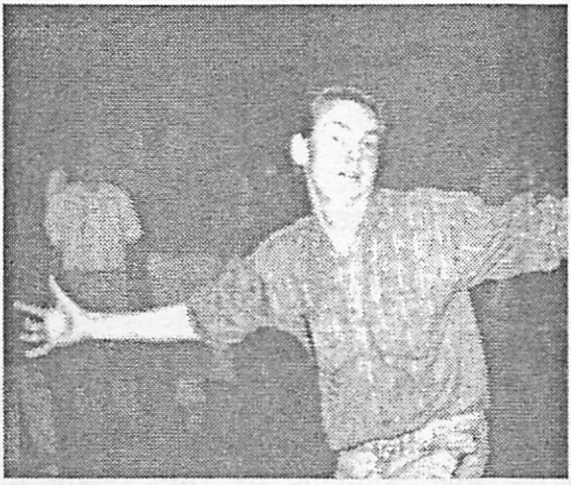
6809 USER

Edition 12
September 1989



THERE'S NO BUSINNESS LIKE SHOW BUSINESS!

EXPLORING RTTY

THE SUN SHINES OVER 6809 USER TAKEOVER. SEE PAGES 2,3,4

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New writers, reveiwers etc wanted NOW please contact above.

This next edition will be printed in A4 format to give Santos more scope with his wonderful design. I am sorry that there has been such a delay in the production of this issue but Simon's photocopier has given up the ghost and I have had to take over the magazine and printing of this issue a lot sooner than had been originally anticipated I would like to take this opportunity to thank Simon for all of his efforts in keeping interest in the Dragon alive and wish him every success with his future career. I hope that I can continue the very high standard that he has set.

R Quaintance

EDITORIAL

Over the past two years, I have written many editorials, but this undoubtedly is my sadest. After twelve editions of raving, rejoicing, sympathising, apologising and criticising, I am taking off my editorial hat and passing it on to Roger Quaintance.

As from September 10, 1989, 6809 User will have a new owner: Sunnydale Publications, I am sure many of you are quite familar with Roger, who has been our Software Editor for almost a year. He is enthusiastic and articulate when it comes to Dragon matters, and I am sure, under his leadership, the magazine will go from strength to strength,

However, the question beckons: why is there a need to change? I am personally (with New Era Publications), moving onto other things, and will shortly be taking over a small local newspaper. That, and with university on the horizon, means I simply do not have the time to continue running 6809 User.

I am aware this time last year DRAGON USER was in exactly the same position. Just when 50% of their resubscriptions were due, they notified their readers of a change which brought about its downfall. However, there is one big difference this time round; the future of the magazine is NOT dependant on everyone resubscribing. We have paid Sunnydale Publications enough to ensure the immediate future of the magazine, and while it would be nice to see everybody resubscribe, it is not essential.

However, I do have confidence in you to resubscribe. I believe the magazine is still an important tool in any Dragon user's armoury. I believe we have been the most successful and most acclaimed magazine during the last twelve months, offering a REAL substitute to DRAGON USER. And success breeds success.

I am confident Sunnydale Publications will continue along the same road, improving sections of the magazine which may have become a little stale, and injecting new life into an already vibrant publication.

As mentioned earlier, I will be particulary sad to pass on 6809 User. For me, it has been an excellent launching pad into other avenues of life. I hope to remain a participant in the Dragon scene for a few more months yet, and I will always be an active onlooker. All that remains for me to say is to wish Sunnydale Publications the very best of luck, and to thank everybody for the tremendous amount of support you have given.

Simon Jones

EDITORIAL

TAKEOVER

In September 1989 the Sunnydale Publications company will be taking over 6809 User. In order to make the transition as smooth as possible people are being informed well in advance.

Sunnydale Publications are part of the fund raising and of the Sunnydale Animal Rescue Centre. It seems appropriate that an Animal Rescue Centre be entrusted with one of the main efforts to save the nearly extinct "Dragon". The end when it comes will be through appathy on the part of end users and could be quite swift. As with all endangered species EVERY surviving DRAGON/COCO should be nurchured by its respective keeper. The time for letting everyone else do the work whilst you sit back and reap the benifits are long gone. EVERYONE must make some contribution, even if it is only writing letters to the various magazines.

TAPE BASED MAG ?

Various ideas have been put forward for future concideration including the pomsibility of producing the magazine on tape/disc. I must say that the idea appeals to me, being a conservationist, the saving in paper would be tremendous and the scope to include ready to run software and demos would be great.

There would be many problems to overcome, there being a number of different formats to cope with Tandy/Dragon, disc/tape etc. In order to evaluate the feasability of a tape/disc based magazine it is essential for me to know what YOU think, what machine/system you are using and what new features you would able to see in future issues.

GET YOUR PENS OUT!

This is one time when it is essential for all of you to write in with your ideas and system details, it will only cost you a 14p stamp and a little time, (maybe 10 mins). If for some reason you would object to such a change then you must tell me that too. I cannot stress too strongly it is essential for each one of you to answer me, if you cannot do this small thing then the future of 6809 user and the Dragon/CoCo looks very bleak. Write now before you forget. If I do not get a significant responce then I shall assume that I am flogging a dead horse (sorry, Dragon) and will have to think again about taking Over 6809 User. Is the end really going to come because you are too lazy or tight to spend 14p for a reply ? we shall see! Make my day, fill my post box, and show that you care.

Roger Quaintance.

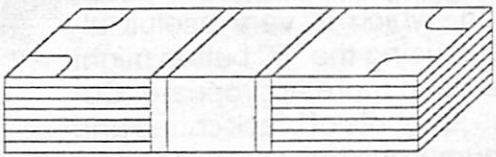
LETTERS

PRESTEL BILLS

I read Ken Smith's piece about Prestel with great interest. Both myself and a ? (some text is missing here Simon - Sot.) have been trying to distangle ourselves from their web for months now. They do seem to "not receive" letters, and cancellation form with monatonous regularity. To cap it all, a recorded delivery letter was not received! As of now, every time I receive a bill (nil + £80 annual sub from previous bills). I write nonities on it, reseal the envelope and return to sender! This way they have to pay excess postage as well. I hope they get the message, but I doubt it.

JOHN GILBERTSON, Morecambe, Lancashire.

EDITOR: *Legally, once you have registered your camcellation notice through the P.O. you have very little to worry about.*



DESIGNER T-SHIRT!

I was in Crewe the other day with my wife, wearing one of your T-Shirts. She was on my right hand side, the same direction as the Dragon tongue points,.. think about the logo ("THE DRAGON ROARS ON!" - Ed.). Got some pretty funny looks.

IAN JONES, Middlewich, Cheshire.

EDITOR: *Come on, Ian. You didn't think we designed the T-Shirts with the Dragon computer in mind, did you?"*

Congrats!

May I now congratulate you on the format and content of '6809 User'. It seems to keep improving and has now equalled if not surpassed 'Dragon User' in its final months. I do look forward to receiving my copy every two months and will definately renew my subscription.

A McIntosh, Edinburgh.

EDITOR: *That's what we like to hear. May thank everyone who has written to us during the last year or so. I hope you will give Sunnydale Publications as much support as you have given us.*

REVIEWS

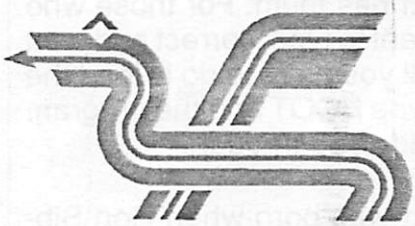
PROGRAM: Revenge
SUPPLIER: Kouga Software
TYPE: Arcade REVIEWER: R. Ouaintance

Revenge? ok, the full title is REVENGE OF THE ALIEN BONGO BEAST IN THE CRISSY CROSSY LIMES DIMENSION. But if you think that I am going to type that in you must be mad. This latest release from Kouga, made its first appearance at the Hove show, where it all but sold out. Written by Stewart Orchard, one of the Dragons best up and coming programmers this arcade game is one of the best that I have had the good fortune to review. Loading was no problem once I had detached my DOS. A separate preloader giving you the option of a software detach for DRAGON or DELTA Dos would have been a nice touch, how about it STUART ? After the introduction which explains who you are and why you're there, you are presented with a menu, which allows you to select, KEYBOARD or JOYSTICK, LOAD or SAVE high score tables and PLAY GAME or QUIT. You Can Skip past the introduction and skip from the menu to the high score table by pushing the fire button. The game display itself is very good with excellent joystick response and very smooth graphics, as an asteroids style game it leaves the original in the dark ages. There are many different types of enemy; slow fighters, rogue bullets, kamikazie craft (which can only be destroyed with homing missiles) satelites, fast moving fighters (homing missiles only again) and of course asteroids (which split into smaller ones when hit). To progress from ome level to another you must seek out and destroy eight generators on each level, to help you do this a RADAR screen is provided to the right of the main display. Once again smooth real time scrolling graphics show items of interest, I personally could not pinpoint the generators using the radar; as generators, asteroids, and space craft all look the same on the radar, well I suppose they would wouldn't they. Once all eight generators have been destroyed an end of level monster appears dispatch him and a screen with a message and various bonus points that can be gained in the next round appears. At this point I must say it would have been nice for the level NUMBER to be displayed, I lost count and had to play all night and into the next morning in order to finish all fifteen screens. There is a PAUSE facility enabled by pressing the break button, which is very usefull although using the "P" button might have been more appropriate. Copious amounts of black coffee and the humerous remarks on the end of level screens could help to keep

you awake, if like me you sit up and play all night, but you have to read quickly the screen is only displayed for a few seconds, "press a key to continue", would have been welcome here. All in all a very enjoyable games the standard of programs available for the Dragon is improving with every new release and for that we must thank the dedication of todays young programmers who, just a few years ago could have made a lot of money. WELL DONE !

PROGRAM: MANDRAGORE
SUPPLIER: Kouga Software
TYPE: Arcade REVIEWER: R. Quaintance

You are Mandragore, a highly advanced exploration robot. During the routine investigation of an ancient pyramid you inadvertantly trigger the pyramids self defence system. Can you get out ? You must battle your way through two levels of mummies, ghosts, trapped eagles, laser firing ants, (laser firing ants ? They must be soldier ants) and large mutent aardvarks. There are also several ramballs and dragons teeth, (small pyramids, well almost) and revolving sentinals in the wall, how they can see you when they are spinning around I'm not sure, they must be dizzy I know that I am. At the end of each floor should you manage to get there, you will begin a battle to the death with one of them. Kill him and you can progress to the next floor down by falling through a hole in the floor, your shadow is already on the floor below as you start to fall and disappears as you get there, it looks for all the world as though your feet get there first and await the arrival of your body. The graphics are quite good but the scrolling chequered floor was rather jerky and combined with the revolting, sorry, revolving sentinals in the wall made me quite dizzy, I could not play this game for very long periods of time. There is very little differance between the bullets fired by yourself and those fired by the various creatures, making it very difficult to see if you had just fired, or were about to get shot. Tremendous concentration is required, and joystick movement must be reduced to a fine art as there is very little room for error. I had the feeling that this is an early attempt to produce a graphic masterpiece. It



may well be fine for the younger players amounst you who still have lightning reactions and eyes in the back of your head, but altbough I found it very interesting and playable it was tiring.

VISITEXT DE-LUXE by Ken Smith

Yes I know you are fed up with reading about word processors. Where ever you look these days somebody is reviewing one. And they are all the same, with manuals like War and Peace, it takes so long to learn the different codes that unless you do a lot o1 writing then it is easier to use a pen. So what if a system was so simple that, unless you wanted to use some of the special features, it was not necessary to even consult the instructions? That system is here and it is called Visitext De-Luxe. Now, don't let this talk of simplicity fool you, what we have here is quite a powerful tool. If you want features to move blocks of text or change printer fonts then Visitext has them. For those who only want to type, correct and print then all you have to do is load the disc, type BOOT and the program will guide you through.

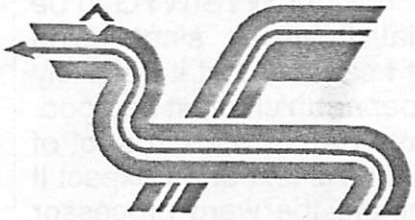
Visitext was born when Ron Sibthorpe decide to produce a program that he could use to write letters using his Dragon. Since then, like Topsy, it just grew. Every time I see a copy it has something more. What makes Visitext De Luxe so different is that it is menu driven and written using a combination of Basic and machine code. To keep the workspace at it's maximum the system is made up of modules which only load when required. It is this modular construction and Basic programming that has made it so easy for Ron to modify and improve the system, from a forty eight line letter writing program to a wordprocessor capable of generating files of up to two hundred and two lines of text with many sophisticated features.

A sixty four column display is used and this can be subdivided using the columns facility. Fill and justify works on the full screen or on individual columns. When a column is right justified words are not split over two lines. If a gap is too big to be made up by inseting spaces then a gap is left in preference to breaking up the word. As you would expect with a WYSIWYG system both right justify and word wrap are applied to the screen display just as they are to the printed page.The screen display itself is worthy of comment in that it is the first sixty four column display I have seen on the Dragon which actually has spaces between characters. This means that characters sometime look a bit thin but the display is always

easily readable. If you do not like the characters then you can always design your own, a character editor is provided, personally I found it impossible to improve on the original.

Several single keystroke printer codes are available, one of which use the CLEAR key as a control key. These can be used to switch typefaces or sizes and most are redefineable. In general the codes are well chosen and easy to remember, I find control/Z, which toggles between normal and italics, most useful.

Character set for instance an AD Hoc code facility is provided this can be up to ten characters long and can actually be a combination of codes. Each time any of these codes are uses a pattern is printed on the screen as a marker again all of these patterns are redefineable. As I have already said Visitext has grown over the last year and the most noticeable additions are the Autopage, Multi-Print and Datamerge facilities. The former allows you to decide the page length and whether or not page numbers are required. Nothing new in that you may say and you would be right but how many other systems give you a Visual warning that you are within five lines of the bottom of the page. Multiprint allows not only multiple printing of a file but also makes is possible to load and print a group of files automatically. The latest addition, Datamerge, is a real breakthrough. At some time or another you must all have received one of those letters, invariably trying to sell you something, where it is not only individually addressed but also makes reference to you personally. The letter is type written and it is obvious that your name has not been added later so how is it done? Datamerge that is how. The most common use for this is for circular letters where several copies of a letter are run off but each one is individually addressed. This system using address blocks is known as Mailmerge, Datamerge takes this one stage further allowing merged data to be included anywhere in the text. Up to twenty copies of any file can be produced in this way and this is just a starting point, with a little cunning this can be extended almost indefinitely.



If Visitext De-Luxe has an Achilles heel it is definitely in the instruction leaflet. Both MultiPrint and Datamerge take a little figuring out as do the using of the new columns feature. A few examples here would have helped a lot. It also undersells the system by not explaining adequately just what Datamerge and Multiprint can do for you. The sixty four column maximum width may be seen by some as a disadvantage and I suppose this is fair comment. However, when I looked back at text I had written before Visitext I was surprised at how often I had chosen that very format. Some of the features which require the loading of other program modules may seem a bit cumbersome in operation but these are usually features that you would not otherwise have. Its inclusion of printer code patterns and failure to display double width characters means that Visitext is not true WYSIWYG but it is as close as you will see on any comparable computer. As I am sure you mill remember from a previous article I don't consider WYSIWYG to be essential, however, since using Visitext I can say that it definitely saves paper uhich must be good. The ease of use will win a lot of friends for Visitext and I expect it to dominate the word processor market, well the Dragon part anyway. Of the four systems that I use, Visitext is the one that is used most often.

DRAGON ADVANCED MUSIC SYSTEMDRAGON 32 & 64 - CASSETTE - DDOS by Alan Davison-Grey

DAMS is without doubt the most powerful music package ever written for the Dragon. The package consists of two separate programs. The first allows the composition and editing of music in up to 4 voices over a range of nine octaves. In addition the users can shape their own sounds for each voice. The second program is a utility to enable a music module to be generated for use as a standalone music piece or a music track for machine language programs. The latter is achieved by DAMS automatically generating a M/L interrupt after each played note. Although mainly designed to interface with user M/L routines, a short program to enable BASIC/DAMS interaction is listed in the 20 page A4 DAMS manual. Writing music within DAMS is different, but no more difficult than using the Dragon's PLAY commands and is well documented in the manual. Once a piece of music has been written in DAMS format the fun really starts! Each voice may have one of 5 basic wave shapes and its own envelope. The waveform & envelope parameters are easily set by se-

lecting the voice number and positioning cursors around the screen. To detail the possibilities would take far too much space so I will just list the user adjustable parameters and leave the rest to your imagination.

There are 5 basic wave shapes. Sawtooth (ramp), triangular, square, pulse and white noise. The envelope parameters are attack time, decay time, sustain level B time and release time (called resonance by DAMS). The envelope can be used on a note by note or continuous basis. In addition, reverb depth a speed, chorus frequency B volume and reverb delay B depth can be set. A Voltage controlled filter can also be added in normal or reverse mode with variable depth. Finally, the overall volume of the final sound can be set for each voice to enable balancing. Music and Waveforms are saved to cassette or disk as independent files so music can be played with waves from another piece and vice-versa.

For the musician DAMS gives more scope than any other music utility for the Dragon (or many other micros come to that!) and for the non-musically minded it is still worth getting for its educational value in demonstrating how synth sounds are produced. The manual is comprehensive and contains a brief tutorial on sound envelope parameters as well as instructions for program use.

Being Menu-Driven, DAMS is not so difficult to use as its apparent power may suggest and demonstration music and wave files are included which can be edited and generally played around with. I wish DAMS had been around years ago!

Please send all software for review to: 6809 User P.O. BOX 13 Ilfracombe, North Devon, EX34 8PB.

OS9 - FLEX

Flex - OS9 by David Rothery

Dragon Operating Systems

You will not have failed to notice that my last article was liberally sprinkled with parenthetic commemts with the initials 'sot'. Now what silly sot would do a thigs like that? (Amswer - a drunken sot!). See here, Sotos, you caused a lot of confussion with your interjections! (if you think I am using quite a lot long words it's just to see if he gets the spelling right). First, a filter is a utility, but a special kind, as its name implies. Using one of the most interesting features of OS9, its ability to 'pipe', you can link utilities together so that the output of one goes to the input of the next. Thus

Using one of the mostinteresting features of OS9, its ability to 'pipe', ...

```
d | sort | col 6
```

gives a sorted directory arranged in 6 columns. 'd' is a directory utility which outputs one word per line. This goes into 'sort', which puts it into alphabetical order, and the output from 'sort' goes into 'col which puts it into however many columns you specify. So 'sort' and 'col' are fitters with an input and an output, just like your coffee filters! And if you can't find any of the above programs on your OS9 link, you obviously haven't sent for PD1, one of the tuo disks I was offering last time.

You will remember 'sot' also offered to walk to the Hove show it I could mulitask on a 6809. He knows he was safe, as the show was only a day or so after publication, but if you care to walk to Glossop instead, Sotos, I will happily demonstrate 'mailmerge' printing a mailshot (i.e. multiple printings of a letter where the names of different recipients are inserted from a previously prepared file) at the same time as I am writing a new letter with 'Stylo'. Granted, memory limitations mean I can't write the Great English Novel on it, but there is enough memory to be useful. The 6809 is so fast you don't notice it is doing two jobs except during disk acceses. Also I am told you can link two Dragons or CoCos and both of them can use the same program at the same time, since 0S9 programs are reentrant. I haven't done this myselt, but have no reason to believe that

reading persons on the OS9 scene like Dale Puckett are liars! So get yer boots on, Sotos!

The big OS9 news of the month is that I received Newsdisk19 from the OS9 User Group. This is the first since Burghard Kinzel took over with Martin Verno's blessing. Most of you will know that Martin got himself snowed under and stopped sending regular issues about twelve months ago. The Newsdisk follows the usual pattern, with a few letters and a number of utilities mostly contributed by R. J. Telkman. These are mostly updated of the normal OS9 commands such as dir, copy etc. but with extra facilitles or improved efficiency. There are no long articles, but instructions are provided for all the new commands and also the sources for you to play around with. A bit thinner on material than some of the earlier disks, but a very worthwhile acquisition for any OS9 owner. So do join the group, and give Burghard as much support as possible, both morally and also by contributing material if you can. Burghard's address is:

Burghard Kinzel, Leipziger Ring 22a, D-5042 Erfstadt, West Germany.

I believe two more disks are already being prepared.

There seems to be some demand for basic informatidn from those who have either just started with OS9 or who dipped into it and couldn't make much sense of the manual.So I hope the OS9 'freaks' will bear with me while I write a bit about directories. (Who knows - you might even learn something!)

Think of the directory as a general heading under which filre-names are grouped.

The standard version of OS9 uses a core program called 'shell' to interpret your commamds to access files etc. It gives autonatic access to two directories. The executiom directory is set to /d0/CMDS wben you boot up so that when you type a command name it looks it up in the directory. When you want to access a tile it looks to the working directory, which is /d0 to start with. So

```
Stylo letter
```

calls the Stylo program from /d0/CMDS and then loads in the

file 'letter' from /d0. Note that directory names are usually in capital letters, but don't have to be. Think of a directory as a general heading under which filenames are grouped. Although when organising the disk OS9 treats the disk entry for CMDS just like any other filename all attempts to access CMDS using list, del, copy etc. will fail, giving a 'no access permission' error. This is because the directory entry has a special 'd' attribute set. All this means in practice is that you cam only create a direcory with the Makdir command and delete it using the Deldir command, and then only if it is empty. You could, in fact delete it by removing the 'd' attribute

attr -d

and then usins Del, but it is safer to use Deldir. Quite a few people have been puzzled when receiving usergroup diskd and typing Dir to get something like

LETTERS LIBRARY CMDS NEWS ARTS

and then find that when the type 'list news' they get an erro. That is because NEWS is a directory, not a file.

Now many people tend to type long pathlists to access files, so that with the Newsdiskh they type

list /d1/library/instruct/tree

wanting a lot of instructions it is easier to type

'cmd /d1/library/instruct', which sets the working directory to INSTRUT, and then 'list tree'. You can then list any other files which are in the library under the heading 'instruct'.

The 6809 is so fast you don't notice it is doing two jobs except during disk access.

d1 (disk name)

CMDS LETTERS LIBRARY NEWS ARTS HELP

PROGS INSTRUCT SOURCE

tree (and other files)

If all this makes little sense to you the diagram should help, It omits all actual files except the one in which we are interested, and

shows how the pathname is traced by OS9.

Now suppose you get this Usergroup disk and have no idea what is on it. I will show you a system which few people seem to make good use of which is increatbly convenient once you get the hang of it. First do a 'chd /d1' Now type 'dir' and you will get a list of the directories on the FIRST row from CMDS to HELP. Now to get further down the LIBRARY path type 'chd ./library' followed by 'dir'.

Why the dot? This stands for the directory you are in at the moment. So you will now see

PROGS INSTRUCT SOURCE

followed by 'dir' we at last see the files like 'tree' in lowercase letters. But suppose after listing 'tree' we want to read the assembly language source tile of 'tree'? Most people would type:

'list /d1/library/source/tree', assuming the original source file of 'tree' is in the SOURCE directory. Instead, try:

'list ../source/tree' (the two dots mean "go back one directory level").

You can even use 'list ../help/helpfile' assuming 'helpfile' was a file in the HELP directory. So each dot takes you back to the next higher directory. It you lose track and want to get back to the root directory of the disk, use 'chd .....' Just give a load of dots, as if there are too many it won't give an error, you will now be back to /d1.

The standard version of OS9 uses a core program called 'shell' ...

The dot system is very useful in a situation I described last time when a programmer has hard-Coded a reference to a particular disk drive in his program. Thus Stylo picks up help files from directory /d0/STY each time you press CONTROL A and the C compiler looks for a LIB directory etc, on drive /d1. Too bad if you are using a hard disk or have put all your files on one 80 track disk and have only a single drive and have no d1! I suggested using 'dump' to find where the programmer had writtem /d1 and changing it to /d0 or whatever. A more sophisticated method is to change /d1 to ... This means that WHATEVER drive yow are using, the program will always go to the

root directory on that disk (unless you are well down the tree!) The dot system is certainly useful!).

One last point. Microware in the States have available a new shell called Kshell which is a direct replacement for shell. By typing

```
path=/d1/cmds:
/d0/cmds: /d1/library/progs
```

you create THREE more execution directories! If you now type 'grep', where grep is a commamd somewhere in your drives, the kshell will try your normal execution directory first, followed by all the others you have specified, in that order. Cool! Also, Kshell takes wildcards, so if wou have saved a letter under the name 'Marks_and_Spencer1', you can list it, delete it etc by using a command such as

list mar*

assuming it is the only file beginning with 'mar'. Or you can delete all your backup files using 'del *.bak'. The asterisk stands for any number of letters, so it will delete all files ending in '.bak'. But that's not all! Up to four macros can be specified, so that if you type

$i=list /d1/LETTERS

then every time you type something like

$1/Fred

it is equivalent to typing 'list /d1/letters/Fred' - a great time saver! The only penalty is that the shell takes rather more memory, but this is offset by the fact that you no longer need to keep Printerr in memory, as Kshell has its own error message device built in.

Next time FLEX will have lion's share ...

I have waffled on so long about OS9 that FLEX users will be tearing their hair out! (Or should it be 'hairs', since they pressumably have more than one?) I promise that next time FLEX will have the lion's share with a review of FLEX COBOL. I also promise to be nice to Sotos (no-one would be daft enough to offend someone who has to typeset this lot!).

S/W UPDATE

by Roger Quaintance. Software Update

Well where were you all, you tight fisted lot there I was at the Hove show waiting for hundreds of you to come and buy me a drink, I'm still waiting. I suppose you all spent your money on software, well it was cheap wasn't it? still you could have come over and said hallo.

All of the major software house still supporting the Dragon were there, yes! all of them.

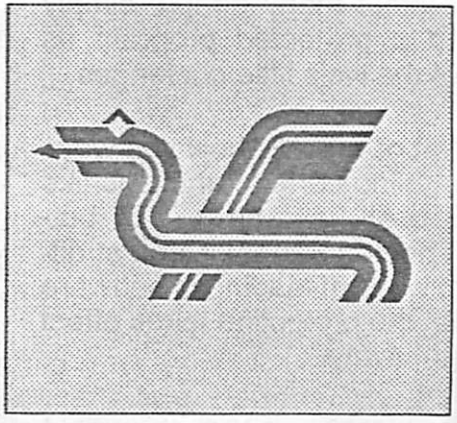
Kouga software were doing well with, Revenge and Mandragore, (see reviews this issue). Dragsoft were showing their new programs, "FoneBill" and "Setter" a program to help you set up your television or monitor. "Data & Loader Printer" is now available in two versions one which includes line feed for printer and one which does not.

Techbase were selling PD Software on secondhand disks for just 75p per disk, What a bargain! seven different disk were available including the latest from Norway. Some of the disks contain a superb CAD system, others various utilities and games.

Knight Computer Services announced their graphics library has been increased with 50 new disks from the USA. Where are our reveiw copies ? Dragon Graphics studio Plus is the updated version of the progam we reveiwed a short time ago. We will be reveiwing the new version as soon as space allows. Pc Fonts and Dragon Graphics Studio were both selling well.

Sunnysoft, my efforts to raise money for animal rescue; have dust released, Icon Master (Delta DOS only at present) & £4, Autoprot £2 (Delta) and Disksort £2 (Delta). Comming soon Weafax, (download weather satallite pictures).

I would like to take this opportunity to thank, New Era, Computape, NDUG, J Penn and Lee Cooke for the donations of software for me to sell to raise funds for the Sunnydale Animal Rescue Centre.



PROGRAMMING

Programming by Harvey Grey

Protecting your programs

Once in a while every body writes a program, either in machine code or BASIC, that they wish to market. However, once on the market the program is then open to software pirates and hackers. This article intends to show you how to improve program presentation and provide reasonable protection against hackers and the like.

The protection of BASIC programs tends to depend on built in deterents. All sorts of tricks can be used to prevent copying by "pirates" or LISTing by the curious. But for this article well just look at ways of disabling certain items. However, before I strat I would like to point out that there is one thing you can be absolutely unscrupulous. Infact many poeple simply regard a protected program as one of the life's little chalenges.

To start of with I'll show you ways of disabling certain functions like the BREAK key and RESET button. Then after that I'll look at different ways of loading in software so that the protection takes effect straight away.

One of the easiest ways, if not the easiest, of prventing someone from mendling with your program is to disable the keyboard. To do this is quite simple all you have to do is incorporate the line POKE 65301,0 at the start of your program. However, this has its limitations in that it can't be used where the keyboard input is required. Obvious I know. But you would be surprised by the number of people that find out hard way.

So the next best thing is to disable the keys that allow people to get into the program. The key being BREAK and the RESET button. There are several ways to dissable the BREAK key the first oine being given below.

```
10 POKE 411,228

20 POKE 412,203

30 POKE 413,4

40 POKE 414,237

50 POKE 415,228

60 POKE 410,236:REM This disables the BREAK key.

70 POKE 410,57:REM This enables the BREAK key.
```

As you can see this is quite straight forward. The only trouble is that it dosn't work during INPUT

statements. Therefore, enabling anybody to BREAK into your program. Of course if there are no input statements you have nothing to worry about. The other way to disable the BREAK key is given below. As far as I can tell this works under all conditions, but who knows.

```
10 CLEAR 200,32550

20 FOR I=32551 TO 32605:
READ A$: POKE I,VAL("&h"+a$):
NEXT I

30DATA8E,7F,3C,BF,01,6B,8E
,7F,54,BF,01,9B,86,7E,B7,01,6
A , B 7 , 0 1 , 9 A , 3 9 ,
0D,6F,27,01,39,32,62,34,14,BD
,80,09,BD,80,06,27,F8,81,03,27
, F 4 , 7 E , B 5 , 4 2 ,
9F,DF,35,10,30,04,34,10,9E,DF
,39

40 EXEC 32551
```

Disabling the RESET button can be done several ways as well. Incorporating POKE 114,&HAC:POKE 115,&H0F into the porgram, will cause it to crash when the RESET button is pressed. Or POKE 113,0 will cause a porgram to be newed when the RESET button is pressed. Simple isn't really ?

Having looked at ways of preventing people from hacking into your program, I think its about time we had a look at different loading methods. The reason why we get our programs to load differently is so that the protection, we have incorporated, takes effect almost straight away. Therefore making it harder for people to hack into use an AUTORUN routine, ie the program starts runing as soon as it loads without the user having to type in EXEC or RUN. However, as there are or were packages available to make programs AY-TOrun, and it was covered quite thouroughly by Brian Cadge, in the July 84 issue of DRAGON USER, I am not going to cover it here. Instead I intend to show you how to save a BASIC program as machine code so that it can't be listed.

The first thing you should do to your program is add what protection routines you want and then RENUMber it so that the first line is 10. Then key in the following program being especially careful with line 1.

```
1        R        E        M
AAAAAAAAAAAAAAAAAAAAAA
AAAAA NB. (A*26)

2
ST=PEEK(25)*256+PEEK(26):
A$="308C10EC81DD19EC81E
D8CEEEC84DD1B7E85A5"
```

```
3 FOR K=1 TO 38 STEP 2: POKE
ST+&+K/2,VAL("&H"+MID$(A$,
K,2): NEXT

4 POKE ST+25,PEEK(25): POKE
ST+26,PEEK(26):  POKE
ST+27,PEEK(ST):  POKE
ST+28,PEEK(ST+1): END
```

At this stage I advise you save your program using the CSAVE command, so that should any bugs occur you can easily rectify them. And please note that the NB. (A*26) does not have to be typed in all its there for is to let you know that there are 26 A's and also remember the space after the REM.

The next step is to add some information about the end of the program into line one. This has to be done in direct mode as the information immediately changes value when a line number is entered. Therefore in direct mode enter the followign:

```
ST=PEEK(25)*256+PEEK(26):
POKE ST+29,PEEK(27): POKE
ST+30,PEEK(28):  POKE
ST,0:POKE ST+1,0
```

You can now save the program using:

```
MOTORON:  SOUND1,20:
CSAVE"program",ST,PEEK(27)
*256+PEEK(28),ST+6
```

The program is now saved in its fully protected form and can be loaded back in using CLOADM and run using EXEC. And now for the challenge A PRIZE for the person who sends me the best solution for disabling hacking and pulling to pieces all the routines I have given. In return I will send them ORIGINAL copies of SUPERKID and FIREFORCE. Entries should be typed if possible and send to me. Harvey Grey, Three Trees, Greens Farm Lane, Billericay, Essex CM11 2NY. The winning solution will be printed in 6809 User (space permitting) as soon as its received. So get hacking.

Please note that the any programs send by 6809 User members must be clearly typed and a print out must always be provided. This makes things easier for us and saves a lot of time and effort. We will soon give you the guidlines for every material that you send and is published. As you can see from this article the text has been re-written. If there are any mistakes Harvey, please let us know. We must always ensure to provide the best results for our members - Ed.

COMMS

by Ken Smith

Comms Page

Well, I am impressed. I must have received at least half a dozen letters detailing systems and software and it would now appear that most people run Dragon 64s coupled to Prism Modems. It comes as a bit of a surprise to find out how many of you use Flex, am I missing something ?. I hope everybody who sent for the free comms software is happy with what they received. It must be worth at least twice what you paid for it. While I am on the subject I must thank you all for including return postage, I had forgotten to mention it, but I am glad to say that every request came with retun postage, thanks all of you.

Now, I have received a plea for help from Eric Hall of Flat 3, 32 Thackeray Mall Fareham, Hants, PO16 0QF. Eric is having problems finding software to drive a Tandata 110 modem, apparently he cannot even find a manual for the beast. So what about it chaps (and chapesses) surely someone out there can help, after all, isn't that why we have a comms page ?. Eric runs a 64K CoCo and has OS9 capability.

The more I find out about the computer scene, the more convinced I become that pricing has bears little or no relation to the cost of production. In fact it seems to have more to do with what the customer will pay. Why else should programs for the Beeb be twenty per cent dearer than the same program for the Commodore 64. The thinking seems to be that Beebs cost more so therefore Beeb owners have more money. Unfortunately, this thinking seems to extend to us Comms users, why else would a modem capable of handling V22 cost in excess of two hundred quid ?. A friend of mine told me recently that with modern production techniques he could make one for about thirty notes and if more than a thousand were sold then a small profit would be made. Even allowing for marketing costs and retail mark up, that would still mean a use modem for about seventy five pounds. So why are they so expensive? is it just that we are all being ripped off ?. The answer is not quite that simple, for a start my friend was talking about a single rate device using only V22. In-

Gaining approval could take months, in the meantime any device not approved isn't going to sell.

stead of the auto-everything models currently available, his was auto-nothing. In fact, if you can imagine a Prism 2000 modified to run 1200/1200 full duplex; then that is what he was talking about. The industry, of course, only makes single rate modems for V20 or V23 both of which have now been overtaken by events. V21 is rapidly disappearing due to it's distinct lack of speed and V23 being split rate is not compatible with all systems, OS9 for instance cannot handle split rates. For most models systems V22 and V20bis are all that is needed, even Prestel will run on V22 these days. As for the auto-dial, auto-answer bit, who needs it. Auto-dial may be nice, but if it costs an extra forty pounds then I can do without it. Auto-answer is only necessary if you are running your own BBS or operating on an online networking system which lets most of us out.

Now either I am a cheapskate and all you guys are loaded or there is a gap in the market, so why is no one rushing to fill it ?. Well believe it or not there are some positive disincentives to building a new modem not the least of which is big brother B.T. It is a legal requirement that any equipment connected to the national telephone network be approved by British Telecom and bear the covetted green spot. The thing is that B.T. do not approve at the design stage, nothing less than the finished article will suffice. This means that the modem is actually in production before it is submitted for approval. Gaining approval could take months and in the mean time any device not approved is not going to sell. Is it any wonder that manufacturers tend to nail extras on to these old models rather than develop new ones ?. Another problem is that the only person who lines a price cut is the customer. Profit margins, dealer mark ups and handling charges are all calculated as percentages and twenty per cent of seventy five is a hell of a lot less than twenty per cent of two hundred and fifty. The fact is that the existing manufacturers are happy with. the status quo and the odds are heavily stacked against anyone new entering the market. When I suggested that my friend put his ideas into practice all he could do was laugh and tell me that he was neither rich nor stupid. However, if anyone wants to chance there arm there are a lot of old Prisms and Buzz Boxes owners who could do with a replacement, not to mention the new users looking for a first modem.

Write to **Ken Smith**, c/o 6809 User, 37 Collins Meadow, Harlow, Essex, CM19 4EN.

FEATURE

by Ken Smith

Bob Harris Retires

For the second time now, a show has passed without the attendance of Bob Harris. Bob has long been a central character at 6809 shows and was the benefactor who kept Dragon User afloat, when everyone else deserted it, and so was sorely missed. Bob first appear on the Dragon scene back in 1985 when he introduced the legendary "Box" series of business programs. These were remarkable for several reasons, not the least of which was the forty two column screen display and for being the first Dragon bases system to use hashing for rapid data retrieval.

Bob Harris is a man who has a great affection for the Dragon...he was let down by all the people who didn't renew thei subscription...

In 1986 Bob presented us with a real masterpiece. In collaboration with Brian Cadge he came up with "Basic 42" a reasonably priced operating system which made full use of the display, windowing and additional Basic commands, it was immediately hailed as a major step forward. Indeed, if something like Basic 42 had been available earlier then just maybe a few more D64s would have been sold. All along the line Bob tried to give Dragon the things that other people used as excuses to buy mega byte computers. When people cried out that "you can't use a WIMP system on a Dragon" then Bob launched Klik which effectively did just that. The problem here has always been the hardware. Bob has always tried to do what was necessary without hacking the machine about. This means relying on joystick to position the cursor whcih to be frank is a bit jerky. By this time, 1987, Dragon numbers were dwindling and software writers were reluctant to limit their potential market to owners of D64 running Basic 42 and Klik. This means that the only accessories available for Klik were those offered by Harris Micro Software.

So what was the reason for the non appearance of Bob at the Hove show ? At Weston it was the eve of the closing of Dragon User this time the rumour was that Harris Micro Software was winding up. Not being one for rumours I deceided to find out, from the horses mouth, just what was going on. After several attempts I managed to get hold of the man himself on the telephone. I did not have any pre-concieved ques-

tions to ask so this is not going to read like an interview, I am just going to give you a rough idea of our conversation.

Bob has not yet wound up Harris Micro Software in that if anyone wants one of his programs, then he will sell it to them What he has given up is the active selling of his products, no advertising and no more shows. He is still keeping his Dragons since he runs his accounts on them and he needs these to keep track of his lossss on Dragon User. I got the impression that Bob still bleeds from the wounds inflicted by the failure of Dragon User. When I asked if he was prepared to sell the copyrights to his programs he told me that he had no not sold anything since Christmas and givcen those circustances he did not expect anyone to want to buy the rights.

Just for the record I should point out that I did offer to market all of the Basic 42 and Klik programs on either a royalty or a complete purchase of copyright basis, Bob is thinking it over.

My overall impression is that Bob Harris is a man who has a great affection for the Dragon, but feels somewhat let down by various factions of the Dragon scene. Let down by all the people who did not renew their subscription to Dragon User, let down by Eurohard who, to quote Bob, "gave away more machines than they sold" and let down by the fact tha people did not fall over themselves to buy Klik. I have always thought that the main cause of this last problem was the lack of a decent Mouse for the Dragon. The joystick really didn't offer the smooth movement and one handed operation necessary to do justice to the program. Judging by his response, when I told him of the Siegrfied Group's mouse, I think that Bob shares my view on this, but thinks that it may now be too late to recover the position.

I think that it is important that Basic 42 and Klik should remain commercially available, in fact, I would like to see it also made available for the CoCo. Ideally, I would like to see Bob back in the market, but if that is not to be then at least someone else should be allowed to produce them. The system is too good to be lost to us for ever.

Computing in Amateur Radio

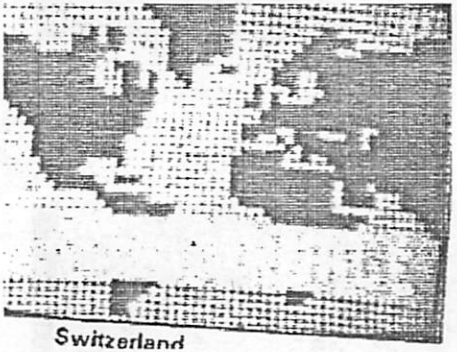
by Roger Quaintance

Amateur radio enthusiasts have not been slow to recognise the many uses to which a computer can be put in order to make their hobby more enjoyable, the reverse can be said of the majority

FEATURE

of computer buff's. There is no doubt many of you who would say, "I'm not interested in radio"; to you I would say read on before you make up your mind.

This month I will outline the various ways in which radio and computing can interact so as to provide a different aspect to both hobbies, expensive radio receivers are not necessary, many of the following can be tried on any reasonable radio capable of receiving any of the short wave



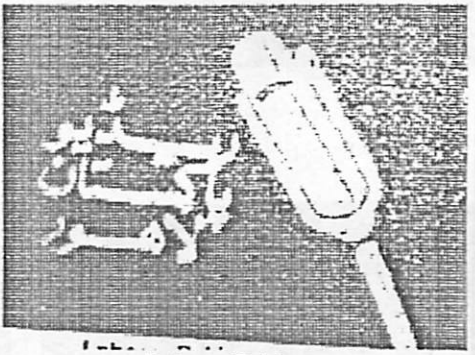
Switzerland

bands 1.8MHz to 30MHz (120mts-10mtrs).

CW - (continuous wave) or morse code is one of the earliest examples of binary Code, as computers own language is based on this code it should come as no surprise to learn that your lovely Dragon can learn to read morse Code and send it, if you have a transmitter (and Licence).

RTTY or Radio TeleTYpe, Amtor, and Sitor are more sophisticated forms of morse code sent by machine at very high speeds used by the worlds press services, businesses, and radio amateurs to exchange information over the airways.

SSTV-(Slow Scan TeleVision) using a video camera slow Scan pictures are sent in digitised form which can be received on a radio, decoded by computer and shown on your monitor. Pictures may be received from all over the world .

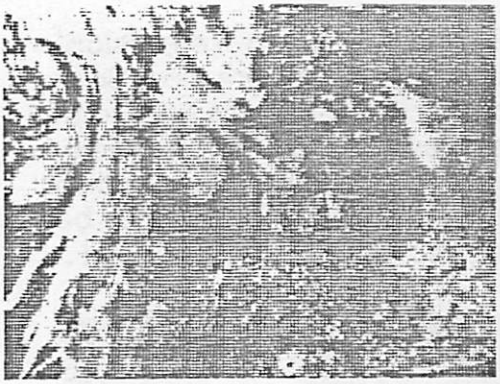


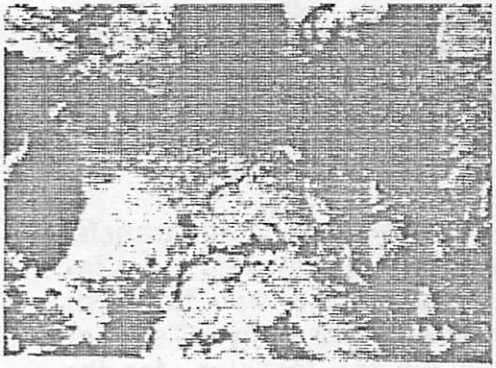
Lahore, Pakistan

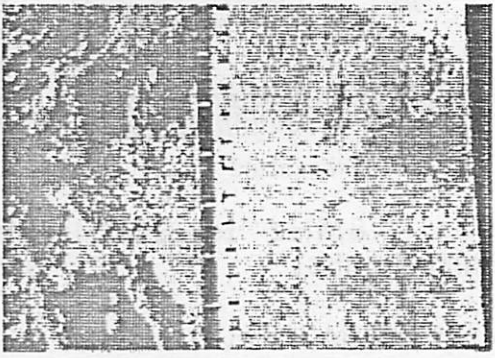
FAXcimile - document transfer any where in the world via a fax machine is well known, fax cards are available for many PC's which allow full fax facilities, for the humble DRAGON a receive only program is available. Meteorsat the weather satellite send s fax pictures of the earth's weather systems these can be received by the DRAGON via a suitable radio receiver.

PACKET RADIO - a radio communications system which uses a computer to send and receive data, using other computers as a series of repeaters to send data intact! over very great distances.

Next month I shall go into more detail of each type of program, and the software available. If anyone has any particular questions that they would like answered write to me and I will do my best to answer them.







Radio Amateurs also use various programs, to keep logs, calculate distance and bearings, predict propagation, track satellites, etc.

Scanned Satelite Photographs of whether systems

These photographs have been scanned twice. I hope that the quality is okay. Where are the original photos Roger? All complaints to RQ please - Sotos

SHOW REPORT

by Ken Smith

The Hove Show Report

The 3rd of June was a memorable day. It was the day that England beat Poland 3-0 in the world cup qualifying rounds. It was the day on which the Chinese People's Army opened fire on their own countrymen in Tienanmen Square. It was also the day that over three hundred people obeyed the summons, from Paul Grade, to attend his stately home for a summer 6809 Show. Paul, of course, is more famous for his nagging than for his tact and diplomacy. However, one thing that nobody can deny is that he gets things done. The Hove show was a prime example of this. The number of rivalled those heady days in the Horticultural Halls, when Microdeal was king and the queues stretched right around the block. The venue really was first class a spacious hall with plenty of natural light. There was ample heating, for those feeling a little weary, and a wide variety of refreshments were available all at affordable prices.

The diversity of participants was really quite surprising. Some inspired lateral thinking brought Computeach, specialists in computer programming courses while Techbase were operating what amounted to technoligical jumble sale. Many of the recent shows seemed to develop a theme at Weston it was Art Programs, at Hove hardware was the dominant theme. Probably the best example was on show at the Siegfried Computer Group. They had a 192K Dragon with an external Commodore 128 keyboard with battery backed real time clock. In addition to this the machine sorted a mouse interface which was very impressive. The mouse made the world of difference to programs like mouse art from Broomsoft, with a joystick it was jerky and difficult to control with the mouse it was a joy to use. Sutcliffe electronics were offering onboard dos conversion kits which leave the cartridge port free and next to him Phil Scott and from tech were sharing a stand. Phil never stops improving his Dos Plus systems the latest version 4.9 will even run Superwriter II or so Phil tells me. He is also able to patch Super writer to run on any dos, write to Phil for details. Protech continued the hardware theme offering their usual disc drive packages, but this time these was something really special. Imagine a Dragon with a screen display of 512 x 512 pixels, up to a megabyte of RAM and a 6809 processor that runs at 3Mhz instead of the usual 0.9Mhz. Add to this the possibility of running an on board hard disc, and you've got

the Dragon Tangent. The machine is of modular construction, allowing up to four boards to be mounted inside the case. It would be compatible with all normal Dragon peripherals and given new screen drivers run all Dragon Flex and OS9 programs. The machine on show was a prototype and was, unfortunately not operational on the day. For the serious user it looked most impressive, however, I would have been more impressed to see it working.

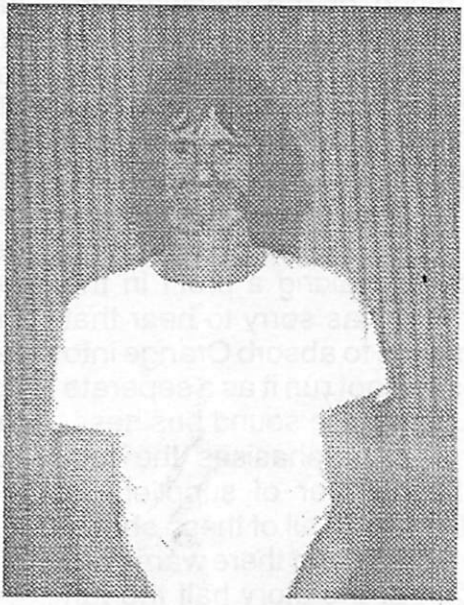
Keen hardware hackers would have been interested to see (Greenweld Electronics at the show. As you know they are the suppliers of components for our serial Interface project, however, a quick look at their exhibits revealed just how much more they have to of offer. Everything from Deagon joysticks to unknown keyboards. From super beefy power supplies to UHF modulators for D32s. On the software front it was it was nice to see Kouga choosing to unveil there new shootem up, Revenge, at the show. I am not much of a games player so maybe I am not qualified to judge, but it looked pretty smooth to me. That is, of course coming from some one who could not get past the first stages Steve Knight, of Knight Computer Software, told me that the dreaded speed pol:e has now been removed from the load routine of his Graphics Studio program so that current discs will run on all Dragons without alteration. He also revealed that he is working on his own DTP system. His ideas sounded promising but that is all I can reveal at this

6809 User Team. S Mandalos, S Jones, K Smith, R Quaintance

stage. Most NDUG members will be familiar with Chris Rouse's Weather scan which allows the display of sattelite weather maps on either CoCo or Dragon. This was being demonstrated at the show; along with a program that allows a CoCo to write and format in Dragon DOS. Chris told me he owns both machines and finds that they both have their own strengths and weaknesses and so he likes to be able to switch the software around. He is also developing a program to do the same in reverse i.e. write CoCo discs from the Dragon. I was surprised by the number of CoCo IIIs on display, these have a far superior screen display and up to 512 of memory. They also have OS9 Level 2 capability so I suppose it was only natural that Jason Shouller should have one. Jason is the nearest think to an OS9 expert that I have ever met and for those people who have downgraded to a PC or who work on MS-DOS machines all day, but have an OS9 based machine at home, Jason has developed a program that enables the OS9 machine to read MS-DOS discs.

D.U.D.E have really got their Public domain library underway now and they were able to offer pre-recorded discs containing several files of similar nature. For a pound a disc it takes some beating. Dragonfire Services are still mourning the departure of their programmer and so are a bit behind with their new products. However, most of their current range are well worth buying so they did not do too badly. There was a carnival atmosphere around the NDUG stand, I am not too sure what they were on, but I wish they had shared it with me. It was probably this party feeling that made them neglect the door. Two chaps in front of me walked in quite bewildered without paying, not because they were mean, but because they had not seen the chap with the tickets.

Those old stalwarts Bob Preston, and John Penn managed to posi-



At the Hove Show - Harold Massey of Computape.

tion themselves just inside the door. Obviously a ploy to liberate the most cash from the unsuspecting customers. Bob surprised me by producing a cartridge version of Superwriter II, though heaven only where he found it.

John on the other hand, had Superwriter II on disc, one of the may H C Anderson products that he sells. John tells me that has not seen the great dane (sorry Hans) for some time so his OS9 stocks are a bit thin. It looks as if a trip to Denmark is on the cards before the winter. As some of you will know Neil O'Connor of Pulser recently took over Orange Software. Unfortunatly, he did not have enough time to produce much in the way of Orange titles. However, much of the hardware included in the deal was on sale at the show. A wise move that, and one that I had contemplated myself. The cash provided by the excess hardware can then be used for promoting the new products, thus offering a fighting chance of making a profit in the long run. I was sorry to hear that Neil intends to absorb Orange into Pulser and not run it as a seperate entity. It may be sound business, but it also emphasises the fact that the number of suppliers is dwindling. With all of these shows the exhibitors and there wares are only part of the story half the fun is in the characters that you meét. Our very own Sotos soon established himself as one of these, I think he made friends with everyone who came through the door. It is the friendly atmosphere that makes our shows so attractive. Jonathan Certwright obviously finds them irresistable, in spite of the fact that he now writes mainly for the Atari ST, he just can't stay away from a 6809 show. Not everyone feels that way, Bob Harris did not turn up nor did Compusense. Rumours were rife as to the reasons why, Bob Harris is said to be pulling out altogether and Compusense found that there was a PC show elsewhere.

I thoroughly enjoyed the day and was still somewhat high when I got home, then came the news flash. The shock was so great that several days later I still find it difficult to concentrate on writing this report. This is obviously not the place to comment on the critical situation in China it will suffice to say that the events in Peking have had an effect on all of us. It may be total disbeleif or maybe you feel as I do, totally degraded to think that anyone in the human race could be guilty of such brutality. I know that I can't do anything about it, but I also know that I can't ignore it.

Ken Smith

CLASSIFIED

I AM Looking for "out of print" strategic games, such as EMPIRE, BRITANNIA, VIKING etc. If anyone has such games to either sell or lend, please ring Jim Finley at 0708 48528.

FOR SALE: Sound Board for the Dragon (or anything else). If you have a silent monitor or have broken your VHF modulator, this is for you! Only £7.50. One only. Telephone Ken Smith on 0304 365078.

WANTED: Screen dump routines etc. to work on the Microline OK192 printer. I have tried several compatible dumps etc. but none work. Help appreciated. Robert Reid, 9 Mountside, Pontymason Lane, Risca, Gwent, NP1 6JG.

WANTED: Any of the Mysterious adventure series by Channel 8 software. Excepting the following: Circus, Waxworks, The Golden Baton, Escape from Pulser 7, or The Time Machine. Any copies must be originals. Ian Burford, 79 Hertford Road, Stevenage, SG2 8SE.

WANTED: KEYBOARD for the Dragon. Last one died of an overdose of coffee. Simon Jones, 37 Collins Meadow, Harlow, Essex, CM19 4EN. Tel. 0279 639616.

FOR SALE: SS 40T Dragon Data disc drive. Barely used since new. £60, including P&P and leads. Phone Robin Hemmings on 0533 889860. Most evenings.

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