

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 computers but special emphasis is placed on equipment in the TANDY range.

Details of the Group accounts, and the constitution of the Group, are available 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 available 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, on disk if at all possible (5.25", NEWDOS-80 v2 or Montezuma Micro CP/M preferred, any combination of density, sides or tracks, but please say what it is). Your disk will be returned.

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EDITORIAL

Just a short editorial this month, I have been cajoled by Dave (OGGY) Washford to get this on the road asap to ensure that you all know about SWINDON. Don't forget * OCTOBER 17 - 19 * Let us show those QL'ellers just what real computers are about. I mustn't be too rude about them since Leon has contributed an article to this issue, which is more than 95% of our membership bother to do ! As you can guess were getting short on articles again so how about extracting the digit and putting pen to paper. I still have real doubts about the continued existence of the group and the newsletter will almost certainly have to go bi-monthly if the situation does not improve rapidly.

I was fortunate enough (or maybe crazy is the right word) to be able to get to the PCW show on a business only day. Disappointing to see no sign of TANDY at the show, neither the firm nor the user group. I would have thought that TANDY UK might have had their two new machines there, the new 1000 and 3000 models, but perhaps there are none in this country as yet. The whole show seems a little bit boring these days, the star of the show was of course AIRO (An Ibm Rip Off) as Alan Sugar calls it, meaning the new Amstrad 1512. I actually sat and played with one for about ten minutes and was quite impressed. The colour monitor is pretty ropey but the paper-white monochrome is acceptable, the keyboard has a reasonable feel and the key placement is better than IBM PC but not as good as the AT layout. The machine is pretty damn fast (see Ariela Taylors bench-mark) and would probably be even more impressive with a V30 cpu. The only major draw-back seems to be that if you want to use another monitor you still have to leave the Amstrad one attached since it contains the power supply. Doubtless some enterprising little firm will quickly get around that. If you are in the market for a MSDOS PC type machine I really can't see any other choice unless you really like wasting money.

The only other hardware of real note was a device to read a whole sheet of text into your PC in one go. It still needs printed text but can manage many type styles, only £3,000 ! Most software was pretty boring, with a lot of emphasis on do it yourself Rupert Murdoch kits - desk top publishing, such as Pagemaker etc. The only thing I bought was 25 80TR DS disks for fifteen pounds. How the hell can Dysan etc get away with charging 35 pounds for the same thing.

Enough rambling, I hope to see many of you at Swindon.

OGGY OGGY OGGY

With apologies to Rodney - Oh what a plonker ! Yes, me ! For years I've extolled the virtues and superiority of Newdos 80, my only complaint being that Visicalc never had as much free memory as it had under DonkeyDos - and all those wise sages sorrowfully shook their heads in sad agreement. Plonkers all of you as well, I say ! Today I made the second greatest computing discovery of my life (the first was that I couldn't spell when typing in a Basic listing!). All my ND80 disks have System AP set to 62128 (to accommodate Southern Software's EDIT) - if I reset this to zero then Visicalc comes up with that magic 23. Well, at least I found out before the Model I finally goes out to grass - pity it wasn't six years earlier !!! I only hope that this admission of incompetence might help someone else.

What a good weekend we had at Blandford - and thank you, Helen and your team, for your usual superb luncheon. One would expect NATGUG meetings to become a little more sedate but this one was just as hectic as my first one at Milton Keynes. It was very encouraging to have the official attendance of Tandy UK - and many members were more than delighted with the bargains that they picked up. Tandy have promised to come to Swindon and if they bring more of their surplus stock for sale then I recommend that you study it carefully - apparently several binders sold at Blandford contained much more than the titles indicated - real Value For Money !!

Separate talks by Rex Simpson of Tandy and Paul Ostwind combined to show how we just mustn't let NATGUG become, in reality, just a Model 4 Users Group. Although Model 4's, and the 1's and 3's, will continue to give good service for years to come, MSDOS has proved to be the way we need to go if we are to avoid the fate of the Dodo; fortunately Paul's experiences show that we have no need to be either afraid or reluctant of taking this step and I do believe that his demonstration at Swindon could have you all racing off to Os for your new 3000.

I was pleased to hear that other members have purchased Longview, the Prosoft program that prints wide Visicalc spreadsheets downwards. As I've said before, Prosoft is one of the few companies left supporting our community and we must, in return, support them. I would suggest that perhaps a few people who have "borrowed" some Dotwriter fonts to "try" might like to give Prosoft some encouragement by ordering one (or more) of their other disks.

Of the items that Tandy were selling off cheap for the Model 4 was Target Plannercalc - would any user of this care to write a review for Natgug, giving comparisons with the old faithful, Visicalc ? We probably could find time for a volunteer to demonstrate its powers at Swindon - any takers ?

Dotwriter users - I've been promised a "public domain" program that in effect is the good ol' CP/M SQUEEZE but which runs

under DOS. I should have it in use by the time of Swindon, and as it is Public Domain then I'll willingly share it. Just to wet your appetite below is a small example of the versatility of Dotwriter.

DOTWRITER STUNTS

Before the dreaded MS-DOS takes over with its fantastic Fontasy, let us have another look at Prosoft's Dotwriter printing software. Although there are more than enough afficianados about to provide a veritable font of expertise, one does observe many examples that could be greatly improved. I would like to offer a few points for consideration:

Line Height - experiment with differing values.

Alternate Fonts - which will use the line height of the main font - can be used to good effect. Note how the D and the S in the headline, from the MOON/PR set, have been mixed with the ANT/PR character set.

DOUBLE WIDTH using the Escape codes imbedded within your text can affect just one character or many.

COncatenation off is a real beauty for price lists since

it will allow

left and right

page. you

try hard enough !

you to form

columns on the

columns if you

can have three

The above was all printed with KRON and this tends to cause exaggerated spaces between words. These two sentences have KROFF and the difference should be quite noticeable.

There will be a prize for the best Dotwriter exhibit at Swindon. See you there !

Washby

Talking (again) of Swindon, I hope you've all noticed the cabaret item for Saturday evening - SEE YOU THERE I TRUST. David Washford, 6 Houston Way, Frome, BA11 3EU. 0373 72739 (before 8.30pm please).

The Tandy 3000 at work

Our laboratory has been using a microcomputer system for report entry and retrieval since 1982. A 'report', for us, is the result of a diagnostic test for one patient and varies from under 200 to over 2000 characters of text. We produce over 10,000 reports a year, nearly reaching CPM's 8 Mb file limit by December, and need 'instant' retrieval of individual reports by patient name or number as well as batch searches on various combinations and criteria.

We started with a 20Mb S100 based system and dBase II. The S100 system (which it is kinder not to name) was chosen because it offered expandability to multiuser when we had enough money, and dBase seemed the quickest and easiest way of producing programmes that did what we need.

We had no real problems with the software once version 2.4 of dBase appeared. Not so for the hardware though. Our hospital is old and the electricity perhaps not the most steady and the computer varied from mildly temperamental to unusable for weeks on end. In fact the Genie III that was bought for programme development and emergencies spent so much time as the office working machine that we had to get a hard disk for that too. Eventually the S100 system collapsed dramatically in a cloud of nasty smoke (in the middle of one of my frequent, acrimonious phone calls to the supplier too. It was the only time I've known that gentleman at a loss for words). When returned to us it did no worse than hang up or corrupt files occasionally for many months but, predictably, these occasions became more frequent and so when we had some money again a replacement computer seemed to most urgent use for it. The question of course was what.

At that time the choice was either another CPM system or an IBM(ulator). We have no need (or use) for graphics or number crunching and dBase is noticeably slower on 8088 machines (see table) so the IBM PC family didn't seem to offer any advantage. On the other hand we were fairly near the practical limits of CPM and did need multitasking if not multiuser capability. Speech recognition and CD storage, both very desirable for us, seemed to be on the remote horizon too but clearly not for CPM. While we were still undecided the AT was announced and appeared to have what we wanted. A particularly bad couple of weeks with the S100 system came just as the Tandy 3000 was arriving over here - so enter our 3000.

The 3000 is Tandy's version of the IBM AT, but running at the faster 8 Mz speed of the new ATE. It comes with a 20 Mb hard disk and a single floppy which can work as either high capacity 1.25 Mb, or standard IBM 350K format. Recognition is automatic for everything except formatting, but of course special disks are needed for 1.25 Mb.

The actual machine consists of the usual 3 pieces - monitor, keyboard and 'works'. The main box is quite a bit smaller

than the AT with no particular provision for floor mounting (and you can't turn the logo round either) and fits comfortably among the clutter on the office desk. The keyboard is more or less standard IMB layout apart from very welcome indicator lights on the caps/scroll/num lock keys. The touch is nice and our secretaries like it. The combined cursor and numeric keypad system is heartily disliked by all of us though so the keyboard is being changed for one with a separate cursor cluster like the 4P. We tried both colour and monochrome monitors. The colour one is excellent, with a good crisp character set, entirely acceptable for text work. Unfortunately it has no anti-glare surface and we can't get away from windows in the office so we had to have the monochrome. A pity; colour is a most enjoyable way of wasting time!

Os and Neil delivered the machine over the Spring Bank holiday and I had it at home for a week to get used to MS DOS and make all the programme changes needed because MS DOS calls its floppy drive A: and insists that its hard disk is C: - all 20 odd MB of it - while the CPM hard disk has A: B: and C: (Leo is trying to configure a 16 Mb drive C: under CPM for us though). It then went to the office and has been running happily since. It is noticeably faster than its unlamented predecessor, even running our large dBase system. Our dBase batch searches take about half the time and anyway are now done as a background task while the secretaries continue entering new reports and dealing with phone queries and unexpected hang-ups and file corruption are just a nasty memory now. We have had one monitor fail, luckily on a Sunday and Blandford's usual efficiency had us working again the same day.

The documentation consists of three thickish manuals - DOS, BASIC and DESKMATE- and a thin User's guide. DESKMATE is a multifunction wordprocessor, spreadsheet and simple database which is bundled' with the 3000 and its manual is clearly designed so that even complete beginners can quickly do something useful with their system. I've not tried to use the BASIC manual yet but the DOS book is clear and helpful (and indexed). With the 3000 it seems that Tandy have at last accepted that it doesn't pay to be different - from IMB of course - even if your product is actually a lot better, as the 2000 was. We've tried a lot of software so far, both commercial and public domain, and the 3000 has run pretty well everything we've tried on it, including programmes like Borland's Editor Toolkit which is said only to run on IBM and very close compatibles . The only failures have been versions of programmes that only run under DOS 2 and so presumably don't work with the AT itself either. The 3000 comes with DOS 3.

We've now had the 3000 for about 3 months and it provides what we wanted - multitasking without loss of speed, reliability and expansion capability. There have been some minor problems of course - this seems inevitable with anything new. The monochrome monitor had not yet been modified for 50 cycle operation (although the colour one has) and needs a programme similar to HERTZ50. This wasn't supplied with the system and until Os

collected it from Tandy the screen was too wobbly for sustained use. The other niggle, which will presumably be there at least until the next release of DOS, is that the high capacity floppy format program refuses to work from the hard disk if we have 15 buffers, 20 files assigned as recommended for dBase.

These are minor criticisms though and in general we are very happy with the system. At over £2500 (get exact price) this is obviously not a machine for the private purchaser. For anyone wanting a computer for business use though the Tandy 3000 should provide an excellent system, backed by a firm which is unlikely to vanish overnight, at a price which is not that much more than many unknown clones.

Some 'benchmarks'

The Norton Utilities give the 3000 a speed rating of 8.4 times that of a 'standard' IBM (There is something of a bias towards Integer arithmetic in the Norton Speed Test - Ed)

My dBase 2 'benchmark' is taken from a charity covenants programme and updates 100 donor records. It involves money and date calculations as well as disk and screen i/o so is strictly a practical comparison and not a scientific one. For what they are worth though the figures, using dBase 2 version 2.43* European (the slowest version) were -:

Tandy 3000	Hard disk	3 min. 40 sec.	Floppy	7 min. 30 sec
Compaq	Hard disk	11 10	Floppy	14 33
Amstrad 1512	-----NA-----		Floppy	9 01
Tandy 4p (Montezuma CPM)	Hard disk	9 53	Floppy	15 25

Ariela Taylor

KERMIT - part V

In this final article on Kermit, we will take a look at the commands and facilities offered in the Kermit versions that are of most interest to us, ie. for the Model 1/3 (TRSDOS, NEWDOS etc.) Model 4 (TRSDOS 6.x), Model 4 (CPM) and Model 1000, 2000, 3000 etc (MDSOS).

The Table below gives a summary of the features that were considered 'desirable' for an ideal Kermit implementation and shows which are present in the various Kermits that we are most interested in.

Kermit Features

Feature	Machine / Operating System			
	1/3	4-TRSDOS	4-CPM	MSDOS
Local Operation	Yes	Yes	Yes	Yes
Remote Operation	No	Yes	No	Yes
Xfer Text Files	Yes	Yes	Yes	Yes
Xfer Bin. Files	Yes	Yes	Yes	Yes
Wildcard Send	No	Yes	Yes	Yes
⌘X/⌘Z interrupt	Yes	Yes	Yes	Yes
Fname avoidance	Yes	Yes	Yes	Yes
Time Out	No	Yes	Yes	Yes
8th bit prefix	Yes	Yes	Yes	Yes
Alt. Blk. Chks.	Yes	Yes	Yes	Yes
Term. Emulation	Yes	Yes	Yes	Yes
Set Comms	Yes	Yes	Yes	Yes
Transmit break	No	Yes	Yes	Yes
IBM (m-f) Comms	Yes	Yes	Yes	Yes
Trans. Logging	No	No	No	No
Session Logging	Yes	Yes	Yes	Yes
Act as server	No	No	No	Yes
Talk to server	Yes	Yes	Yes	Yes
Loc. File Man.	Yes	Yes	Yes	Yes
Handle File Atts.	No	No	No	No
Command/Ini files	No	No	Yes	Yes
Printer Control	Yes	Yes	Yes	Yes

In general terms the Model 1/3 version is the most primitive. It does not use a buffer, merely writes a sector to disk as it comes down the line. There is very limited terminal emulation and the help facilities are very poor. For example there is no implementation of Escape to fill in the response if that typed already allows unique interpretation. However the protocol implementation does work and with very little bother, the general ambience is just a little crude.

The MSDOS version is perhaps not surprisingly, the most sophisticated, although the Model 4 TRSDOS 6.x version is not far behind. The MSDOS version can act as a server, ie. you can operate it remotely, using another machine / terminal to control both Kermits. Both the TRSDOS 6.x and MSDOS versions can request

system functions of the server (ie. do a dir, change directory etc) when talking to a remote. The CPM and Model 1/3 versions can only GET and SEND files to a remote, system operation is not implemented. The degree of printer control is also quite varied, the Model 1/3 and CPM versions just copy it out to the printer as it comes over the line and just assume the printer can keep up. The TRSDOS 6.x version does some XON/XOFF handshake. The MSDOS version uses device re-direction and can put a transferred file to Disk, Printer or Screen but not more than one of these at a time.

For those who need it, the terminal emulation in the MSDOS version is excellent and the VT102 mode is superior to at least two commercial emulators that cost several hundred pounds. Both the MSDOS and TRSDOS 6.x versions can use .ini files to take a string of commands from the file at start-up as if they had been typed from the keyboard and are therefore easy to configure to a particular situation with minimum user interaction. Both these versions can also use TAKE files which are similar to .INI but used within Kermit to run repetitive tasks. With the exception of the Model 1/3, all other versions support wildcard transfer of files in both directions.

Although it states in the list that the ability to set communication line conditions is included, this is in fact very minimal in all Kermits, since including a lot of specifics to set up the RS-232 would ruin the portability of the implementation. Therefore most Kermits expect you to set up baud-rate, parity, etc external to the program. However all of the above versions allow you to alter the baud-rate. The parity / word length area is almost always the cause of initial setting up problems. If 7 bit word length is used the Kermit will often connect alright but will not transmit file, since it uses all 8 bits in calculating the checksum. Therefore even the INIT package will not get through. The proper sequence is: 8 bits, N parity, 1 stop

A list of the direct commands available in the MSDOS version at the Kermit> prompt are given below. You will actually see this list if you type the ? at the prompt.

Bye	(to remote server)	Log	(session to a file)
Connect	(to a remote host)	Logout	(to remote server)
Clear	(key definitions)	Push	(go to DOS)
Close	(logging file)	Quit	(leave Kermit)
Comment	(text is ignored)	Receive	(opt local fname)
CWD	(change dir &/or disk)	Remote	(prefix for commands)
Define	(a command macro)	Run	(a program)
Delete	(a file)	Send	(local file new name)
Directory		Server	(become local server)
Do	(a macro)	Set	(most things)
Exit	(leave Kermit)	Show	(various definitions)
Finish	(to remote server)	Space	(left on current disk)
Get	(remote file opt new name)	Status	(show main cond'ns)
Hangup	(drop DTR, hangs up)	Take	(do a command file)
Help	(show this list)	Type	(a file)
Local	(opt command prefix)	Version	(show Kermit's id)

Most of the commands are self explanatory but one or two need a little amplification. Bye, Exit, Finish and Logout are all ways of "quitting" but used in different circumstances. Exit just finishes running your local kermit and drops you at DOS READY. The others are used when connected to another Kermit operating in Server mode. Finish terminates the remote kermit but still maintains the connection. Logout terminates the remote Kermit and logs you off the remote system. Bye closes all connections and terminates your local Kermit as well.

Remote and Local are only in the MSDOS and TRSDOS 6.x versions and precede a whole set of sub-commands used for performing operating system commands on surprise, surprise the remote or local machines. Do and Define are involved with the operation of macros. The meaning of this much abused term in this context is the ability to define a new keyword which may cause the operation of a number of sequential Kermit commands ie,

DEFINE telenet set parity mark, set baud 1200, connect

defines the macro telenet which is then used by typing DO telenet when you want to set up conditions to access telenet

One command only in the MSDOS version is PUSH which will cause another COMMAND.COM to be loaded and run on top of the Kermit. This allows you to do all sorts of DOS things, run other programs etc. then with the MSDOS Exit command, return to the Kermit in exactly the same state as you left it. Its a sort of primitive multi-tasking where the job left behind stays dormant until you get back to it.

The SET command allows you to set up a whole host of things and configure the system to your particular application and circumstances. To give you a flavour of the range of options I've listed the major Set options below for the MSDOS Kermit.

Options available for the SET command

Baud or Speed	many speeds
Bell on/off	at end of xfers
Block-check-type	checksum/CRC
Debug on/off	display packets
Default-disk	
Destination	Disk/Screen/Printer
Display quiet/reg/serial	show cnts?
Dump filespec	screen to disk
End-of-line char	cr or whatever
EOF Ctrl-Z/NoCtrl-Z	␣Z ends file?
Escape char ␣]	or whatever
Flow-control	xon-xoff or none
Handshake	xon/xoff/cr/lf/bell/esc..
Incomplete file	keep/discard
Key	key + macro definition
Local-echo	on/off
Mode-line	on/off
Parity	even/odd/mark/space/none
Port for i/o	1/2/COM1/COM2
Prompt string	(new Kermit prompt)
Receive parameter	many things
Remote on/off	show xfer counts?
Retry	limit for packet send/receive
Send parameter	many things
Take-echo on/off	display commands?
Terminal	none, Heath-19, VT52, VT102, + many terminal setup param'ers
Timer on/off	time packet waiting
Warning on/off	if file renamed

Well, I think that must cover most aspects of Kermit. I think you will be seeing a great deal more of it in the future, not from me I hasten to add but as part of your general communication software. There are many comms programs appearing now which include the Kermit protocol not least being the very well reviewed shareware product PROCOMM which has in fact included 7 (yes seven) different protocols in its repertoire. If you want to get hold of a copy of Kermit, then Leo Knaggs care of Os House is the best person to contact for Model 4 CPM or TRSDOS 6.x versions, I think he also has an Amstrad version. I can supply Model 1/3, Genie CPM and MSDOS versions, and I also have access to the master tapes for many of the mini and mainframe versions - so if you've got a CRAY-11 hiding under your bed which will not talk to your Model-1 then give me a ring and we will send super frog to your rescue.

Geof Smith.

ZORLAND C - A REVIEW

I didn't believe it when a dealer friend of mine showed me a leaflet describing the Zorland C (ZC) compiler. It was claimed to be Lattice C compatible, supported the 8087 and 80287 maths co-processors, produced highly optimised code, used the DOS linker (therefore generated native code), was K & R and Unix System V compatible, could generate ROMable code, etc., all for £29.95! The aforesaid dealer owed me a favour so I actually got the package for nothing. I just happened to have a genuine IBM PC/XT with a hard disk cluttering up my desk (on loan for a job I'm doing), so I transferred all the files on the two disks supplied onto the hard disk and tried the compiler out. The documentation was rather crummy, but all the functions provided with Lattice C seemed to be present, as well as various goodies in the proposed ANSI standard such as enumerated data types, prototyping, passing of structures to and from functions, etc. I tried a small program, and the compiler seemed to work, so I thought I'd give it a real test.

I'd been using the Softfocus Btree package for some time with Lattice C on my QL, so I loaded the source code (about 150K in total) onto the XT's hard disk and tried compiling it. Much to my surprise, it compiled very quickly, without any problems. I was even more surprised when the test programs supplied compiled and ran perfectly. Error handling with ZC doesn't seem as good as with Lattice C: missing out the semi-colon terminating a statement resulted in several error messages, whereas Lattice C usually recovers quite well from that sort of error. Full text error messages are displayed. A nice touch was the display of the time taken by each phase of the compiler.

Several unusual functions are provided with ZC, such as a direct disk sector read and write function. I used this to write a little program that enabled me to transfer QL disk files (read as successive sectors) into PC files. It should be possible to read Model I/III/IV disks in the same way. A rudimentary text editor is included with the package, written in ZC, presumably. It's fine for beginners, but something much more powerful would be needed for serious users. Apart from the error handling, and the documentation, ZC seems just about as good as Lattice C, which sells for over £300 for the PC version. I haven't used Microsoft C, which is about the same price as Lattice, but I doubt if it's much better than ZC, although it does have what looks like a very nice debugger. At £29.95 ZC is a real bargain, and highly recommended. I'd like to check it properly against Lattice C on the PC, but I only have the Lattice QL version, and the Lattice 68000 cross-compiler, which runs on the PC, but only produces code for a 68000 machine. Perhaps another member with Lattice C on a PC or one of the Tandy clones would help me conduct some proper tests.

I got my copy of Zorland C from:-

D.S. Enterprises, 25 Trinity Rise, London SW2 2QP. (01-671 0209)

Leon Heller, Tel: 01-994 7976

SUPERCALC2 ON AMSTRAD 8256

As a long time user of VISICALC on a Tandy Model III, I found some startling differences when using Supercalc. In the main these were a greater range of facilities plus a great increase in speed, but even here the 8256 has not really enough memory available to cope with the bigger spreadsheets although compared with the 13K the Tandy offers it is some advance.

However to get back to the facilities offered on Supercalc2, arranged alphabetically these are:-

SLASH COMMANDS (/)

/Arrange -this is a very good Sort Program, which also adjusts the formula if desired, it also specifies the row or column range
/Blank - same
/Copy - copies blocks of cells complete with Adjust or Values only.
/Delete -as VC except deletes files as well
/Edit - as VC
/Format - mainly as VC but includes User defined format which gives such things as Blank for Zero, floating \$, embedded commas and scaling factor
/Global -F - displays formula, N - turns off/on curser advance (here I miss the VC enter which occurs with the arrow keys)
/Insert -as VC
/Load - can call up Directory and also load part only of program, also can consolidate and adjust
/Move - Row or Column to new location
/Output -Display - All contents - Printer/Disk/Overwrite
/Protect -range or active cell only
/Quit - to leave SC2
/Replicate - as VC
/Save - all/part/values only/overwrite
/Title - locks in Titles
/Unprotect - as protect
/Window -includes synchronise split-wise scroll
/X(e)ecute - creates files which perform SC2 operations automatically without any keyboard entry - this is something I am not familiar with but it appears to have great possibilities.
/Zap - empties all cells.

Functions

These are generally as VC, some additions being the Textual Values may be transferred and referenced as formula values, also Calendar functions are provided but these are (MM/DD/YY) format and so are not so useful. A Status setting appears at the bottom giving cell width, Memory, Last Row/Col, ? Help key, error message,

number of characters used in formula in current cell. Text can be entered over several cells provided they are not occupied or a blank cell can be protected to stop repeating character.

ENTRY GUIDELINES

Some differences are the dual use of Tab keys, they can be relocated by pressing the ALT and RELAY keys together, and E,X,S,D become the curser keys when used with ALT, this releases the curser keys to become a standard numeric key pad, this save entering numbers using the top row of the keyboard.

Another important addition is the use of the IF,OR,AND and NOT functions, this means a construction similar to basic can be used eg IF a is true, then b else c. In practice IF(D14<>0,MAX(A8:A13+1,0), That is if D14 does not equal zero (or is blank) then the highest number in the list has one added to it, otherwise none is added to it (ooh so that is what it means). Maximum characters per entry Numbers 16, Formulas 116, Test 115, again formulas can access formulas in other cells to extend range.

However in spite of this quantum leap from Visicalc I see that Supercalc4 has now been released which jumps again into the Lotus 123 field, however what we as a small business require is something very friendly which enables us to put in figures and to let the program do the rest, including sorting and invoicing as required, as I see it Supercalc2 is not yet at this stage - but again it may be that a few weeks is not enough to test its full potential.

In any case I would be please to hear from experienced users particularly with regard to the /X option so I can sort and print information as desired, the type of thing is three columns of amounts, sort them into monthly accounts , say 50 of them and print them onto invoices at the end of the month - and that is just the beginning.

JOHN JEFFERY. (Derby 881239)

Trials and tribulations with Ramdisks

After my first flush of enthusiasm I started to use my Ramdisk thoroughly and ran into some problems. Some of these are probably unique to me and I hope to be able to clear them up in the future but I have also found out something about Ramdisk working that may be of interest to 128K users.

The 512K upgrade does not give an extra 512k of Ramdisk but a total memory of 512K. 64K is taken out for the basic system or 128K in the case of banked programs like Pronto but you still get a worthwhile increase, with at least 350K approx of Ramdisk storage. Increasing the memory side does not do anything unless you have some software to use it and Seatronics supply two drivers which work like larger versions of the TRS-DOS 6 Memdisk. There are other drivers advertised in the States which may or may not work on the Seatronics expansion. I say that because the patches mentioned in the Natgug mag did not work but that may be my fault.

The two drivers available, are for TRS-DOS 6 and Newdos 80. This is not just a matter of personal preference. TRS-DOS 6 is needed for the model 4 mode programs and Newdos for those that are only available in III mode. (Spelchek, SIR etc). I found the TRS-DOS driver would not work with more than one file Random Access file Open on the Ramdisk but I could have a sequential access one. This seemed to relate to a problem with GET but also CLOSE which made it impossible to get round the problem by closing 1 before opening 2. Seatronics say the problem has been solved and have sent me a new version. (it would have been preferable if they had notified me before I complained and thus saved me hours of work. So far the new version seems to be working and certainly the problem with two files has been fixed.

The Newdos driver would not work at first and Seatronics could only suggest that I returned the driver in case it had got zapped on the way. More by accident I found that one of my DOS disks worked and others did not. There must be some subtle differences and as the ones that worked came from somebody else. I suspect I have applied a zap incorrectly or missed one out. At the moment I still not have discovered what is wrong but I can get the Ramdisk to work and it does not suffer the restrictions of the TRS-DOS version. I should mention that there have been versions 4.0 to 4.14 in Newdos but Ramdisk 6 is the first version for TRS-DOS 6.

The 1 meg installation in my model 4 is a sorry story but again this might be down to my machine. At first it appeared to be working and I could format a Ramdisk that could backup an 80 track DS drive. I soon noticed that I was having problems and eventually found about 250K worked while the rest was unreliable to the point of being useless. As there is very little technical information available it has not proved simple to find the fault but standard checks suggest that mine is a very early model 4 and there are several faults in the ROMS. I should add that Phil Haswell has not been able to diagnose the problem with the model 4 and has doubts

about the refresh rates of the chips supplied. This is further complicated by the lack of technical information given with the conversion. All I can say is that my 4p works quite well with the 512k conversion but my model 4 has not proved reliable over 250k. The conversion for the model 4 has been on sale for over a year and there have been no other complaints mentioned in the press, so mine may be the exception.

When manipulating files the RAMDISK is very useful but the method that you use is likely to affect the ease or time taken. This applies even more if you have to Sort a file from Memdisk to or from a floppy as can happen due to the limited size of the standard 64k memdisk. You could copy the data to the memdisk and then sort it back via an index or you can Get it in sorted order to a sequential file on the memdisk. I found that there is a big difference in the time take and the best way was to sort from the memdisk. I put this down to the fact that the memdisk does not have a head to move physically from record to record. I also notice a big difference in writing to an existing file as I normally delete files so that old data is not left from and earlier version. It is much quicker if the file exists because the head does not have to keep going back to the directory. The best way is to CREATE the file before writing to it, as the time saved on a large file can be considerable.

When you get down to using the Ramdisk it transforms programs. Especially with programs that use disks (surprise, surprise). If you search for a string in FED6 it will find it in seconds even if it is at the end of a 200k file. Spelchek is improved and allows you to check on screen without the frustrating waits. I had hoped to use SIR because it has overlays and lots of disk handling which should have been improved. Unfortunately it has been written so that the data files are on drive 1 and the overlays on drive 0 this is necessary with 40 track SS drives if you want a full disk file. You can put the data on the Memdisk or the Sys and Modules but not both. Thanks to Molymerx and Gordon Hatton I have now fixed SIR to work on the Memdisk to give one of the fastest data bases around.

One of the nice features of the Ramdisk is the silent working but in a way that is also a problem for the neurotic. If you Convert a file from ASCII or reverse in Superscriptsit, you know that it takes time. The periodic drive access lets you know that it is still working and has not crashed. Although the screen has that infuriating 'wait a moment message' we all know that the moment could be for ever because the system has crashed (why doesn't it play music while you wait). Using a Ramdisk will reduce the overall time to a third or less but it gives no indication that it is still alive. On other occasions things happen so fast that you think that it has not worked. Perhaps a future version will have a simulated drive noise like the electric clocks that tick.

The latest news from Seatronics is that there is to be a new Ramdisk driver for external Ramdisks. I have no further details but perhaps they are going to do a battery powered Ramdisk that I have heard about.

(Latest update to the story. - Ed)

Since the above notes were written, several things have happened. The 1 Meg version on the model 4 has proved to be unreliable but there are many strange things about that particular machine. It was an early cassette machine upgraded by an amateur enthusiast! I also found what appeared to be a bug in the Ramdisk drivers. The TRS-DOS one has been confirmed and version 6.1 seems to overcome the problem. The Newdos 4.14 seems to be a local fault as follows and it would be preferable to dump the previous copy that I sent you. An update and some other bits are enclosed.

I have traced my problem with the Newdos 80 driver but not actually found the answer. It appears that if I try to initialise the Ramdisk driver it ends up with a "wrong diskette record type". If I use the 4P disk breathed on by Peter Knaggs it works. Thus my master disk is wrong? BUT if I use the Peter Knaggs Newdos I get problems with Newdos file handling in Basic. I looked at the SYS setting and PDRIVES and both seemed correct and the same.

If I set up the Ramdisk with the zapped disk but copy the sysfiles from the other (the ramdisk supports ILF files), the system works beautifully and very fast. It is possible that I have corrupted my master disk when I did some of the zaps in the early days. Seatronics maintain that there is no problem with Ramdisk version 4.14 and although there are not many (if any) other users in the UK but I am inclined to believe them. This sounds complex but what I am trying to say is that the fault appears to be with my copy of Newdos which has been zapped incorrectly.

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