 0,0,0,0,0,0,0,0,0
604 DATA 0,0,0,0,0,0,0,0,0,15,255,255,25
5,255,0,0,0,0,0,0,0,0,0,0
605 DATA 0,0,0,0,0,0,0,0,0
606 DATA 0,0,0,0,0,0,0,0,0,255,255,255,2
55,252,0,0,0,0,0,0,0,0,0,0
607 DATA 0,0,0,0,0,0,0,0,0
608 DATA 0,0,0,0,0,0,0,0,0,63,255,255,25
5,252,0,0,0,0,0,0,0,0,0,0
609 DATA 0,0,0,0,0,0,0,0,0
610 DATA 0,0,0,0,0,0,0,0,0,63,255,255,25
5,252,0,0,0,0,0,0,0,0,0,0
611 DATA 0,60,0,0,0,0,0,0,0
612 DATA 0,0,0,0,0,0,0,0,0,15,255,255,25
5,252,0,0,0,0,0,0,0,0,240
613 DATA 0,0,63,240,0,0,0,0,0,0
614 DATA 0,0,0,0,0,0,0,0,0,0,63,255,255,
252,0,0,0,0,0,0,63,0,0
615 DATA 63,255,240,0,0,0,0,0,0
616 DATA 0,0,0,0,12,0,0,0,0,0,63,255,255
,252,0,0,0,0,0,60,0,0
617 DATA 255,255,192,0,0,0,0,0,0
618 DATA 0,0,0,0,15,0,0,15,0,0,15,255,25
5,240,0,0,0,0,0,48,0,3
619 DATA 255,255,252,0,0,0,0,0,0
620 DATA 0,0,0,0,60,243,192,15,252,0,15,
255,255,240,0,0,0,0,0,0
621 DATA 240,15,15,255,255,255,240,3,240
,0,0,0
622 DATA 0,5,0,0,0,255,195,207,255,0,15,
255,255,240,0,0,0,0,0,0
623 DATA 48,63,255,255,255,255,255,255,2
52,0,0,0
```

```
624 DATA 0,85,84,3,240,63,240,192,15,192
,3,255,255,240,0,0,0,240
625 DATA 192,0,0,15,255,255,255,255,255,
255,255,240,0,0
626 DATA 1,85,85,255,255,192,0,243,3,240
,3,255,255,0,0,0,0,255
627 DATA 252,48,15,207,255,255,255,255,2
55,255,255,255,255,63
628 DATA 0,21,85,255,255,195,255,255,3,2
52,3,255,240,0,0,0,3,255
629 DATA 255,51,255,255,255,255,255,255,
255,255,255,255,255,252
630 DATA 1,85,85,255,255,255,255,252,15,
204,3,255,0,51,192,0,15
631 DATA 243,240,63,255,255,255,255,255,
255,255,255,255,255
632 DATA 255,255
633 DATA 0,21,85,255,255,255,255,240,0,2
40,3,255,0,15,0,0,63,195
634 DATA 255,255,255,255,255,255,255,255
,255,255,255,255,255,12
635 DATA 1,85,85,255,255,255,255,240,12,
48,0,252,0,0,0,0,255,15
636 DATA 255,255,255,255,255,255,255,255
,255,255,255,255,255,0
637 DATA 1,85,65,255,255,255,255,0,15,19
2,0,60,0,0,0,3,255,63
638 DATA 255,255,255,255,255,255,255,255
,255,255,255,207,240,0
639 DATA 0,4,0,63,255,255,255,0,15,204,0
,0,0,0,0,3,207,15,255
640 DATA 255,255,255,255,255,255,255,255
,252,63,12,0,0
641 DATA 0,16,0,3,255,255,255,192,15,255
,0,0,0,0,0,192,15,63,255
642 DATA 255,255,255,255,255,255,255,255
,240,0,60,0,0
643 DATA 0,64,0,0,255,255,255,255,15,255
,192,0,0,0,12,240,192,63
644 DATA 255,255,255,255,255,255,255,255
,255,192,0,240,0,0
645 DATA 0,0,0,0,255,255,255,255,63,255,
192,0,0,0,12,48,255,255
646 DATA 255,255,255,255,255,255,255,255
,255,252,192,240,0,0
647 DATA 0,0,0,0,63,255,255,255,255,255,
0,0,0,0,3,195,255,255
648 DATA 255,255,255,255,255,255,255,255
,255,252,192,0,0,0
649 DATA 0,0,0,0,5,85,85,85,255,240,0,0,
0,0,0,63,255,255,255
650 DATA 255,255,255,255,255,255,255,255
,243,0,0,0,0
651 DATA 0,0,0,0,5,85,85,85,255,255,0,0,
0,0,0,255,255,255,63
652 DATA 255,255,255,255,255,255,255,255
,240,0,0,0,0
653 DATA 0,0,0,0,5,85,85,85,85,64,0,0,0,
0,15,252,60,255,0,255
654 DATA 255,255,255,255,255,255,255,195
,192,0,0,0
656 DATA 0,0,0,0,5,85,85,85,84,0,0,0,0,0
,15,240,3,60,255,255
657 DATA 255,255,255,255,255,255,252,0,0
,0,0,0
658 DATA 0,0,0,0,5,85,85,85,84,0,0,0,0,0
,3,192,12,51,255,255
659 DATA 255,255,255,255,255,252,12,12,0
,0,0,0
660 DATA 0,0,0,0,1,85,85,85,80,0,0,0,0,0
,0,21,64,0,15,255,255
661 DATA 255,255,255,255,255,12,252,0,0,
0,0
662 DATA 0,0,0,0,0,85,85,85,64,0,0,0,0,0
,5,85,84,20,15
663 DATA 255,255,255,255,255,255,255,3,0
,0,0,0,0
664 DATA 0,0,0,0,0,21,85,0,64,0,0,0,0,0,
21,85,85,85,127,252
665 DATA 255,255,255,255,255,255,0,0,0,0
,0,0
666 DATA 0,0,0,0,0,15,252,0,0,0,0,0,0,0,
85,85,85,85,79,255,207
667 DATA 255,255,255,255,255,0,0,0,0,0,0
668 DATA 0,16,0,0,0,0,252,12,0,0,0,0,0,0
,85,85,85,85,83,255,240
669 DATA 15,255,15,255,192,0,0,0,0,0,0
670 DATA 0,4,0,0,0,0,63,252,0,0,0,0,0,1,
85,85,85,85,84,255,240
671 DATA 3,252,3,252,0,192,0,0,0,0,0
672 DATA 0,0,0,0,0,0,0,63,0,0,0,0,0,1,85
,85,85,85,85,60,0,3,240
673 DATA 0,255,0,192,0,0,0,0,0
674 DATA 0,0,0,0,0,0,0,3,2,160,0,0,0,0,8
5,85,85,85,85,68,0,0
675 DATA 240,0,207,0,0,0,0,0,0,0
676 DATA 0,0,0,0,0,0,0,3,250,170,128,0,0
,0,21,85,85,85,85,84,0
677 DATA 0,240,0,192,0,48,0,0,0,0,0
678 DATA 0,0,0,0,0,0,0,0,10,170,170,0,0,
0,0,0,85,85,85,80,0,0,0
679 DATA 1,48,20,0,0,0,0,0,0
680 DATA 0,0,0,0,0,0,0,0,42,170,170,128,
0,0,0,0,21,85,85,64
681 DATA 0,0,0,0,16,1,64,87,0,0,0,0
682 DATA 0,0,0,0,0,0,0,0,42,170,170,170,
128,0,0,0,21,85,84
683 DATA 0,0,0,0,0,16,1,64,87,0,0,0,0
684 DATA 0,0,0,0,0,0,0,0,42,170,170,170,
128,0,0,0,5,85,85
685 DATA 0,0,0,0,0,1,80,0,3,240,0,0,0
686 DATA 0,0,0,0,0,0,0,0,10,170,170,170,
128,0,0,0,5,85,85
687 DATA 0,0,0,0,0,0,0,0,0,12,0,0,0
688 DATA 0,0,0,0,0,0,0,0,2,170,170,170,0
,0,0,0,5,85,85,12,0,0
```

SEE NOTE ON PAGE 4

TELETYPE is a simple form of digital transmission using only two states, e.g. two radio frequencies or two audio frequencies varying by a small shift, to represent high and low logic for a computer or a mechanical printer. For commercial work the shift is either 850 hz. (wide) or 425 hz while Amateur RTTY is all 170 hz (narrow). These are not strict standards- AXM Canberra uses 600 hz for both coded text and weather map picture transmission.

Teletype is almost as old as Morse Code and is still used extensive when large amounts of text have to be transmitted. Radio teletype (RTTY) occupies a large portion of the radio spectrum and amongst the plain texts which can be read are propaganda, diplomatic, weather and Amateur Radio transmissions from many countries.

The DICK SMITH RTTY Adapter allows the viewing and printing of these radio signals. A radio receiver capable of resolving upper and lower sideband is also necessary for HF reception and a VHF receiver for the Amateur signals in the 144-148 Mhz band. For the licenced Amateur the Adapter also provides for the transmission of RTTY.

The kit is a reasonable price and is complete with all parts and adequate documentation for building and operation. (There is an impossibility in one of the set-up procedures but this is not a major problem.). The parts include 2 pc boards, 8 ics, an Eprom, transistors, diodes, 56 resistors, 24 capacitors, solder, wire, and screws. A plastic case with mulitpin plug contains the "works" and it plugs into the VZ-200 in the same place as the 16k memory expansion would.

There is no need to type in the operating program or load it from tape as everything is already in Eprom.

Much of the text received is of a mundane nature but I have found the French Diplomatic messages useful for brushing up my schooldays French. Amongst the more interesting Amateur Service texts seen are those of the computer controlled Bulletin and Message stations. At the weekend JA1KSO RBBS MAIL BOX operates from Tokyo just below 14,100 Khz. It's quite fascinating to watch that computer pick up an incoming call and ask the caller to verify by again sending his callsign. If the computer has received the same callsign twice then it responds inviting the caller to leave a message or receive amateur gossip or propagation reports. If the computer gets itself in a knot it requests the caller to raise the computer's caretaker. We humans are still necessary!!

In Brisbane we have the South East Queensland Teletype Group which gathers and distributes RTTY information and also operates a voice and RTTY Repeater on VHF, covering a wide sweep from its transmitter site at Mt. Cotton. For legal reasons I cannot reproduce any of the private RTTY text but the adjacent two examples may be of interest. The first is from VK2TTY Sydney at the start of their regular Sunday morning broadcast and the second is the Japanese computer controlled station. Reception was very poor on this occasion hence the occasional garble before the VZ-200 got back into its stride.

Both examples are "live", printed by the VZ-200 printer plotter as the signals came in.

This article was composed and printed using the D.S. WORDPROCESSOR software.

THIS IS VK2G OHE OFFICIAL STATION OF THE AUSTRALIAN NATIONAL GAMATEUR RADIO TELEPRINTER SOCIETY (A.N.A.R.T.S.) WITH THE WEEKLY BROADCAST. THIS BROADCAST IS TRANSMITTED EVERY SUNDAY ON THE FREQUENCIES AND TIMES SHOWN IN THE TABLE BELOW. IT WILL BE RE-BROADCAST BY STATIONS IN OTHER STATES AT TIMES TO SUIT LOCAL CONDITIONS. THE SPEED IS 45.45 BAUD WITH A 170HZ SHIFT. VK2TTYRADIATES ON BEHALF OF MEMBERS, AND THOSE INTERESTED IN RTTY. THE INFORMATION CONTAINED HEREIN IS COPYRIGHT TO ANARTS IF USED ELSEWHERE BY OTHERS ITS SOURCE MUST BE ACKNOWLEDGED.

3.545 MHZ	0930 UTC	VK2HL	HORST
7.045 MHZ	HNNEP UTC	VK2DPM	ALAN
14.090 MHZ (NORTH)	0030 UTC	VK2DZ	DAVE
14.095 MHZ (WEST)	0030 UTC	VK2DWN	GNE
14-175 MHZ	0030, 0930 UTC	VK2KTP	TERRY

DE VK2TTY : NEWS BULLETIN NUMBER 366 3RD MARCH 1985.

--- THIS IS THE JA1KSO RBBS AUTOMATIC TELECOMMUNICATION SYSTEM OPERATED
BY AN APPLE II COMPUTER. ---

--- THE SYSTEM WELCOME YOU TO JOIN IN --
ATNN TO OPEN THE SYSTEM, PLEASE USE FOLLOWING COMMAND. ---

:JA1KSO
(COLON JA1KSO RETURN/LINEFEED)

--- GO AHEAD.... DE JA1KSO JA1KSO JA1KSO KKK ---

--DU1LEO DU1LEO THANK YOU FOR NALLING. I WILL RECONFIRM YOUR CALL
SO PLEASE KEY-IN AS .(OUR CALL(CC/R) AGAIN DE JA1KSO KKKAP
TXDIFQT
DU1LEO DU1LEO DE JA1KSO UR CALL IS CONFIRMED YOUR REPORT IS 589
  PLEASE SEND ME MY SIGNAL REPORTS AS .593(OR ANY).. ONLY 3 NUMBERS
ACCEPTED . BK BK
 REPEAT AGAIN KKK ODG

--PLEASE WAIT... DISK BEINZ, 3''3--.
EU1LEO THANK YOU FOR REPORT TUO LOGGED TO DISK AT 1985-33-33 33.25
UTC-- BRIEF INSTRUCTION.. NEWS(HOT NEWS).. DXNS(DX NEWS).. CONDX(BAND
CONDITION).. DIR(MESSAGE DIRECTORY).. STATION(JA1KSO STATION INFO).. 33.5
ERCENTERING MEET, -3).. COMMANDS(OTHER COMMAND LIST).. GO A ,9.
TLUUUUTULUTTTQB (SACNOIOM
MSG --- FILE CONTENTS ---
1 -- QSL INFO (Q-3) JAN 1984
2 -- XZ.. BURMA MOVING -
3 -- NEW KENWOOD'S TS-940
U4 -- JAPANESE CALLSIGN
5 -- QS INFO FOR A35RS DE JA1OD
6 -- T.E.T. . BUNKRUPT
7 -- PKT-1. NEW PACKET RDIO
M8 -- RUMOR.. NEW JA LICENSE
9 -- NEW HEATH KIT DATA COMM. QUIP
10 -- JA1KSO DE JA1OSI
11 -- .JKSAAR DE JE1DTU
--END OF DIRECTORY.. TO READ MESSAGE PLEAHJNBKEY-IN AS .READ MSG NBR.
EX. READS(C/R). GO AHEAD

--PLEASE WAIT.. LOADING MESSAGE 9

------ NEW JAPANESE LISENCE --- RUMORS SAID THAT ALL TELEPHONE CLASS
LISENSES WILL LOOSE THEIR TRANSMITTING PERMISSION ON HF BANDS WHEN
IT EXPIRE.. EXAMINATION OF TELEGRAM CLASS IS GOING TO BE CHANGED.
IT REQUIRES ONLY +RECEIVING CODE+. THE LICENSEE WHO OBTAINED 90TH
TELEGRAM AND TELEPHONE LICENSE WILL BE NAMED +3RD CLASS+ AND CAN KEEP
HF LICENSE.? -)) 533303,3 :1-'' 3034-534' 29 --. ,95 0-'' .93 43.38-8,9
  TESTWILL LOOSE THEIR HF LICENSE. THIS CHAN
E WILL MEET ITU AGREEMENT
THEN RECIPLOCAL OPERATING AGREEMENT WITH U.S.A. AND OTHER COUNTRIES
SHALL BE CONCLUDED. PLEASE BE SURE THIS IS STILL +RUMORE+ AND NOT
REPORTED OFFICAILLY. DE JA1KSO..

TRADING POST

```
===== VZ 200 EXTENDED BASIC =====
   This software is a must for the serious programmer.
      Twenty five extra commands are available.
AUTO,CDBL,CINT,CSNG,DEFDBL,DEFINT,DEFSNG,DEFSTR,DELETE,ERL,
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TRON,VARPTR.  >>>>>> Plus REN and MERGE.


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   Available. from  the writer of the software, Mr.Olney or
the distributer VSOFTWAREZ.
Mr.S OLNEY                            VSOFTWAREZ
200 Terrace Rd.                       39 Agnes st.
NORTH RICHMOND NSW.  2754.            TOOWONG  Qld.  4066.
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        S O F T W A R E     S O F T W A R E     S O F T W A R E

                      WRITTEN BY W.OBRIST

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                            24KRAM      8KRAM
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