NATGUG NEWS

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OFFICIAL JOURNAL OF THE

National TRS-80 & Genie Users Group.

INFORMATION ON THE GROUP

Membership of the Group is by subscription to the Newsletter, which is published monthly. Membership details are obtainable from the Group Secretary. Membership of the Group is open to anyone with an interest in the TRS-80 range of microcomputers, and compatible systems such as the Video Genie.

Details of the Group accounts, and the constitution of the Group, are obtainable from the Secretary.

Members requiring assistance with problems related to the TRS-80/Video Genie may call the Secretary. An attempt will be made to put them in touch with a member who can help with the problem.

Workshops are arranged from time to time in various parts of the country.

Sub-groups exist in many areas. A list is provided in the Newsletter from time to time.

The Group maintains two software libraries (Models I and II) which are free to members. Library lists are obtainable from the Secretary.

For confidentiality reasons, the membership list is not generally available, but members may ask the Secretary for a list of members in their area, and mailshots to all members may be arranged.

Back numbers of the Newsletter are available from the Secretary.

Please send all contributions for the Newsletter to the Editor.

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EDITORIAL

Due to the reduction in size of the newsletter, we have decided to cut the subscription to £5 for six months.

For some reason I get a publication called Computer Trade Weekly, which publishes a survey of the home computer market every week. Tandy, I am sorry to say, doesn't even make it into the lists, which means that they have under 1% of the market. Of course, it could be argued that the machines owned by most of our members are business machines, but I doubt if Tandy penetration in that market is any better.

I am afraid I cannot share Ian Howard Wright's enthusiasm for the Model 4D that has just been announced. It doesn't appear to be much of an improvement on the original Model 4. How Tandy can hope to sell such a machine into the highly competitive market that now exists is beyond me.

Ian also makes an unfavourable comparison between NATGUG and BASUG, the Apple group. BASUG have the great advantage of a popular machine, and therefore have a much larger membership than us. We also have a number of experts in the group, who can assist other members with their problems: just give Brian a ring, and he'll put you in touch with someone who can probably help.

Leon Heller

MEMBERS' LETTERS

In the September NATGUG NEWS Brian Pain complains of the high drop-out rate of members. Are you really surprised? Often the editorial seems to take a delight in running down Tandy and its products. You say that Tandy's profits are falling. What you don't say is that most of their competitors' profits are falling far faster than Tandy's, and a lot are not in profit at all. You compare Tandy unfavourably with Commodore because they are bringing out the Amiga, but how long will there be an Amiga with Commodore's current level of losses?

In October you forecast the demise of the Model 4 when, in fact, they have upgraded it to the 4D by fitting double sided disc drives and bundling the Model 1000's Deskmate with it - no sign of death there. In fact, the Tandy scene is really good over a broad spectrum. I have just been reading reviews of three windowing programmes that run on the Model I! There still seem to plenty of software houses supporting Tandy computers, even the good old Model I.

You also say you don't know any other group which does as much for its members. Just before I bought the Model 4 I had a good look round the field, and examined several user groups in depth. Some are very good indeed, and what came over from most of them was enthusiasm for their own micros.

The Apple User Group, for one example, produces a very nice newsletter printed on glossy paper. It is full of useful information, and they have, if my memory is right, a panel of experts who answer questions on their own speciality. This is a lot more helpful than our way of printing a plea for help and then hoping someone will bother to answer it. Apart from anything

else, the answer can be published along with the question. Why can't we do that?

We can be justly proud of our telephone help line - it is superb, and all praise to Brian for the way he cheerfully deals with these interruptions to his family life - but I think some other user groups give this kind of help, too.

The quality of reproduction of NATGUG News is very much better than it used to be, but I could imagine newcomers being put off because it looks so crowded - there is too much on a page. Appearance really is important. It is all the more important, when the type is so small, that there is plenty of space round it. I think that bigger margins all round, and certainly at the bottom of pages would make it much more attractive to look at. Page 8 of the September issue is an extreme example of what I mean. I know that balancing pages is always difficult, but too little on a page is a better fault than too much.

I think, too, that sitting back and waiting for the articles to come in is no longer right. It was probably the right thing when the Users' Group was new, and everyone was learning together. Plenty of people were finding out new things and sending in notes about them, but today it is different, and the membership has probably changed in character, too.

Waiting for stuff to come in can lead to a badly balanced newsletter, full, not of what people want to read about, but what some people want to write about. I would think that, to get a well balanced newsletter, over the months, it is necessary to ask people with known skills and experience to contribute specific articles by specific deadlines.

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PROBLEM SECTION

Is it possible to run Dosplus 3.5 Model I version on Model III by making any changes?

Dr. B.I. Pirzada
(0522) 20843 (day)
(0522) 24326 (after 7 pm)

Does anyone know of software for the Model I (with disks) that will enable me to produce graphs, histograms, pie charts etc.

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MODEL 4 and CP/M chitchat.

I have just received today, the September issue of NATGUG NEWS and spurred on by the thinness of the magazine and Leon's comments, I thought it timely that I should at least help fatten it up again, after all, poor Anon has spent many long hours writing his heart out and putting the rest of us to shame.

It's quite a while since I contributed to NATGUG so I intend to cover a number CP/M subjects.

MONTE'S WINDOW

I have had the privilege to see Monte's Window in action recently and was so impressed about it that I thought that other Model 4 owners should share my enthusiasm.

Monte' Window is a fabulous piece if software which is regularly advertised in 80-MICRO. This program can only be used by Model 4/4P users who have the extra 64k RAM installed and are using Montezuma Micro CP/M 2.2 version 2.2x. At $49, all I can say, how do they do it at that price? Usually a price of $49 can be a fair indicator that someone is trying to market junk software.

Monte's Window, before I examine it in detail, is a facility whereby one can, by simply pressing both shift keys simultaneously, activate a 2.5" x 3" window which will overlay your screen and interrupt the current program. Through this window, which is outlined with a reverse video border, is presented a menu which gives six choices:

[A] Notepad
[B] Calendar
[C] Calculator
[D] Index Cards
[E] CP/M System
[F] Set Up

Those of us used to Newdos/80's facility to screendump to a printer by pressing 'JKL' sorely miss this; but here we now can simulate JKL by pressing the two shift keys together (or left shift key and Control key together to open the Window and selecting the NOTEPAD which in itself has a menu.

One can Save the screen to note, Read a note from disk, Save note to disk, Edit the note or Print note on printer.

As if this was not enough, one can stop, say in the middle of a spreadsheet, database or Basic program and immediately write a one page letter on the notepad, print it and resume where one left off.

The **CALENDAR** facility might at first glance be just another way to avoid getting off the 'computing commode' to look up the wall calendar, but it works in conjunction with the Index Cards and checks for any appointments recorded. Days which have appointments are highlighted in reverse video. The Calendar menu permits moving to the next month or next year or previous month or year. If required a new date can be set, if for example you want to see what day of the week you were born (provided it was not before 1700). If a print of the calendar is required then it can be saved to the NOTEPAD and printed.

The **CALCULATOR** is the nearest thing that I have seen to the ICON based calculator on the Macintosh. It has a display window of its own and has the normal arithmetic functions AND memory! But the thing that really impresses is the Auto-Key which when set will put the result of the calculation right back into the main program you are running at the last cursor position —— think about the possibilities that holds when you are writing a report and need to calculate a figure to enter into it! 'nuf said.

The **INDEX CARDS** utility is a mini database which displays an index card just like the real thing. Cards are numbered automatically and the top line is used as the header for subject. Editing can be carried out just like on the notepad, and in fact if you wish, the index card can be saved to the notepad and printed. Subject headers can be searched on partial text pattern. If the '@' symbol precedes this header then any dates recorded on the lower part if the card are picked up by the calendar and displayed in reverse video.

The **CP/M SYSTEM** option permits reading of directories, changing User No's, changing the current drive, determining free disk space via Stat and Erasing of files. One nice feature of the Erase is that a display of files with similar extensions is given prior to committing oneself to erasing the file.

The final option is entitled Memory Desk Setup. Here one can move the window to place it anywhere on the screen, change the Notepad filename and Index Cards filename. Other choices enable the number of decimal places displayed on the calculator to be set from 0 - 7, setting of the Calendar date and finally to save the Setup data to disk.

The use of Monte's Window is so simple that no more than 20 minutes use would leave one panting with excitement! I would have no hesitation in recommending it to anyone who uses Model 4, but remember, you MUST have 128k.

WORDSTAR and EPSON PRINTERS

I have long since abandoned 'old faithful' Scripsit, (even with the Flextext + addition) in favour of Wordstar. Now many have criticised Wordstar as being complex but it IS the most common word proccessing software for micros. On reflection though, its complexity is no more than that of Scripsit and it has the one very big advantage that WYSIWYG (what you see is what you get). Geoff Smith's Scripsit goes a long way to remedy Scripsit's failings.

This article is not a review of Wordstar as such but hopefully provides some tips in its customisation which will further enhance its power.

Users of dot matrix printers such as the Epson MX, FX, RX, LQ series have available many character sizes and styles. Our old friend Scripsit with Flextext+ would certainly allow many of them to be specified within the text, however Wordstar also has the ability to change character sizes using the USER PATCH Area. The Print Menu from Wordstar below shows that at least 4 patches can be applied. The four most common ^PQ, ^PW, ^PE and ^PR can be set up using the INSTALL program to give for example:

^PQ	Initialise printer (clear previous settings)
^PW	Emphasised Normal size
^PE	Emphasised Double size
^PR	Condensed size

```
^P        < < <     P R I N T   M E N U     > > >
   ------- Special Effects -------    ¦ -Printing  Changes- ¦
 (begin and end) ¦  (one time each)    ¦ A Alternate pitch    ¦
 B Bold D Double ¦ H Overprint char    ¦ N Standard pitch     ¦
  S Underscore   ¦ O Non-break space   ¦ C Printing pause     ¦
  X Strikeout    ¦ F Phantom space     ¦ Y Other ribbon color ¦
  V Subscript    ¦ G Phantom rubout    ¦  --User  Patches--   ¦
  T Superscript  ¦ RET Overprint line  ¦ Q(1) W(2) E(3) R(4)  ¦
```

I used to have Wordstar set up like this but in reality found that all my correspondence was in Emphasised print. The problem with Wordstar customisation of dot matrix printer drivers is that, to use the bold print feature of the above sub-menu, was to cause the printer to backspace after each letter to print it again. You can imagine the noise this made never mind the effect on the nerves and the worry if this was good for the printer mechanism. Besides, it took forever to Bold print in this manner.

As well as this the Underscore command worked OK but looked like this when printed - not much good ! Lazily leafing through the Epson manual one evening, the thought occurred that I might be able to use the Epson Underline command in place of the supplied one and all that was needed was to install it using two of the User Patchs - ^PE to switch it on and ^PR to cancel.
It worked like this.

So having got this working all that was needed was to dedicate the other two to switching on and off the double strike mode. This is a much sweeter (and quieter) way to Bold print. So then, you may ask, where does the Emphasised print fit in? Well Wordstar's Install program allows for an INITIALISATION string which I set for Emphasised print and also allows for reset of the printer after exiting Wordstar.

Experienced users of Wordstar may not be aware of several other faciliies which can be utilised. During the installation procedure at the PRINTER INSTALLATION MENU a section is dedicated to what is called "Special Printers only". As the dot matrix printer does not have normally facilities for I - Ribbon Selection, J - Vertical Motion, K - Horizontal Motion, L Print Modes and M - Phantom Characters, Alternate Pitch (these are the choices offered on the Menu), then it is possible to use these control codes imbedded in a document to switch the printer to other fonts. Owners of the FX80/FX100 printers have more choices than my MX100, eg Elite, Italic and downloadable fonts. These can be called from Wordstar documents by utilising otherwise redundant commands.

dBASE II Notes

Having recently been a convert to dBASE II my efforts in the programming scene have for the time being, been almost exclusively applied to writing applications software in the dBASE II command and query language. Most of this work takes place on my Sirius at work. dBASE II is a very popular and best selling Relational database which allows the user to go far beyond the basics of setting up a database and adding and accessing it. dBASE II provides users with the facility to write programs in a structured language, parts of which ane not unlike Pascal.

When one runs dBASE II, on MSDOS machines, the date is taken from the system date, however 8 bit CP/M versions require the operator to enter the date. This is important if one wishes to record the last update date on the database file. Mot users will keep their database and command files on drive B: therefore it is necessary to type: SET DEFAULT TO B to log drive B: as the drive in use. If it is required to set other conditions such as INTENSITY OFF, EJECT OFF, BELL OFF etc then I have found that one simple (relatively!) command file called first will set up all these conditions at once. The command file below can be prepared using either Wordstar (using the 'N' non-document mode) or if within dBASE II, MODIFY COMMAND GO.

After booting up all that has to be typed is:

DBASE GO <return>

```
* DBASE  GO.CMD - used to set up default SETS.   This file should
     be held on drive A: with the main dBASE II program.

ERASE
SET COLON OFF
SET TALK OFF
SET INTENSITY OFF
STORE "         " TO mdate
STORE f TO valid
DO WHILE .NOT. valid
  @ 10,20 SAY " ENTER TODAY'S DATE DD/MM/YY      ";
  GET mdate PICTURE '99/99/99'
  READ

*         divide date into day, month and year
  STORE VAL($(mdate,1,2)) TO day
  STORE VAL($(mdate,4,2)) TO month
  STORE VAL($(mdate,7,2)) +1900 TO year

*         validate month and day entry
  IF month >12 .OR. MONTH <1 .OR. day >31 .OR. day <1
     STORE '         ' TO mdate
     LOOP
  ENDIF

*         validate February if not Leap year
  IF month =2 .AND. year/4.00 <> INT(year/4.00) .AND. day >28
     STORE '         ' TO mdate
     LOOP
  ENDIF

  IF month =2 .AND. year/4.00 = INT(year/4.00) .AND. day >29
     STORE '         ' TO mdate
     LOOP
  ENDIF

*         if ok then set valid to true
  STORE t TO valid
ENDDO
SET DATE TO &mdate
ERASE
SET EJECT OFF
SET TALK ON
SET COLON ON
SET DEFAULT TO B
RELEASE ALL
*         enter your command filename here in the form:
*         DO filename
CANCEL
```

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MONTEZUMA WINDOWS

I have been spending money again and this time I bought Borland's Pascal, Borland's Toolbox (both of them to run on my box under MSDOS 2.11) and also Montezuma Windows. This one runs on Model 4/4P under CP/M 2.2x and requires 128K memory.

I have not done anything about Pascal yet (not even copied the master diskettes) so I cannot say much about it. My version is 3.0 and this is very similar to the CP/M version so, maybe, later I will try to write about it. Looking at the manual I see that if the compilation is done in the memory the compiler, on discovering an error, enters automatically the editor at the point of error and, after correction, the compilation continues. If the compilation is to the disk then compiler aborts giving memory location where the error has occured. F command does then locate the error in souce file. The thing must have been written with me in mind.

I bought the programs through System Science (mentioned previously in connection with HSC1686) and the prices were inclusive of VAT:

Pascal with 8087 + BCD	£143.75
Turbo Toolbox	£ 63.25
Monte Windows	£ 63.25

I could have ordered the programs directly but dealing through System Science meant that the Turbo programs were delivered to me on Montezuma CP/M disks (together with IBM PC versions) and I did not have to bother with the postman, paying the duty etc with the window program.

Montezuma Windows were described in the August issue of the 80Micro (still alive though much slimmer than it used to be). The reviewer gave the program 5 star rating for ease to use, good documentation, being bug free and doing the job. Whilst the program is, as far as I can see, bug free it will not run if I have the HSC RAM installed. Whether this can count as a bug I don't know - probably not.

The program comes on a single sided, double density disk which does not contain any system files. There are in fact four parts - the actual program MW.COM, MANUAL.TXT, PRINTDOC.COM. and SETUP.MW The program requires 32K space on a disk but the manual's size is 52K. There is no other documentation. The manual can be read with the TYPE command, printed with PRINTDOC program, or loaded into WS and then read. This was the option I have chosen and, as the operation of the program is very simple, there is really no need for any hard copy documentation.

Montezuma Windows is a collection of programs consisting of a notepad, calendar, calculator, index cards, CP/M facilities and set up. The program, once loaded into the extra 64K RAM is invoked by pressing either both <Shift> keys at once or left <Shift> and <CTRL> which is really easier. There are some exceptions though. At drive sign prompt in CP/M (A>) one has also

to press enter. There may be some delay in the window appearing if a CP/M function is being performed but the window pops out immediately in top right hand corner whenever it is called and the computer expects a keyboard input. The programs are simple to use providing simple facilities. 80Micro claims that Monte Windows are what Borland Sidekick is to PC but I wonder. Of course I have not seen the Sidekick in action.

On calling the program the menu window appears. This window gives the following options:

[A] Notepad
[B] Calendar
[C] Calculator
[D] Index Cards
[E] CP/M System
[F] Set Up.
[BREAK (^C)] to exit

To return back to the program from which the window was called one presses <BREAK> or <CTRL>C.

But now that we are in the menu window lets see what we can do! Lets press A and see another menu appear. You will see:

[A] File (A:NOTEPAD.MW)
[B] Save screen to note
[C] Read note from disk
[D] Save note to disk
[E] Edit note
[F] Print note
[BREAK] to exit.

The notepad is one screen of 80x24 and any text scrolled is likely to be lost. The notepad file stores only one screen and hence option A. Whilst one cannot have more than one screen in the file there is no limit to number of notepad files one can open - at the usual CP/M price of 2K per file. One screen of 24*80 equals 1.88K so the overheads do not amount to much. The name of notepad file is changed with option A for one session but, once one leaves the notepad session, the name reverts to default which is declared in the SET UP module.

The option B is self-explanatory but, from there on, one can save it to the disk, edit it or print it. What a pity that one cannot transfer the screen into, lets say, WS text. Writing of this article would be much easier. If the screen contains characters in reverse video these characters are printed out normally. Options C & D are obvious but I ought to add that any entries in the notepad remain there, even if not saved to the disk, when one returns to the program from which the windows were called. Edit note brings one into 24*80 screen and there are hardly any editing facilities. Arrows move the cursor one space left or right, or line up or down. (WS diamond also works). <CLEAR> clears the notepad, ^R starts reverse video and ^N returns to normal mode. <RETURN> brings the cursor to the beginning of the next line. There are no means to delete characters, words or lines other than using the space bar. Errors are corrected by overtyping and there are no insert commands.

Option F dumps the note to printer and <BREAK> returns to main menu. This just about covers the Notepad. A useful facility to use computer instead of paper, making notes etc. As I write this I call windows frequently and I make notes on the pad of anything which comes to my mind that I want to say later.

Option B calls the calendar window. This window (as all others is about 3"x2 1/2") and to the left of it there appears calendar window about 4"x4". The calendar, which appears, when you buy the program and before you set it up, will be for October 1984 (birth month of Monte Windows). The menu looks as follows:

[A] Next month
[B] Previous month
[C] Next year
[D] Previous year
[E] Set date
[F] Save to Notepad
[BREAK (^C)] to exit.

The calendar function covers years from 1700 to 2200 though, as the manual points out, the records of events between years 1700 and round about 1750 may not match Monte calendar as until about 1750 Julian calendar was in use in Europe. The calendar is in the usual shape showing on the top bar days of the week and numbers below (Did you know on what day of the week you were born? I was born on Friday and so was the BOSS. It is also nice to know that my birthday in the year 2001 will be on Sunday!). Options A, B,C and D are obvious and all that I want to say on these is that holding down any of these keys will scroll through the calendar backwards or forwards month or year at the time. 80Micro says that arrow keys will do that but they don't - not on my computer. For the years 1900 and 2000 the calendar also checks cards (remember? Option D from main menu) and, if there are any appointments noted for the year/month in question the dates are in reverse video. With some 30 cards in use (on which I tested this), the search time is about 10-15 seconds. There is a funny thing though that outside this range the program says that it is checking cards for appointments but will not display them even if there are some. Also the search will find only the first date on each line. (What fun I am having trying it all as I write). Option E requires input of the month in the range of 1 to 12 and the year in four digits. Option F saves the calendar to the notepad and there you can do the usual with it, edit, save or print or just wipe it out.

So now we come to the option C which, by coincidence, brings forth the calculator. Calculator and the menu appear in one window which looks something like this:

```
            Calculator
        ============================
                                0.0000
        ============================
        Calculator keys:
        +: Add          -: Subtract
        *: Multiply     /: Divide
        M: Save Mem     R: Recall
        C: Clear        P: Clr Prv
        A: Auto-key     S: Sing Chg
        ENTER: calculate result
        [ ENTER (^C)] to exit
```

Clever - ain't it? Really it works just like any calculator apart from the fact that one can store amounts or results in memory or recall them from memory but one cannot add or deduct to/from

memory. So assuming that we have ((15/7) * (14*5)) - (25/45) how would we go about it? We would work out the first bracket and store that to memory, clear the calculator (not memory which is only cleared when 0 is stored), work out the second bracket and multiply it by memory and, of course, store the result. Then clear the calculator, work out the third bracket, change the sign with S option and add the memory and there it is 149.44. Actually clearing the calculator between the computations is not necessary as the chain is broken if the last result is not followed by the operating sign. Calculator is automatically cleared once the window is left but not the memory. This retains the result (or whatever) unless cleared by storing 0. If there is an amount other than 0 in it the M on the menu is highlighted. So all there remains to be said about the calculator are the keys P and A. P is a 'whoops' key and this clears last entry without affecting anything else. The most interesting is the A key. Every time I did work out the sums in this piece of description I left the cursor, before entering the windows, where I wanted the result to appear. Pressing A inserts, on returning to the program (in this case WS), the result in the text at the cursor position. Calculator can have up to 7 decimal places or exponential notation (and I do know what this looks like (6.5217391304E-01) and I even know that in this case the decimal point should be moved one place to the left).

Option D - index cards. I found it a bit expensive on the memory as, having created some thirty odd cards, I discovered that the file was 12K. And the cards contained subject only. .pa Anyway the card looks like this:

```
 ___________
_/ Card    1 \_____________________________________________
¦                                                         ¦
¦@What a to do              (This is the Subject)         ¦
¦=========================================================¦
¦11/3/84 Spring soon will be here                         ¦
¦10-15-84 I wonder how many shopping days to Xmas?        ¦
¦12 23 84 Thanks God. I'm off till 2 Jan                  ¦
¦9/24/84 Three months to Xmas                             ¦
¦7*26*84 Time I got some time off                         ¦
¦03.05.85 This will also work though is not speci-        ¦
¦          fied in the manual                             ¦
¦                                                         ¦
¦_________________________________________________________¦
```

and the cards menu is below:

```
[A] Advance to next card
[B] Back to prior card
[C] Copy to Notepad
[D] Find a card
[E] Edit this card
[BREAK (^C)] to exit
```

The card contains a subject which is used for searches etc. If the subject is pre-fixed with '@' calendar program searches it for a date. There are also eight lines of text, each again of 50 characters. Options A and B are obvious and there is a repeat function on A and B which permits scrolling through the cards. (The arrow keys will not scroll - whatever 80 Micro says - at least on my computer they won't).

C option copies the card to the notepad where the card can be manipulated in the usual way. Find the card (Option D) works either by card number - which is allocated by the program - or subject. When searching by number one enters £n (n being the number of the card). Searching by subject (contents of the subject line) is done by specifying a string, partial string. The search disregards upper/lower case and, providing that the search string is in the subject, displays the first card meeting this criterion and asks whether to continue the search.

Option E enters the edit mode. One enters the subject which can be prefixed by '@' (remember?). One can write on the line of '==' just below but when the card is filed the '===' are restored and anything written there will disapper. One has eight lines of text, editing commands are exactly as for the notepad and, whenever the last card is completed, a blank card is automatically added at the end of the file. I find that the calendar will find the date in the card index even if the date is written in a format not specified in the manual. All the date formats shown on the card above will be acceptable to the calendar program providing they are in order of month/day/year.

Monte Windows give access to CP/M facilities from within a program. This is option E from the main menu and CP/M menu looks like this:

```
[A] DIR
[B] USER  (x)                 { where 'x' is the current
                                USER number.}
[C] Current Drive x:          { where 'x' is the current
                                default drive.}
[D] Free space
[E] ERAse
[ BREAK (^C)] to exit
```

DIR option provides a simple file listing without sizes. One must remember the ':' if directory of drive is required. Answering option A prompt with 'a' would initiate a search for file called 'a' on the currently logged drive whilst the answer 'a:' would provide directory of that drive. Option B displays current user number and permits changing it. Very dangerous if one has open files. Option C displays currently logged drive and again permits one to change it. Also not recommended if the files are open. Have you ever been stuck in WS being unable to save a file because of the lack of space? Have you played with ^KF and ^KJ trying to make a space? Options D and E help in these circumstances. D invokes STAT.COM showing amount of free space only (sizes of files unfortunately non-available) and E permits erasing files. Option E, after accepting name of the file to be erased, asks whether one wants to see the directory. Answer 'Y' produces the list of files meeting the specifications in the delete answer and one is given a chance to back out. Understandable if one bears in mind how much havoc using the wild cards can create. Answering option E with <ENTER> produced 'All (Y/N) ?' - whoops there is all my work gone!

And so we are nearly at the end having reached the final menu which is below:

```
[A] Move the window
[B] Notepad file name
[C] Index Card file name
[D] £ Calc. decimals
[E] Calendar date
[F] Save Setup data
```

Window can be moved with L, R, U and D keys to any position on the screen and there it will appear, when invoked, right through the session unless permanently fixed with option F. Notepad and Index Card file names can be changed, number of decimal points can be set, pop up calendar date can be changed and finally all this data can be saved and become default values until changed and saved again. If the window has been placed somewhere where it would obstruct the calendar or cards it will be pushed to the right (on the same level) if either calendar or index cards are called for. If one works with several notepad files one would only use option B to set up the default one. All the others can be called frbm the notepad menu. Index card name can only be changed from the setup menu. I think I explained option D when speaking about the calculator. One would use option E to ensure that the default calendar is one for the current month and one would change this and save at the beginning of each month.

Well, so I have reached the end and I must say that I could not (so far) bomb out this program. It just will not accept a wrong answer. And so, hopefully having whetted your appetite, I cannot improve on the final verdict in 80Micro which I quote:

Monte's Window performs well. After the novelty of calling windows and using concurrent applications wears off, you'll find so many uses for the collection of programs that you won't know how you did without them.'
ANON

Varilist for Model 4.

```
60000 CLS:CLEAR:S=1:E=59999!:DIM Z$(250),Z1$(250),Z2$(250),Z3$(250):DC=0:REM
      Varilist Mod.4 V3  05.10.85
60010 INPUT "Start line number or Auto (A)";P$
60020 IF P$="A"OR P$="a"THEN CLS:GOTO 60040
60030 S=VAL(P$):INPUT "End line number ";E:IF E<S THEN 60030:ELSE IF E=0 THEN
      E=59999!:CLS:GOTO 60040:ELSE CLS
60040 AD=&H8408:REM This for Extended Basic. Otherwise PEEK(&H2601)+256*PEEK(&H2602)
60050 AE=AD+1:IF AE>32767 THEN AE=AE-65536!
60060 AF=AD+2:IF AF>32767 THEN AF=AF-65536!
60070 AG=AD+3:IF AG>32767 THEN AG=AG-65536!
60080 NA=PEEK(AE)*256+PEEK(AD):IF NA>32767 THEN NA=NA-65536!
60090 LN=PEEK(AG)*256+PEEK(AF)
60100 PRINT@1840,LN;:IF LN<S THEN AD=NA:GOTO 60050
60110 IF AD=0 OR LN>E THEN 60470
60120 J=AD+4:IF J=>32767 THEN J=J-65536!
60130 P=PEEK(J):IF P=34 THEN GOSUB 60400:IF PEEK(J)=0 THEN AD=NA:GOTO 60050:REM If
      a string skip it
60140 IF P=143 OR P=220 THEN AD=NA:GOTO 60050:REM skip rems
60150 IF P=14 OR P=28 OR P=29 OR P=31 THEN GOSUB 60430:GOTO 60130:REM if a number
      skip it
60160 IF P<65 OR P>90 OR P=32 THEN 60370:REM If not U/C or if a space skip it
60170 P$=""
60180 P$=P$+CHR$(P):J=J+1:IF J=32768! THEN J=-32768!
60190 P=PEEK(J):IF (P)64 AND P(91)OR (P)47 AND P(58)THEN 60180:REM Vars must be U/C
      or numbers
60200 IF P=35 OR P=36 OR P=37 OR P=40 THEN P$=P$+CHR$(P):REM If followed by £,$,%
      or ( put it in
60210 IF P<>35 AND P<>36 AND P<>37 AND P<>40 THEN J=J-1:IF J=-32769! THEN J=32767:
      REM If not £,$,% or ( then back one
60220 J=J+1:IF J=32768! THEN J=-32768!
60230 IF LEFT$(P$,2)="AS"THEN P$=RIGHT$(P$,LEN(P$)-2):REM Sort out Field vars.
60240 T=0:FOR I=1 TO K:IF P$=Z$(I)THEN T=I:REM See if we have it already
60250 NEXT
```

```
60260 IF T=0 THEN 60350:ELSE M=LEN(Z1$(T))-2:REM Have it so inc.count by 1
60270 IF MID$(Z1$(T),M,1)<>" "THEN M=M-1:GOTO 60270
60280 J$=RIGHT$(Z1$(T),LEN(Z1$(T))-M):IF INSTR(J$,"/")=0 AND VAL(J$)=LN THEN
      Z1$(T)=Z1$(T)+"/2":GOTO 60310
60290 IF INSTR(J$,"/")<>0 AND VAL(J$)=LN THEN M=INSTR(J$,"/"):A=VAL(RIGHT$(J$,
      LEN(J$)-M)):A=A+1:Z1$(T)=LEFT$(Z1$(T),LEN(Z1$(T))-LEN(J$)+M)+RIGHT$(STR$(A),
      LEN(STR$(A))-1):GOTO 60310
60300 Z1$(T)=Z1$(T)+","+STR$(LN)
60310 IF LEN(Z1$(T))>245 THEN Z3$(T)=Z2$(T):Z2$(T)=Z1$(T):Z1$(T)="":ELSE 60350
60320 M=LEN(Z2$(T))-2
60330 IF MID$(Z2$(T),M,1)<>" "THEN M=M-1:GOTO 60330
60340 Z1$(T)=RIGHT$(Z2$(T),LEN(Z2$(T))-M):Z2$(T)=LEFT$(Z2$(T),M-1):Z1$(T)=" "+Z1$(T)
60350 IF T=0 THEN K=K+1:Z$(K)=P$:Z1$(K)=STR$(LN):REM Add new var.
60360 IF P=34 THEN GOSUB 60400:GOTO 60140
60370 IF PEEK(J)=0 THEN AD=NA:GOTO 60050
60380 J=J+1:IF J=32768! THEN J=-32768!
60390 GOTO 60130
60400 J=J+1:IF J=32768! THEN J=-32768!
60410 IF PEEK(J)<>34 AND PEEK(J)<>0 THEN 60400:ELSE IF PEEK(J)=0 THEN RETURN :ELSE
      IF PEEK(J)=34 THEN J=J+1:IF J=32768! THEN J=-32768!
60420 P=PEEK(J):RETURN
60430 IF P=14 THEN J=J+3:GOSUB 60450:ELSE IF P=15 THEN J=J+2:GOSUB 60450:ELSE IF
 P=28 THEN J=J+4:GOSUB 60450:ELSE IF P=29 THEN J=J+5:GOSUB 60450:ELSE IF P=31 TH
EN J=J+9:GOSUB 60450
60440 RETURN:REM Skip numbers
60450 IF J>32767 THEN J=J-65536!
60460 P=PEEK(J):RETURN
60470 DIM SL(13),SR(13):REM Sort into order
60480 T=1:SL(1)=1:SR(1)=K
60490 L=SL(T):R=SR(T):T=T-1
60500 I=L:J=R:I$=Z$(INT((L+R)/2)):PRINT@1840,J,T;
60510 IF Z$(I)<I$ THEN I=I+1:GOTO 60510
60520 IF I$<Z$(J) THEN J=J-1:GOTO 60520
60530 IF I>J THEN 60590
60540 W$=Z$(I):Z$(I)=Z$(J):Z$(J)=W$
60550 W$=Z1$(I):Z1$(I)=Z1$(J):Z1$(J)=W$
60560 W$=Z2$(I):Z2$(I)=Z2$(J):Z2$(J)=W$
60570 W$=Z3$(I):Z3$(I)=Z3$(J):Z3$(J)=W$
60580 I=I+1:J=J-1
60590 IF I<=J THEN 60510
60600 IF I=>R THEN 60620
60610 T=T+1:SL(T)=I:SR(T)=R
60620 R=J
60630 IF L<R THEN 60500
60640 IF T<>0 THEN 60490
60650 IF INP(251)<>61 THEN CLS:PRINT@1120,"SWITCH PRINTER ON":FOR N=1 TO 400:NEXT:
      CLS:FOR N=1 TO 400:NEXT:GOTO 60650
60660 CLS:LPRINT CHR$(7):PRINT:PRINT "Is the printer ready";:INPUT A$:IF A$<>"Y"AND
      A$<>"y"THEN 60660
60670 LPRINT CHR$(15);:LC=1:LP=66:LINE INPUT "Title?  ";T$
60680 PRINT:PRINT "Do you want line numbers printed?  If so press ENTER.   If you
      only want the    variables then enter V";
60690 V$=INKEY$ :IF V$=""THEN 60690:ELSE V=ASC(V$):IF V<>13 AND V<>86 AND V<>118
      THEN 60690
60700 IF V<>13 THEN LPRINT CHR$(14)TAB(5)T$:LPRINT:LC=LC+2:FOR I=1 TO K:GOSUB 60950:
      LC=LC+1:LPRINT TAB(10)Z$(I):NEXT:GOTO 60920
60710 LPRINT CHR$(14);TAB(5)T$:LPRINT:LC=LC+2
60720 FOR I=1 TO K:GOSUB 60950:LPRINT TAB(5)Z$(I);
60730 IF Z2$(I)=""THEN Y=0:GOTO 60760
60740 IF Z3$(I)=""AND Z2$(I)<>""THEN Z$=Z2$(I):Z2$(I)=Z1$(I):Z1$(I)=Z$:Y=1:Z=1:GOTO
      60760
60750 Z$=Z3$(I):Z3$(I)=Z2$(I):Z2$(I)=Z1$(I):Z1$(I)=Z$:Y=2:Z=2
60760 IF LEN(Z1$(I))<71 THEN GOSUB 60950:LC=LC+1:LPRINT TAB(40)Z1$(I):GOTO 60910
60770 J=60
```

```
60780 IF MID$(Z1$(I),J,1)<>" "THEN J=J+1:GOTO 60780
60790 A$=LEFT$(Z1$(I),J):GOSUB 60950:LPRINT TAB(40)A$:LC=LC+1
60800 B$=RIGHT$(Z1$(I),LEN(Z1$(I))-J+1):IF LEN(B$)<71 THEN GOSUB 60950:LPRINT
      TAB(40)B$:LC=LC+1:GOTO 60890
60810 J=60
60820 IF MID$(B$,J,1)<>" "THEN J=J+1:GOTO 60820
60830 C$=LEFT$(B$,J):GOSUB 60950:LPRINT TAB(40)C$:LC=LC+1
60840 D$=RIGHT$(B$,LEN(B$)-J+1):IF LEN(D$)<71 THEN GOSUB 60950:LPRINT TAB(40)D$:
      LC=LC+1:GOTO 60890
60850 J=60
60860 IF MID$(D$,J,1)<>" "THEN J=J+1:GOTO 60860
60870 E$=LEFT$(D$,J):GOSUB 60950:LPRINT TAB(40)E$:LC=LC+1
60880 F$=RIGHT$(D$,LEN(D$)-J+1):GOSUB 60950:LPRINT TAB(40)F$:LC=LC+1
60890 IF Y=1 AND Z=1 THEN Z$=Z1$(I):Z1$(I)=Z2$(I):Z2$(I)=Z$:Z=Z-1:J=60:GOTO 60760
60900 IF Y=2 AND Z>0 THEN Z$=Z3$(I):Z3$(I)=Z2$(I):Z2$(I)=Z1$(I):Z1$(I)=Z$:Z=Z-1:J=60:
      GOTO 60760
60910 GOSUB 60950:NEXT
60920 FOR M=LC TO LP:LPRINT:NEXT:PRINT:PRINT"Do you want another list? ";:
60930 Y$=INKEY$:IF Y$="" THEN 60930 ELSE IF Y$<>"Y" AND Y$<>"y" THEN END
60940 LC=1:GOTO 60680
60950 IF LC>60 THEN FOR M=LC TO LP:LPRINT:NEXT:LC=3:LPRINT CHR$(14)TAB(5)T$:LPRINT
60960 RETURN
```

PUSH without a POP ?! A Heresy?

M. Matthews

I had the need to write programs which run on both Model I and Model III. (My son has a Model III, and I have a Model I). There seemed no difficullty. If you ask if there is an 'E' in ROM at 106H, if the answer is 'yes', it is Model I: if 'no' it is Model III. And from then on, one can arrange to put either Model I or Model III Call addresses in Stores, all ready for use. But how do you CALL addresses in a Store? If one loads the store into HL, - LD HL,(STORE) - you cannot then CALL (HL). The only Z80 instruction is JP (HL). Impasse!

I thought of a somewhat corny way out. Why not put a bit of code (0CDH = CALL) in STORE in the Assembly programme:

```
LD IY,(STORE)
JP (IY)
RTT: ...
......
..etc..
STORE:DB 0CDH,'XY'
JR RTT (or JP RTT)
```

where YX is the DOS Call address.

And sure enough it worked quite happily. But I felt that this was not quite 'comme il faut', and I asked Leon Heller if he could suggest a better way. He said he had used for one of his programs, PUSHing the return address (RTT) on to the stack, so that the RET in the DOS Call program would then pull out the address after the Call had been carried out. My programme then became:

```
LD IY,RTT
PUSH IY
LD IY,(STORE)
JP (IY)
RTT:....
........
STORE:'XY'
```

Thus, you have a PUSH <u>without</u> having to write in a POP!! The POP is done in effect by the RETURN in the DOS programme. Other registers can of course be used instead of IY: I happened to be using the others for various purposes. It is interesting that both methods need about the same number of bytes, but Leon's is faster since it involves a PUSH and an effective 'POP'.

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HIERARCHICAL DIRECTORIES WITH TRSDOS?

Well, not exactly, but we're not far off.

Many members will be familiar with Southern Software's FC utility, which combines directory and file management with the possibility of shorthand DOS commands which you can define yourself. It runs on most model I/III DOSes. It occurred to me to use it to compile a master catalogue of those of my disks which are in a numbered series. You could adapt the method to a system of named disks if you use that. You would need to ensure that the disk names are on the labels! I find it much quicker and more convenient than the various master directory utilities I've seen, including one I wrote myself. No long searches are required to find the names of files to be deleted from the master directory. The system works like this. Use FC to display the directory of a disk to be catalogued. Define a command (D or whatever you like) which will dump the screen display as a numbered or named command file, thus:

(D has been defined below as DUMP DIR?:1 3C00H 3FFFH)

```
   DUMP DIR82:1 3C00H 3FFFH
 D ALIGNER      1       SCRIPSIT LC  1
 > ALTER    BAS 1       SETCAS   CMD 1
   D        CMD 1       SPOOL    CMD 1
   DESPOOL  CMD 1       SSPOOL   CMD 1
   EDTASM   CMD 1       SUPERZAP CMD 1
   ENDREL   REL 1       TOST         1
(&c...)
```

Now replace the disk to be catalogued with the disk on which the catalogue is to reside and press ENTER to execute the dump command. Repeat the procedure for each disk to be catalogued. (There's no need to redefine the D command each time). You will eventually end up with a disk whose directory looks something like this:

```
DUMP DIR181:1 3C00H 3FFFH
DIR54       1     D DIR67       1       SCAN     BAK 1
DIR55       1     > DIR68       1       SCAN     BAS 1
DIR56       1       DIR69       1       SCRIPSIT CMD 1
DIR57       1       DIR70       1
DIR58       1       DIR71       1
DIR59       1       DIR72       1
DIR60       1       DIR73       1
DIR60S      1       DIR74       1
DIR61       1       DIR75       1
DIR62       1       DIR76       1
DIR63       1       DIR77       1
DIR63A      1       DIR78       1
DIR63B      1       DIR79       1
DIR65       1       DIR81       1
DIR66       1       DIR82       1
```

The lower-numbered files are on the same disk, catalogued as DIR18. We are about to catalogue the visible ones as DIR181, which will be sorted immediately after DIR18. Note that the directories are in an easily-managed order. Thus you can catalogue more directories than FC can display on one screen. Above shows the screen just before we update the master directory by dumping it to its own disk. Incidentally on the first occasion that must be done twice, so that the master directory includes itself - an instance of Russell's Paradox.

All we need now is a program to LOAD the DIR files- they will automatically be sent to the screen- and move the cursor around so that we can tag and scan the directories we want to check. I wrote the SCAN/BAS program, kept on the master disk, to handle it. There follows a set of screen dumps to show how it works, and a listing. It's written for NEWDOS80, but should be adaptable for most other DOSes.

```
DUMP DIR181:1 3C00H 3FFFH   <S>CAN <T>AG E<X>IT
    DIR54        1     D DIR67        1       SCAN     BAK 1
    DIR55        1       DIR68        1       SCAN     BAS 1
    DIR56        1       DIR69        1       SCRIPSIT CMD 1
&c...
```

We press T to execute the Tag command. We're going to tag DIR82 (see below)

```
    DUMP DIR181:1 3C00H 3FFFH   <T>AG E<X>IT
    DIR54        1     D DIR67        1       SCAN     BAK 1
    DIR55        1       DIR68        1       SCAN     BAS 1
    DIR56        1       DIR69        1       SCRIPSIT CMD 1
    DIR57        1       DIR70        1
    DIR58        1       DIR71        1
    DIR59        1       DIR72        1
    DIR60        1       DIR73        1
    DIR60S       1       DIR74        1
    DIR61        1       DIR75        1
    DIR62        1       DIR76        1
    DIR63        1       DIR77        1
    DIR63A       1       DIR78        1
    DIR63B       1       DIR79        1
    DIR65        1     >   DIR81        1
    DIR66        1   T   DIR82        1
```

We then press EXIT to return to the previous display, followed by S to scan the directories we've tagged.

```
    DUMP DIR181:1 3C00H 3FFFH   ENTER TO CONTINUE, X TO STOP
    DIR54        1     D DIR67        1       SCAN     BAK 1
    DIR55        1       DIR68        1       SCAN     BAS 1
    DIR56        1       DIR69        1       SCRIPSIT CMD 1
    DIR57        1       DIR70        1
    DIR66        1   T   DIR82        1
```

In this case we press ENTER to scan the only one tagged, DIR82.

```
   DUMP DIR82:1 3C00H 3FFFH    ENTER TO CONTINUE, X TO STOP
  D ALIGNER      1       SCRIPSIT LC  1
    ALTER    BAS 1       SETCAS   CMD 1
    D        CMD 1       SPOOL    CMD 1
    DESPOOL  CMD 1       SSPOOL   CMD 1
    EDTASM   CMD 1       SUPERZAP CMD 1
&c.........
```

Now the listing:

```
5 REM SCAN/BAS. C.R.J.C. 1985
10 GOTO 1000
200 NK$=INKEY$:IFNK$=""THEN200ELSERETURN
300 C1=INT(CP/256):C2=CPAND255:POKECA,C2:POKECA+1,C1:RETURN
1000 CLEAR 2000:   DEFINTA-Z: DIMAR$(60): CA=&H4020: ST=&H3C00+64: SP=&H3FFF-
     63:  CL=&H4019: RT=42: LT=0: TM$=STRING$(14,32): N=0: K=0: DA$=CHR$(10):
     UA$="[": LA$=CHR$(8): RA$=CHR$(9): RW=ASC(">")
1002 DEF FN LS$(X$)=LEFT$(X$,INSTR(X$," ")-1)+"/"+MID$(X$,10,3)
1005 POKE CL,1
1010 CLS: INPUT"CATALOGUE DISK NUMBER";DN
1020 F$="LOAD DIR"+MID$(STR$(DN),2)
1030 CMDF$
1040 PRINT@32,"<S>CAN <T>AG E<X>IT         ";: GOSUB200
1050 IF NK$="S" THEN K=0: GOTO 2000
1060 IF NK$="T" THEN 3000
1070 IF NK$="X" THEN CLS: END
1080 GOTO 1040
2000 PRINT@32,"ENTER TO CONTINUE, X TO STOP";: GOSUB200
2010 IF NK$="X" OR K=N THEN 1030
2020 ONERROR GOTO 6000: LD$="LOAD "+ARRAY$(K): CMDLD$: K=K+1: GOTO 2000
3000 N=0: PRINT@32,"<T>AG E<X>IT        ";
3005 CP=ST: GOSUB300: POKE CP+1,RW
3008 GOSUB200
3009 POKE CP+1,32
3010 IF NK$=DA$ THEN IFCP<SPTHENCP=CP+64: GOSUB300: GOSUB 5000
3020 IF NK$=UA$ THEN IF CP>STTHENCP=CP-64: GOSUB300: GOSUB 5000
3030 IFNK$=LA$THENIF(CPAND63)>LT THEN CP=CP-21: GOSUB300: GOSUB 5000
3040 IF NK$=RA$THENIF(CPAND63)<RT THEN CP=CP+21: GOSUB300: GOSUB5000
3050 IFNK$="T"THENPOKECP,ASC("T"): GOSUB4000
3055 IF NK$="X"THEN 1040
3060 GOTO 3008
4000 CP=CP+4:      GOSUB300:      POKE      VARPTR(TM$)+1,PEEK(CA):      POKE
     VARPTR(TM$)+2,PEEK(CA+1): CP=CP-4: GOSUB300
4010 AR$(N)=TM$
4020 AR$(N)=FN LS$(AR$(N)):  AR=INSTR(AR$(N),"/"):  IF MID$(AR$(N),AR,4) ="/"
     "THEN AR$(N)=LEFT$(AR$(N),AR-1)
4030 AR$(N)=AR$(N)+":1"
4040 N=N+1: RETURN
5000 POKE(CP+1),RW
5030 RETURN
6000 IF ERL=2020 AND ERR/2+1=65 THEN K=K+1: RESUME2000
```

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IN DEFENCE of the 4P

Having read Anon's article in the August Newsletter I must say that he was unlucky with the 4P he received, I bought mine from OS, run it for many hours at a time & haven't had any trouble with it beyond the fact that Tandon drives are B' awfull & should never have been used.

I changed the drives in mine for some direct drive ones that I had been using on my model 1, that cured all noise & the slight twitch of the screen when accessing disc, even after several hours only cool air comes out of the top, the Tandons take so much more current than more modern designs, (they are still belt drive). I then fitted the Tandons to my model 1, that soon showed up their poor quality.

The correct way to start up a 4P is to put the disc nearly all the way in the drive, switch on, push the disc home & close the door before the drive red light comes on, the system then boots up correctly.

If you have trouble with a disc that won't boot just backup BOOT/SYS from a disc that works & that should do the trick.

My drives are now double sided 80 track & the Tandons have been put out to grass (one sold already).

It is of course essential to have 128K ram especialy as it is so cheap from anyone but Tandy, (will they ever learn?) it is then possible with a small jcl file to put the large overlay files of Multiplan & Superscripsit into ramdisk & speed things up considerably.

Now for other things, since starting this I have received the September issue, how time flies, this article should have been in it.

The latest Tandy catalogue has no reference to the model 4 or 4P in spite of the fact that there is a strong rumor in the States that an improved 4 with double sided 80 track drives will be out shortly, it should have had them some time ago.

Last year I wrote about the Z800 CPU, forget it, it will never be produced in quantity, the design team broke up & it looks as though the Z8000 will go the same way.

What is interesting is the CPU board by Steve Ciarcia in the September issue of BYTE, it uses the Hitachi HD64180 CMOS CPU which is Z80 code & CP/M 2.2 compatible & an improved DOS has been written in Z80 code that can use CP/M 2.2 programs, it can address 512K ram & handle 8" 5.125" & 3.5" drives (S/S, D/S, 40/80 track) as well as having two serial ports, one for a terminal (model 1?), the other for output & of course a Centronics printer port is added just to round things off, all this on a board only 7.5"x4", it looks an even more interesting way to go than Anon's co-processor board, it's cost is $499 with enough software to get going, which is all going to be discussed in the October issue.

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CGP-115 meets IBM

I've recently switched from a model 1 to an IBM PC, as explained in the August Natgug news, and now only retain one piece of Tandy equipment; a rather battered CGP-115 printer-plotter. I'd like to use this with the IBM, but no-one seems to be writing software for this odd combination, apart from the routines in the printer instruction manual. Basically, I'd like to use it for pie charts and other such functions; the Colplot program, from Molimerx, used to fulfil this need very nicely, but I couldn't bring myself to tackle the conversion job. If anyone can suggest a good public domain program I'd be very appreciative.

Writing this reminds me that I've never told the group about how I happen to own the CGP printer. A year or so ago, when the Tandy shops were selling off mountains of old model 1 stock, I happened to walk into their Centre Point store, the largest in London. While I was rummaging their shelves I noticed a slightly battered looking CGP printer on the shelf, and idly asked the price.

"Make us an offer" the salesman said. I said £10, expecting to be told that they wanted £50, but he just asked the manager and came back to tell me that I could have it for £20. It then developed that it was minus a transformer, manual, and a roller to hold the paper, and running slightly erratically, but I decided that it was worth taking a chance.

While I was in the shop I looked at their copy of the manual, and found that it used a 9.5 Volt power supply. This seemed vaguely familiar; when I got home I found that my old ZX81 had a 9.25 volt

unit, and soon put on the right plug. A piece of biro casing and a bit of knitting needle made a good paper support. When I tried it I found that it seemed to work, but was sticking between pens; a pair of tweezers and a slight bend in the jigger that turns the pens fixed that. A friend at another branch of Tandy later gave me the correct manual, and that's how I got a CGP-115 printer for £20, a few spare parts, and an hour's work! There isn't any special moral to this story, except to say that it never hurts to ask!

Anyway, to return to the original request, I'd be very grateful for any help with MS/DOS software for the printer. Although it seems slightly unlikely, I'd also be interested to hear from anyone who's found a way of making this printer produce a coloured screen dump from a PC.

Finally, a few items for sale, the last dregs of my Model 1 bits; all are reduced in price from the original advert.

Marcus L. Rowland

0669 0669 0669

I'm writing this two days after Swindon - the older that one becomes, the longer it takes to recover from such events ! Despite the decline in membership, there was no drop in attendance by the TRS-80 fraternity at this meeting; a couple of faces were missing (where was the benign boatee from Swanage?) but new faces made up the numbers. The hotel really had made an effort to overcome any past criticism, and I am sure that I am not alone in appreciating those efforts.(and we were all grateful for the lack of fire alarms!). Mind you, they obviously think the world of leprechaun Bannister; after spending hours and hours trying to do a disassembly, he went down to the bar where he was served by a young lady with a name badge proclaiming her to be Anna Lise !

Despite the repugnance shown by many members, CP/M proved to still be of great interest and related talks included SuperCalc, dBaseII, and Utilities. The emphasis for this meeting was 'hands-on experience' and members were encouraged to carry their machines into these sessions. Laurie did his usual welcome m/c talk, John Newgas covered Turbo Pascal, Leon had a couple of sessions covering C, and Mike Gordon-Saker explained the TRSDOS 6x Utilities.

In the systems room, interests seemed divided between CP/M and high-res, and with several printers churning out pretty designs and/or Dotwriter style texts. Carl had his colour WOTSIT, Tony Evetts was printing superb graphics, John Bodsworth was doing fantastic things with Tiny Geap, Ken Arnsten had his high standard text, and Brian Edwards was going to town with the full GEAP. Laurie has Zen up and running under CP/M, and it is possible to actually single step through a program by relocating Zen up above the CP/M program. Geoff Smith has a version of Scripsit adapted for CP/M which should be great news for Wordstar detesters! I'm sure to have missed out someone who had something marvellous. Sorry! It was a great weekend; the next one is booked - MARCH 14/15 - so make sure that you'll be there!

I had become very enthusiastic about Supercalc - after years of VisiCalc, the variable column widths, the hidden columns, protected cells, and the sorts, these were all too good to be true. Alas, 'tis so. Supercalc refuses to note that I have an extra 64k of memory, and so greatly restricts use of large spreadsheets. In desperation I turned to Multiplan, but even after loading it into the Memdisk to speed up operation, it was so terribly slow that it became embarrassing to demonstrate. Having a relatively straightforward 'column' type of job to do, I borrowed a copy of dBase II and was delighted with the ease and speed of input. In no time at all I had entered 440 records - and then the disk 'bombed' at record 383, and had the audacity to do so whilst performing the backup function. I tried copying the disk, the file, to no avail, and couldn't save the file by deleting records from 382 onwards. With that icy hand of fear and desperation clutching at my innards, I frantically rang the only telephone number that I knew would be answered in the daytime - that of Peter Hall. I could have thumped him for the calm, matter-of-fact way that he asked if my drives were 40T SS, and upon

assurance that they were, said to boot up Super Utility! Now if YOU are reading this, John Harding, no - my Model 4 SU still does NOT work, but my Model III version works fine and it cured that CP/M disk faster than it would have treated a TRSDOS 2.3 ! So, from that little experience I have concluded that I don't want 80Track double-sided drives after all, or at least, not until someone brings out a Super Utility to cope with that format ! Peter, I'll be indebted to you for life !

A Very Merry Christmas to One and All

(One for All and All for One - Cornish motto that might well be adopted by NATGUG!)

David Washford

PARITY ERRORS

I received several helpful replies to my plea for help on Parity Errors. I also received requests to pass on the answers as I am not alone in my problem.

It was the concensus of opinion that Parity and CRC Errors, were similar to Sector not Found. As far as the program was concerned, there was something missing. This concern for accuracy is all very well but it can make life very difficult. After all, I would like to know that a book had a page missing but I would not like to rewrite the whole book for the sake of a missing letter.

There appears to be many ways round the problem and most involve some form of Utility program. Super Utility is very powerful but its very power can make it dificult to use. Dosplus and Newdos 80 have utilities built in but they are designed to work with their own operating system. The authors of Super Utility have a set of programs that can be of help and these are put together under Toolbelt. While Toolbelt does not seem to do much that SU cannot do it only works with TRSDOS 6.x and does not need configuring before use and this can be useful if you are going to write back to the disk.

There is one program on the disk that reads a disk track by track and rewrites it. This refreshes the sectors and at the same time it checks the disk. If it cannot read a sector or if it finds an error it makes an attempt to correct it. How succesful the attempt is depend on the error. The simplist error is one where there is a Parity error but no fault in the text. This is fixed by recalculating the parity but some errors are more fundamental than that.

One of my disks had a Parity Error but on viewing the sector I could see nothing wrong. Once the sector was rewritten to disk the file loaded perfectly but another disk had a similar error code but the sector was far from correct. In fact it appeared more like the Roseta stone with its mixture of Hierogliphics and Arabic with few odd graphics symbols thrown in. On my first attempt, I let REFORMAT6 work through the disk and it corrected the loading probelm but left me to correct the text at a later date. Afterwards I decided to use the Stop on faulty sectors which presents the information as it is read. This gives you the opportunity to correct errors before it is rewritten.

Whether it is better to try and correct the sector before rewriting depends on the sort of data that has been garbled. Straight text is probably best handled back in the wrod processor that generated the text. Data files may not be as easy and may need attention before returning. For instance some databases seperate records by putting a special character at the end of each field and record. The special character cannot be entered via tha keyboard under normal program operation but Sods Law of Data Corruption says that if a piece of garbage can cause a problem then it will. If your corrupt sector has an extra or missing delimiter then it may cause all other records to be out of align and very difficult to correct though the database program. It is very easy to correct if you can work out what has happened at the faulty sector. In my case I was able to calculate that five small fields were in that load of garbage and therefore I reset the whole sector to spaces (H20) and put in five delimiters. This brought the subsequent records into line and left me five field to edit.

SIR does not have delimiters and all the records are in continuous bytes. However the record number is in the first four characters of the record and this is excluded from the CHANGE records command. If there is corruption in the record number it may not cause a problem but if you sort by record number the results are unpredicatable and SIR has great difficulty in sorting that column. It is generally possible to find the error and correct it as the sequential numbers are in the previous sectors.

The modify facilities in PREFORM6 are adequate but they can only be used at the time the sector is found to be faulty. If you want to go back to the sector for a second go at correcting the data then you need to use PMOD6. For that reason it is preferable to note the relative sector.

On the question of these Zappers, I found that they work in two ways. One deals with the disk as a series of Tracks and Sectors while the other works by file. If you have a file on two disks then they may be on different tracks but the relative sectors will be the same. If you are looking for faults in a file then it is quicker to search by file. It may also be safer because a disk may contain several versions of the same file. This is due to the way that the Dos handles deletions. A file that is deleted is only marked killed but the data is still on the disk until it is written over. This is why you can often recover an accidentally killed file.

If you search through a disk, track by track you may find the data belonging to the old file while the current data is sitting several tracks away. Because of the way the Dos handles disks it is no guarantee that the next sector in sequential order is part of the same file. Fortunately it is possible to step through the correct version in the file mode. Dosplus has two programs DiskDump and DiskZap which has the advantage that you select the mode when you select the utility. I spent some time trying to decipher the disk map to use DiskZap before somebody explained that Diskdump would go straight to the file.

Perhaps somebody could explain how to do the same in CP/M as SU offers very limited support.

Derek Trayler

Model 4 notes

Herewith a few more Model 4 notes which may be worth publishing. The ones on fielding for random files may be common knowledge, but I found them out the hard way, so there may be others in the same boat. Please edit it as you think fit.

I have first to confess to two bugs in my Varilist Mod.4 program. They will probably not bother most people, and they only came to light more or less by chance. The first only occurs where there is a variable on a line with a one digit number. I usually start numbering at 10, and often use 5 as a REM line with the program title and other data on it, but in ONE program I have a flag on line 5,and this gave trouble which was cured by the following change to line 60350. After Z1$(k)=STR$(LN) add

```
:IF LEN(Z1$(K))=2THEN Z1$(K)=" "+Z1$(K)
```

The second bug produced a mysterious variable without a name which occurred on five lines all concerned with random filing! Some research showed that it occurred where a space had to be put between AS and the variable, as in FIELD 1,5AS C$: where 5ASC$ is read as ASC. This is dealt with by the addition of the following line

```
60235 IF P$=""OR P$="AS"THEN J=J+1:IF J=32768!THEN
J=-32768!:GOTO 60130:ELSE GOTO 60130
```

Now to more important matters. I have three substantial accounting programs originally written for the Model I. Taking one as typical, it had four sections each about 12k., with a substantial amount of duplication in the form of subroutines which appeared in all four. When I got my Model 4 my first action was to convert them all to run in Model III mode, but I was anxious to convert to Model 4 mode to get the advantage of the 80-column screen.

The first blow was the loss of about 10k. of RAM in this mode. This at once involved me in splitting the programs into a base program and a string of overlays. As an example, one of my four original programs is now in the form of seven overlays to the base program!

Even then I found myself tight for working space. This particular program is a property management one, handling about 100 properties for 9 clients, with a weekly rent collection for some. The others are monthly or quarterly rents. As you can imagine this involves quite substantial arrays. In particular, each property has two flags, one indicating the owner, the other whether it is a weekly,monthy or whatever rent. For the weekly properties an array of single precision 14 by 4 by the total number of weeklies is needed to hold one quarter's details of rent due and received, and arrears brought and carried forward.

In the cashbook, of course, large arrays are needed for receipts and payments, and there is the further complication that four Bank accounts are involved.

The first step was to examine the program in detail. It was in fact the first large program I ever wrote, some six years ago, and although it has been much altered a lot remained unchanged. The base program can be divided into three main parts, the start-up, entry sub-routines (with extensive error-checking), and the filing routines.

The next step was to remove the start-up section as soon as it had done it's job. This provided about 1.4k. extra space!. Attention was then directed to the filing routines.

The filing is all done in random files, which means, of course, quite a lot of strings. My filing routines were all derived from the Basic handbook for the Model I, and it struck me that there might be a lot of redundancy. Taking the property flags as an example, there is for various reasons an array of 200 of these. The main reason is to allow of the addition of properties for individual clients and to keep them in logical groups.

In the original filing routine the two flags for a property were first combined by multiplying one by 100 and then adding the other to it. This gave yet another array, admittedly an integer one, and this was then converted to a string array using MKI$! The buffer was then fielded and the array filed.

g Some thought produced the following (because of the number of items they are filed in two sectors, but the second is a duplicate of the first except for the array indices):-

```
X=1:FIELD 1,240AS A$:B$="  ":FOR I=1TO 120:
LSET B$=MKI$(PR%(I)$100+CR%(I)):LSET A$=LEFT$(A$,X)+B$:X=X+2:NEXT:PUT
1,XXX
```

To read it back, use the following:-

```
10 X=1:FIELD 1,240AS A$:GET 1,XXX:FOR I=1TO 120:
PS%=CVI(MID$(A$,X,2)):IF PS%=0 THEN 20 ELSE
PR%(I)=INT(PS%/100):CR%(I)=INT(RIGHT$(STR$(PS%),2))
```

FOR SALE AND WANTED

Wanted:

Inexpensive printer for TRS-80 Model I, dot printer etc., working or not.

John Mortlock,
36 Valleyfield Road,
Streatham,
London SW16 2HR.
01-348 2047 (evening)
01-769 1639 (weekend)

For sale:

Model II Visicalc (list price £249.95)
Model II Scripsit (list price £299.95)

Both brand new and unused.

I have no use for these programs and would exchange them for anything useful for the Model I. In fact, I would cconsider another Model I.

I would also consider Spectrum equipment such as Microdrives and Interface I, plus cartridges, plus cash. Or, I am open to any offer, cash or otherwise.

I will answer all letters if a 17p stamp is enclosed, or, anyone who wishes to call and see me will be most welcome.

H.R. Elvin,
214 Morningglow Road,
Firth Park,
Sheffield S5 6SG.

For sale:

Model I 48K, Tandy Hi-Res graphics, expansion interface, green-screen monitor, cassette recorder, manuals for monitor and Hi-Res graphics disk and manual, cassettes, disks and books including Scripsit, Editor/Assembler etc. Bargain at £230

Aerocomp double-density board at £70.

Two Tandy disk drives, cased with power supplies at £75 each.

Or, for quick sale, £425 the lot.

Wanted: Model III Technical Reference Manual, for sale or loan.

Dr. Pirzada
(0522) 20843 (day)
(0522) 24326 (after 7 pm)

A PATCH TO DEBUG IN LDOS.

Problem - in Debug the screen was messy & difficult to read because the lines were not aligned one above the other. The problem was clearly the lack of a CR at the right moment (and indeed there was a graphics character on the screen just where you'd expect nothing, or rather an invisible CR).

Solution: In SYS5/SYS.SYSTEM replace the 0C7H à memory address 4F35H with an 0DH. On disk that becomes record 01, offset 79H.

Result: Happiness. Much easier use of a powerful program. I can recommend it for, apart from its normal uses, learning. It's easy to see what SBC HL,BC means and does, and a lot quicker than looking it up in a book.

PROBLEM SECTION CONTINUED

The Jan 85 edition of Micro 80 has a modification to Model 4 Scripsit which enables print codes to be added as well as many other features. John Kilpatrick typed it all in and sent me a copy which I have used extensively.

One of the patches changes the control keys to allow CTL I for insert and L for Line. This set me wondering why the function keys canot be used. I decided to try and change the program and switched F1 for I and F2 for L. This means that I can get into the Insert mode with a single keystroke and a Insert Line becomes much quicker.

I also changed the Video, Left and Right margin to suit my 12 char wheel. As all this worked I went on to change the default Top and Bottom Margins to fit A4 paper with a Page Length of 72. While these can be changed in the header it is better if they default to a more useful setting.

To complete the changes I would like to alter the Delete key from CTL D to F3 but I cannot find the address which holds the CTL D. Unfortunately Clifford Knight did not make any reference to Delete because it was already mnemonic the more reasonable. Can anyone help?

Regards,

Derek Trayler, 88 Grosvenor Drive, Hornchurch, Essex RM11 1PW (040 24) 47661

Database problem....
==========

I want some advice on database management programs. I want to keep a list of bulletin board phone numbers, together with the details such as name, system times, sysops name and address, etc, etc. I need to be able to sort on number, name (and sysop name if poss.). I want to print out some or all fields in different ordres, depending on where the list is to go.
I only need around 200 records.
Which program should I use, can anyone help? It should preferrably be very cheap(!) and able to read my existing (ASCII) data files.
Peter Tootill (051)428 2733