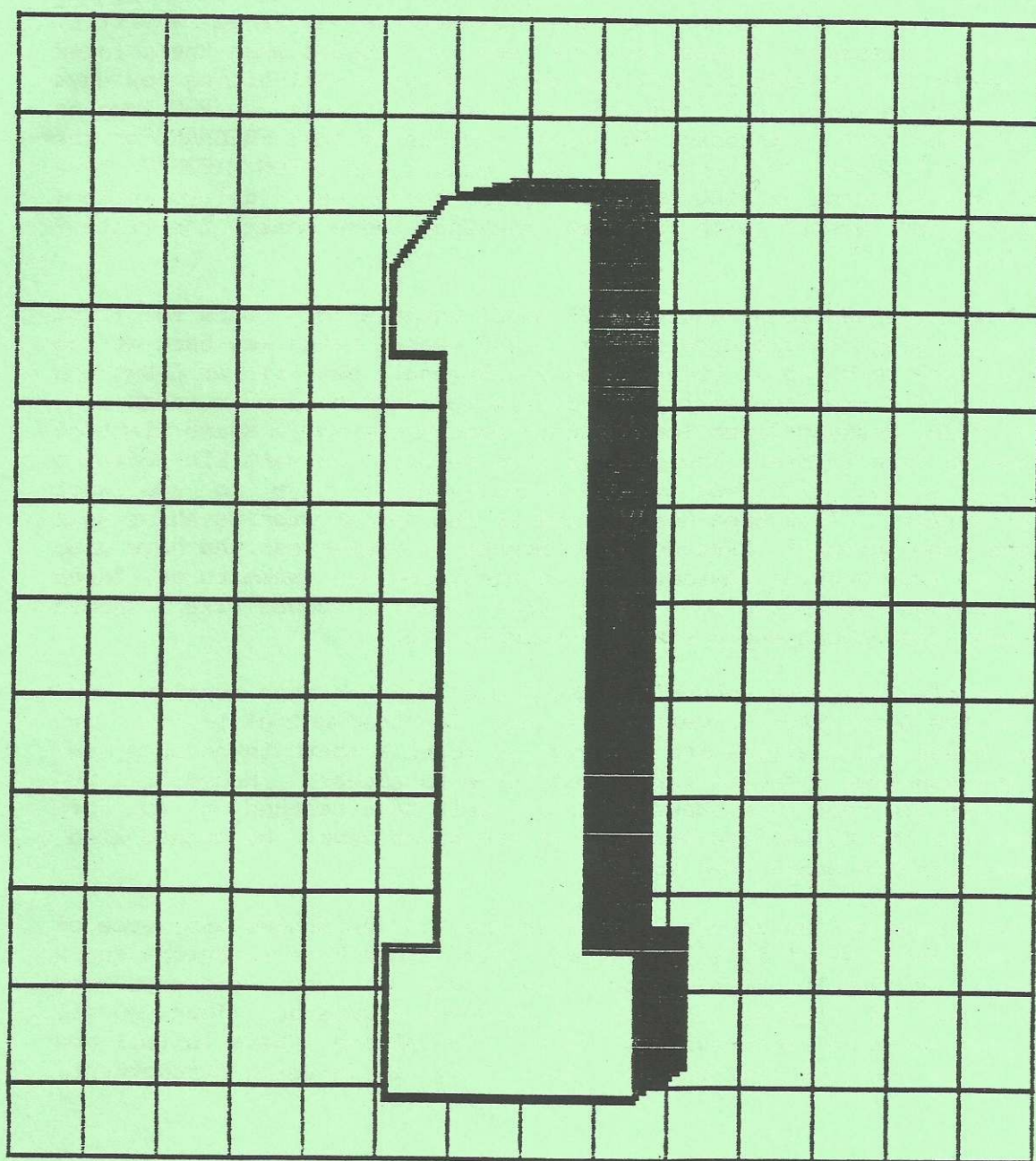




ISSUE



T.B.A.T.F.

Well, we made it, it was touch and go for a while, there were many obstacles to overcome, but we came through in the end, our mettle was well and truly tested, but we survived, there may still be a lot to do but the worst is over!

We've been decorating our kitchen! What brilliant timing! It had to be done (everything, walls, ceiling, floor, fittings) but it's held up the production of the mag so I must apologise if some of you are reading this a few days after 'mid-September' as promised in Issue 0! Two other factors have contributed to the delay as well. Firstly, I'm only just getting back into the swing of using 'VIEW' after a lay-off period of about 18 months so the layout has suffered a little. Secondly, disaster struck at the end of August when the printer decided it didn't want to play any more. After a nail-biting few days of trying to scrounge a temporary replacement it was a BBC owning friend who came up trumps! So thanks are due to TONY FREEMAN for the loan of his trusty (or should I say rusty?) old EPSON MX82F/T. I've been used to using an RX80 so here again there were delays while I familiarised myself with a 'new' machine! Here endeth the list of excuses!

So, what else has been happening? Well, quite a lot, since the first faltering steps to organise a user group were taken way back at the end of June this year. It's now an exceptional day if at least one item of E.U.G.-related mail isn't delivered! We've been in touch with BRIAN KIDD, Press Officer for the Oric User Group and a spare Electron is now on loan to him. The plan is that he will convert Elk software to run on an Oric and vice versa. We'll have to see what materialises! I've been hearing one or two horror stories about some of the now defunct Electron User Groups of yesteryear and have also received some helpful advice. The general message seems to be, "Keep your feet on the ground and guard your rear!". Sounds like I should get some lead boots and a strap-on dustbin lid.

Some people have been wondering why E.U.G. has not been mentioned in any of the Acorn mags - well it's not for the want of trying! It seems these publications are type-set at least a month in advance, so Ads and non-News articles take a long time to appear. Hopefully, by the time you read this, News of E.U.G. will have reached a lot of people via the Classified-Ads page of the Micro User. We should also be mentioned in Acorn User soon.

The next item on the agenda is Submissions. A few months ago, some of you received a short note, offering THIS Issue Free in return for a program or article which we could use. Some of you responded and should now be reading this having paid not a sausage. Thankyou all for your valuable contributions! Now, I'm afraid I have to tell you that it is just not practicle to make this an on-going arrangement.

At the moment - and I know it's still early days - E.U.G. is running at a loss (MINE!), so no more freebies for the time being I'm afraid. As news of E.U.G. starts to appear in the Acorn mags we can expect membership to increase dramatically and it's to be hoped that submissions will increase also. The more members, the lighter the burden will be on my shoulders, as having to wear umpteen hats (researcher, writer, compiler, type-setter, editor AND financier etc) is a drain on all my limited but gladly given resources. If we ever get to the point where E.U.G. starts making a profit, we can decide how best to plough it back, perhaps re-introducing free copies for contributors, or reduce overall subscription rate etc. Of course, before we start to discuss what should be done with potential profit we have to break even!!

Finally, I would like to invite you all to play a little game, it's called, "SPOT-THE-AWFUL-SPELLING-MISTAKES!". You'll find them, along with examples of bad grammar in liberal amounts throughout this issue. I must admit to having a wonderful spell-checker, her name is Alison, but she has been too busy to proof-read of late. (This was one of the last pages to be typed so it just might be error free.) Well, thanks for reading this far, hope you enjoy the rest of the mag!

Will Watts Sept.'91

E.U.G.

134 GREAT KNIGHTLEYS

BASILDON

ESSEX

SS15 5HQ

TEXT FILE SAVER

Long ago, way back in the mists of time, a small boy with scabby knees and a runny nose walked home from school clutching a large manilla envelope. It was addressed to his parents and contained his school report. Amongst the comments about the boy's unremarkable academic abilities was one which stood out. In the section labelled "HANDWRITING" the teacher had written two words, "HIGHLY ORIGINAL". This is a (boring) true story, I know, for, "I was that boy!!!" Even now, two hundred years after that tactful yet pointed remark first flushed my cheeks with shame, my handwriting is still atrocious (along with my guitar playing and taste in socks!). Thank God for the word processor is all I can say! (Although it can't help the strumming or footwear.)

It strikes me that some of you dear readers may feel the same way about your own pen wielding skills and if you don't own a word processor or printer, it might be preventing you from submitting letters or articles to E.U.G. Help is at hand!.....

The program below will allow you to type in text and will then save it as a *SPOOLED file. Compared to even the most basic text editor it's very primitive and you must ensure that every line is correct before you press return as you can't alter a line once it's been entered, at least, not straight away. The program adds line numbers to the saved file automatically so you can *EXEC it without getting error messages. This also allows you to edit the file as a program should you wish to make corrections.

Type in the program and save it as 'TEXTED' onto tape or disc. When you run it, you should be presented with a white mode 3 screen with a black "?" at the top left of the screen. Each time you press RETURN having typed in a line of text, a new "?" will appear below it.

In theory, each line could be over 200 characters long, but it's probably best to press RETURN every time the line of text nears the far right of the screen.

To end a typing session, enter the last line of your document as the word "stop", making sure all the letters are lower case and that no spaces precede or follow it. You will then be asked for a file name. Keep this short and memorable, type it in and press return. The file will then be saved onto tape/disc - as long as you have a tape in the recorder or a disc MOUNTED in the drive!

You can't load saved files back into 'TEXTED', instead you must *EXEC them into your Electron, having first typed 'NEW' to clear the memory.

Another advantage of text files submitted in this way is that they can be loaded into 'VIEW' and formatted straight away.

In spite of it's limitations, this is a handy little program, which is quick and easy to type in and can help the production of the mag no end! Please give it a try!

```

1 REM "TEXTED"
2 REM *****
3 REM
4 REM BY WPW
5 REM
10 MODE3:COLOUR129:CLS:COLOUR0
20 DIM A$(100)
30 PRINT""
40 n%=0
50 REPEAT
60 n%=n%+1
70 INPUTLINE B$
80 A$(n%)=B$
90 UNTIL B$="stop"
100 CLS:PRINT""
110 PRINT"Please INPUT a file name for this text""
120 INPUT text$
130 OSCLI"*SPOOL "+text$
140 FOR R=1 TO n%-1
150 PRINT;R+1000;
151 PRINT"PRINT";
152 PRINT"";
153 PRINTA$(R);
154 PRINT""
160 NEXT
170 *SPOOL
180 GOTO 30

```

+++++

If you don't own a 'VIEW' ROM cartridge or a printer, why not use this program to submit a contribution to the next or future issues of E.U.G.? Your disk or tape will be returned to you with the next issue, so you will only have to pay the postage 'one-way'.

+++++

PRINTER SURVEY +++++

We've had a number of enquiries about printers, mostly from potential first-time buyers. There seem to be so many models available, both new and second hand, that making a wise choice can be very difficult indeed! If you already own a printer, perhaps you would care to contribute to our survey, the results of which could be used to advise other Electron owners in the future. It would be a great help if you could send the following details about your machine:-

MAKE AND MODEL *THE PRICE YOU PAID* *NEW OR S/HAND?* *DETAILS OF PAPER MANAGEMENT - FRICTION/TRACTION/SHEET FEED* *EASE OF USE - DIP SWITCH ACCESSABILITY ETC* *TIME TAKEN (in seconds) TO PRINT AN A4 DOCUMENT IN DRAFT MODE - DITTO NLQ MODE - TIME THIS YOURSELF IF POSS PLEASE!* *BUILT IN FONT OPTIONS* *GRAPHICS CAPABILITIES - ANY TROUBLE WITH SCREEN DUMPS?* *HOW HELPFUL IS THE USER MANUAL?* *HAS PRINTER EVER NEEDED REPAIRS - IF SO, WHAT?* *WHAT IS PRINTER'S NOISE LEVEL?* *ANY OTHER COMMENTS ON YOUR MACHINE*

We would also like to hear from anyone who has bought a printer and is dissatisfied with it's performance - why would you NOT recomend it to anyone else. Please help if you can!

* B I T S A N D P I E C E S *

NEW 'SAM' SOON
=====

SUPERIOR the company that has been producing quality software for the Electron for many years, looks set to continue the good work in the foreseeable future! "PLAY IT AGAIN SAM - 16" (release date unknown at time of printing) will contain at least one new and previously unreleased game called VERTIGO. Other titles included in the compilation have not yet been revealed (to E.U.G.!) but it's a pretty safe bet that SAM 16, like it's predecessors will be a bargain to look out for!!

ELK PD !!
=====

AFTER stating in issue 0 that no Public Domain software libraries devoted to the Electron existed, one materialises out of thin air just to prove us wrong! Elk owner ROBERT COOPER has set up "ELECTRON P.D." in order to share his impressive software collection with fellow users. At present Robert cannot provide software on 5.25 disks but 3.5 ADFS and TAPE users can make selections from his catalogue. More info on the P.D. page.

OIL DRINK TO THAT
=====

Did you read the rather interesting claim made by the manufacturers of "WD40" in a recent issue of New Computer Express? They say you can extend the life of your printer ribbon by spraying the lubricant - usually associated with damp car engines on winter mornings - into your ribbon cartridge and leaving it overnight. Apparently, this causes the the particles of ink to redistribute themselves from the unused outer edges of the ribbon to the middle where it's needed. Has anyone tried it?

WOT? NO SOFTWARE?
=====

STEVEN MITCHELL has written to E.U.G. expressing his annoyance with software developers (EXCLUDING 'Superior!'). He feels that we should all make our voices heard by companies such as OCEAN who still seem happy to support the SPECTRUM but appear to regard the Electron as a 'NO-GO' area. Steven has suggested that we undertake a mass protest by post in the hope that we can bring about a change in attitude. What do YOU think?



STILL happy with your faithful old
Acorn Electronic specific group?
Send large SAE for details to: Will
Watts, 134 Great Knightleys,
Basildon, Essex, SS15 5HQ.

=====

1. **Author(s)**: [Name(s)]
 2. **Title**: [Title]
 3. **Journal**: [Journal Name]
 4. **Volume**: [Volume]
 5. **Issue**: [Issue]
 6. **Page(s)**: [Page(s)]
 7. **Year**: [Year]
 8. **DOI**: [DOI]
 9. **URL**: [URL]
 10. **Accessed**: [Accessed Date]
 11. **Keywords**: [Keywords]
 12. **Abstract**: [Abstract]
 13. **Notes**: [Notes]
 14. **References**: [References]
 15. **Comments**: [Comments]

```

931 PRINT "What name should this procedure have":PRINT:INPUT procname$
932 PRINT "What file name should this""sequence of characters be
saved as":PRINT:INPUT name$
933 CLS:PRINT':OSCLI"*SPOOL "+name$
934 PRINT "20000 DEF PROC";procname$: n%=0 : V%=(this%-1)
935 lineNo%=29990
1075 PRINT "30120 ENDPROC": *SPOOL
CHANGE line 850 to read,
850 lineNo%=lineNo%+10:PRINT;lineNo%:"VDU 23,":V%;

```

LETTERS

I was most offended to read your rude and un-funny description of Spectrum owners in my nephew's copy of your first issue. We are not all "Young lads of about 10 or 11", nor do we all roller skate around shopping areas wearing moronic expressions as you implied. I for one, am in my mid-forties and have used my Spectrum for serious purposes for over six years. Your descriptions of other computer owners were no better. May I suggest that you think before you print and above all, that you grow up?

Laurence Shaw, Warrington

Sorry Laurence, the remarks made about other computer users were meant to be lighthearted characatures drawn from casual observations. I'm sure most people regarded it as a harmless piece of waffle, all the same I apologise for any unintended offence which they may have caused*

Many thanks for EUG issue 0. I thought the result well worth the effort. After the 'taster' I look forward to the 'main course'..... I've sent a cartoon which I hope will be of use. I got the idea from issue 0. It's based on observations in a well known newsagents and in a games store. A little immodest perhaps but then why hide your light under a bushel? I couldn't think of a suitable comment for it, but if anyone has any ideas.....

Jack Warburton Carlisle



MORE →

Shall we ask Mr. Shaw for some suggestions? Perhaps not We probably couldn't print them anyway! No need for modesty Jack! Thanks for the piccy and the article which also appears in this issue.*

I thought issue naught was okay, but I didn't see any mention of assembly language articles being featured in the future. This is something which interests me greatly and I bet a lot of other people would be interested in it too.

Niel Rawlings, Folkstone

Ahhh! Slow torture by mnemonics! But seriously, would anybody care to write an article or ten on the subject of assembly language, preferably starting with some really elementary stuff so that even an idiot like me could understand about 10% of it.....?*

Your name was passed to me over the air, being a radio amateur with 55 years experience in electronics. Since my retirement I have become 'hooked' on computers. I have just finished a complete rebuild of a Dragon Computer, twin disc drives and a daisy wheel printer. I am now about to start on an Electron, so what I'm after is a manual and a circuit diagram if possible. Our local 'Brain of Britain' tells me the Electron will run most BBC software.....? Is there any amateur software available?

J. Brown G3 LPB, Cornwall

I assume that G3 LPB is your call sign Mr. Brown. Are there any other Electron owners who are also radio enthusiasts? If so, why not contact John for a chat? Can anyone help with a spare manual or even those circuit diagrams? If so please write in and we'll pass them along*

I found your sample magazine a pleasant enough read and even typed in the music programs. I was pleased and surprised to find that they both were error free, this is not usually the case with magazine listings in my experience. As yet I have not tried to tackle the character designer as it's a little on the long side. If you intend to print listings of a similar length in the future, I think it would be a good idea to offer the more lazy reader (like myself) the option of receiving the programs on tape as is the case with the Micro User magazine and was with the Dearly Departed Electron User. This would enable a great many of us to spend more time using the programs and less time nursing our sore fingers! A few ideas you might like to consider are a free 'cover' tape (or diskette for those who smoke them!) a regular 'buy if you want it' tape every month or an occasional compilation of software which has appeared over a period of time. By the way are you aware that the 'Einstein' user group also has the initials E.U.G.?

D. M. Finny, Southport.

Nice to hear from you Mister (or so I assume!) Finny. Who's copy of issue 0 did you read - I've got no record of having sent you one - but still the more the merrier eh! "All programs printed in this issue are exact reproductions of listings taken from running programs which have been thoroughly tested...", now where have we heard that before?! Actually the above well-worn disclaimer does apply to E.U.G. listings so we are pleased you've had no trouble so far. The software on tape/disc issue has been raised by a few people. It might be an idea worth investigating. What do other readers think? You're almost right about the Einstein User group having the same initials, in fact their's are UKEUG!*

MORE →

My family and I recently got hold of a second hand copy of an adventure game called Terrormolinos which was made by Melbourn House. We are having trouble getting out of the attic. We found some clues to this game in an old copy of the Electron user but none of them seem to help. Do you have an adventure expert on your staff who could help us?

Mrs.A.B.Drumm, Runcorn

Quick! call the fire brigade! There's a family stuck in an attic somewhere in Cheshire! Sorry to disolusion you Mrs.'D' but E.U.G's staff of one is so thick that when I asked myself if I knew anything about adventure games I forgot the question! Any adventure experts out there? Want to write a regular column for absolutly no reward apart from your name at the top of a page? Is rain wet? Do ducks fly south in winter? Does your chewing gum lose it's flavour on the bed post overnight.....?*

The Electron is a great computer and I use mine a lot. I like to play games on it but not all the time. Could you have a page in your magazine that tells you what programs can help you with school work like in Let us compute?

From Paul aged 11

Has anybody SEEN Let's Compute of late? I've heard that publication has been suspended.....Anyway sorry Paul, back to your letter. 'Proper' magazines like Let's Compute and Micro user have people called Educational Advisors who understand what is being taught in schools these days and can tell the publishers if a program is helpful or not. E.U.G. hasn't got an advisor so we might tell you the wrong things. Some programs could still be used for school work though, like the 'Converter' program in this issue. If you are having trouble with your school work, try not to worry, have a chat with your parents or tell a teacher at school.*

Thank you for The Taster, looks great to me so I've included my £1.00 to prove the point. You've done a good job on this one, a happy mix of programs and good ideas....Apropos your observations of ST/Amiga owners in the reading rooms at Smiths, you'll often find me there too. It's not that I can't afford the magazines, it's that I don't want to buy something that is of no use. There's a gaping hole in the mags market for an adult orientated Elk/Beeb magazine. These are still very popular machines, witness two magazines seeking attention by using the names on their front covers.

Christopher Chadwick, Wiltshire

Thank you for the kind remarks about issue 0. I hope that in the future E.U.G can help to plug that hole you speak of. I'm sure we've all thumbed through the odd mag in Smiths before now because as you say no one wants to buy a 'pig in a poke'. What gets up my hooter is when 5 or 6 spotty 'Erberts stand shoulder to shoulder in front of the displays debating the merits of "SuperSonicMegaDoomZombiePoleCatsFromBeyondThePhantomZone..(part two)" in very loud voices as if they were the only inhabitants of planet Earth! When I were a lad if we behaved like that in public, Oliver Cromwell's men would have flogged us to within an inch of our lives! And wine gums were a lot cheaper then too!..So there!.. I was saying to Napoleon only the other day.....*

LOOK

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PUBLIC DOMAIN

ALAN BLUNDELL of BBC PD (mentioned in issue 0) has been in touch with news of his latest activities. His service has recently been approved by the USSA (User Supported Software Association) which says a lot about the way he runs things. Alan is keen to support the Electron where ever practical or possible and would be grateful for information about software compatability. Have any Elk users with DFS or SWR sampled any of BBC PD's wares in the past? If so, I'm sure Alan would be grateful if you could drop him a few lines to say how you got on. For those who would like a copy of the BBC PD summary catalogue, the address to write to is:-

ALAN BLUNDELL, BBC PD, 18 CARLTON CLOSE, BLACKROD, BOLTON, BL6 5DL.

Please remember to enclose an SAE - and mention E.U.G.!!

+++++

If you are new to the Electron or have a limited software collection then your proverbial ship has just sailed into port! ROBERT COOPER has set up ELECTRON PD with a view to distributing his software collection far and wide - and almost all of it is FREE! When I received his catalogue, I was at a loss to know where to start, as there is so much to choose from! The vast majority of the programs were originally published in Electron User. Having done a little reserch into this publication's attitude regarding their listings it was found that they had no objection to the distribution of this material providing NO PROFIT was made from it, and this is the case with Robert's service.

Of course, a little effort must be made on the part of those eager to sample what's on offer! An SAE, large enough to comfortably hold several sheets of A4 paper should be sent to receive an initial catalogue. You will also have to supply your own discs or tapes (YES Robert intends to cater for tape users as much as possible) and the correct postage and packing to receive your software. I expect details about postal charges will be included in the catalogue.

To increase the size of the catalogue, Robert may also be willing to consider a 'Program for Program' swap but obviously you need to see the catalogue first to know if you have anything to offer!

'Electron PD' can supply software on 3.5" disc and tape, but some files may be tricky to transfer to the latter. It must also be remembered that saving software on to cassette is a slow, thankless task, so I would imagine that there will be a limit to the number that can be included on one tape. Copying a disc is another matter of course! It is vital that you help Robert to help you, as he is a student studying for his 'A levels' and is on a very tight budget, so SAE's included with all enquiries please.

DON'T DELAY, WRITE TODAY!!

+++++

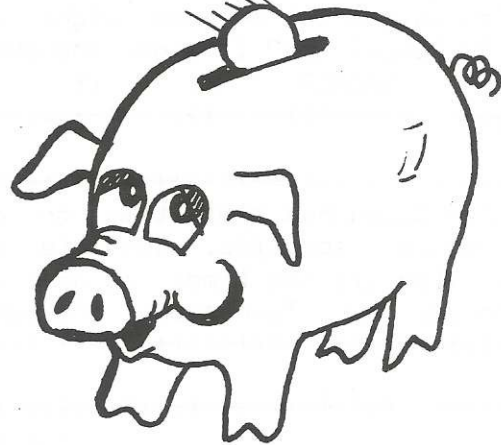
R. COOPER, ELK PD, 5 EDWARD St., CLIFTON, BRIGHOUSE, W. YORKS, HD6 1QR

+++++

SAVING MEMORY

DIRECT

by J. Warburton.



If you ever get tired of defining function keys each time you start programming, then a solution is to save the keys on to tape. When function keys are programmed, the information is stored in the Electron's memory at addresses &0B00 to &0BFF. So by typing `*SAVE "KEYS" 0B00 0BFF`, they can be stored on cassette. To load enter `*LOAD "KEYS" 0B00`, and they are ready for use.

Graphics can be stored in the same way. Screen information is held in RAM between &3000 and &7FFF depending on the mode. So if the image you wish to save is in mode 5 then

`*SAVE "MYPIC" 5800 7FFF`

would do the trick. To recover the picture from tape enter

`*LOAD "MYPIC" 5800`

Both loading and saving should be done in the same mode. One point to bear in mind is that any commands appearing on the screen will also be saved, unless you work out the screen memory the command occupies and leave it out. Here are the addresses for all the modes.

MODE	START	END
0,1,2	3000	7FFF
3	4000	7FFF
4,5	5800	7FFF
6	6000	7FFF

This method of screen loading is sometimes used in games programs to save memory.

APPENDIX

Disc owners need not worry about commands disrupting screen display during saving or loading but tape users can avoid this problem by using two special VDU codes thus:-

```
VDU 21
*SAVE/LOAD (NAME) (START) (END)
VDU 6
```

VDU 21 disables the VDU drivers so no tape O/S messages or prompts will appear on screen - so you must remember to press RETURN when saving begins. VDU 6 enables the VDU drivers once again. The SAVE/LOAD routines are best placed in procedures.

Everything is in good condition, in original boxes with manuals if supplied. I am open to offers for any of the above items. Please phone Philip Lucas on Banbury (0295) 255106 any evening. No reasonable offer refused as all is surplus to my requirements.

WANTED

Does anyone out there own the Slogger Spellchecker program? If so I would like a copy of the dictionary disk as mine is corrupted. I have been able to wipe clear the four corrupted sectors with a sector editor and it will work but some words will not save, so a copy of an intact one would be nice. I will pay for a copy or swap software. Write to:- Robert Cooper, 5 Edward street, Clifton, Brighouse, W.Yorks, HD6 1QR

FOR SALE

Item	Condition	Price
ADVANCED PLUS 5 WITH 3 BUTTON AMX MOUSE 5.25 DISK SOFTWARE	GOOD, HARDLY USED	£35-00 o.n.o
COMMSTAR & PRISM2000 (MODEM & SOFTWARE)	GOOD, V/GOOD S/WARE	£30-00 o.n.o
VIEW WORDPROCESSOR (ROM WITH MANUAL)	V/GOOD	£10-00 o.n.o
ELECTRON USER GUIDE ADVANCED USER GUIDE	OK V/GOOD	BOTH £05-00 o.n.o

All software and equipment comes with manuals and leads.
Phone NICK (0753) 885253 - outside office hours

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BBC Micro/Master 5 1/4" Disc.....	£14.95 each
BBC Master Compact 3 1/2" Disc.....	£19.95 each
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Play It Again Sam 1

Citadel, Thrust, Stryker's Run, Ravenskull

Play It Again Sam 2

Repton 3, Crazye Rider, Galaforce, Codename: Droid

Play It Again Sam 3

Commando, Palace of Magic, Killer Gorilla, Killer Gorilla 2

Play It Again Sam 4

Frakt, Spellbinder, Cosmic Camouflage, Guardian

Play It Again Sam 5

Imogen, Elixir, Bug Blaster, Moonraider

Play It Again Sam 6

Galaforce 2, Hunchback, Hopper, Video's Revenge

Play It Again Sam 7

Firetrack, Bonecruncher, Snapper, Ghouls

Play It Again Sam 8

Winter Olympiad 88, Quest,
Around the World in 40 Screens, Mr. Wiz

Play It Again Sam 9

Camelot, Steve Davis Snooker, Spycat, The Life of Repton

Play It Again Sam 10

Zalaga, Qwak, 3D Dotty, Repton Thru Time

Play It Again Sam 11

Barbarian, Pipeline, Baron, Monsters

Play It Again Sam 12

The Last Ninja, By Fair Means or Foul, Skirmish, Bagger

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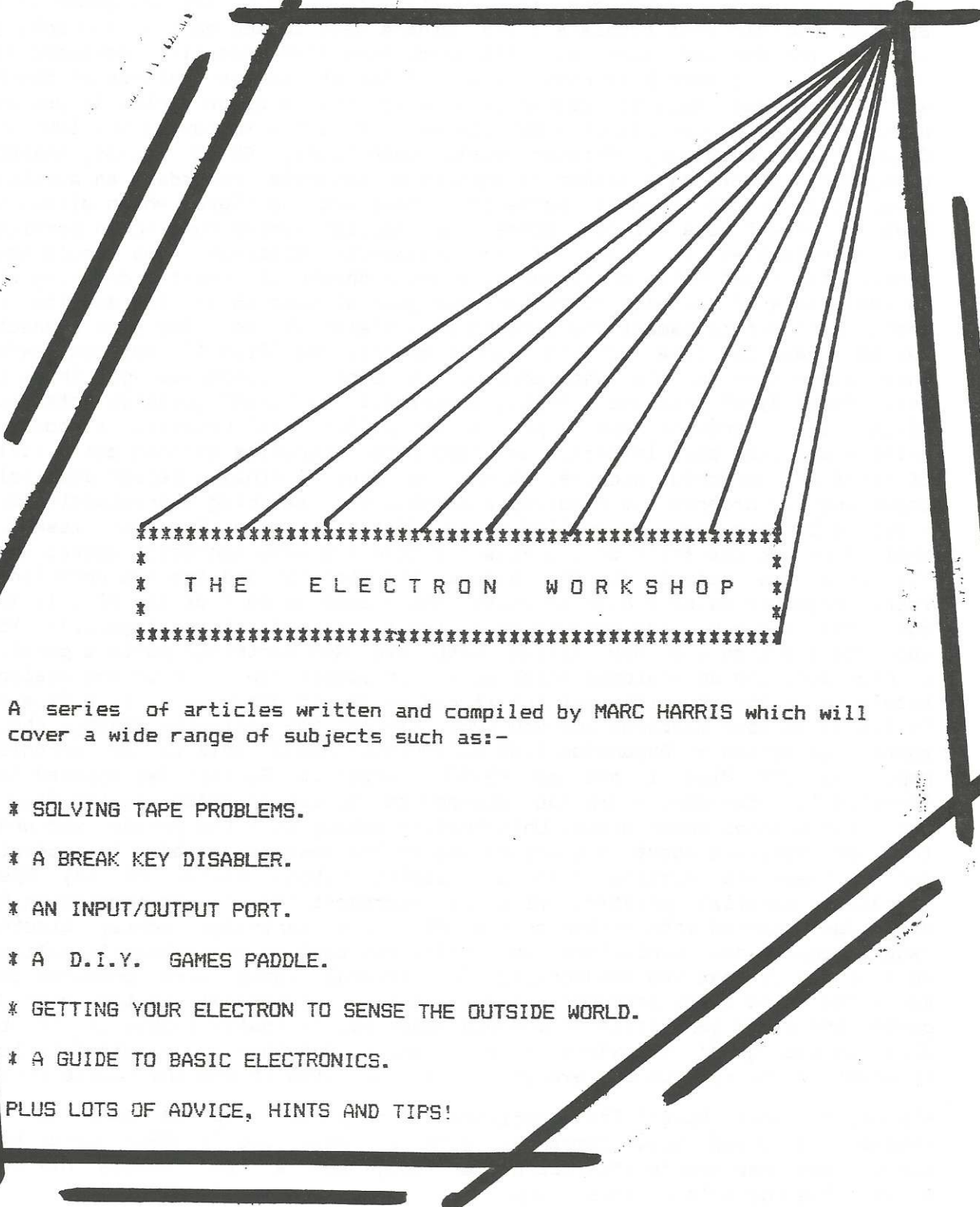
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"Superior Software"

THE ELECTRON INTERFACE

As most people know, the Electron's architecture is based on that of the BBC micro. Back in the early eighties the Beeb was the 'Amiga' of it's day and most people with an interest in computing aspired to own one, but with a price tag of almost £400 this was just a dream for most. Enter the Electron, which some people have described as the machine which put the power of the BBC micro within most people's grasp. Others have commented that you only get what you pay for and that the Elk which cost £199 when first released is a BBC with all the best bits removed. One of the attractive features of the BBC was that it came ready to 'communicate' with the outside world. If you look at the back and underside of a BBC you will find the following - a 1MHz Bus, Disk drive connector, Printer port, User port, RS423 socket, Analogue connector, as well as a socket to connect a cassette recorder, an auxiliary power output, an 'Econet' connector socket and the 'Tube' which allows the Beeb to 'speak' to a second processor or computer system running in parallel. Now let's look at the back of an unexpanded Electron. You should see a recess, two round holes on either side and a sheath of plastic covering what is known as a 50 way edge connector. (If your plastic cover is missing take great care not to damage the exposed gold plated strips!) The edge connector was designed to take Acorn's own interface, the 'Plus 1', but long before this device went on sale, enterprising third-party companies got in on the act. 'First Byte' produced a highly successful 'switched' joystick interface, 'Sign point' brought out a printer port, 'Mushroom' released a combined printer and user port interface and many other companies churned out a stream of weird and wonderful add-ons. When the Plus 1 finally became available, those who had ordered one received a plastic box measuring approximately 13.5" x 3.5" x 2" with the same mottled cream finish as the Electron itself. A protrusion on the front of the Plus 1 housed the edge connector socket which slid into the recess at the back of the Electron and the two were firmly locked together using a pair of bolts which came as part of the Plus 1. (Why does the above passage conjure up an image of two stray dogs...?) Your upgraded Electron was now fitted with two ROM cartridge ports a parallel printer port and an analogue interface. Most people now refer to the analogue interface as the joystick port but it can be put to other uses. If a Plus one is fitted to your Electron and you type '*HELP' the following message should appear on screen - 'Expansion 1.00 ADC/Printer/RS423' This is an erroneous report as the Plus 1 has no RS423 - which is 'Serial' (as opposed to a 'Parallel') interface. Acorn had intended to include an RS423 in the Plus 1, but later changed their minds. Unfortunately nobody told the person who wrote the ROM software about this U-turn and so the message stayed. The printer port allowed the fitting (via a suitable ribbon cable) of any Epson compatible parallel printer. With an Acornsoft 'VIEW' word processing ROM cartridge inserted into either of the Plus 1's cartridge ports, Electron owners could now manipulate and print out text to their heart's content! (Rumour has it that the manuscripts for several books were produced this way!) The third party producers also saw a lot of potential in the cartridge ports and a new generation of add-ons appeared. It really looked as if the Electron was going somewhere - for a while. But then Acorn seemed to lose interest in the Elctron and everything to do with it and the bubble burst.

All was not lost though! Those dedicated third party chappies came to the rescue and these days companies such as 'PRES' and 'SLOGGER' offer more support and free advice than Acorn ever did, and a new 'bubble' has been blown! (See the ad's in this issue!)

COMING SOON...



*
* THE ELECTRON WORKSHOP *
*

A series of articles written and compiled by MARC HARRIS which will cover a wide range of subjects such as:-

- * SOLVING TAPE PROBLEMS.
- * A BREAK KEY DISABLER.
- * AN INPUT/OUTPUT PORT.
- * A D.I.Y. GAMES PADDLE.
- * GETTING YOUR ELECTRON TO SENSE THE OUTSIDE WORLD.
- * A GUIDE TO BASIC ELECTRONICS.

PLUS LOTS OF ADVICE, HINTS AND TIPS!

"IF YOU'RE INTO HARDWARE, YOU SHOULD GET INTO THIS!!"

```

10 REM CONVERTER BY ROBERT COOPER
20 REM BBC PD 1991
30 *KEY10"OLDIM*DIRIMRUNIM"
40 ON ERROR PROCaddress
50 MODE4
60 *FX15,1
70 PROCinit
80 PROCwindow(2,8,35,18)
90 *FX15,1
100 PRINT"Which do you want..."
110 PRINT"(1) Celsius to Fahrenheit"
120 PRINT"(2) Fahrenheit to Celsius"
130 PRINT:PRINT"(3) Centimetres to inches" and inches to centimetres"
140 PRINT"(4) Metres to inches" and inches to metres"
150 PRINT"(5) Miles to kilometres" and kilometres to miles"
160 INPUTZ
170 IF Z=1 THEN PROCc
180 IF Z=2 THEN PROCf
190 IF Z=3 THEN PROCinches
200 IF Z=4 THEN PROCmetres
210 IF Z=5 THEN PROCmiles
220 GOTO60
230 DEFPROCc
240 *FX15,1
250 PROCcls:PROctitle1
260 PROCwindow(1,8,36,20)
270 *FX15,1
280 INPUT"Enter degrees Celsius",C
290 F=C*9/5+32
300 PRINT"...is ";F;" degrees Fahrenheit"
310 IFC>1000 THENPRINT"...That's very hot!"
320 IFC<-1 THENPRINT"...That's very cold!"
330 Z%=1
340 GOTO460
350 ENDPROC
360 DEFPROCf
370 *FX15,1
380 PROCcls:PROctitle2
390 PROCwindow(1,8,36,20)
400 *FX15,1
410 INPUT"Enter degrees Fahrenheit";F
420 C=(F-32)*5/9
430 PRINT"...is ";C;" degrees Celsius"
440 IFF>1000 THENPRINT"...That's very hot!"
450 Z%=2
460 PRINT"" "...Another conversion...Y/N"
470 PRINT"" "...Or press M to return to the MENU"
480 GOTO 1130
490 ENDPROC
500 PROCcls:PROctitle:PROCaddress
510 DEF PROCinches
520 PROCcls
530 PROctitle3
540 DEF FNC(X)=INT(254*X)/100
550 DEF FNI(X)=INT(39.37*X)/100
560 DEF FNM(X)=INT(3937*X)/100
570 DEF FNIM(X)=INT(2.54*X)/100
580 DEF FNMI(X)=INT(62*X)/100
590 DEF FNKM(X)=INT(161*X)/100

```

CONVERTER

Having grown up with the 'Imperial' system of measurement firmly lodged in my brain, I find all this Metric lark a bit confusing! For example, I hate decorating at the best of times but when I have to convert the measurements of a room from square inches to square metres in order to calculate how much paint I'm going to need, I usually end up sitting in a corner gibbering quietly to myself! All this changed recently when we decorated the kitchen - thanks to 'CONVERTER' submitted by ROBERT COOPER. This is a completely menu driven program which allows you to convert:-

Celsius to Fahrenheit,
 Fahrenheit to Celsius,
 Centimetres to inches,
 Inches to Centimetres,
 Metres to Inches,
 Inches to Metres,
 Miles to Kilometres,
 Kilometres to Miles.

Now none of us have got any excuse for getting our sums wrong!!

CONTINUED OVER →

```

600 DEF FNP(X)=INT(45*X)/100
610 *FX15,1
620 PROCwindow(1,8,36,20)
630 INPUT"LENGTH";L
640 T=1
650 IFL >19999999 PROCbig
660 PRINT":PRINT" ";L;" CM EQUALS ";FNI(L);" INCHES."
670 PRINT":PRINT" ";L;" INCHES EQUALS ";FNC(L);" CM."
680 PRINT""""ANOTHER CONVERSION.....(Y/N)""
690 PRINT""PRESS M TO RETURN TO MAIN MENU....."
700 Z%=3
710 GOTO1130
720 DEF PROCmetres
730 PROCcls
740 PROCTitle4
750 PROCwindow(1,8,36,20)
760 *FX15,1
770 INPUT"LENGTH";L
780 T=2
790 IFL >19999999 PROCbig
800 IF L<2 GOTO 880
810 IFL<40 GOTO 910
820 PRINT":PRINT" ";L;" METRES EQUALS ";FNM(L);" INCHES."
830 PRINT":PRINT" ";L;" INCHES EQUALS ";FNIM(L);" METRES."
840 PRINT""""ANOTHER CONVERSION.....(Y/N)""
850 PRINT""PRESS M TO RETURN TO MAIN MENU.....";
860 Z%=4
870 GOTO1130
880 PRINT":PRINT" ";L;" METRE EQUALS ";FNM(L);" INCHES."
890 PRINT":PRINT" ";L;" INCH EQUALS ";FNIM(L);" METRE."
900 GOTO840
910 PRINT":PRINT" ";L;" METRES EQUALS ";FNM(L);" INCHES."
920 PRINT":PRINT" ";L;" INCHES EQUALS ";FNIM(L);" METRE."
930 GOTO840
940 DEF PROCmiles
950 PROCcls
960 PROCTitle5
970 PROCwindow(1,8,36,20)
980 *FX15,1
990 INPUT"LENGTH";L
1000 T=3
1010 IFL >19999999 PROCbig
1020 IFL<1 GOTO 1100
1030 IFL=1 GOTO 1100
1040 PRINT":PRINT";L;" MILES EQUALS ";FNKM(L);" KILOMETRES."
1050 PRINT:PRINT";L;" KILOMETRES EQUALS ";FNMI(L);" MILES."
1060 PRINT""""ANOTHER CONVERSION.....(Y/N)""
1070 PRINT""PRESS M TO RETURN TO MAIN MENU.....";
1080 Z%=5
1090 GOTO1130
1100 PRINT":PRINT" ";L;" MILE EQUALS ";FNKM(L);" KILOMETRES."
1110 PRINT":PRINT" ";L;" KILOMETRE EQUALS ";FNMI(L);" MILE."
1120 GOTO1060
1130 IF INKEY(-102)GOTO 60

```

```

1140 IF INKEY(-69) AND Z%=1 PROCc
1150 IF INKEY(-69) AND Z%=2 PROCf
1160 IF INKEY(-69) AND Z%=3 GOTO 520
1170 IF INKEY(-69) AND Z%=4 PROCmetres
1180 IF INKEY(-69) AND Z%=5 PROCmiles
1190 IF INKEY(-86) GOTO 500
1200 GOTO 1130
1210 DEF PROCcls
1220 VDU26
1230 FOR I%=1 TO 5
1240 PRINT STRING$(248,CHR$224);
1250 NEXT
1260 MOVE 0,28:DRAW 0,1023
1270 DRAW 1278,1023:DRAW 1278,28
1280 DRAW 0,28
1290 ENDPROC
1300 DEF PROCinit
1310 VDU 23,224,1,127,67,67,67,67,127,255
1320 COLOUR 129:COLOUR 0
1330 PROCcls
1340 PROCTitle
1350 ENDPROC
1360 DEF PROCwindow(X%,Y%,W%,H%)
1370 VDU28,X%+1,Y%+1+H%,X%+1+W%,Y%+1
1380 COLOUR 128:CLS
1390 VDU28,X%,Y%+H%,X%+W%,Y%
1400 COLOUR129:CLS
1410 VDU28 X%+1,Y%+H%,X%+W%,Y%+1
1420 ENDPROC
1430 DEF PROCTitle
1440 PROCwindow(4,2,31,2)
1450 PRINT"CONVERTER V1.2 BY ROBERT COOPER"
1460 ENDPROC
1470 DEF PROCTitle1
1480 PROCwindow(8,2,22,2)
1490 PRINT"Celsius To Fahrenheit"
1500 ENDPROC
1510 DEF PROCTitle2
1520 PROCwindow(8,2,22,2)
1530 PRINT"Fahrenheit To Celsius"
1540 ENDPROC
1550 DEF PROCTitle3
1560 PROCwindow(8,1,22,3)
1570 PRINT"Inches To Centemetres"
1580 PRINT"Centemetres To Inches"
1590 ENDPROC
1600 DEF PROCbig
1610 PRINT"The Number Is Too Big"
1620 PRINT"Press Space"
1630 REPEAT UNTIL INKEY(-99)
1640 IF T=1 PROCInches
1650 IF T=2 PROCmetres

```

```

1660 IF T=3 PROCmiles
1670 DEF PROCTitle4
1680 PROCwindow(8,2,20,2)
1690 PRINT"Metres To Inches"
1700 ENDPROC
1710 DEF PROCTitle5
1720 PROCwindow(9,1,20,4)
1730 PRINT"Miles To Kilometres"
1740 PRINT"Kilometres To Miles"
1750 ENDPROC
1760 DEF PROCaddress
1770 PROCcls
1780 PROCwindow(2,8,33,20)

```

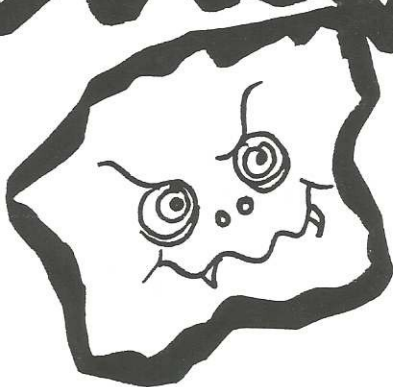
+ I SAY, I SAY, I SAY,
 + DID YOU HEAR ABOUT THE
 + THE MATHEMATICIAN WHO HAD A
 + PROBLEM WITH CONSTIPATION?
 + HE EVENTUALLY WORKED IT OUT
 + WITH A PENCIL AND SOME
 + PAPER!
 + I DON'T WISH TO KNOW THAT,
 + KINDLY LEAVE THE PAGE.....
 +

INFECT YOUR ELK



The first time I heard about computer Viruses was in the summer of 1987. I was using 'AUTOCAD' on a PC and it was an odd sight to see the supervisor vetting every 5.25" floppy that came within 400 yards of his beloved hard-drives! Now you too can send your computer screen haywire with this surprisingly short program, submitted by DARREN WORLEY. It works on any standard text screen - try LISTing the program itself before you RUN it! Although the program can do no damage to your actual files, it wrecks the screen display good and proper!

```
5 REM SENT TO E.U.G BY Darren Worley
10 REM "VIRUS" TYPE THING
20 X=RND(39):Y=RND(29)
30 IF FNAT(X,Y)=" " THEN GOTO 20
40 IF Y>=30 THEN GOTO 20
50 IF FNAT(X,Y+1)<>" " THEN Y=Y+1:GOTO 40
60 Q$=FNAT(X,Y)
70 PRINTTAB(X,Y);" ";TAB(X,Y+1)Q$;
80 IF Y=31 THEN 20
90 Y=Y+1
100 IF FNAT(X,Y)<>" " THEN 50
110 DEFFNAT(Q,P):PRINTTAB(Q,P);:A%=135:=CHR$((USR(&FFF4) AND &FF00)DIV&100)
120 RUN
```



MUSIC / SOUND

WHERE ARE THEY NOW ?????

I had hoped to be able to give you more information about the "SOUND EXPANSION UNIT" which was mentioned in issue 0, unfortunately I have had no response to my enquiries. I suspect that "COMPLEX SOFTWARE SYSTEMS" who make/made the device have gone out of business, but I may be wrong about this. If anyone has information about the company could they let me know please?! (Ditto if you actually OWN one of these devices!)

DODGY DELVING.

The Electron is a strange animal as far as sound goes. Place an Elk in a large sitting room with a couple of people having a chat and you can hardly hear a thing. On the other hand, if you're playing a game with a lot of sound effects late at night, members of your household who are trying to sleep may well have something to say about it!

A device called the "SOUND BLASTER" was (and maybe still is) available for the Electron and once connected, allowed you to control the level of sound emitted. It consisted of a small amplifier with it's own power supply, two loud speakers and a pair of headphones.

To connect the "SOUND BLASTER" to your computer, you had to remove the Elk's cover, unplug the speaker and plug in a new lead, this was fed out the side of the machine through the UHF or VIDEO socket - whichever was not in use. Once you had replaced the cover you were away. All this for only £44-99 - AMAZING!!

Shall I let you into a little secret? For virtually no cost, you can connect your Electron to your HiFi system, a tape deck or even a thousand watt P.A. system (if you've got one), with just two lengths of suitable flex. Here's how. (Warning - those of you who have even a limited knowledge of electronics had better start cringing now!) First I shall insult your intelligence by saying "PLEASE ENSURE THE POWER LEAD HAS BEEN REMOVED FROM YOUR ELECTRON" - in fact you should remove EVERYTHING, Plus 1, Acorn Plus 3, Rombox, all leads etc. (Oh, alright, you can leave your socks on if you must!) Place your computer on a carpeted floor, keyboard down, 50 way edge connector facing you. Remove the cover screws - a long shafted 'Philips' screwdriver with a magnetised tip is a big help. Keep the screws safe! Very carefully, lift one half of the Electron away from the other. A plastic 'ribbon cable connects the 'electronics' half of the Elk to the keyboard section and although it is quite robust, try not to put too much strain on it. The top and bottom of your Electron can now be laid, one 'above' the other as if you were opening a desk lid. You should now be able to see the Electron's loud speaker in the corner, small isn't it?! In front of the speaker you will see a row of slits in the casing. Your two lengths of 'shielded' lead need to be thin enough to



pass through these slits. (I used the cable from an old stereo speaker.) If you strip off the first inch of plastic from each lead then bend the exposed wire into a semi-circular curve it can be slipped through the slits in the casing, avoiding the speaker's diaphragm. Pull the two leads round to the back of the speaker and allow several inches of slack to work with. If you look closely, you will notice that the 'official' leads are soldered to the back of the speaker. With a bit of careful but firm fiddling you should be able to simply twist the exposed end of each 'new' lead around one solder point each. It is now just a matter of pulling the slack back through the slits, making one final check that your new extensions are still firmly in place then reassembling your Electron. The two leads can now be attached to anything you like, a jack plug a five pin DIN plug or just a large speaker. I have used this method to connect my Electron via a bank of guitar effects pedals to a 10 Watt practice amplifier and also to record directly onto audio tape. Nothing dramatic has happened to me or my Elk but perhaps I've just been lucky!

By the way this method only allows you to INCREASE the volume of your Electron, you can't turn it down. Come to think of it, the "SOUND BLASTER" looks like a very attractive proposition.

Next time we'll take a look at the Rolls Royce of Electron sound add-ons, the "MUSIC 5000"!

SHOCK!! HORROR!! PROBE!! SCANDLE!!
'A TO Z' FEATURE GOES MISSING! "WE
ARE THE POLICE!" SAY THE POLICE!!
=====

The next installment of "THE A to Z of Electron Software" will not appear in this issue. ("Who cares" shout the long-term Electron owners!) It's been pointed out that a list of titles isn't much use to anyone and I agree! The A to Z is being revised to include the names of the publishers and the type of program ie, Arcade, Text adventure, Educational etc, etc. We hope this will give people some idea of what is, or was once, available for the Electron.

Long-term Electron owners almost certainly know about mail order companies like 'Software Bargains' and 'Mercury Games' the pair of which appear to have amalgamated - see ad' in this issue - but are there any SHOPS still stocking Electron gear? The one independant software retailer here in Basildon recently cleared it's shelves of not just the Electron/BBC titles but what looked like ALL the 8 bit format stuff. There was a fair old crowd round the 'Bargain Bin' I can tell you! Anyway, it now looks to be a strictly 16 bit/console supplier. What are things like in your area? Are there still pockets of Elk-support dotted around the country? If so, drop us a line with the shop's name and address and we'll print a list in the future.

Cassette Only

Our ever-popular AMAZING OFFER!

Please give 2
alternatives

ADVENTURE
CHESS
DANGER UXB
FELIX EVIL WEEVILS
FRENZY
JET POWER JACK
MOONRAIDER
STOCK CAR
SNAPPER
GALACTIC COMMANDER
EDUCATIONAL
DESK DIARY
TALKBACK
BIOLOGY "O" LEVEL
TURTLE GRAPHICS
EUROPEAN KNOWLEDGE
BUSINESS GAMES

BANDITS AT 3
CROAKER
ELE INVADERS
FELIX FACTORY
GAUNTLET
KILLER GORILLA
POSITRON
BOXER
Complete Cocktail Maker
INTERGALACTIC TRADER

BUMBLE BEE
CYBERTRON MISSION
ESCAPE MOONBASE
FELIX FRUIT
GHOULS
SWAG
RUBBLE TROUBLE
THE MINE
SWOOP
DRAW

WHERE?
ENGLISH "O" LEVEL
Linkword SPANISH
WORLD GEOGRAPHY
ME & MICRO (Book)

WORKSHOP
Know your Personality
Linkword ITALIAN
LISP (Cass)
LISP (ROM)

Any 10 for only £9.95

and get

The Advanced User Guide Book &
Acornsoft metallic badge

FREE!!

Micro Power Magic 1

(Stock Car, Felix meets the Evil Weevils, Escape from Moonbase Alpha, Swag, Chess, Bandits at 3 o'clock, Galactic Commander, Adventure, Cybertron Mission, European Knowledge - and the PLUS 1 Conversion Program)

All 10 Games for only £5.95!

Micro Power Magic 2

(Bumble Bee, Gauntlet, Frenzy, Felix & the Fruit Monsters, Danger UXB, Rubble Trouble, The Mine, Swoop, Positron, Killer Gorilla - and the PLUS 1 Conversion Program - enables games to be run with Plus 1 joystick interface)

All 10 Games for only £5.95!

Word Processing for electron!

Our ROM cartridge & Printer Expansion Boards are
still available!

Extended £36.95
Package includes 1 ROM cartridge
port, centronics parallel printer port,
plus VIEW word processing &
VIEWSHEET spreadsheet ROM
cartridges

Full £39.95
Package includes 2 ROM cartridge
ports, centronics parallel printer
port, plus VIEW word processing &
VIEWSHEET spreadsheet ROM
cartridges

For compatible printers - please see page 6

Seikosha printers have been slashed by £20.00!

VIEW & VIEWSHEET Only £7.95 each

LOGO ROM (Prog. Lang) £17.95
LISP ROM (Programming Lang) £1.99
LISP Cass (Programming Lang) £0.99
TURTLE GRAPHICS £0.99

Or
BUY BOTH
for only
£9.95

7pin Din - 3 jacks cassette lead £2.65
Aerial Lead £2.65
Electron Dust Cover £3.95

10 Blank Cassettes £1.00 (Cass returned
to us as faulty but are OK for re-recording -
available only with orders in excess of £5.00)

Joysticks

For electron with PLUS 1
38 Twin Joysticks £21.95
38 Single Joystick £14.95



Delta 38 Twins

Advanced User Guide

This guide describes the
facilities of the Acorn
Electron in the detail
required by the serious
programmer, & acts as a
supplement to the Acorn
Electron User Guide.

Both the software & the
hardware aspects of the
Electron system are
covered, & extensive
indexing & cross-
referencing make the
information readily
accessible. Among the
topics covered are:
FX/OSBYTE calls, paged
ROM software,
programming the ULA,
interfacing to the expansion
bus, a complete memory
map & full circuit diagram

SRP £12.95 **FREE**
with any 10 offer or only
£1.95 on its own!

Acorn School 2

UNDER 8 YEARS Includes:-

- SHAPE SNAP:- Colourful shape recognition
- FIND THE MOLE:- Experiment with number sizes
- TEDDY COUNT:- Ideal introduction to numbers
- WRITE A LETTER:- Creative fun at the keyboard
- COLOUR TRAIN:- Play at spotting colours
- PICK A LETTER:- Word building made easy
- SPELL A WORD:- Enjoy naming the pictures
- TEDDY BEARS PICNIC:- Move around a maze

8 - 9 YEARS Includes:-

- NUMBER TRAIN:- Calculations made enjoyable
- SHOPPING:- Which shops for which products?
- MATHS MAZE:- Fun improving arithmetical skills
- TREASURE HUNT:- Introduction to co-ordinates
- BOUNCE:- Get to grips with angles
- PACKING:- Discover tessellating shapes
- CATERPILLAR:- Word building challenge
- NUMBER 1 JUMP:- Have fun practising tables

OVER 9 YEARS Includes:-

- BUILD A BRIDGE:- Shape-fitting challenge
- PASSAGE OF GUARDIANS:- Enjoy anagrams
- UNICORN:- First steps in problem solving
- LOGIC DOORS:- Mapping made easy
- SOUVENIRS:- An introduction to travel
- CODE BOXES:- Discover binary arithmetic
- MYSTERY MACHINE:- Have fun breaking codes
- ESCAPE:- A final check on progress

SRP BBC/Ele Cass £10.99 (Per Level)

Sale Price £8.25 (Per Level)

**Start Programming with
the Electron Book
only £1.95!**

Recent Releases & Special Offers

TITLE	SRP	SALE	TITLE	SRP	SALE
Arcade Soccer	9.95	6.50	Ghouls		
Blat	9.95	5.95	Play It Again Sam 8	9.95	6.95
Breakthrough	9.95	5.95	(Winter Olympic 88, Quest)		
Colossus 4 Bridge	12.24	7.95	Around the World, Mr Wiz		
Colossus 4 Chess	12.24	7.95	Play It Again Sam 9	9.95	6.95
Elite	12.95	9.95	(Camelot, Steve Davis Snooker,		
E-Type	9.95	6.50	Spy Cat, Life of Repton)		
Elite	12.95	9.75	Play It Again Sam 10	9.95	6.95
Holed Out	12.95	8.50	(Zelazny, Quark, 3d Doty,		
Holed Out Extra Cress 1	9.95	6.50	Repton Thru Time)		
Holed Out Extra Cress 2	9.95	6.50	Play It Again Sam 11	9.95	7.50
Hostages	9.95	7.50	(Barbarian, Pipeline, Baron, Monsters)		
Master Break	9.95	7.50	Play It Again Sam 12	9.95	7.50
Perplexity	9.95	6.95	(Last Ninja, Gy Fair Means or Foul,		
Pipermania	10.21	7.50	Sidmish, Bigger)		
Play It Again Sam 1	9.95	6.95	Play It Again Sam 13	9.95	7.50
(Cinderella, Thrust, Strykers Run, Ravenstull)			(Barbarian 2, Hyperball, Percy Penguin, &		
Play It Again Sam 2	9.95	6.95	Pandemonium)		
(Rep. 3, Crazy Rider, Galaforce,			Play It Again Sam 14	9.95	7.50
Codenamer: Droid)			(Predator, Superior Soccer, Ballistik		
Play It Again Sam 3	9.95	6.95	& Star Port		
(Commando, Palace of Magic,			Play It Again Sam 15	12.95	9.75
K. Gorilla, K. Gorilla 2)			(Last Ninja 2, Ricochet, Cyborg Warriors &		
Play It Again Sam 4	9.95	6.95	Network)		
(Frak, Spellbinder, Cosmic Camouflage,			Question of Sport	12.95	8.95
Guardian)			Repton Infinity	12.95	9.75
Play It Again Sam 5	9.95	6.95	Sim City	12.95	9.75
(Imogen, Bug Blaster, Moonrider, Eldir)			Sporting Triangles	10.21	7.50
Play It Again Sam 6	9.95	6.95	Superior Collection 3	9.95	6.95
(Galaforce 2, Hunchback, Hopper, Video's Tank Attack			White Knight Chess	13.28	9.95
Revenge)			White Magic Vol 1	10.16	6.95
Play It Again Sam 7	9.95	6.95	White Magic Vol 2	9.95	6.50
(Firetrack, Snapper, Bone Cruncher,					

Games descriptions
See BBC Pgs 2 & 3

PLEASE NOTE : Above prices/details taken from SUMMER '91 catalogue.
 Phone or Write for latest product news. There is more to see than we
 have room to show!!

Mr. RAY LENNARD, poet, pianist, newsagent and friend of the gas board (?!), takes time out from his busy life to share with us some of his unique

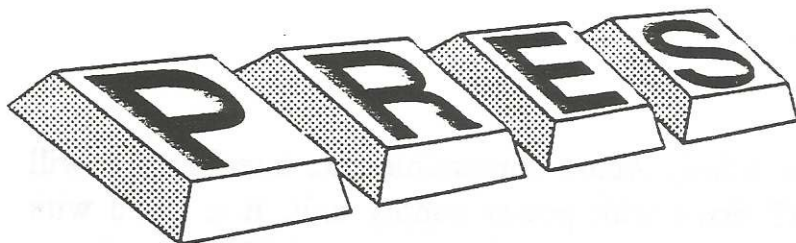
Repton Ramblings

As an old Reptonian Grandad I sadly miss the halcyon days of the 8-bit era when life was simpler computer-wise. In nineteen hundred and frozen to death, I purchased my Acorn Electron from Dixon's in the high street. My youngest son had a BBC computer which sparked off my interest in them. The 'free' games package was ok but I was not into 'Shoot-em-ups' and chess against the computer (it always won!). I did not yearn for any attachments - too much hassle! I was content with my 'slim-line' Dixon's recorder which was tuned to perfection! Then it happened - 'Repton' arrived and I was hooked! Time had no meaning, I sat bleary eyed in my computer room (converted box room!) killing monsters, moving boulders and re-directing sprites. I lost weight, DIY jobs were left undone, you could not enter my garden without a guide dog or a shotgun. Mumbled words drifted upstairs "I don't know why you don't put a nightie on that machine and take it to bed!" (Sounded a bit kinky to me!). I lay awake at night working out strategies but never finished the game in time to win a prize. Then came Repton2, Repton3, Around the world in 40 days (with Repton), What Repton did next, not to mention Life of Repton! Unfortunately, in my opinion, the later games were more involved and lacked the graphic clarity of the earlier ones, but I completed them. When the Repton series ended, I was in limbo. I tried 'Ravenskull', 'Paperboy' various puzzle games, 'Clogger', 'Ballistix', etc and some programming but they did not compare with old Repton. Then I discovered 'Perplexity' - based on the old 'Pacman' munching dots but with so much more! This was it! I was off again! A password was needed to enter each of the sixteen levels which got progressively harder. There were boulders which, when moved into the correct position turned into stars to be gobbled up, keys which had to be matched with locks in order to procede along passages and those damned monsters that had to be avoided! Every minute of my spare time was taken up but eventually I cracked all sixteen levels!! I was so chuffed that I dropped a line to Superior Software. They kindly sent a velum completion certificate, adding that I was one of the first THREE people to complete the game! There are no hints or tips that I can offer other players of Perplexity, it a matter of 10% inspiration, 90% perspiration together with the careful planning of your moves. One thing I can offer is a list of the passwords for all sixteen levels!

PERPLEXITY PASSWORDS

- | | |
|-----------------|-----------------|
| (01)..... START | (02)...CROUPIER |
| (03)....DECIEVE | (04)....CONTEND |
| (05)...LACERATE | (06)...VANGUARD |
| (07)...BUSINESS | (08).....REASON |
| (09).....OSMIUM | (10)....DUBIOUS |
| (11)...STUBBORN | (12)...XYLOCARD |
| (13)...STIMULUS | (14)...WARDROBE |
| (15)....SPARKLE | (16)....VOLCANO |





electron products

The Advanced Plus 1 <AP1>

This is the main expansion unit for the Electron and is now produced by PRES under license from Acorn. On its own it does not appear to do very much but is needed to allow the many add-ons we can supply. This colour matched oblong box fits onto the edge connector at the back of the Electron and is then secured in place by two bolts. It has three main functions.

- 1) It provides a centronics parallel printer port - this is the standard interface for adding compatible printers / electric typewriters to the Electron.
- 2) It provides an analogue joystick interface - we can supply either a single or twin joystick for use with this.
- 3) It provides two cartridge slots for which the uses are numerous - these allow connection of ROM cartridges such as View & Viewsheets and our own AP3, AP4, AP34, ARA2, 1 MHz Bus, and ABR. Our AP1 also includes the circuit modification necessary for some modern printers and has extra fitted sockets for easy installation of AP6.

Advanced Plus 6 <AP6>

(connects inside Plus 1)

Described by Electron user magazine (May'88) as "A marvellous piece of design....don't hesitate, buy it!" AP6 is a fully buffered 6 ROM expansion module for the Electron user. It can be easily fitted inside our Advanced Plus 1 or with some soldering experience inside an original Acorn Plus 1. If using an Acorn Plus 3 only 5 of the 6 sockets will be available.

The Advanced Plus 3 Mk 2 <AP3>

(requires Plus 1 to operate) now you can turn your Electron into a full disc system - no more waiting for tape loading or "bad block" / "data ?" messages. The AP3 is the only fully compatible disc upgrade running Acorns own filing system the ADFS as supplied in Acorns Plus 3, Master 128, Master Compact, Archimedes and A3000 range. AP3 Mk 2 gives you.....

- 1) A fully Acorn compatible 1770 interface in cartridge form with spare 16K ROM socket. Can be fitted with DFS modification kit to give BBC compatibility.
- 2) 80 track - double sided - 3½" disc drive.
- 3) Storage capacity 640K.
- 4) Separate PSU (Power Supply Unit).
- 5) Acorn ADFS (Advanced Disc Filing System).
- 6) Welcome disc with extra 3 bonus games of Snapper - Draughts - Reversi.
- 7) Utilities.
- 8) Full documentation.

Special package price available for those who do not already own a Plus 1. A second drive, either 3½" or 5¼" can be added by fitting our AP3 second drive lead and configuring the second drive as Drive 1. The AP3 drive is upwardly compatible with BBC, Master and A3000 computers. Second drives can also be added to the Acorn Plus 3 by fitting our Plus 3 Second drive adaptor.

MORE →

DISC INTERFACES (Plus 1 required)

AP3 Interface

as supplied with AP3 package this gives a fully Acorn compatible disc interface that will accept any standard 5¼" or 3½" 80T drive with power supply unit. It is fitted with Acorns ADFS Filing System and supplied with ADFS manual and Welcome disc + Utilities and 3 bonus games Snapper-Draughts-Reversi (please specify 3½" or 5¼" 80T format). The interface also has a spare 16K ROM socket and can be fitted with our DFS modification kit to give BBC compatibility. (see AP34 details)

AP4 Interface

a fully Acorn compatible disc interface that will accept any standard 5¼" or 3½" disc drive with own power supply. It runs the 1770 DFS (as fitted in the BBC & Master computers). It keeps page at &E00 and the utilities are in the ROM giving instant access to such as FORMAT and VERIFY commands, full DFS documentation is supplied. There is a spare 16K ROM socket in the interface. Our ADFS 1.1 Rom can be fitted to give an AP34.

Special package prices are available for a complete 5¼" upgrade to include Advanced Plus 1 - AP4 - 5¼" 40/80 switchable track double sided drive with built in power supply OR AP4 and 5¼" drive only. Our PRES Special 3½" drive fitted with second drive lead could be added to the AP4 + 5¼" drive along with the ADFS 1.1 Rom to give full software scope.

AP34 Interface

This gives you the best of both Filing Systems giving you the same standard interface as AP3 and AP4 but fitted with both ADFS and DFS. Full documentation is supplied for both filing systems. The DFS, which keeps page at &E00, has its utilities contained within the Rom. The ADFS which takes page up to &1D00 comes complete with Welcome disc containing utilities + 3 bonus games Snapper-Draught-Reversi (please state disc format required ie 5¼ or " 3½" 80T ADFS)

Advanced Battery-Backed RAM <ABR> (requires Plus 1 to operate)

This is an Acorn approved cartridge that is connected to the Electron through one of the Plus 1 cartridge ports and gives 32K (2 X 16K) of Battery-backed Sideways RAM. The battery-backed feature enables it to hold the RAM contents when the power is switched off! Different ROM images can be loaded into either bank from ROM images previously saved and the banks can also be locked to imitate ROM use e.g. View and Viewsheet can be loaded in and available every time you switch on. The use of ABR is simplified by the PRES software utilities which include :- SaveROM, LoadROM, Lock, Unlock, Printer Buffer, Zero and MakeROM. MakeROM is a utility that allows you to put your own software from disc or tape into ABR and use the ROM filing system. All software is supplied in ABR with a simple menu to transfer the utilities to your own media. Instructions for using the software and necessary information for users developing their own applications are supplied. Compatible with both the Master and Electron Computer.

The Advanced Plus 2 ROM <AP2>

Described by Electron User as "the definitive Plus 1 Rom" the AP2 replaces the existing operational ROM inside the Plus 1. Once fitted you need no longer search for your utilities disc every time you want to FORMAT/VERIFY a disc, BUILD a !BOOT file or LOCK/ UNLOCK/ LOAD a ROM image into ABR or AP7 PLUS much more . AP2 gives you

- 1) Fix for Tape filing system in Hi-res screen modes.
- 2) *ROMS - to display all ROMs/RAM images present on the system.
- 3) *UNPLUG - disable ROM/RAM image.
- 4) *INSERT - enables or inserts a previously unplugged ROM.
- 5) *KILL - to totally disable the Plus 1.
- 6) *LOCK - to lock a sideways RAM bank in ABR, or AP7,
- 7) *LROMS - to lock all sideways RAM banks found.
- 8) *UNLOCK - to unlock a sideways RAM bank in ABR, or AP7,
- 9) *UROMS - to unlock all sideways RAM banks found.
- 10) *SAVEROM - saves a copy of a rom image to the current filing system.
- 11) *LOADROM - loads a ROM image from the current FS into a RAM bank.
- 12) *FORMAT - will format an ADFS disc for Plus 3 or AP3.
- 13) *VERIFY - reads and tests every sector of an ADFS disc.
- 14) *VFORM - formats and verifies an ADFS disc in one command.
- 15) *BUILD - creates a text file that can be used by *EXEC (ie !BOOT)
- 16) *LIST - displays a numbered listing of a text file.
- 17) *TYPE - displays a file on screen with no line numbers.
- 18) *DUMP - to view a files contents on screen.
- 19) *LANG - selects a default language to be booted on <CTRL-BREAK>.
- 20) *HELP - provides a full 'help' list on all the ROM's commands.

All in all a very useful, time saving, low cost companion for the Plus 1.

ADFS version 1.1 (Electron only)

This is suitable for existing Acorn Plus 3 or AP4 users. This version has the software fixes for Zsysshelp, write protect disable and compaction. The ADFS is Acorns adopted standard filing system as supplied with the Plus 3, Master 128, Master Compact and the Archimedes. Available on 16K ROM with either 3½" or 5¼" Welcome disc and utilities. (ADFS manual supplied seperately)

ADFS E00 (Electron only)

This requires 32K of sideways RAM such as ABR to operate and can be used by Electron users with Acorns Plus 3, AP3 or AP4. It has all the benefits of ADFS without the loss of RAM and includes all the software fixes as in version 1.1 plus an FX call for managing the original ADFS. PRES ADFS E00 regains 3.75K of memory and leaves page at &E00 the same as on tape. Available on 3½" or 5¼" ADFS (manual supplied seperately) or 5¼" DFS(2 discs + ADFS manual)

AP4 modification kit (Electron AP3 users only)

Turn your AP3 into an AP34 by the simple addition of this two chip DFS upgrade, full documentation and fitting instructions supplied.

MORE →

ADVANCED GAMES COMPENDIUMS

<u>Vol. 1</u>	<u>Vol. 2</u>	<u>Vol. 3</u>
Invaders	Felix and the Fruit Monsters	Danger UXB
Jet Power Jack	The Mine	Ghouls
Killer Gorilla	Rubble Trouble	Felix and the Evil Weevils
Stock Car	Swag	Adventure
Bandits @ 3 o'clock	Cybertron Mission	Positron
Bumble Bee	Moonraider	Swoop
Croaker	Frenzy	Chess
Felix in the Factory	Escape Moonbase Alpha	Galactic Command

Volumes 1, 2 & 3 available on 3½" and 5¼" ADFS.

<u>Vol. 4</u>	<u>Vol. 5</u>	<u>Vol. 6</u>
Arcadians	Starship Command	Strikers Run
Meteors	Maze	Zalaga
Snooker	Killer Gorilla 2	Fruit Machine
Magic Mushrooms	Frak	Invaders
Monsters	Cosmic Camouflage	World Geography
Qwak	Guardian	Alien Dropout
Bug Blaster	Planetoid	Centibug
Video Revenge	Constellation	Percy Penguin

Volumes 4, 5 & 6 available on 3½" ADFS only.

SUPERIOR SOFTWARE GAMES

5¼" DFS

Play It Again Sam
(Contains Citadel, Thrust
Strikers Run & Ravenskull)

Palace of Magic
Life of Repton

Spellbinder

Bonecruncher

Elixir

3½" ADFS

Play It Again Sam
(Contains Citadel, Thrust,
Strikers Run & Ravenskull)

Palace of Magic
Superior Collection Vol. 3
(Contains Synchron, Repton,
Repton 2, Karate Combat,
Overdrive, Deathstar and
Smash & Grab)

Crazee Rider
Codename Droid

Advanced ROM Adaptor 2 <ARA2> (requires Plus 1 to operate)

This is an Acorn approved cartridge containing a card with TWO 'zero' profile sockets that allows you to fit compatible 8K or 16K EPROMS/ROMS. The cartridge is fully enclosed providing complete protection for your ROMS. It is simple to use, complies fully with the Acorn (sideways) ROM filing system and has gold plated connectors for maximum reliability. Compatible with both the Master and Electron Computer

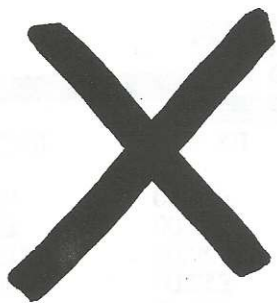
P.R.E.S. Ltd. PO Box 319. Lightwater, Surrey. GU18 5PW

Telephone 0276 72046 Fax 0276 51427

ELECTRON PRICE LIST

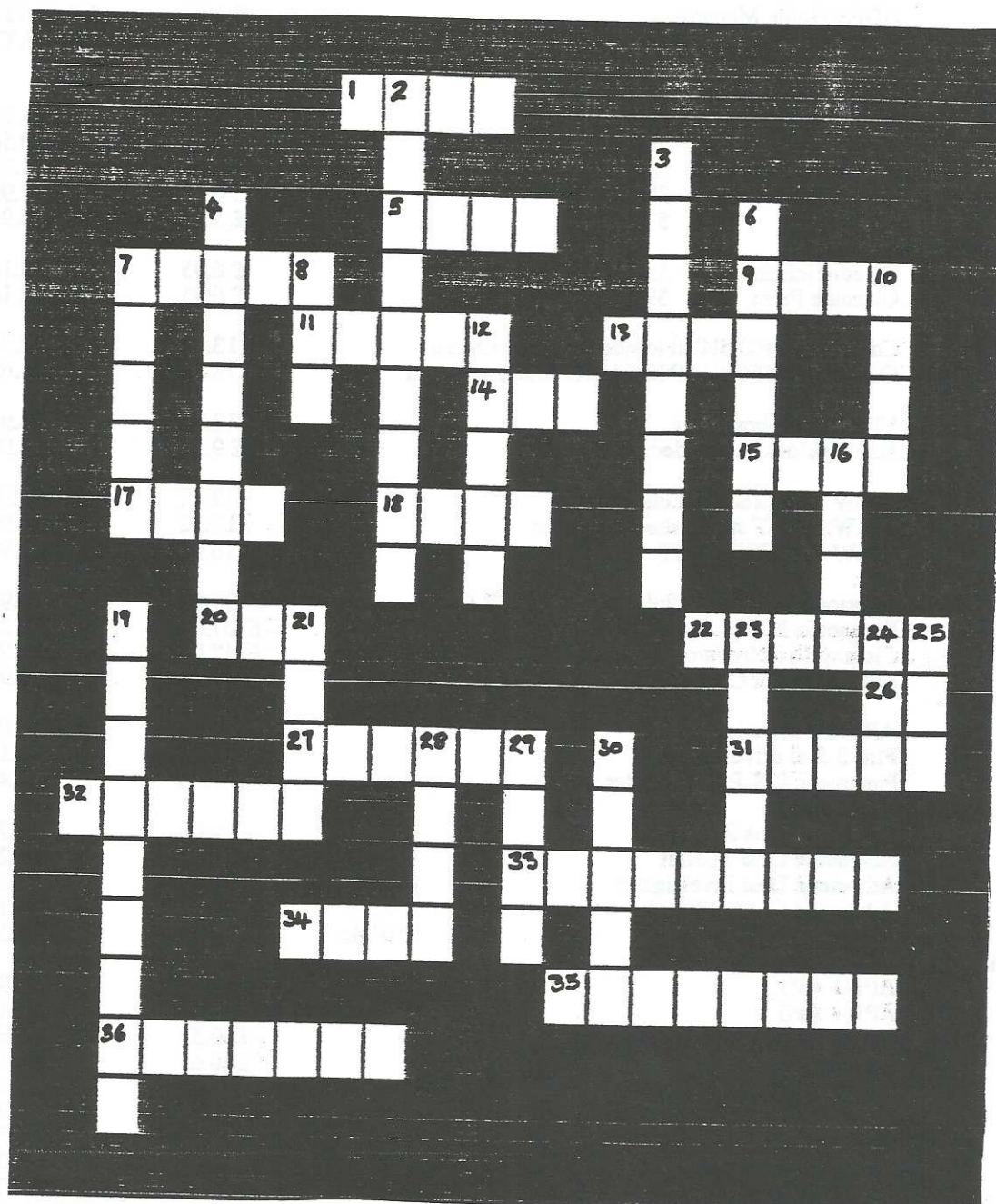
ITEM		EX VAT	INC VAT
<i>Interfaces & Upgrades</i>			
Advanced Plus 1	<AP1>	£50.00	£58.75
Advanced Plus 6	<AP6>	£33.00	£38.77
Advanced Plus 3 MkII Disc upgrade	<AP3>	£129.00	£151.57
AP3 (ADFS disc Interface only)		£52.00	£61.10
AP4 (DFS disc Interface only)		£60.83	£71.47
AP34 (ADFS & DFS disc Interface only)		£69.55	£81.72
Advanced Battery-Backed RAM	<ABR>	£39.00	£45.82
1MHz Bus Cartridge		£19.96	£23.45
<i>Filing Systems</i>			
ADFS version 1.1ROM + disc (Please specify 3½" or 5¼" software)		£14.95	£17.57
ADFS E00 (requires ABR to use)			
3½" ADFS disc (manual avail.sep.)		£14.95	£17.57
5¼" ADFS disc (manual avail.sep.)		£14.00	£16.45
5¼" DFS (2 discs + ADFS manual)		£19.00	£22.32
AP4 modification kit		£21.74	£25.54
<i>Books</i>			
ADFS Guide Manual		£ 5.00	NO VAT
Electron Advanced User Guide		£ 3.95	NO VAT
<i>Games</i>			
Advanced Games Compendiums			
Volumes 1,2 & 3 3½" ADFS		£ 9.99	£11.74
5¼" ADFS		£ 8.99	£10.56
Volumes 4,5 & 6 3½" ADFS only		£ 9.99	£11.74
Superior Software 3½" ADFS		£ 6.77	£ 7.95
" " 5¼" DFS		£ 5.92	£ 6.95
<i>Adventure Games</i>			
Taroda Scheme 3½" ADFS		£ 6.95	£ 8.16
Ultimate Prize 3½" ADFS		£ 6.95	£ 8.16
<i>Disc Drives</i>			
Cumana CS400 5¼" dble sided 40/80 with psu		£113.00	£132.77
Cumana CS354 3½" dble sided 80 track with psu		£78.00	£91.65
<i>Discs</i>			
10 X 3½in library box		£12.72	£14.95
10 X 5¼" discs dbl/sided dbl/dens		£ 9.32	£10.95
<i>ROM Cartridges</i>			
VIEW wordprocessor cartridge		£12.72	£14.95
VIEWSHEET spreadsheet cartridge		£12.72	£14.95
VIEW + VIEWSHEET		£16.98	£19.95
<i>Printers</i>			
Panasonic KX-P10819pin 144cps (28 NLQ)		£137.00	£160.98
Panasonic KX-P1124 24pin 192cps (63 NLQ)		£207.00	£243.23
Citizen Swift 2yr.wmty 24pin 192/64cps		£247.00	£290.23
Colour Kit for Citizen Swift		£34.00	£39.95
<i>Accessories</i>			
AP3 2nd drive lead		£ 5.96	£ 7.00
Plus 3 2nd drive adaptor		£ 6.91	£ 8.12
Panasonic KX-P1081 printer ribbon		£ 5.50	£ 6.46
<i>ROM Software</i>			
Advanced Plus 2 ROM	<AP2>	£11.00	£12.92
Advanced Disc Toolkit	<ADT>	£30.00	£35.25
Advanced Disc Investigator	<ADI>	£25.00	£29.38
Advanced Control Panel	<ACP>	£30.00	£35.25
Advanced File Manager	<AFM>	£25.00	£29.38
<i>SPECIAL PACKAGE PRICES</i>			
AP1 + AP3		£165.00	£193.87
AP1 + AP6		£77.00	£90.47
AP1 + Delta 3B Single Joystick		£59.53	£69.95
ABR + 3½" ADFS E00		£48.65	£57.16
ABR + 5¼" ADFS E00		£46.95	£55.16
ABR + 5¼"(DFS) ADFS E00		£51.00	£59.93
AP4 + Cumana CS400		£147.78	£173.64
AP1 + AP4 + Cumana CS400		£189.00	£222.07
AP1 + KX-P1081 Printer + View		£185.53	£218.00
Music 5000 + 1MHz Bus		£ 99.00	£116.32





WORD

A simple puzzle to while away a few spare moments. Some of the clues are Electron related and just might require a quick peep in the User Guide. There's an anagram or two along with some cunning cryptics! The solution (if you need it) will be in the next issue!



CLUES

ACROSS

- [1] BARTER (4)
- [5] INFORMATION (4)
- [7] GCOLO,O WILL GIVE YOU THIS (5)
- [9] LOSE 'RAM' AND GET THE SHORTER VERSION (4)
- [11] WHAT EVERY 'COMMANDER' STRIVES TO BECOME! (5)
- [13] SUFFIX FOR SPECIAL FX CALL? (4)
- [14] TYPE THIS THEN PRESS RET-URN (3)
- [15] CLOCK-UP THE NUMBERS WITH THIS RESIDENT VARIABLE (4)
- [17] IT ONLY COSTS TUPPENCE TO MAKE ONE, SINGS Ms. POPPINS (4)
- [18] GET TO GRIPS WITH THIS EVIL (4)
- [20] NED IS MIXED UP AT THE FINISH (3)
- [22] OPEN THE CURTAINS TO SEE TEXT OR GRAPHICS (6)
- [26] THE ROYAL PHONETIC VISUAL ORGAN? (2)
- [27] E.U.G. READER? THEN YOU'RE ONE OF THESE! (6)
- [31] CAXTON WAS INTO IT FIRST! (5)
- [32] COME BACK AND PRESS IT! (6)
- [33] SIGHTSEEING ON A GLOBAL SCALE? (5,4)
- [34] WRITE ABOUT THE "EX IT" RIDER? (4)
- [35] RECURSIVE GRAPHICS PATTERNS. (8)
- [36] YOU CAN CHANGE THEM WITH VDU 19! (7)

DOWN

- [2] ROLAND, EX-EDITOR OF 'ELECTRON USER' (9)
- [3] IT'S NOT HARD TO LOAD! (8)
- [4] TAPE STORAGE FORMAT (8)
- [6] COLOURFUL FAIRY ON YOUR SCREEN? (6)
- [7] THE KIDS ARE NEW ON IT! (5)
- [8] USEFUL IF YOU'RE LOCKED OUT. (3)
- [10] WOULD A MAGE BE MUDDLED BY PLAYING ONE? (4)
- [12] RAISE (5)
- [16] WE DON'T IF YOU DON'T! (4)
- [19] THE 'PLUS 1' FOR EXAMPLE. (9)
- [21] VDU 10, MOVES THE CURSOR THIS WAY! (4)
- [23] YOU CAN'T INTERACT WITHOUT IT! (5)
- [24] TO BE IN POSSESSION OF. (3)
- [25] NOT DRY (3)
- [28] FOR, THIS IS NEEDED TO COMPLETE A LOOP! (4)
- [29] AN OARSMAN DOES THIS (4)
- [30] MISTAKE (5)

ANOTHER program submitted by DARREN WORLEY! This time it's an example of the creative use of 'colour switching' to produce animation. Type it in and wait for the screen to set itself up then sit back and watch a display of 2 dimensional precision engineering!

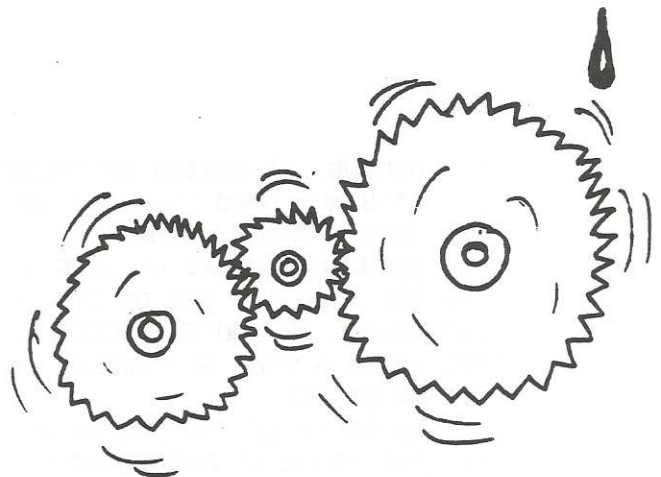
```

10 MODE1
20 a=2
30 r=190
40 j=1
50 i=0
60 FORi=0TO360STEP5
70   j=j+1
80   GCOL0,j
90   IFj>2THENj=0
100  x=r*SINRADi
110  y=r*COSRADi
120  VDU29,1020;820;
130  MOVEx/2,y/2
140  DRAW2*x/6,2*y/6
150  NEXT
160 FORi=0TO360STEP3
170   j=j+1
180   GCOL0,j
190   IFj>2THENj=0
200   x=r*SINRADi
210   y=r*COSRADi
220   VDU29,360;600;
230   MOVEx,y
240   DRAW2*x/3,2*y/3
250   NEXT
260 FORi=360TO0STEP-2
270   j=j+1
280   GCOL0,j
290   IFj>2THENj=0
300   x=r*SINRADi
310   y=r*COSRADi
320   VDU29,820;500;
330   MOVEx,y
340   DRAW3*x/2,3*y/2
350   NEXT
360 REPEAT
370   VDU19,1,1;0;
380   VDU19,2,4;0;
390   VDU19,3,7;0;
400   PROCWAIT
410   VDU19,1,7;0;
420   VDU19,2,1;0;
430   VDU19,3,4;0;
440   PROCWAIT
450   VDU19,1,4;0;
460   VDU19,2,7;0;
470   VDU19,3,1;0;
480   PROCWAIT
490   UNTILO
500 END
510 DEFPROCWAIT
520 t=TIME:REPEATUNTILTIME>t+4
530 ENDPROC

```



'WHEELIE TERWIFFICK'



T.B.A.T.B.

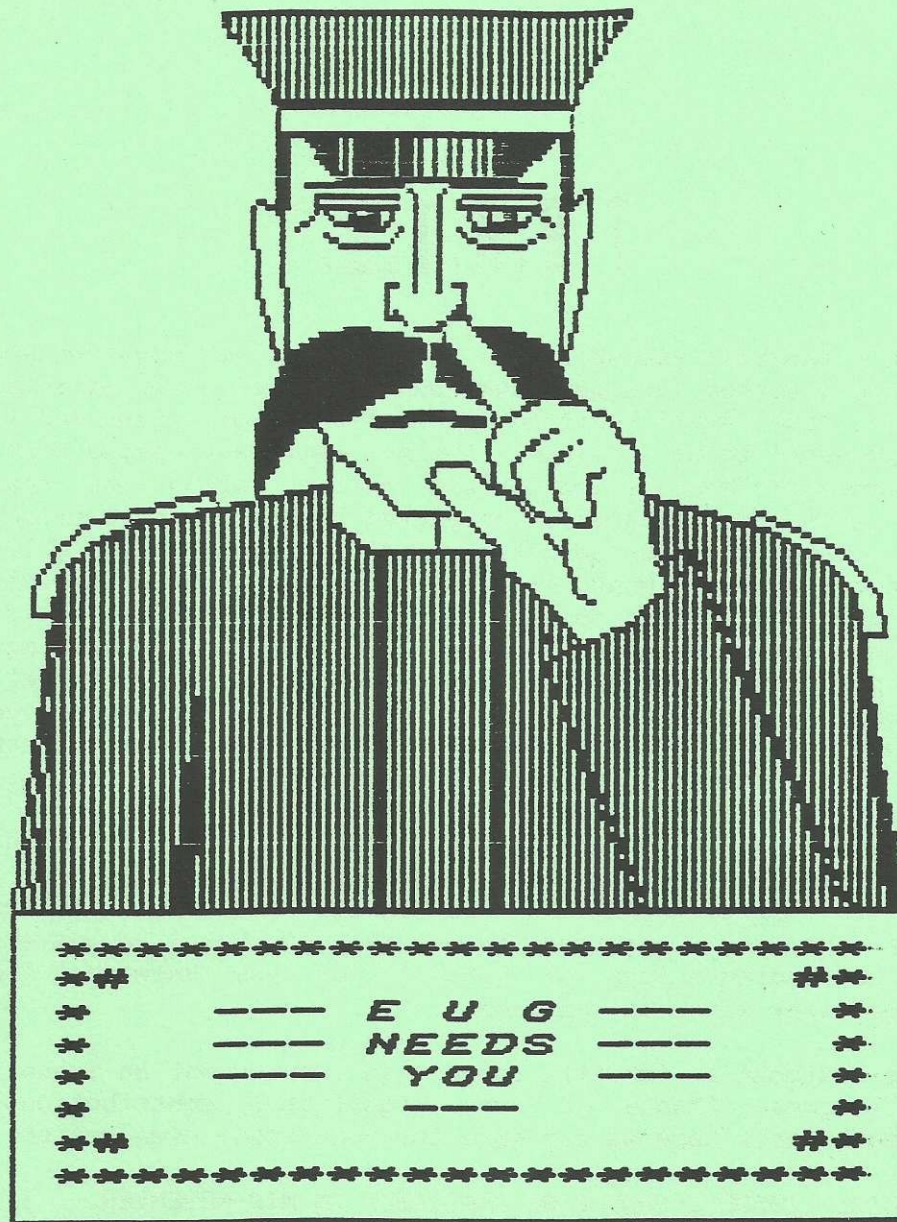
If you don't consider yourself to be an absolute beginner when it comes to the Electron, you may have found some of the material in this issue (the stuff written by me!) a bit of a yawn and if you consider yourself to be an expert you may well have keeled over from terminal boredom! Those of you who are further along the road of computing knowledge and ability only need to make a small effort for things to change to your advantage. Let us know what you'd like to see in future issues. What kind of articles or programs interest you? Would you be willing to send an example of your own work? I'm sure we could all gain a lot more from our computers by hearing what other people have learnt for themselves. So come on all you non-beginners, join in and share your knowledge! But whether you're a "beginner" or an "expert", everyone can contribute something! Hints and Tips, Programs, Articles, Opinions - all must be given a place in a magazine such as this. It has been said that there is no such thing as a "new" idea, that everything is a variation on a theme. This is true, so use your imagination and let's not have listings etc 'lifted' STRAIGHT from books or old copies of Electron User. Make sure work credited to you is just that - you never know who might be reading a copy of E.U.G.! (if you know what I mean, nudge nudge, wink wink, say no more!).

Well, that's almost it for this issue - an improvement on Issue 0 I'm sure you'll agree - thanks to very significant contributions from some of you. Let's hope we can make the next issue even better!

PLEASE NOTE, ISSUE 2 SHOULD BE AVAILABLE IN MID-NOVEMBER. IF YOU HAVE A CONTRIBUTION TO MAKE PLEASE SEND IT AS SOON AS POSSIBLE! - THE LATER YOU LEAVE IT, THE HARDER IT IS TO INCLUDE! TO OBTAIN A COPY OF ISSUE 2 PLEASE SEND A CHEQUE OR POSTAL ORDER FOR £1-00 MADE PAYABLE TO 'W. WATTS'.

THE ADDRESS AS ALWAYS IS:-

E.U.G.
134 GREAT KNIGHTLEYS
BASILDON
ESSEX
SS15 5HQ



Have YOU:

- * Written a program you're proud of?
- * Discovered a great piece of P.D.?
- * Created a stunning graphics display?
- * Made amazing music with one channel?
- * Got a question to ask?
- * Got things to tell?

Then write to:

E.U.G.
 134 Great Knightleys
 Basildon
 Essex
 SS15 5HQ