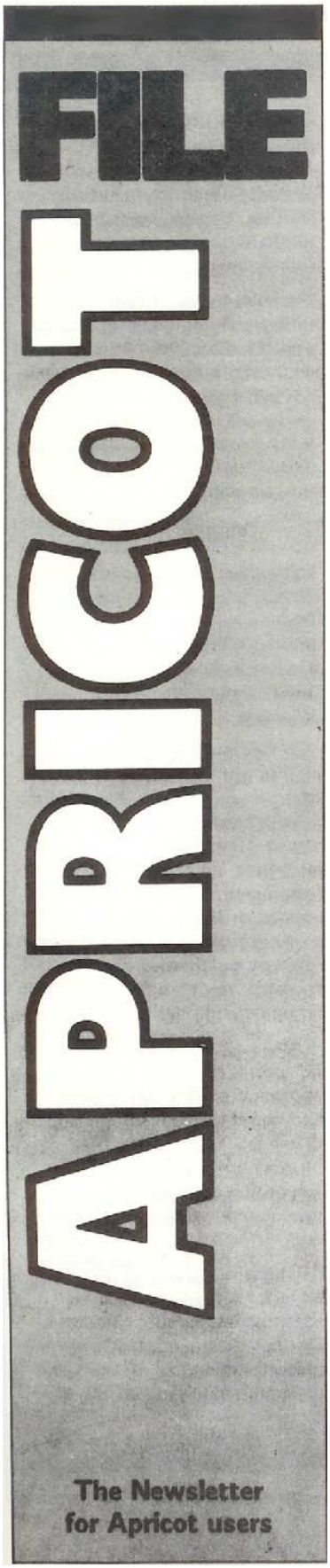
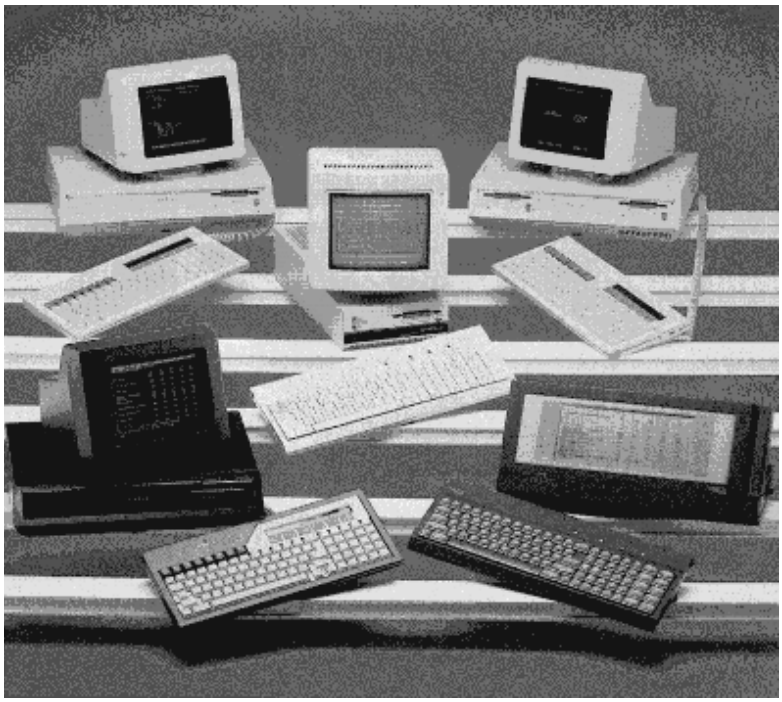


Apricot File 1_10



Scans courtesy of www.actapricot.org

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Many additional thanks to Eddie Bromhead for scanning all of Release 3, 4 and extra inserts.

Release 1.10

July 1986

FILE APRICOT

The Newsletter for Apricot users

Make more of Xen

Apricot adds more products

By Simon Potter

The concensus of informed industry opinion seems to be that Apricot is risking a good deal (and a lot of goodwill) by junking the Apricot line in favour of an AT-type machine at a time when Far Eastern AT clones are coming into Britain at prices well below that of the original IBM PC — and the original Apricot, for that matter.

But Apricot itself is claiming over 4,000 Xen sales to date (which probably translates as orders from dealers rather than installations at end users, but what the heck). And the company also says it took 1,500 orders for the IBM-compatible Xen-i in the week following the machine's announcement.

What's more, the company is steaming ahead with extras and gismos for Xen. A 50MB Xen-i is expected in the next few weeks to join the 20MB currently available; and a clutch of add-ons plus a couple of external deals have been announced.

The XEN-TEL package has finally been announced, which basically means the fancy-styled telephone has got BABT approval and the software has been sorted. The phone handset, which sits flush with the lefthand end of the Xen keyboard (but isn't attached to it), has a nice enough feel; the current approval means it must be used through a PABX, though, and for comms you need the internal modem plus Communiqué.

XEN-TEL software is more geared for telephone management, meaning tracking and costing of voice calls. It works within Microsoft Windows, and you can continue with a call while running other applications. The software can record date, duration and cost of phone calls; there's a 'card file' for name and address information, from which you can transfer numbers and other dial-up information into an automatic-dialling phone directory. XEN-TEL will retry on the busy signal, and will scan and retry a number of outstanding calls. What's more, it will work with US-type tone dialling as well as the UK's old-fashioned pulse dialling.

XEN-TEL costs £149, the internal modem will set you back another £249.

Also announced at the Xen's launch last year but hitherto unseen was the XP Expansion Box. This is now available at £199; it's an externally-connected unit that holds two full-length IBM expansion cards.

The External Floppy Drive is another nod towards IBM compatibility: it too is an external unit which can read or write IBM-format PC-type 360KB floppies or the PC/AT's 1.2MB disks.

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Write for us

We're always interested in articles and other submissions for publication — particularly product reviews, 'how-to' articles, technical tips and amplifications on specific packages.

If you have something you'd like to say, contact the Editor first to talk about it. Thereafter articles can be submitted in two ways — transmitted via **electronic mail** (Micromail, Telecom Gold, The Source, or Easylink): or in word processor format on **disk** (we can take Apricot, Victor and IBM PC disks. And we can handle most WP formats, but it's safest to send an accompanying hard copy too).

Material for publication should be accompanied where appropriate by a self-addressed and correctly stamped envelope or mailer. We'll do our best, but otherwise we cannot be responsible for the return of unsolicited manuscripts, disks, etc.

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■■■ ISSN 0268-6066 ■■■

Make more of Xen

The software driver for the box senses the density and automatically adjusts the mode accordingly. Apricot is asking £299 for this.

For Xenix users there are two new products — a four-port RS232 card at £299 (attach up to four terminals, though that's cut to two when network cards are also being used): and the T30, a rebadged Wyse WY-30 VDU terminal for £449.

Also new is a Hi-Res Colour Card, a kind of EGA for the Xen. You get a 640x350 display in up to 16 colours from a palette of 64; the controller also provides some drawing functions in hardware. The board costs £299, which isn't a bad price — it's not exactly Pluto, though.

Deals

One of Apricot's hopes for the Xen-i is increased international penetration. Well, for starters the major Middle Eastern trading group **Shotronics** has signed up to distribute the Xen in Saudi Arabia and 16 other countries in the region. The market is good for a total of 30,000 machines a year right now, but the potential is considerable.

And Apricot also has a kind of a deal with British Telecom on the Xen-i. Telecom has just signed with Zenith to sell PC-compatibles, but the Xen-i is reportedly to be "integrated" (whatever that means) with BT's Qwertyphone (telephone plus keyboard). No-one is saying precisely what this involves, but we'd guess that the resulting product might be marketed as a pricey large-capacity telephone management system with IBM compatibility for multiple-extension PBXs.

Meanwhile the abortive North American adventure appears to be bearing some fruit, if only in the form of lessons learned about The Right Way To Do It. The rump of the former Apricot Inc has set up as an independent distributorship in California (one of the two prime movers out there is amiable Ian Wallace, former head of technical support for ACT and Apricot in Birmingham); that company will have a non-exclusive distribution deal on Apricots.

In Canada there's a new distributor somewhat grandly called Apricot In Computers, an independent that is having Merrill Lynch organise a C$5 million share offer to finance its commitment. Apricot apparently expects AIC to sell 14,000 or so machines — worth £40 million — over the next three years.

Postscript

Tandy appears to share Apricot's view about the viability of their ill-fated joint venture into retail chains — eight of the 16 AT Computerworld stores (now wholly owned by Tandy) are to be axed because they're losing money. Eight stores and 56 people are affected. ◆

Writers in this issue

Dennis Jarrett is Editor of the newsletter. He was formerly the editor of 16 BIT COMPUTING. His books include THE IBM PC BOOK (not very thick), THE SIRIUS/VICTOR 9000 BOOK (very much thicker), THE ELECTRONIC OFFICE – A MANAGEMENT GUIDE (fairly thick), three titles about Commodore home computers, and THE GOOD COMPUTING GUIDE (*really* thick and very cheap too at £2.95 — or £3.00 inc P&P from DEALS FOR READERS).

Roger Gann works full-time running the DEALS FOR READERS section of the newsletter as well as contributing words, ideas, humour, hints, legal advice, spittle for mass-mailings, etc.

Lindsay Doyle escaped from the dungeons of MICROCOMPUTER PRINTOUT in the confusion following that magazine's demise, and had contributed just one piece to 16 BIT COMPUTING before that magazine also crashed. But we don't hold that against him: he now resides in a specially-furnished cell deep beneath the editorial offices of APRICOT FILE, and there he is motivated by the promise of occasional bread and water to generate a series of articles about using the Apricot PC and Xi.

Simon Potter is a business systems consultant with a speciality in word processors, file managers and spreadsheets. He says he'd like to like computers but can't find one that likes him enough to warrant that.

David St. John-Wallis is a sort of psychologist who runs an export marketing consultancy, sells bits and pieces for the Apricot, and writes *enormously* thick marketing books about the developing world which don't sell very well. He says the greatest achievements of his 44 years were getting a disk volume named after him and proposing to the Governor of Puerto Rico. We don't know if he was accepted.

Edward Bromhead is Reader in Geotechnical Engineering at Kingston Poly, where he uses a couple of Apricots to model the behaviour of soil slopes and groundwater (mainly using his own Fortran software and GSX). He specialises in earthworks (eg for motorways) and landslides (he predicted the collapse of Carsington dam in November 1983, it fell over eight months later).

John LeBrun is a (French) Canadian by birth but strongly European by inclination. Currently the Information Technology Manager for Bassetlaw District Council in Notts, he spent most of his life in the Canadian Air Force before retraining himself on computers. He says his hobby is "computers of all sizes, and wondering at new technology — though if I could get back to flying, which I can't, I'd jack the lot in".

David Hammant is the Financial Controller of a CAD-CAM company. He utilises Sirius and Apricot machines both in business and at home.

Doodles by David

Tips and tricks

From the working day

By David St.John-Wallis

The Apricot Bulletin Board

It would appear that many thousands of you have been trying with no success to access this worthy cause and source of free goodies using Communiqué.

All is not lost. Make up a file called ABB.ATC and (very carefully) put within it the following:

```
8NN0
YYY
YNNNYYYY
 1YL              3252
```

Just like that. Make sure it's in system format and not something even funnier. Put it on your Communiqué disk (or send money and get to find out how to put it on your hard disk). Then get into Communiqué Parameters and fill in the address and telephone stuff (the number is 0705 524805), go for '300' and 'T', forget about the sign on bit and all the ID stuff, and just put the letters 'ABB' in the attachment file. The pleasure you may derive from this may be greater than you have ever experienced.

Of course when you get into the bulletin board, register, and call up the 'O' option (all quite free) you will find that your cup runneth over.

Filth

Even if you live a pure existence — virginal, prone to blushing, with a fondness for Reinhold Gliere — you may (*faute de mieux*) suffer from what is well-known in the Apricot computer servicing trade as a "bleedin' 'orribly filthy screen". There is a hi-tech solution to this; it costs a lot or a little.

It's a lot if you employ Ern and Fred (from Computer Hardware Maintenance Payments Ltd, may its rank soul sink lower than whale dung and rot in purgatory until the Second Coming). Ern and Fred have huge hammers strapped to their belts, and are into hi-tech wot they learned by pressing buttons on their remote TV controllers to get *Coronation Street*.

The cheaper solution to the problem of the dirty mesh screen is to rip it off yourself. Here's how you do it. One: procure a small screwdriver and undo the screws at the back of the monitor. Two: gently separate the bits of mouldings and unscrew the four screws you will find within attached to the bit at the front. Three: gently lever away the glued mesh from the screen. Four: cast it into the outer darkness.

Then put it all together again. Lo! A greyish screen presents itself to you. Amazing, however, how quickly you get used to it.

Sincerely yours

What a bore to keep typing 'Yours sincerely, David St.John-Wallis for OMR ComputerS' at the end of SuperWritten letters. Make a file which looks like this:

```
Love and kisses
from OMR ComputerS



Awesome David
```

Save it to disk simply as 'YS' or 'L&K'. Then whenever you need to put my name at the end of your missives, you press ESC and I, YS and Return: and there it will be, as if by magic. Contemplative folk will note that you can do this for 'Yours faithfully' letters too.

Even more navel-studying will introduce the thought that you can use insert files to set up different formats at the top of letters and suchlike. This, for instance, produces quite a nice finish for one of my daisy wheels on A4 letterhead.

```
\cpi12,lw78,lm10,prop on,justc,pl72,tm0,bm0
                                    OMR ComputerS
                                          \%date\
                                        \%fname\
```

This kind of thing stops you messing around with SW.DEF files.

The problem with balls

OK. Take 12 balls. They look identical, but one is either lighter or heavier than the other eleven. You've got one pair of scales. In no more than *three* operations of the scales you must figure out which ball is the odd one out — and whether it is heavier or lighter than the others.

A chap who went tapir-hunting in Guyana told me this in 1978 because he thought everyone with a beard was pretty clever. It took me five years. Much, much tougher than it sounds. That means someone will solve it in five minutes. Oy veh. Life! Get it right and the next puzzle is to guess what the prize is.

What has this got to do with Apricots, I hear you cry. Hmm. Think how many Apricots there were in Georgetown in 1978? And how many will be there, or anywhere, next year? These questions are sent to try us.

Next month's treat

Now here's a chap who discovered that if something is twice as big as something else, the thing that it is twice as big as will occur with only half the frequency. Interested? You will be. Read next month's Doodles when I've figured it all out. Almost as fascinating as the fractals around David Langford. ◆

Technote

Symphony:

Printing address labels

By John LeBrun

The directions given in the *Reference* and *How-to* manuals for Symphony are not clear about the method for printing address labels from a database. Douglas Cobb's book *Mastering Symphony* is clearer but neglects to include instructions when using stationery containing more than one label across the web.

Symphony has the wonderful habit of scroll-printing as long as records are in the right format and the correct values have been included in the settings. But there are some preparations to make before a successful print run is achieved.

Setting up

Imagine a database of 100 records each containing one name field and two address fields. The labels are 5/6 x 3.5in, two across the web; the printer is set at six lines to the inch and the labels have a vertical gap between them that's equivalent to one printed line — vertical spacing is therefore six lines from one label top to the next. There is a 1/5in horizontal gap between each label.

Printer pitch is 10 characters to the inch, and we assume the first character prints at column 1 and the first character of the second label at column 38.

To achieve a smooth printing run it is necessary to split the initial database into two equal entities. Although the first database already exists, the second needs to be generated and its basic range adjusted to take half the initial database. Once this is done, it is simple to move half the records to the new database.

We will set up the label format in an unused part of the spreadsheet which has two columns free side by side — in this example we shall use columns L and M. Select the width of the column to be equivalent to the width of the label (allowing space for the horizontal gap between each label); repeat this for the neighbouring column.

Once the width is set, into L1 put the formula that will refer to the cell holding the first field of the first part of the database — +A26, for example. The reference to the second field goes into cell L2 (+B26, say); and L3 has the third field (+C26).

Repeat this operation for cells M1 to M3 using the second part of the database — so the cells might be +AA26, +AB26 and +AC26, if the second database had been generated in the range AA1 ... AC1.

The first records should now appear in a label-like layout where the formulae have been entered.

Once this is complete, use the MENU, QUERY, SETTINGS, NAME, CREATE command to create a new setting sheet from the one initially created with the databases. Use a name such as LABEL; cancel the Report ranges, and designate the Report range to the cells which now contain the label layout — L1 ... M6. The report range includes six rows because that is the vertical space required for each label inclusive of the blanks. Now attach this new setting sheet to the FORM window using the ATTACH command.

The print settings must now be modified to refer to the new database settings sheet. Use the SERVICES, PRINT, SETTINGS, NAME, CREATE command to create a new Print settings sheet, again using the name LABEL.

Stay in this menu: select the SOURCE, DATABASE option and specify LABEL as the database settings sheet from which to print. Because the labels will be printed on continuous stationery, select NO to the PAGE, BREAKS option. Check the margins, too — ensure that the left margin is selected to 1, or whatever value will be used on your printer, and the right margin to more than the total width of the two labels (otherwise page feeds will be issued which will ruin the print run. I suggest setting it to 240.)

Running the labels

You are now ready: select GO. You could however output the print to a pre-selected range on the spreadsheet and examine the results before committing yourself to a proper print run. If you do this you will note that although the output is in the correct label layout, Symphony has in fact created a long label positioned in the first column you designated in the output range.

You can also output to a disk file which will be given the extension .PRN. The contents will be in ASCII format, which may be useful when transferring the data to another program or if you use the print spooler.

When inputting records of names and addresses many users type only in upper- or lower-case letters to save time and prevent mistakes. If you want a little icing on the label-printing cake, don't use the simple formulae I indicated in the example above — +A26, +B26 and so on. Instead use the @PROPER function, as in @PROPER(A26). This will produce a conventional-looking printed address label with the correct distribution of capitals and lower-case letters. Use the same method on the other lines as desired.

You can also emphasise the last line of an address such as the town or postcode by using @UPPER(cell reference). This will cause that line to print in capital letters without affecting the look of numbers in the postcodes. ◆

Review

The Write Stuff

AnsibleIndeX reviewed

By Lindsay Doyle

Another SuperWriter product already from Ansible Software! *(And they're just about ready with yet another one, a Mk 2 ASD disk which we'll review — Ed)* If you have ever had to generate an index for your own or someone else's text, you know what a boring, laborious, error-prone task it can be.

Anyone who has ventured into the index in the Superwriter manual knows what I mean by error-prone. But of course Apricot was never in the top ten in that department anyhow. When the Concurrent CP/M-86 manual was perpetrated, they avoided making any mistakes by omitting the index altogether, at least in the version I have.

If the bumf you generate needs indexing, read on. If it doesn't, read on anyhow, as you never know when you'll be called on. In Salopia, where I am currently residing for my sins, the going rate for this kind of slave labour is 5p per index entry. Considering the ease with which the Ansible product allows the task to be carried out, a 2,000-word index could be knocked off in an evening; that would pay to stave off starvation for a fortnight or so. College students and the over-skilled unemployed take note!

What you get

AnsibleIndeX (I am told that Chris Priest thinks up these unprintable names) can contain up to two thousand word-entries per file. For comparison, the index in the Apricot *MS-DOS User Guide* uses less than 200. Each entry may be a single word or a phrase, up to 40 characters long, and may have up to 50 page-references. In my opinion, if a word needs 50 page-references it should be broken down into sub-references; so these parameters are more than enough for any job short of the *Encyclopaedia Brittanica* — though even that could be tackled with multiple files.

You can also apply thematic indexing, the indexing of paragraphs or other sections of text by their theme without regard to whether the word in question actually appears in the text.

Dummy indexing is catered for, too. This is the standard process in which the author provides the final draft of his or her *belle lettres* to the publisher with an unpaged index, and the printer's proof subsequently has to have the actual printed page numbers inserted (usually by the long-suffering author). If you have ever seen a printed index with one or more page references of '00', you know that whoever filled the dummy index was having an off day ...

How it works

To index a word or string of words, you start at the beginning of the document and use SuperWriter's REPEAT FIND function to step through the text, marking each occurrence with a block marker (for individual words) or two spelling markers (for strings).

As the program is going to generate page numbers for each word, it is of course necessary that you don't change your format after having indexed; or else a word might end up on a different page.

Files on the disk

AIX.COM	The indexing program itself
AIX1.COM	Another version for single-disk machines, faster but with lower capacity
PLAINKEY.KB	Optional keyboard with special characters for marking words to be indexed
PLAINKEY.COM	Special fast loader for it — also loads SuperWriter and restores the previous keyboard when exiting
SWKKEYS1.KB	If you have ASD and like this special keyboard, here it is again with the special characters added
SWKB1.COM	Special fast loader/unloader for it
SWKEYS2.KB	Another special keyboard from ASD, with the special characters added
SWKB2.COM	Special fast loader/unloader for it
ZAPMARKS.XQT	Deletes old markers before indexing
READ.ME	Comments, suggestions, updates
AIXOFF.XQT	Turns DS and DQM into special characters
AIXON.XQT	Reverts back to original functions of DS and DQM
AMERGE.COM	For single-disk users: merges partial indexes
AMH.COM	AnsibleMatcH — gives a wide variety of detailed checks on your work: very useful
ART.COM	AnsibleRepeaT — finds and highlights any two identical words lying next to each other, such as "the the"

Using block markers and spelling markers (respectively the dim slash, referred to hereinafter as 'DS'; and the dim question mark, 'DQM') for indexing means that they cannot also be used at the same time for their original functions. But for all practical purposes this only means that you should be through messing around with your text before you start to index it. Which is as it should be.

If you insist on indexing while you write, however, Ansible have provided utilities which enter special symbols instead of DS and DQM so that they can be used for their normal purposes while you work. When you are ready to generate the index, you purge the text of old SuperWriter-type DSs and DQMs and run an XQT file which changes all the special symbols back to the DS and DQM form which the indexer requires. A utility called ZAPMARKS rapidly purges a text of leftover markers: just don't use it on the document you have just finished filling with index markers!

Incidentally, Ansible have found still another undocumented SuperWriter function which works with FIND and REPLACE: you can use CONTROL F to enter the word at the cursor to be the FIND or REPLACE word!

Having marked all the words you want to index in your file FILENAME.ANY, you leave SuperWriter and run the AIX.COM program. This alphabetises your set of words and generates a file of words vs page occurrence called FILENAME.NDX.

This new index file is in SuperWriter system format, which means that you can subsequently pretty it up, modify it, or make additions with any word processor or editor or even display it with the TYPE command (or the much better SHOW command provided with ASD — SHOW flips forward and backward by page rather than scrolling forward only).

Last words

The 15-page instruction brochure provided is simple and lucid. The disk also contains a READ.ME file with the latest goodies as well as additional comments and suggestions based on early users' experiences. The files provided are unprotected.

The suite of programs is applicable to any configuration of hard and floppy disks, unlike several so-called commercial programs; and necessary disk changes, such as occur with a single-disk machine, are fully prompted. I found no bugs, and the price is reasonable: £86.50 including VAT and postage.

You don't need Ansible's ASD disk (used to be called PASD) to use AnsibleIndex, but who in their right mind would be using SuperWriter without ASD?

F Series users should have AnsiblePatcH, a command file which you run once to modify your copy of SuperWriter D1.09 or 1.03 so that the print directives and the like are shown 'bold' and the text is thin and readable instead of vice versa. This is available separately for £15 or in combination with AIX for £95, which I calculate gives you £6.50 extra to spend at the pub. ◆

AnsibleIndeX

Description:	Automatic indexer for SuperWriter text files
Supplier:	Ansible Information (and DEALS FOR READERS)
Address:	94 London Road Reading Berks RG1 5AU
Telephone:	0908 662759
Price:	£86.50 inc VAT and P&P (or with AnsiblePatcH for F series users at £95)
Configuration:	any Apricot
Conclusion:	Another winner from Ansible for SuperWriter users

Diary dates

On with the Shows

A round-up of potential relevance

July 1986

1-3 KBS '86 *London.* Conference and small show on Knowledge-Based Systems (*aka* 'Expert Systems'). *Organiser: Online, tel 01-868 4466*

16-18 PC User Show *London.* For users of IBM PCs and compatibles, of course, but much to interest the non-committed too. *Organiser: EMAP, tel 01- 608 1161*

August 1986

20-23 Officetech/Computer 86 *Kuala Lumpur.* Aiming to become Malaysia's premier office automation and computer show. Last year's event was pretty good (and pretty crowded). *UK contact: Overseas Exhibition Services, tel 01-486 1951*

September 1986

2-6 Comdex Australia *Sydney.* The down-under version of the the show for systems integrators. The US events are probably the key industry-watching exhibitions, but Comdex Europe this year was drab and there's no guarantee that the Aussie implementation will be any better. Australasia's market potential and a few more months of heavy competition in the PC/AT markets might have put some spice into the business by this date, though. *Organiser: Interface Group, tel USA (617) 449-6600*

3-7 Personal Computer World Show *London.* The ninth time out for PCW, which last year hit a new attendance record (63,000) but seemed a bit uninspired to us — at least as far as the business computing side went. Still, it is one of the few UK shows that are probably unmissable if you want a snapshot of what's going on in British microcomputing. *Organiser: Montbuild, tel 01-486 1951*

9-11 Telecomms Show *London.* Telecomms products for small businesses: it's modestly priced for exhibitors, so should attract some interesting options. *Organiser: Infotec, tel 01-580 4766*

15-20 Sicob *Paris.* The giant French computer show, heavily weighted towards bigger users and larger computers now that micros have been separated out into a Spring event. *UK contact: French Trade Exhibitions, tel 01-439 3964*

17-22 SMAU *Milan.* All-purpose office automation event, usually interesting. *UK contact: BETA, tel 01-405 6233*

30 Sept - 2 Oct International Expert Systems Exhibition *London.* Small, specific, probably still a bit previous ... *Organiser: Learned Information, tel 0865 730275*

Group Test

Cheap security?

Three Disk Utilities Reviewed: KEEP, DSBackup, MAP

By David Hammant

One of the most awkward features of using a hard disk is the need to back up files regularly, such that in the event of a disaster — and disasters *do* occur even in the best of situations — full recovery is possible with the minimum of work. Floppy disk users are of course faced with similar concerns, even if the size of the problem is more limited by the amount of data storeable on a single floppy.

To handle this, Apricot provides ARCHIVE and RESTORE. These utilities are better than nothing; but they're somewhat basic in function, and some of the earlier versions are prone to problems that can render the whole process useless.

Ideally, what's needed is a back-up-and-restore system that is accurate — but one that's also selective, menu-driven, and prompts a user to be sure that the instruction is valid and not the product of 2am exhaustion. In most situations where data is lost it's the result of a simple human error in inputting a command rather than the product of technical breakdown.

In theory, the menu approach will enforce a system of checking that each command is valid: and it will give you the opportunity to correct your typing errors and poor judgement before proceeding. If you're just entering instructions as a series of command lines, this kind of verification is not so easy to implement: the error factor is much higher.

All three of the disk housekeeping utilities reviewed here are functional in that they permit the object to be achieved; and all three are a vast improvement over the Apricot offerings.

Systems Workshop: MAP

MAP provides what is described as a pictorial representation of the disk. Once installed, it can be accessed at any time to display a list of directories with explicitly-drawn pointers to subdirectories associated with each directory.

The result is indeed an effective description of how the files on a disk relate to each other. The utility allows you to inspect the files inside each directory via a menu of commands run on the MicroScreen. From within this menu you can scan all directories for a particular file, delete files, copy to and from a directory, and copy to and from an external disk drive. You can even temporarily exit to MS-DOS and then rejoin the MAP at the press of a key.

MAP isn't simply a back-up utility, then. It's more of a general-purpose disk housekeeper. The back-up function operates through the standard COPY command via the medium of a window which shows an alphabetical list of the files present in the directory or subdirectory at which you're currently looking: you can scroll through this list in either direction to select files for copying. But there's no automatic selection, for instance to COPY only files more recent than a given time or date (there's no point in copying stuff if it hasn't changed since your last back-up).

Signalglen: KEEP

KEEP, on the other hand, *is* a full-scale back-up utility. It's a diskette index and maintenance program which archives files and provides an index accessible on the target disk. Each archive disk is allocated a disk number which is recognised from then on as the directory for the disk. This file is not copied across when restoring the data.

KEEP is not menu-driven, instead utilising a series of command lines that allows you great flexibility in deciding upon a systematic policy for archiving. There's a powerful range of command-line options which lead to an ordered filing system.

KEEP is easy to use and allows the deletion of files as a part of the utility as well.

Control Alt Deli: DSBackup

This piece of American software was originally designed for the IBM PC family and has now been released in an Apricot version. Unfortunately the copy provided would not run as it should, due apparently to incorrect configuration of the disk, and we didn't have the time to obtain a new copy. At least it *was* possible to use DSBackup, albeit via command lines rather than the menu functions.

From the excellent documentation provided the menu-driven system would appear to be a very powerful tool, one that has considered every aspect of the problem and keeps the user well informed of the options available and what stage of a particular function the program is at.

And as we demonstrated, DSBackup also has the ability to be accessed via command lines without the requirement for entering the menu system. Not everyone likes menus, and they can be distinctly frustrating to the more experienced — *vide* ACTIVITY.

Take your pick

All of these utilities would enable you to back up files or whole directories either via a menu or by use of command lines. None would copy system files, so a full disk archive would require a system copy in addition.

DSBackup and KEEP restrict themselves to the process of back-up alone, producing indexed copies of files that are specified by the user. They are obviously flexible tools that can give discipline to your archiving and thereby avoid some of the more frustrating accidents — and that alone is most desirable.

DSBackup and KEEP would both allow the creation of batch files for often-repeated archiving. This would allow users to create automatic back-ups only of files created that day, say, or only those with a certain name.

MAP is more complete than the other two in the sense that it provides a 'search' facility as well. But it's also a bit less complete than KEEP and DSBackup, at least for archiving: its back-up procedure is the weakest of the three offerings, providing no indexing system and no systematic method of archiving. It is rather more of a COPY utility put together in a clever package which allows the user simply to specify files for copy or deletion and has sufficient checks to prevent the erasing of files accidentally.

The packages are just as applicable in their use to floppy systems as to hard disks. I came across no function for archiving on a single-drive machine, though, so it looks like the owners of Portables and F1s will have to consider something else if simple copying is insufficient for their needs ...

Last words

The prices are all in the same area, so which one should you buy? KEEP works ok, but it lacks the menu approach which makes DSBackup so powerful. MAP is more of a general MS-DOS utilities package than a specific back up system, replacing such utility files as TREE and introducing a degree of security to the process of file deletion (you have to confirm before the erasure goes ahead).

Personally I favour DSBackup, particularly if you work in an area where inexperienced users are likely to be a problem. This package looks to be the most comprehensive of the three, and I would very much like the opportunity to look at a properly-formatted version as the functions indicated in the documentation appear to make it a very powerful tool indeed. ◆

DSBackup

Description:	Backup utility for hard disks
Supplier:	Ctrl Alt Deli
Address:	44 Brownbaker Court Neath Hill Milton Keynes Bucks MK14 6JH
Telephone:	0908 662759
Price:	£65 (or £130 for a 'Starter Kit' including software and 30 pre-formatted single-sided disks in a Perspex library case)
Configuration:	any Apricot with internal or add-on hard disk
Conclusion:	Probably the best buy, definitely the most comprehensive.

KEEP

Description:	Backup utility for hard disks
Supplier:	Signalglen
Address:	19 Sandy Way Shirley Croydon Surrey CR0 8QT
Telephone:	01-777 3864
Price:	£50
Configuration:	any Apricot with internal or add-on hard disk
Conclusion:	Does the job capably and efficiently.

MAP

Description:	General-purpose disk utility
Supplier:	Systems Workshop
Address:	Emery House 192 Heaton Moor Road Stockport Cheshire SK4 4DU
Telephone:	061-431 8008
Price:	£50
Configuration:	any Apricot with internal or add-on hard disk
Conclusion:	Not specifically a backup utility, but certainly a useful tool for hard disk owners.

Technote

SuperWriter with Juki

Symbols and accents with a daisywheel printer

By Brian Read

"Juki has an easy-to-set print wheel. Just drop it in and it works every time," says a brochure for the Juki 6100 daisywheel printer.

It also tells you that the daisywheels have 100 characters. When you switch on your printer you can run a self-test routine without any input from your computer. The machine will type out a row of 94 different characters. But aren't there supposed to be 100? Why have six been missed?

The 164-page Juki manual explains that these 94 "correspond in decimal equivalents to ASCII codes 33 through 126 ... the other six can be printed by using the escape codes ..."

Next you find that the Apricot keyboard lacks several of the symbols and accents which are on the daisywheel. You might be able to shout "Garçon!" at a French waiter, but typing it is a problem.

The answer to all this is both simple and frustrating.

It's simple because it's easy with SuperWriter to get your Juki daisywheel printer to print characters for which there are no keys. But it is frustrating because there are ten tiny switches in the innards of the printer; they are only 1mm wide, they're called DIP (Dual In-line Package) switches, and three of them have to be set in various on/off positions depending on which 94 of the 100 characters on your daisywheel you want.

And if you also want any of the remaining six, you'll have to study the two detailed technical chapters devoted to Escape codes in the Juki manual. I have — and none of the codes listed in the manual have worked for me yet.

But let's deal with the easy bit first. No matter what setting you choose for the DIP switches, you'll find that some of the 94 characters on your daisywheel are either not on your Apricot keyboard or are not printed from the keys they *are* on. To print one of these using SuperWriter, you have to type a control slash followed by the word 'out' and a number, with another control slash to end.

With the daisywheel I'm now using I must type 'control-slash out60 control-slash' — `\out60\` to give me a tilde. If I want to type that same symbol over the letter 'n' in the word 'se|or', I have to see `sen\out8,60\or` on my screen. (The '8' is the code for making the printer jump back one space after it has printed the 'n'.)

The instructions in the SuperWriter manual for using the 'out' command are difficult to follow, especially because they include spaces which should not be used. It's all tucked away on page 77 (but is not mentioned in the index).

In theory, the necessary numbers — the control codes — are listed in the ASCII Code Chart in an appendix of the SuperWriter manual. But to add to your troubles, you may find that these are not the right ones for *your* daisywheel. This is because miscellaneous symbols do not appear in the same position on every printwheel. The Juki manual also lists the codes ... but they seem to bear little relationship to my daisywheels.

You can discover which codes to use for each of your daisywheels by creating and printing a SuperWriter file which looks like this:

```
(Control slash)out33,34,35,36,37,38,39
(Control slash)out40,41,42,43,44,45,46
        ... and so on, up to 126
```

When this is printed you'll be able to see what each number has caused the wheel to print. Don't forget that you'll have to do this *eight* times to establish which codes apply to each of the eight possible DIP switch settings.

The Juki manual tells you that the 6100 can print "the characters that are specific to most alphabets, including English (American and British), French, German, Danish, Swedish, Italian and Spanish". 78 pages later it describes the eight possible combination of settings for the three switches I've already mentioned and you're advised to choose the combination for your country.

The daisywheel supplied with my 6100 was a Courier 10. If I set the machine for 'England', I can't get the cedilla or the paragraph mark: but I *can* type circumflex, grave and acute accents. In not one of the eight combinations will I be able to type all the accents I might need in German and French.

The Juki handbook says that I could get them by using Escape codes; but the instructions on these are so obtuse, or so technical, that I suspect many users will find them no help at all.

This is a pity, because on the whole the Juki manual deserves good marks for clarity. It also gives itself a pat on the back: "this manual will be a welcome guide because it addresses requirements on all levels".

Well, maybe: but not on Escape codes. ◆

Review

Clever, friendly, and cheap

The ideal Apricot word processor? Palantir reviewed

By John LeBrun

Palantir — the name comes from the far-seeing stone in Tolkien's *Lord of the Rings* — consists of three separate but linked modules: word processor, spelling checker, and a database which links to the word processor. The latter is an extra-cost option.

Palantir is aimed squarely at the small business and private user. But it is powerful enough and has sufficient qualities to be attractive to larger organisations and corporate users, particularly those which may be considering upgrading their relatively old-fashioned programs (WordStar?) or even those tempted to take the plunge into office automation.

The newest version of Palantir, 3.0, comes on at least two single sided disks. All the programs, including Filer, will actually fit on a double-sided 3.5in disk with about 20K left over. On single-sided single-drive systems like the F1E, it's possible to make the program share its disk space with the user's text files. Alternatively, since Palantir is not memory hungry, a 64K RAM disk can be formatted for text files instead.

Although Palantir does not operate concurrently, it is possible to run other programs from the Main Menu (version 3 has a pop-up menu displaying all the .EXE and .COM files on the disk). When the selected program has ended, Palantir reloads with the last document ready for editing. Generally, loading or saving documents is quick even for the floppy disk Apricot.

Using the word processor

A machine-specific keyboard file is provided and should be loaded before typing 'WP' at the MS-DOS prompt. The word processor loads quickly and, on the Xi/PC, the MicroScreen keys become live. Version 2 displays the Main Menu on the top screen line; version 3 uses a boxed area with options laid out in two columns. Other information about useable disk space, program and document drives, and size of document currently occupying the editor is shown clearly.

Options are selected either by using the arrow keys to highlight the selection followed by a Return, or by typing the option's first letter. These methods are used throughout the program.

The Edit option brings up the text input screen with the cursor positioned at column 1, row 1. The default ruler line is set up with the right margin at 65 and no justification. The ruler line format (and the ruler line default) is easily changed by selecting 'SET' (the HELP function key) followed by 'FORMAT' (the REPEAT key). A prompt appears at the bottom of the screen to guide you through the different options. Pressing CANCEL will invariably retrieve an awkward situation by returning you to the previous menu.

Loading an existing file using the 'READ' option up a menu at the bottom of the screen with all the text files on the default disk. Highlighting the appropriate file is done with the cursor keys; if this is followed by a further Return the file is loaded with all its ruler, printer and font defaults.

Palantir is not a true 'what you see is what you get' word processor; but the screen text is so close to WYSIWYG as to make little difference. The display is very good, particularly on the Apricot Xi/PC: underlined and bold characters show up well. The F series with its lower-definition screen obviously isn't as good.

Palantir also appears to be one of the few WP packages (maybe the only one) that is able to show on-screen the correct number of characters on a line when using a proportional printing font. This is done by continuing the line beyond the right margin before wrapping to the line below. This is live only when a proportionally-spaced font is loaded (via the SET Global function) and the character pitch is set at 0 — the package comes with a very large choice of printer drivers and printer fonts.

Although this is a fine facility, it can be off putting when trying to type text normally — lateral scrolling is very distracting. I found it preferable to input text using the standard 10 cpi format; then reformatting before printing with the appropriate parameters and font to produce the correctly printed document.

Editing

Editing text is fairly standard, but with some nice touches. The top left corner of the screen shows an arrow pointing left or right: its direction can be changed by pressing the SCROLL key. If the arrow points right, pressing 'DOCUMENT' (the FINISH key) will send the cursor to the end of the document. Arrow left and DOCUMENT will sent the cursor to the top of the document. Similarly, pressing 'SCREEN' (INTR key) and 'PAGE' (MENU) will position the cursor at the desired point in the text.

The usual find-and-replace facilities, selectable for single characters or for complete words, are simple to operate with good instructions as the option is invoked.

Formatting text is on the whole very straightforward by pressing FORMAT. Whole documents can be formatted when the cursor is on the top ruler line; formatting can be interrupted by pressing CANCEL.

Hyphenation help is also available with a 'hot zone' option activated when FORMAT is selected.

A new ruler line can be inserted at any point in the document. Rulers can include new character pitch, type of justification, tab and margin position

as well as a number of other options such as line spacing. Decimal tabs are available at tab positions set by the user or those on the default ruler.

Boxes can also be produced by using a combination of either the Shift or Control key in conjunction with the numeric keypad. The boxes will only be printed if the printer interprets the symbols correctly, though.

Deleting text is delightful. The standard DELETE and Backspace keys operate normally, and whole lines can be inserted or deleted by using SET or CLEAR (the UNDO key). Pressing CANCEL before pressing Return will prevent deletion.

A large chunk of text can be deleted by selecting SET then DELETE. Pressing the space bar will highlight the next word; or you can delete character by character or line by line using the cursor control keys.

Block operations

More unusually, deletion to a specified character is done by simply typing the character: a whole sentence can be deleted in this way by typing one full stop. The text to be deleted is always highlighted and the erasure takes place only after Return is pressed. A paragraph reformat normally occurs after text deletion.

Block moves are easy but slow (Palantir's UK office, where all Apricot software development takes place, is apparently working on this). If a block is 'lifted' rather than moved, the area from which it originated is left blank. Column Move is a new feature of version 3.

You can also 'name' a block of text with a .BLK extension: it can then be recalled at any time and in any document — particularly useful when distinct paragraphs or preset text needs to be inserted quickly and easily. There is no limit on the number of characters in a block.

Additionally there's a lexicon facility allowing a user to create up to 36 frequently-used sentences. This is useful but limited, with a maximum of 250 characters per entry.

Print formatting

Most print attributes are selected using single MicroScreen keys, as are right-justification and centring. Other print format controls provide for a double underline (which on some printers activates the enlarged character font), overstriking, overprinting, sub- and superscripts, soft and hard hyphens and hard spaces. Print attributes may be shown in clear on the screen by pressing SET followed by D; CLEAR D will return the screen to its usual display.

Pagination can be selected for automatic page breaks with or without widow and orphan controls or by the user selecting hard page breaks. Footers and headers — printed on all, odd or even pages — are also selectable, but page numbers will only print if selected in a header or footer line. The status line at the top of the screen indicates when the cursor is on a page break (NP) or an odd, all or even footer or header (FO, FA, FE) or header (HO, HA, HE).

There is also a NOTE facility which will not print but is used to show messages to the operator at print time.

The printing facilities are as good as on any word processor: the options include selecting document pages, number of copies, printer driver, first column offset and pause between pages. There is also a facility to make the printer act as a typewriter (the word processor comes full circle) which is useful for typing short notes or one-off envelope addresses.

Just being introduced is a printer driver configurator called PRINTGEN, which unfortunately this reviewer didn't have time to assess fully. If it works well, this could be a useful and valuable addition to the package. It could even set a new trend in matching WP packages to *your* printer ...

The spelling checker

The spelling checker Speller can be invoked directly from within the word processor. The dictionary consists of four .LEX files, one or more of which will load at run time depending on the amount of memory available. It is fast, big (60,000 words), easy to use and has the wonderful habit of giving a number of alternatives when it identifies a misspelling.

The concept of Speller revolves around word roots and derivatives (suffixes) rather than complete words. The program recognises possessives, too, and it lets you know if it encounters one. All this allows many words to be included without being unduly large.

Misspellings are shown in context with the offending word underlined. You can also make up your own files of special words which can be invoked at run-time. Adding and subtracting to the dictionary is very simple — which among other things means that deleting or replacing Americanisms is quick and simple, a matter of making up a standard word processing file with all the faulty words and using it when running the dictionary maintenance program. The same principle may be used to add words to the dictionary. It is also possible to make up a list of frequently mistyped words for Speller to correct — common transpositions, for example, like 'adn' for 'and'.

Mail-merge

The database module Filer is available as an extra-cost optional. Although reasonably priced at £110, Filer is quite powerful and easy to use; by itself it could be the subject of a full review.

Filer can create a bridge between itself and the word processor. In effect you can use it to produce a document template with all the mail-merge commands, including which data file to use.

But one of the most powerful functions of Palantir is the integral mail-merge facility. Again, it's easy to use; it is also pretty versatile — it

includes logical and conditional operators (AND, OR, NOT, IF) as well as mathematical functions to perform calculations at print time. Skipping, restarting or including other documents can be invoked at print time, too — for instance, IF NAME = "Joe" SKIP.

Commands are called by pressing SET and the letter C. A reverse video letter C appears at the beginning of the line. This can then be used to call up a data file: process logical operations: and/or merge text from other files stored on disk.

Variables that have previously been set are invoked by using SET V and typing the variable name. SET C commands such as GET can be used to input the Variable details, dates, name ,address etc.. when the document is printed by the operator. Comments which include variable names can be shown on the screen at print time.

Information

Help messages are available from the main menu. The messages are unambiguous and well laid out; there is even a complete pictorial representation of the Apricot keyboard with function-specific keys clearly labelled.

It's also possible to make up your own Help screens and menus. An organisation that uses specific layouts for its documents might for instance create Help messages to show them in detail. Unfortunately, this useful aid is not documented in Version 3's manual.

In general, though, the documentation is satisfactory (except for the silly way the Americans have of numbering their pages within sections rather than consecutively from the start of the manual). The WP manual comes in a loose-leaf format, is well indexed, and has clear diagrams. It is also Apricot-specific — a nice touch, that, particularly as most software houses seem to recognise only IBM machines.

Each section ends in a summary which is useful as a quick reference. This could be made even better with an index of summaries; a 'road-map' in the SuperWriter style would be more useful still.

The manual also contains two tutorials, each of three easy hand-holding lessons, which instruct newcomers to WP and build up the confidence of more experienced users.

The Speller manual is a bound document and follows a similar format. Pages are numbered properly here, but the summaries are omitted. Still, it is easy to use and here also a good index is provided.

Error messages, both for the word processor and the speller are normally displayed clearly on the screen. They are supplemented in the manuals in an appendix devoted to describing their meaning in details.

In conclusion

Palantir has been described as 'Son of SuperWriter'. Even if it was indeed written by the same person, the statement is misleading: there are numerous and substantial differences between the two.

Palantir may employ similar concepts (use of the ESC key to return to the previous menu, options which appear when selecting a command): but for that matter, so does Symphony. And if it does have genetic links with SuperWriter, natural selection has ensured that the better features have been passed on.

These make the program a delight to use. When coupled to the usefulness of the on-screen and written help, plus the wide choice of printers supported, Palantir scores very highly indeed. It is inexpensive, powerful, friendly, and can operate on all Apricots. The speed at which I have seen trained typists and trained word processing operators take to Palantir indicates that businesses, large and small, private users and training establishments could do well by buying it.

What else could you ask for at the price? Palantir should become one of the most attractive packages available for all classes of Apricot user. ◆

The bargain offer

There's a special deal currently running that provides all three packages on a lease agreement for £75 per year with a £50 deposit (returnable if you return the goods with a letter certifying no copies of the licensed package remain in existence).

If you leave the scheme after a year without returning the packages, the deposit is not refunded but your licence remains valid — so in effect the package was purchased for £125.

As long as you remain in the scheme you'll get hot-line support and free upgrades. A regular newsletter is planned, too.

Palantir

Description:	Word processor and spelling checker
Supplier:	Palantir Software Ltd
Address:	23-24 High Street Woking Surrey GU21 1BW
Telephone:	04862 29144
Price:	£285 for Word Processor plus Speller, £110 for (optional) Filer. Or lease for £75 per year plus £50 deposit: see box
Configuration:	any Apricot
Conclusion:	Easy to use and friendly, flexible and powerful, very few deficiencies. Good spelling checker, useful file handling module. Must be a good buy, particularly on the lease scheme.

Readers' Writes

Subscribers have their say ...

Foster child

Dear Customer,

Our recent statements to the press regarding the Apricot product range and our financial results have inevitably been reported with varying degrees of accuracy. As a valued Apricot customer, I would like to confirm the facts directly to you and to give you the precise plans for the Apricot range.

Firstly, I would like to clarify our current trading position. After recording our first loss in 13 years, Apricot still has a very strong financial profile and our year end results show that we have over £20 million in net assets including almost £6 million in cash. The company is currently trading profitably and is looking forward with confidence to a successful future.

You are probably already aware that we have announced our exciting new addition to the range, Apricot Xen-i, a highly specified IBM PC/AT compatible.

This product reinforces our move upmarket and reconfirms our declared future policy of providing sophisticated systems products within a multi-user environment.

Existing Apricot products will continue to be available as follows:

- Apricot Xen and Xen Multi-User are continuing in production and remain as an integral part of our range.
- The Apricot Xi is currently in ongoing production and will continue to be available for some months at new, lower prices of £1299 for the Xi-FD with twin floppy disks.
- The company guarantees to provide ongoing hardware, software and maintenance support for all Apricot products for a minimum of 5 years from the date of shipment.
- We have been careful to protect our existing users' investment by designing Apricot Xen Multi-User as a bridge between the original Apricot architecture and our compatible products. All existing Apricot products and our new Xen-i compatible range can be connected, providing our users with a logical upgrade path.

If you would like further clarification of any of the above points or would like further details on any of our new products, then please contact your Apricot dealer who will be more than happy to help you.

R K Foster
Group Chief Executive
Apricot Computers plc,
Birmingham

Cheap columnar printing

A tip for readers keen to rush out and by word processors that offer column formatting: for small jobs like club news or the odd pamphlet (and it's amazing just how much can be packed on to two sides of a single A4 sheet) there's a cheap solution probably already sitting in your disk library — the spreadsheet.

All spreadsheets include a limited text editor and have the facility to print in columns. Enter the text row by row until you have reached a pre-determined bottom of page: then return to the top, move to the next column, and keep on entering text down the page.

Justification is a bit of a pain as you have to keep an eye on the column counter or judge it visually: and don't print it out using a proportional-spacing printer, for the printer's own internal spacing tables play havoc with your carefully-inserted blanks.

G H Best, Winchester

For sore eyes

I have found that for the F1 with a colour monitor the most restful combination of display colours appears to be yellow on brown. Include this Basic program COLOURS in your AUTOEXEC file (as "MSBASIC COLOURS"):

```
10  ESC$=CHR$(27)
    'Escape code
20  CL$=ESC$+"z"
    'Clear screen
30  RES$=ESC$+"xG"
    'Palette reset
40  COL$=ESC$+"]"
    'Escape code for Palette
50  ENV$=ESC$+"7"
    'Escape code for screen
    environment
60  PRINT CLS$;RES$;ENV$;"1"
    'set full colour display
70  PRINT COL$;"08"
    'set background to BROWN
80  PRINT COL$;"1>"
    'set foreground to YELLOW
90  SYSTEM
```

Dr D N Harley, Chesterfield

Portable colour

I read about Mr Dutton's problem in the May issue. I have a Portable and use it with a homemade colour monitor: here is how I got it working.

First, on ACTIVITY disks type 'B-W' to switch between colour and monochrome. Once set up, that need not be used again unless you wish to change back.

Next press CONTROL and F2 to switch the display to the monitor (CONTROL and F1 to go back to the LCD screen, if you must). This will have to be done whenever the machine is Reset.

This is the wiring diagram for the colour monitor output port:

```
pin 1     [not used]
pin 2     red
pin 3     intensity
pin 4     horizontal
          sync
pin 5     vertical
          sync
pin 6     frame grid
pin 7     green
pin 8     0 volts
pin 9     blue
pin 4     horizontal
          sync
```

M J Norman, York

Book buys

I too was a natural for *Getting to Know Your Apricot* by Stephen Morris; well, it is interesting reading and it does explain EDLIN better than the Apricot manual.

The *UserPrompt Guides* I regard as essential reading; they are expensive, but they do explain how to use and alter CONFIG.SYS and ASSIGN.SYS (subjects not covered in the manuals).

There are two other books I can recommend. One is *MS-DOS User's Guide* by Chris DeVoney is well explained by an author who is enthusiastic about the subject and wishes readers not to make the same mistakes as he did. The other is *Introduction to Computer Programming: a problem-solving approach* by Hartling, Druffel and Hibing — which does exactly what the title says. It is published by Digital Press, a branch of Digital Equipment Co.

T Dawson, Prestwick

We second that view of the UserPrompt Guides. They are short and fairly specific, so if you want more than one or two of the titles you may find yourself laying out over £20: we think they're still worth the money, however. Details from 54 Stanhope Road, Swadlincote, Burton-on-Trent, Staffs DE11 9BQ.

Devoney's book we also rate very highly — in fact it's quite the best MS-DOS guide we've seen. It's American, of course (published by Que) but you should be able to find it in specialist bookshops and mail-order lists at a shade over £17.

Sydney Harrod at Apri-Soft-Exchange is doing a copy of another good title, Peter Norton's MS-DOS and PC-DOS User's Guide, with Apricot-specific annotations. This is undeniably knowledgeable, but it's very American (appalling cartoons etc). Sydney charges £12.95 inc P&P — write to 35 Tyler Avenue, Limavady, BT49 0DT.

ADR.XQT revisited

I found Lindsay Doyle's ideas in Release 1.8 for using the boilerplate technique quite ingenious — but I had great difficulty in getting ADR.XQT to work. On my F1 it is necessary to press '&', Return and then '&' to return control to the keyboard.

I also find it convenient to insert a second option. Instead of inserting the address file name in ADR.XQT, replace the filename with '& <Return> &'. You can then call on many address lists, which can be handy if Christmas is not the only subdivision you make (of course you have to enter the filename and then '& <Return> &' to return to the .XQT file.

Dr M J Harte, London

BIOS 3.1 and RS232 revisited

Yes, someone else has encountered Chris Chipperfield's problem with printing via an RS232 interface with BIOS 3.1. I mentioned it to my dealer, who was not as helpful as Mr Chipperfield's, and to Apricot who finally agreed that there might be a problem and said that they would refer it to research and development.

So delighted was I when the fix listed in your June issue worked that I set to with DEBUG and your February article on tiny COM files and produced the cleaner solution you requested. Here is a listing of an alternative program which can be called directly from AUTOEXEC.BAT without the need to run Basic as well:

```
MOV  BX,34
MOV  CX,0C
MOV  DX,01
MOV  AX,00
INT  FC
MOV  CX,0D
INT  FC
MOV  CX,03
MOV  DX,00
INT  FC
INT  20
```

I have found a solution for another printing problem but I would be intrigued to know if anybody can tell me *why*. The problem arose when I was trying to send the escape codes from a Basic program or dBASE II to set the form feed on a Diablo printer for label-printing. This should require CHR$(27) CHR$(12) CHR$(n), where n is the number of lines (at six to the inch) for the form feed.

This works with every number of n ... except 9, which just happens to be the number you want for a standard 1.5in label. The inspired solution, which also worked with an Epson printer, was to use 137 (128+9). But why?

Simon Rippon, London SW15

BIOS 3.1 encore

As Apricot dealers we were interested to read Chris Chipperfield's comments on RTS/DSR lines on the RS232/BIOS 3.1 interface. We discovered the solution last November when the Xen was launched — as Mr Chipperfield's suggestion, except that instead of using COM=12 and COM=13 we use COM=25 and COM=24.

As the majority of our software products are linked to serial devices, it is necessary to include a compiled version in the AUTOEXEC.BAT. We also found that any activity in windows would reset the RTS/DSR.

A letter to Apricot last November produced the reply that the problem was being handed over to R&D — where presumably it still is.

D R Vale
Sanguin Computing, Burton-on-Trent

Where is PRINT.COM?

There are considerable similarities between the Xen and a big-engined BMW — both have a hard driving seat which you come to like, and my goodness how they go! But unfortunately neither of them runs my favourite program, PRINT.COM, which I use to show me how badly-written my dBASE II program files are.

Why I am using dBASE II on a Xen when I have dBASE III is a long story involving the bizarre effects of BIOS 3.1 on the ladder-based programs, a deleted label area on my Xi20, and the loss of said Xi by the overnight parcels service TNT (tip: make private insurance arrangements if you're shipping by TNT). But the effect has been to put the invaluable facilities of PRINT.COM out of my reach — slick printing of a single file is easy with a batch file, but wildcard characters and queuing (why is the queue limited to only ten files?) are so useful.

To get to the point — can I patch my faithful PRINT.COM to work on the Xen?

Bruce Beacham, Budleigh Salterton

Not having a Xen just now (we're waiting until Dixon's start doing them free with Amstrad stereos) we can't answer this one. But we're working on it ...

Technote

Hanging Fortran:

Some more ideas

By Edward N. Bromhead

Further to my original review of six Fortran compilers in Release 1.2, I was interested to see Mike Beeson's additional trials in *Reader's Writes* (APRICOT FILE Release 1.9).

The Lahey Fortran 77L is one of two Fortran compilers that I don't have access to (the other is called Utah Fortran, and I have only seen it advertised in the US). Lahey F77L is similar in many respects to RM-Fortran in that it is a full-featured Fortran 77 implementation and demands the presence of an 8087 numeric co-processor chip.

Virtually all of the popular Fortran compilers for small computers were produced with the IBM PC in mind: and therein lies the root of the problem. The architecture of the IBM PC is different from many of the others, and particularly in respect of the co-processor.

Without a co-processor fitted, numeric operations are carried out using software routines in the library of the compiler. Obviously, at all times the 8088/8086 knows what's going on inside itself; so underflow and overflow conditions and other errors can be dealt with. 8088 and 8086 machines should handle these identically. When a co-processor is fitted, the host processor suspends operations while the numeric operation is carried out by its partner. (Although the main processor is idle, the total time taken is less — the 8087 performs numeric operations very much faster.)

At some point the 8087 has to indicate 'finished' or (sometimes) 'error occurred', so that the main processor can take over. There are several ways of doing this.

The method adopted by MS-Fortran uses interrupts. Here comes the first difficulty: the Apricot handles interrupts through a chip called the 8259 Programmable Interrupt Controller (PIC), the IBM PC doesn't. Microsoft Fortran is therefore waiting for an interrupt which it doesn't get, because the interrupt is hanging about in the 8259 and not being routed as the library functions in the compiler expect!

Microsoft has recognised this, because it is not an unique Apricot problem. Other machines have PICs — the Sirius, for example; and some have more than one. You must therefore customise your 8087 functions in the Microsoft library to accommodate the mode of passing interrupts.

I used versions 3.10 and 3.13 of the compiler. The next releases were 3.20, 3.30 and 3.31 — the latest of which I now have. Obviously I can't speak for the missing links, versions 3.20 and 3.30, although some facets of the developing solution to the problem are given in the documentation for 3.30 (which has actually become 3.31 via the addition of README files rather than new manuals).

In 3.20, there is an Appendix E which details patches which you can make to the library using DEBUG; and with 3.31 a new procedure is outlined. This is as follows. An assembler source file named EMOEM.ASM is given. This contains the error-handling routines together with comments on customising it for (some) different machines. Assuming you have the assembler, it can be modified (if it needs it) and turned into an .OBJ file. Version 3.31 also bundles the library utility MS-LIB; this can be used to remove the old EMOEM module and replace it with the new one. Alternatively, patches can still be made to the library using DEBUG — if you dare. Microsoft says it cannot provide support in this area. Note that the problem detailed in the query goes away if you use 3.31 of the Microsoft Compiler.

Clearly some of the other failing software uses interrupts which are not intercepted. In principle, you could modify the libraries for those too if you knew enough about the machine code. Where is Fortran's answer to David Langford?

Status and control words

I now believe my original suggestion about altering the status and control words to stop the crashing was wrong. But possibly the information will be of some use to somebody, so here goes.

In MS-Fortran, four bytes (two words) are reserved for a set of flags which control how the software handles such things as errors arising from numeric underflow or overflow. These flags are set and unset by switching individual bits in the 'status' and 'control' words.

It is all detailed in the MS-Fortran manual (for version 3.30 and later) or in a README file (for version 3.13 and earlier). You get access to the Status and Control words by calling one of four subroutines: two of these set the status and control words, two of them return current settings. Unfortunately, in the latest documentation the reference to one of the subroutines has been missed out; but you can discover what it is called by the use of a little imagination!

The Xen should perform better than the Apricot because it doesn't use the 8259, and is closer to IBM architecture in that respect. EMOEM.ASM makes special reference to the Xen, so maybe problems would go away if Mike Beeson got the latest version.

None of my dealers understand any of this, so Mike's probably doesn't either; I recently discovered Tim Ward of Harrison Ward Associates (they of the *Fortran Utilities* disk in the DEALS FOR READERS list). I'm sure he could be persuaded to sell them the upgrade.

Update

In **Digital Research DR Fortran** there is a bug in the libraries for doing overlays. DR supplies a patch to the machine code, but that assumes the use of its SID-86. If you're using DEBUG, add 100 to the addresses it indicates.

Microsoft MS-Fortran is much improved from my review. It now supports more full language facilities including COMPLEX, BLOCK DATA, PARAMETER, INQUIRE and arrays of more than 64K bytes. It also has CHARACTER functions, but still doesn't support LEN (length of a character string). It includes the ability to call C functions, and interfaces to Microsoft Pascal and C. There are more libraries with different ways of handling maths. Simple overlay structures are supported, but it no longer supports the little subroutines you used to be able to call to change arithmetic precision on the fly. It also has facilities to use shared files in MS-DOS 3. ◆

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This is our mail-order section, exclusively for readers of APRICOT FILE. **In the** DEALS FOR READERS **lists you'll find ...**

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- deals on Apricot hardware and software, typically useful items that aren't widely available
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Orders from outside the British Isles are at the same price. Anything we send abroad is free of the VAT sales tax, and since that 15 per cent levy just about approximates to the extra cost of overseas postage we thought we might as well simplify things.

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Contribute!

We're always looking for contributions to further £15 disks. So if you've written something — a game, a utility, a helpful batch file — why not share it with other readers? And if the ideas and techniques therein would make a useful mini-article for the newsletter, we'd certainly be interested in printing it.

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These disks contain public domain programs and text files which we have sorted, selected and tested. In many cases we have debugged, amended and documented the material too.

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MOVE moves files from one subdirectory to another
RENDIR rename subdirectories
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More indispensable tools and utilities. Highlights:
ASMGEN dissassembler
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Memory speed test benchmarks
Improved version of SETUP
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Apricot Disk No 5

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A total of 38 files plus full documentation — includes John Lyth's imaginative MS-DOS menu front end, a suite of dBASE II programs to control your bank account, CHECKER to verify inputting in MSBASIC, DEBUG.PAS, a clutch of Spellbinder utilities, IBMBASIC (BASICA to MSBASIC converter) ... and much, much more!

GSX User's Disk

Order no:	AP005
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The complete GSX tutorial from Lindsay Doyle — includes a library of ready-to-use Basic subroutines that drive GSX, a set of five printable Workshops in text form, many graphics demo programs, and Lindsay's improved HEXPAWN game IMPHEX. Now with an amended screen driver capable of supporting the Epson FX-80.

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Includes CLEWDO (solve the mystery), TRUCKER (get a cargo across the States on time), and some games for the younger Apricot user (SPELL and HANGMAN). Plus for the first time a GWBASIC version of STARTREK (noises and all) and BACKGAMMON. Some of these are unsuitable for F Series and Portables.

Games No. 3

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Only two games on this disk, but both excellent and quite realistic entertainments. GREAT BRITAIN LTD is a political-economic simulation — be Prime Minister, balance the books, win the election if you can. And INHERITANCE is an interesting investment/gambling game; you could get hooked on both!

GWBASIC Games

Order no:	AP010
Price:	£15

A miscellany of graphics-based games, some old and some new (some borrowed and some blue) — including some special sound effects and graphics demos. Highlights: OPERATOR (try running a large mainframe computer system), hunt for oil with WILDCAT, depress yourself with NUKE-LA and ALIEN.

Chess

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Only three games — but what games! For the first time on an Apricot, a challenging public domain chess game with superb hi-res graphics — even supports an 8087 if you have one. As an hors d'oeuvre we include a version of PACMAN, for dessert a golf game. A self-booting disk with a free bonus: the latest version of MS-DOS with BIOS 3.1. Now comes with a special character set for the Portable and F Series.

The dBASE II Disk

Order no:	AP017
Price:	£15

Full of dBASE II program suites. Includes programs to control membership records, a dBASE routine library, a label printing program, the ubiquitous mailing list program, a product tracking system, a form letter generator and sundry dBASE utilities. Essentially for keen dBASE programmers.

Programmer's Disk 1

Order no:	AP011
Price:	£15

Our first disk for programming fans. Star attraction is a public domain implementation of LISP called XLISP; plus fifteen Turbo Pascal routines and utilities, a C cross referencer, an MS-BASIC programmers' toolbox, a program line indenter and useful batch file utilities.

Programmer's Disk 2

Order no:	AP012
Price:	£15

Features BSU, a program to unprotect protected MSBASIC programs; plus Ron Cain's Small C compiler, a trio of cross-referencers for Basic and C, an ASCII-to-Hex converter, a GWBASIC core dumper, the appendix that Microsoft omitted from the MACRO-86 manual, and a C source code checker.

Lotus 1-2-3 Disk No 1

Order no:	AP013
Price:	£15

No less than 25 WKS templates for 1-2-3, including the Asterix suite of business worksheets, and the macro library MACLIB.WKS.

Lotus 1-2-3 Disk No 2

Order no:	AP014
Price:	£15

A heap of technical notes and external utilities for 1-2-3 plus seven WKS files including an address label macro and PRNTMENU.WKS to manipulate your Epson printer.

PC File III

Order no:	AP015
Price:	£15

Our first Public Domain application program — an Apricot version of the well-known general-purpose database/filing package. Menu-driven, great documentation (over 100K of it on the disk), superb power and speed, very easy to use; handles everything from mailing labels to multi-page reports. Exchange data with 1-2-3, MailMerge, many other WP and spreadsheet programs. Indexing on all fields, searches includes 'soundex', multiple selection criteria ... Complete with the latest IBM emulator (which is required). For BIOS 3.1 only.

Special software

These are not public domain items, and they are not discount deals on the kind of software your dealer will sell you. Instead we have gathered a few titles that (a) we feel will be useful to the average Apricot user and (b) you won't find easily — or at all! — anywhere else.

FAST

Order no:	**AS001**
Price:	**£25**

FAST is an accelerator for the Apricot screen: it bypasses certain screen interrupts. Simply running it in an AUTOEXEC.BAT will cause your Apricot to handle screen text up to twice as quickly. FAST doesn't affect CPU clock speeds and so it does not accelerate your graphics or supercharge your program execution times. But its effect on screen performance is pretty impressive.

FAST is very compact, less than 650 bytes; and it's modest price reflects that. For the money you won't find any better way of speeding up an Apricot with a single-line AUTOEXEC command. Not available for the Apricot F Series and Portables.

Polyprint

Order no:	**AS003**
Price:	**£30**

Pretty printing from your Apricot on any matrix printer — POLYPRINT lets you produce near-letter-quality printing (almost typesetting quality, in fact) on ordinary dot-matrix printers that are capable of printing graphics (which these days means just about any low-cost matrix printer). Menu-driven, uses only nine keys. Comes with 12 selectable typefaces, some of them very fancy. Accepts ready-to-print output from any word processor; will also work directly from WordStar files without your having to save them on disk first. You must specify which printer you have when ordering — POLYPRINT comes customised for particular printers.

Polyprint Plus

Order no:	**AS021**
Price:	**£20**

For existing POLYPRINT users only: 13 new typefaces and additional facilities including the new capability of mixing typefaces in the middle of a document.

The Apricot Catalogue

Order no:	**AS004** [ASCII]
Order no:	**AS005** [Cardbox]
Price:	**£50**

A list of all the software and hardware we know of for the Apricot with prices, addresses, description (with our comments when we have experience of the package), contact names and numbers (including Telex numbers) where we know them. Regularly updated by us; currently well over a megabyte of information on six disks. The ASCII format can be read by most word processors or simply TYPEd, the Cardbox format can be read by Cardbox Plus and comes with a .FRM format (but not with the file manager program itself).

A.S.D.

Order no:	**AS006**
Price:	**£57.50**

Formerly known as P.A.S.D.: this is the latest (and much improved) version of the first (and only?) independently-produced package of upgrades to and tools for SuperWriter. A packed disk, and a good piece of work. Highlights:

- two-column formatting and print
- expansion, improvements, corrections for the dictionary
- full documentation of SW.DEF plus a collection of useful formats
- improved (and more legible) display font
- keyboard configuration presets to speed up keying
- many XQT files to accelerate and simplify your routine work
- several batch files for disk housekeeping.

AnsibleIndex

Order no:	**AS022**
Price:	**£86.50**

Sophisticated SuperWriter indexing utility, even permits indexing of subjects and themes. Can handle documents chained across more than one disk, too. Only requires two marks per index item.

AnsiblePatch

Order no:	**AS023**
Price:	**£15**

Patches SuperWriter to improve the legibility of displayed text on F series Apricots and Portables.

IANKEY Crash Course

Order no:	**AS007**
Price:	**£48**

The very best keyboard tutor we've seen for newcomers — beats TOUCH 'N' GO into a cocked hat. Sensible design based on serious research; clear on-screen instructions; takes only three or four hours to teach the basics of touch-typing. Our review concluded "I strongly recommend it as excellent value for money" — especially from DEALS FOR READERS, because the normal RRP with VAT and P&P is £58.65.

IANKEY Two-Fingers to Touch-Typing

Order no:	**AS008**
Price:	**£48**

An alternative keyboard tutor — converts a two-fingered 'hunt and peck' typist into a fast user; and it does so without wasting your time, forcing you to relearn the keyboard, or boring you stiff. Included in the enthusiastic review conclusions, and again available from us at a price £10 below RRP.

FORTRAN Utilities

Order no:	**AS009**
Price:	**£50**

A collection of assembler utilities for MS-FORTRAN applications, complete with test programs and link instructions. Now features direct access to system calls and an interfaces to GSX. Also includes:

- set date and time
- current date and time
- get/change default drive
- delete/rename disk file
- read/get character from keyboard buffer
- print characters on printer

SSDISK

Order no:	**AS024**
Price:	**£15**

Fed up with the inadequate RAMdisk software that came with your Apricot? S&S has produced a RAMdisk which is configurable up to a full 896KB with 128 directory entries per 'drive'.

DO-TO-ALL

Order no:	**AS010**
Price:	**£15**

Handy for hard disk users and anyone with multiple subdirectories: DO-TO-ALL lets you issue just one command that is to be applied to all directories —

to delete all BAK files in your subdirectories, for instance.

■■■ NEW ■■■

TRAN File Transfer

Order no:	AS025
Price:	£86.25

Replaces The FTU in our lists because it's cheaper and appears to be as good. A superior file transfer package enabling you to transfer data between Sirius, Apricot and/or IBM via the RS232 serial port with speed and ease. TRAN handles subdirectories and features remote operation with the option of transferring file using XMODEM protocols. Price is for three disks covering those three formats.

The File Protect Pack

Order no:	AS018
Price:	£60

SECRET makes files invisible (or visible again) to DIRectory searches, READONLY sets the attribute bit so that they can't be deleted or overwritten, ENCRYPT encrypts and decrypts files according to your password, ZAP deletes them so thoroughly they can't be 'undeleted' at all.

UNDELETE

Order no:	AS020
Price:	£20

The essential brow-soother — will attempt to recover files that have accidentally been DELeted, and does so with gratifying frequency. Not for hard disk systems, though.

SPLIT Disk Partitioner

Order no:	AS021
Price:	£56

Infosoft's clever disk partitioning utility for Xi hard disk Apricots — lets you 'partition' the hard disk so that it looks like up to 24 separate disks, each with a drive identifier and each with a size you specify. Thereafter the 'drives' can be treated as if they were real ones for reading, writing, copying, renaming, deleting files etc.

MXDUMP

Order no:	AS012
Price:	£75

Another classy little number from the programming pen of Friedman — produces exact screen dumps from your Apricot display on a standard Epson MX dot-matrix printer. Once loaded it sits quietly in MS-DOS waiting for you to call it (with a single keystroke). Lots of options: specify text or high-resolution graphics, normal or bold, standard- or double-width: and more ...

The Lotus Pack

Order no:	AS013
Price:	£65

Useful utilities from S&S Enterprises for Lotus users:

- THEPOUND lets you use all the displayable Apricot characters in worksheets — including the pound sign
- SOLID123 consolidates several 1-2-3 or Symphony worksheets into a total
- TRANSPOS transposes rows and columns
- 123RANGE lists worksheet ranges.

The Printer Pack

Order no:	AS015
Price:	£40

Mainly for Epson-compatibles, mainly for spreadsheets:

- SIDELINE prints worksheets sideways so that wide spreadsheets fit on to the paper
- FXPOUND prints the pound sign on FX-type printers
- SETFXPR provides a set-up menu for printer functions.

The WP Pack

Order no:	AS016
Price:	£50

Four handy S&S utilities for word processing:

- WSASCII converts WordStar files to ASCII format so that they can be read by other word processors
- WORDNO word counter
- READAGE calculates the reading age (ie the comprehensibility) of text
- SEARCH searches text for a given phrase.

The First-Aid Kit

Order no:	AS017
Price:	£25

Just what you need to make your computer more palatable to novice uses — the DOSMENU front-end option choice menu and the HELP dial-an-explanation facility.

The Games Box

Order no:	AS019
Price:	£25

Two games from Alan Solomon: ADVENTURE is the original 'Colossal Cave', CASH CRISIS is 'Space Invaders' with money

Other extras

Good Computing Book

Order no:	AB001
Price:	£3.00

A tubby and packed paperback for beginners. Mostly a reference dictionary of computing terms, but also lots of introductory info. Claims to offer "everything you need to know and nothing you don't".

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- **let us know when you want the ad removed from the list!**

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Jobs

■■■ DEPUTY EDITOR REQUIRED FOR APRICOT FILE: Dennis is getting involved with new newsletters now that this one is established. Anyone interested in a full-time job (modest salary plus profit-sharing and a lot of fun) should write to him at our address.

Holidays

■■■ HOUSE TO LET in the South of France (at Agde, on the Mediterranean coast but well away from the tourists). Attractively converted 17th Century house with courtyard and roof terrace: sleeps 4-5. Local British management. July £200-£250 per week, September £125pw. Phone 01-352 5925 evenings.

Help

■■■ HELP FOR F1/F2/FP USERS: Gateway Users Group is new and exists solely for users of these machines. Details from Tony Hill at 85 Edna Road, Raynes Park, London SW20 8BS.

■■■ BIRMINGHAM AREA: any users of Apricot computers interested in forming a User Group for the exchange of ideas, software, etc please contact H Cohen on 021-454 2563 (evenings only) or write to 3 Fairlawn, Westbourne Road, Edgbaston, Birmingham B15 3TL.

■■■ SWITZERLAND: Apricot user would like to contact others, preferably in the Zurich area, to exchange experiences and help each other with problems. Contact John Solomir, Stockenstrasse 67, 8802 Kilchberg — phone 01/715 10 94.

■■■ HELP GROUP: Apricot users within striking distance of Reading, Berkshire, and interested in forming a friendly group to give and receive help on programming, communications, software packages and anything else legal are invited to contact David Holland on Reading (0734) 68860 — evenings only.

Sales

■■■ APRICOT F10, new. Price only £875 inc VAT. Contact Mr Cohen 021-454 2563, evenings only.

■■■ APRICOT Xi, as new and boxed. 10MB hard disk, 720KB double-sided floppy, 9in monitor; SuperCalc, SuperWriter, SuperPlanner. Cost £3,444 — will accept £1,795. Dust covers and Securicor delivery included! Phone 061-428 5975.

■■■ XEN multi-user system with two 256KB Apricot PCs and Oki Microline 193 printer plus Delta 4 (networked), SuperWriter, SuperCalc. Cost £9,000 in March, will accept £5,750 now. A first-class system, but unfortunately the business did not materialise ... Details from 031-445 2218.

■■■ APRICOT INTERNAL MODEM with MicroMail software. £130 ono, or swap for 8087 co-processor. Contact Mick Kelly on 0603 610584.

■■■ 9in APRICOT MONITOR green screen, black case, includes carrying case. As new, used only on Sundays, etc. Price £100. Contact Paul Lavin on 01-451 1951.

■■■ CARDBOX electronic card index system: no longer required, £75. Also once-used Apricot single-sided disks: boxed in 10s, £17.50 per box. Phone 041-332 2505.

■■■ TYPEWRITER/PRINTER (Olivetti ET121) with serial interface. Can be used as printer for computer as well as conventional typewriter — currently used with a BBC Model B, but never mind that! 17in carriage, excellent condition, several different daisywheels and coloured ribbons available. Helpful advice on its use can also be provided ... Best offer secures. Contact Mike Penny on 0594 516207.

Wants

■■■ CHEAP TURBO PASCAL WANTED by student, to help with studies. Write to Martin Norman at 14 Spurr Court, Foxwood, York.

■■■ LOAN OF PORTABLE DISKS WANTED — Dixons muddled up the disks I should have received, say there's two months delay on replacement, and have certainly omitted at least the Voice disk. Can anyone help? Contact Paul Anderson, 01-868 4499 ext 263 (office hours) or 02518 3470 (evenings).

■■■ DR LOGO — can anyone alter DR LOGO for the F1/F1e to run on the F2? I have tried Apricot dealers without success and the long-promised £30 DR pack still hasn't materialised. Contact David Stirling at 28 Ingleston Avenue, Dunipace, Denny, Scotland.

■■■ MOUSE WANTED for Apricot F1. Serial mouse preferred, but willing to consider infra-red Apricot mouse if cheap. Contact Dr Cartwright, tel 045 383 4576.

■■■ DATABASE/FILING PACKAGE (Palantir or Cardbox preferred) and A.S.D. Superwriter disk. Exchange IANKEY touch-typing tutor, GRAMMATIK grammar checker, PROOFREADER spelling checker (full working copies with documentation) — cash difference either way. Phone 095 786 261.

Contribute!

■■■ HELP WANTED BY APRICOT FILE — we need a clever assembler programmer with a Xen to write a short routine that slows down the screen display. All our games for the 8086 Apricots just zip by too quickly! Contact Roger Gann on 01-833 3501.

■■■ HELP WANTED BY APRICOT FILE — and another one: we have an excellent Chess game on the Apricot PC which needs converting to run with F1/Portable graphics ... Contact Roger Gann on 01-833 3501.

■■■ HELP WANTED BY APRICOT FILE — we have some good Sirius comms programs that need a little tweaking before they'll run on the Apricots (serial port addresses etc) ... Contact Roger Gann on 01-833 3501. ◆

User's view

GEM versus WINDOWS

Which is the better 'desktop' system?

By Edward N. Bromhead

I am always impressed when I see an Apple Macintosh in full flight: of course it has a fast processor, and a delightful little screen which surely *must* be better than an Apricot's ...

Actually, the screen isn't. It has nowhere near the resolution, but because it's so small you can't actually *see* the dots! Compare it to a little Apricot green-screen running Windows and you will come back to believing that 'Apricot is better'.

Nevertheless, there are some things that the Mac does extremely well — integrating text and graphics, and in the first instance generating low-resolution graphics displays. (I use the term 'low resolution' advisedly, because the Mac is absolutely useless for CAD work — the screen is far too small and its resolution too low.)

The other thing that the Mac environment encourages is a standard user interface. Every time you switch from SuperCalc to SuperWriter and curse the way the same function was on different keys, for instance, you surely feel that something akin to the Mac's WIMPS system (windows, icons, mouse, pointers) must be right.

Digital Research's GEM and Microsoft Windows are attempts to make the IBM PC and PC/AT look and behave like a Mac. Apricot has tried and tried to get a friendly front-end: MANAGER and ACTIVITY were the in-house efforts, but now the company offers GEM and Windows. The Apricot implementations of both are really an afterthought, as the international market must surely be looking the IBM way.

I came across Windows first, on a Xen I was loaned to do an evaluation. Everything impresses on a Xen: and the easiest package to get into is Windows Paint — so there I was, hooked. In a morning I prepared all the originals for a presentation I had to give at a conference the following week. I rushed to my dealer: "Give me Windows for my Apricot PC".

Well, it's not as easy as that. Apricot doesn't sell Windows: you get it bundled with the Xen or not at all. "But you can have GEM — it's the same thing". So I parted with the cash, and only two and a half months later took delivery of my 'GEM Collection'. In the meantime, I discovered that Windows works fine on a PC or Xi — but wait for it (and you really *do* have to wait for it) — it is mighty slow.

Windows

Of the two packages, Windows is the most different from the Mac. Each of the applications fits on a 'tile' on the screen; you are not led to believe that the latest application is overlaid on what you had previously.

When using a Xen or a green-screen PC/Xi, Windows is configured perfectly for you. Just type 'WIN' and you're off. Windows comes with the usual diary and clock utilities and an Executive game (or timewaster), together with a communications program, an appointments calendar (with alarm), and many other gimmicks. But the items of most use to the average person are Write, Paint and Clipboard.

Write is a fairly well endowed mouse-driven word processor. It allows the printing of text typed using multiple fonts and typestyles, together with graphics designed using Paint if you wish. All of the usual WP functions are there, mostly selected with the mouse, and with text in 'pull down menus' rather than icons (thank heavens!).

These menus have to be selected deliberately, and the mouse button must be held down while you highlight a selection — just like an old-fashioned roller blind, they spring back out of the way if you let go.

A Write document is printed out using bit-image graphics on a dot matrix printer. Printout is thus fairly slow. But this is done by building a print file with all of the graphics, which is then offloaded to the printer in the background; this system does mean that the processor is back to full power as quickly as possible.

On the Xen, print formatting is pretty quick. The PC/Xi does it at a much more leisurely pace.

Paint has a bigger selection of icons, incomprehensible until you spend a half day with the documentation. But it is probably a more useful facility than Write for someone like me who needs a method of preparing simple graphics and text for my lectures.

The same range of typestyles are available as in Write, but with a few more options — as befits a mainly graphics facility rather than a text-oriented application. Pictures generated by Paint can be transferred to a Write document, via the medium of a scratchpad store called the Clipboard, and sized or moved about thereon.

Windows has a large range of fonts and a huge range of sizes for these. In principle, therefore, Windows should be the basis for an Apricot desktop publishing system like the Mac.

Unfortunately, it doesn't work that way. Large text sizes are just scaled-up dot patterns and they look very jagged. You can pencil in the 'curves' (fat-bits in MacSpeak), but this is tedious in the extreme. Even using a laser printer, the same effect is seen: it is the result of the method of generating the text bit map. I suppose a dumb laser printer cannot compete with the AppleWriter, which after all has its own 68000 processor and a megabyte or so of RAM (*supposedly you can plug a keyboard-and-screen terminal into the Apple laser printer and use it as a stand-alone computer — Ed*).

I nearly made the mistake of buying Microsoft Word on the strength of a misunderstanding of the Windows documentation. Word comes ready installed with a PIF (Program Information File): this is the way a program is customised to run under Windows, if it isn't a specialised Windows application. According to the documentation it has 64 different fonts available, including Greek, Maths, Decorative and more: just what I want!

Regretably, although it shows a lot of features on-screen, its choice of fonts is restricted to those

that are native to the printer you select. So you use your freebie Write on the Xen and get 8 to 96 point letters even on a cheapie Epson; but your £400 Microsoft Word only gives you Pica or Elite ... Word on the Apricot is *not* comparable to Word on the Mac!

Windows Paint has one endearing feature — rubber band drawing. Using this you draw a straight line first, and then 'pick up' the mid point of the line which obligingly stretches into a curve. Even a dab MacHand was impressed by that!

GEM

Apart from the fact that my dealer took over two months to get it, the worst thing about GEM is the installation procedure.

This is done through the medium of a series of BATch files which frankly do not work. There are a couple of hundred lines of *.BAT files which basically copy the issue disks and add COMMAND.COM, stopping from time to time to run individual install programs ... or rather, they would if somebody hadn't cocked up the BAT files. The installation routine calls on you to take out the disk containing the BAT file and put it in the other drive: it then deletes some files and subdirectories on it, so that when you put it back in the original drive the procedure crashes out in a welter of disk change messages. At some stage in the procedure either the BAT file itself or COMMAND.COM is lost. From then on, things get worse. No wonder it says to use copies of the issue disks! A handful of Valium later....

And if you try to print the .BAT files to see what they're doing, your printer goes crazy. Some bright spark has put screen control escape codes in them to give fancy effects.

The only way I could get GEM up and running was to copy what looked like the driver files into a subdirectory of their own, and hacked at ASSIGN.SYS with trusty Wordstar — that much is a relic of GSX. I found that one of the install programs had put in the medium (*aka* low) resolution colour driver with a crafty little label saying 800x400 monochrome! After two days I still couldn't get rid of the icon which told me drive A was a hard disk; and each time I tried to run that installation program, something useful was wiped.

When you get GEM up and running (after a fashion), it looks much more like the Mac. Even the little box you select to Exit and the scroll bars used to size up the applications on screen look just like the Mac's; and Mac 'fat-bits' are GEM 'big-bits'! No wonder Apple sued DR.

The system's collection of miscellania includes a diary and a clock, which is digital (geddit?). Once again, the word processor and graphics programs are called Write and Paint. Graphics can be swapped from Paint into Write — just like Windows (or the Mac).

No doubt about it, GEM is a lot faster than Windows; there's an air of whizz-bang about it — every time an application is selected, the screen behaves rather like the Starship *Enterprise* going into Warp Drive. I suppose it beats looking at the blank space where Windows has wiped a square and hasn't got round to filling it in again. Odd though, the response to a mouse waggle gets that old hourglass fairly whizzing about on the screen in 'real time'.

Gem's speed is, however, achieved at the cost of a degree of elegance: Windows is a looker, GEM is a dog. Windows achieves this by putting black lines and letters on a green background: GEM is the normal way round. If you use graphics at all, try reversing the foreground/background colours and see the difference.

Then again all Windows' icons are large and not dynamically sized: GEM tries to put iconographic labels on the 'folder' icons it uses to represent disk files and subdirectories ... and it doesn't work.

The area where GEM looks much thinner than Windows is in the range of the available fonts for use with Write and Paint. You get only one font in four sizes (10, 14, 18 and 36 point) and they're only available in Paint. Pop-up menus and 'dialog' (*sic*) boxes use a weedy-looking font which doesn't align nicely with box borders.

The only real plus point is that GEM Paint uses a crosshair cursor instead of a special icon as the mouse pointer. This certainly makes the package seem to have a higher general resolution, but that may be illusory. There does also seem to be a bigger range of GEM applications (Graph, Draw and more) to add; but no doubt some extras will appear for MS-Windows.

In short, GEM can only be described as cheap and nasty in comparison to its rival, looking like a slightly faster version of ACTIVITY. I hated writing that: I normally prefer Digital Research's products to those of Microsoft. But this time it's no contest. In the end I took GEM back to the dealer (and with any luck I'll get my money back).

Last thoughts

All the desktop systems stretch the Apricot's processor, and response is slow. It is possible, but not sensible, to run Windows on a PC/Xi; GEM is runnable in terms of the wait, but is not as nice.

On the Xen you can run anything, but you're supplied with Windows. This has more features (certainly in the area of text generation) and it looks better. You *could* run GEM if you had one Xen in an office full of F2s and F10s and wanted compatibility.

If your Apricot was supplied with one or other of these desktop packages, stick with what you've been given — the swap isn't worth the cash, even if you can do it.

Forget it too if you have an older single-sided twin-floppy machine (unless you like the exercise of changing disks).

Neither Write program would substitute for a proper word processor, if only because neither could give a good enough print on any printer I tried. And mixing text with graphics as on the Mac desktop publishing system is still an illusion until either of these two packages come up with better text fonts, or until laser printers in general come with the AppleWriter's intelligence.

If you need a simple Paint program for preparing graphics with a certain amount of text, either system would do. It's just a shame that you have to have the desktop too.

In short — don't waste your cash. If you want to do desktop publishing, buy a Mac and an AppleWriter. If you want a tidy desktop, buy a Filofax and a pocket calculator. ◆

On the cards

Apricot has bitten on the Big Blue bullet; but it seems a fundamental redesign of the Apricot 'standard' would have been inevitable in any case from about October 1985 when the Xen was launched. We hear that as far as Sony is concerned, those 'revolutionary' disk drives that set the Apricot apart from its competitors are now obsolete!

While **JVC** drives of reportedly inferior quality are used in some F Series machines, **Sony** represents the sole source for the model of disk drive used in the PC and Xi. They're also used by **Hewlett Packard**; and it would appear that only when HP snaps its fingers does Sony get out of bed and restart the production line for these drives ...

Free Lotus magazine

Lotus customers are being offered six months' free issues of *LOTUS*, a big and glossy US magazine sponsored by the company but jam-packed with useful info on 1-2-3 and Symphony. We don't think the freebie is retrospective, but you could try asking — the mag is *good*.

CBASIC cockup

Lindsay Doyle's review of **CBASIC Compiled** last month kicked off by describing it as a **Digital Research** product. It is, too, but you might easily have been confused by the way the end-panel advised you to try *Microsoft* dealers for a copy. Don't be confused: Microsoft doesn't sell it (and probably doesn't want to). Apologies for the blunder.

World report

Despite all the whingeing from computer companies about a slump last year, the annual *Datamation* survey of the top 100 of them (reckoned to account for over 90 per cent of worldwide computer-related sales) showed a combined revenue increase of over 10 per cent. On the other hand, profitability *was* noticeably down, though the average return on sales was still 17.7 per cent; a fifth of the companies listed actually made a loss. **IBM** heads the overall table, of course, with 1985 DP revenues up 9.6 per cent at $48.5 billion — fully *seven* times as much as the no. 2 company, **DEC**. At no. 12 there's **Olivetti** with $2.5 billion; that represented a 19 per cent increase on all its DP revenues, but abstracting the microcomputer sales alone Olivetti showed a 113 per cent increase. That puts it behind **Tandy** and **Compaq** in the micros-only table, both of which also did well — gaining 53 and 39 per cent respectively.

Compsoft disappoints

The long-established British software house **Compsoft** has just turned in a poor set of end-of-year results, with turnover down slightly at £2.2 million and last year's £761,000 profit turned into a £50,000 loss. The cost of setting up five European subsidiaries has been blamed, but the main product — the **Delta** database manager — is probably getting a bit long in the tooth anyway. Diversification has included the graphics/authoring package **Domino** (IBMish machines only) and recently Compsoft started nibbling at vertical applications with a customised insurance brokers' version of Delta 4. And Compsoft has also done a deal with the Australian software house **Sybiz** to form a joint venture selling Sybiz's integrated accounts package **Book Worker** in the UK. That will be a competitive **£195**; it's aimed at firms with up to 50 employees and a turnover up to £2m (which sounds rather like Compsoft itself ...) The company is on **04868 25925**.

Kode performs

Swindon-based peripherals maker and maintenance firm **Kode** saw turnover drop £2.6 million last year to £12.3 million, but that was because it sold the **Byte Shop** retail chain. And that divestment probably helps account for a ninefold increase in profits to £920,000. Kode is reportedly looking for more expansion in the maintenance business, perhaps by acquisition; and it's to distribute the Wyse AT-compatible.

Cricket score

If you've ever wondered about the England cricket selectors' choice of teams, you might have thought that it was all done on a computer. Well, it seems the selection *is* done by computer — but the selectors then ignore the results. The **Priority Decision System** software from **Work Science Associates** was used by the TCCB to construct a team from data on 26 possible players, and the TCCB then selected a team that was "more or less completely different".

Watch your backs

There are two new Assistant Data Protection Registrars. One comes from the Crafts Council, the other from Military Intelligence. What can we read into *that*?

The Data Protection people (43 of them, plus 40 temps) have just made a second report to Parliament. Seems expenditure for the year was £1.7 million — below budget "as a result of late and low receipt of registration applications" — and income was a mere £352,000. By mid-June there were 136,000 registrations (so the belated publicity has apparently worked) from more than 250,000 registration packs issued. And yes, there have been "more than 60" complaints from members of the public.

WordStar amnesty results

MicroPro's November-to-May amnesty apparently produced a total of 750 illegally-copied disks. Most were singles, but at least one user sent in a batch of 50 ...

Apricot monitor

We think **Emco** still has the cheapest colour display for the Apricot at prices below £200, but **Compuser** (part of Morgan Crucible) has a new and good-looking 14in unit at **£245**. You get a pretty dense screen — 669x507 pixels — and a low component count (should make for reliability). Call **0689 47911** for availability.

Cheap Jack

Genial Jack Palmer at **Spaceheights** has what looks like a nice and easy stock control program called **JACKSTOK**. The price is nice, too — **£99**. We've asked for a review copy and will report; meanwhile Spaceheights is on **0305 771974**.

With our last issue you should have received an invitation to subscribe to our latest newsletter, OLIVETTI FILE. The new publication is very much in the style of APRICOT FILE; it covers primarily Olivetti's MS-DOS machines — the M24 in particular but ranging from the M19 to the M28. It will also be looking at Olivetti's AT&T-built Unix machines. Existing subscribers to TP Group are invited to request a free sample copy.