QUANTA

VOLUME 7 ISSUE 4 MAY 1990

CONTENTS

INFORMATION ON THE GROUP

Membership of QUANTA, the Independent QL User Group, is by subscription to the group's newsletter, which is published monthly. Membership details are obtainable from the Secretary. Membership of the group is open to anyone with an interest in the Sinclair QL and compatible systems.

Members requiring assistance with problems related to the QL may write to or 'phone a Committee member. An attempt will be made to put them in touch with a member who can help with the problem. Alternatively send a note to the Editor, and the problem will be mentioned in the newsletter.

Workshops will be arranged from time to time in various parts of the country. Copies of the group's constitution and annual accounts are available from the Secretary.

The group maintains a software library. Most of the programs are free to members. Library lists and programs are available from the Sub-Librarians.

HONORARY OFFICERS OF THE GROUP

Chairman	Sydney Humphreys Wychwood, The Street Bramerton, NORWICH Norfolk NR14 7DW Tel (Ø5Ø88) 463	General Secretary	Philip Borman 62 Prospect Avenue RUSHDEN, Northants NN1Ø 9DH Tel (Ø933) 41Ø277
Membership Secretary	David Johnson The Corner House Loxley WARWICK CV35 9JT Tel (Ø789) 842543	Treasurer	Michael Jackson 21 Grove Cresent Addlington, CHORLEY Lancs PR6 9RJ Tel (Ø257) 48Ø27Ø
Newsletter Editor	Sarah Johnson The Corner House Loxley, WARWICK CV35 9JT Tel (Ø789) 842543	Software Librarian	Leighton Davies Glanmore, Brynna Rd Pencoed, BRIDGEND CF35 6PD Tel (Ø656) 86Ø398
Committee Member	Dennis Briggs 53 Gilpin Road Admaston, TELFORD Shropshire TF5 OBG Tel (Ø9522) 55895		

Submissions to the Editor should be on a Microdrive or disk - any format, in a 'jiffy' bag or similar. Please include a paper copy where possible. Submissions for the library should be sent in a 'jiffy' with return postage to the Quality Controller, David Johnson, The Corner House, Loxley, Warwick. Tel (Ø789) 842543

The opinions expressed in the newsletter are those of the contributors, and are not necessarily those of the Editor or Committee Members.

SUBGROUPS

Title	Location	Date	Contact
Essex	Rayne Village Hall Gore Road Rayne Nr. Braintree	2nd Sunday Every Month 2.30 onwards	John Mason 'Karama', London Rd Billericay, Essex Tel (0277) 651593 or Dave Walker Tel (0707) 52791
Solent	Delta Leasing Ltd. Garfield Road Bishops Waltham	1st Saturday Every Month 1500 to 1900	Graham Evans (042) 121 3350 or Eric London (0329) 663501
Sweden	Physics Dept Chalmers University of Technology Goteborg	2nd Saturday Every Month 1100 to 1400	Johan Boman Toftaasgatan 73 S-421 47 Vastra Frolunda, Sweden
Mid Anglia	Robinson Hall Lolworth Cambridge	7.30 to 11.30 Every 2nd Monday	Peter Rowell 347 St Neots Rd Hardwick, Cambs Tel (0954) 210692
Leicester	Ancient Order of Forresters 35 St Nicholas Place Leicester LE1 4LD	8.15 every 2nd Tuesday of each month (ex July)	Peter Ash 53 Woodland Road Leicester LE5 3PG Tel (0533) 766857
Birmingham	Holloway Pub Holloway Head Just off inner Ring Road. Central Birmingham	7.30 every 1st & 3rd Monday	Mike Bedford White 16 Westfield Road Acocks Green Birmingham B27 7TL Tel (021) 708 2560
Mid Cheshire	The Merlin Pub Middlewitch Road Crewe	Every Monday 7.00	Alex Robertson 12 Bude Close Crewe, Cheshire Tel (0270) 500565
Merseyside	3 Barnard Road Birkenhead	Alternate Mondays	Don James 3 Barnard Road Oxton Berkenhead Tel (051) 652 7366
Northampton	Kingsthorpe Community Centre	2 to 5pm every 2nd Saturday	Terry Harman 304 Obelisk Rise Northampton Tel (0604) 842875

East Anglia	Guildhall Thetford	2nd Saturday Every Month 6.30 to 11.30	George Katsoulis 167 St Johns Way Thetford, Norfolk. Tel (0842) 753843 Geraint Jones Tel (0842) 762406
South-West	Middlemoor Exeter	Next meeting Sunday 6th May 2.30 to 7.00	Roy R.Johnson Flat 2 66 Victoria Road Exmouth, EX8 1DV Tel (0395) 275290
Bristol	Portcullis Fishponds	Sundays every 4th week	Chris Gregory 7 Argyll Street Eastville Bristol Tel (0272) 513653
Newcastle -on-Tyne		1st Sunday each month	Denis Crowe 15 Midhurst Road Newcastle-on-Tyne NE12 9NU Tel (091) 2665175
Lancashire	Lisieux Hall Social Club Dawson Lane Whittle le Woods Chorley	1st Monday each month	Steve Hutton 44 St.Mary's Road Bamber Bridge Preston, PR5 6TE

If your sub-group is not mentioned here, write to the editor with full details for inclusion in future issues.

CALENDAR

May 12th	Stokes Hall, Leyland	Northern Computer Show
June 22nd-24th	Thetford	Quanta Workshop
October 20th-21st	Worthing	Quanta Workshop

EDITORIAL

The Northampton workshop at the Kingsthorpe Community Centre, was well attended on the Saturday. The Sunday was a little quieter, but considering that it was also Mothering Sunday, there was still a very good turn out.

You will see from inside the front cover, the committee now has a few old hands and a some new. The Secretary's job has been split into two parts, to help reduce the workload on Phil Borman. Phil as General Secretary, will deal with all the general enquiries, information, or problems, and collect any information that you feel would benefit the group. Phil will still be dealing with any special offers that come our way, like the Jan Jones book, binders, and maths toolkit.

Membership Secretary is David Johnson. He should be contacted if you have any queries dealing with your membership, or if you fail to receive your magazines. All back issues of the magazine, can still be obtained at £3 per half year, from David.

The Industry Liason Officer post has now been made redundant, since most workshops are now organised by the subgroups. Therefore information that you may have thought relevant to that post, will now be handled by Phil Borman.

To help avoid delays, will all members try to ensure that the committee member contacted is the right person to handle your query. For example: when articles for the magazine, programs and other queries are all sent to Phil Borman, this inevitably leads to delays while the relevant piece is being forwarded via the post to the correct person.

I will be looking at what improvements and variations we can make to the magazine. Any ideas or suggestions should be sent to me, and I will see what I can use.

Thank you for your response to my plea for submissions. Please keep them coming in, but PLEASE remember to send them on a disk or microdrive. I will always return them if you include a self addressed label and the postage, or you could mark them as non-returnable. I do not want, nor wish to spend the whole of the summer typing in your articles, while you are where I would like to be; out in the garden.

Please keep your example programs for the magazine to a reasonable length, preferably no more than 100 lines. Otherwise it can make the magazine awkward to edit and besides making it look a little untidy. I think most members would prefer to have them available through the library. Making use of the library avoids the possibility of editing errors on my part as editor, and typing errors of those members who wish to try out your program.

The very popular Jan Jones books, Maths packages and Quanta binders for holding your magazines, are all still available. We now have a limited supply of the maths packages, so would those members who had previously placed orders and not received them, please contact Phil.

Several of our members, and indeed, we have been unable to make contact with PDQL in recent months. If anyone knows how we may contact them, please inform us.

Sarah Johnson

THE QUANTA AGM

MINUTES OF THE QUANTA AGM HELD AT THE KINGSTHORPE COMMUNITY CENTRE NORTHAMPTON ON SUNDAY 25th MARCH 1990 AT 2PM.

Officers Present:
Phil Borman, Dennis Briggs, Leighton Davies, Syd Humphreys, Sarah Johnson.

The meeting was opened by Phil Borman in the Chair, with about 50 members in attendance. Apologies had been received from the Chairman Alex Tegg.

The minutes of the 1989 AGM were read by the Chair and signed as correct after a majority vote. This was proposed by Peter Christie and seconded by David Johnson.

1. Annual Report of the Committee and Annual Statement of Accounts:
The Chairman's report was taken as read. There were no questions.
The Treasurer's report, also taken as read, was summarised by Syd Humphreys: Most of the surplus was due to the extraordinary sales this year, the net amount was about the same as normal. There had been more workshops and fairs attended. The amount of advertising was a deliberate policy by the committee and had proved successful with added membership.
Questions on the report: Simon Goodwin asked if any analysis had been done on the results from the advertising. No official analysis is done, but some people do put it on the membership form. Joe Haftke, after congratulating the Treasurer and Committee on the content, suggested that next years budget figures be printed and that some work could be sub-contracted like book keeping to help reduce the excessive workload. Various suggestions were made for future ventures or more subgroups. Phil Borman pointed out that the surplus would help to keep us going longer as the costs go up and the membership dwindles, also that we do not want to turn into a commercial organisation. The ventures undertaken this year were of virtually no risk. The Annual Report of the Committee and Annual Statement of Accounts were then accepted by a majority vote. This was proposed by Peter Rowell, seconded by Geraint Jones.

2. Election of Committee Members:
Phil thanked the current committee, particularly Roy Barber who had to give up during the year, due to ill health. Joe Haftke proposed a vote of thanks to Sarah Johnson for stepping into the Editors job.
Secretary: Syd Humphreys proposed Phil Borman, seconded by Alfred Kendall. With no other nominations, this was unanimously carried.
Membership Secretary: David Johnson was proposed by Chris Ross via his proxy, and seconded by Phil Borman. Dennis Briggs drew to the attention of the meeting, the proxy forms. After some debate it was agreed that on this occasion a specific proxy form was unsuitable because of lack of nominees at the time of the Notice. David Johnson was duly elected.
Editor: There were two nominations for Editor. Sarah Johnson was proposed by Chris Ross and seconded by Geraint Jones. Bill Fuggle was proposed by Dennis Briggs and seconded by Simon Goodwin. Dennis Briggs in his support for Bill Fuggle told the meeting that he felt Bill may give a fresh approach. Chris Ross's proposal for Sarah Johnson was read out. The two candidates were then given the opportunity to give their background and aims. The vote was then taken and Sarah Johnson was duly elected with 37 votes. 13 for Bill Fuggle.

Treasurer: Michael Jackson was unable to attend due to being sent on a course by his employer, but Syd Humphreys proposed him and spoke on his behalf. He has been a qualified accountant for 8 years, currently the chief accountant with a local authority. David Johnson seconded. The vote was unanimous.
Industry Liason Officer: Dennis Briggs withdrew his nomination due to a conflict between running his business and being on the committee. It was time to put the business first. Dilwyn Jones asked what the duties of the Industry Liason Officer were. Alfred Kendall told the meeting, that as he remembered it when the role was first introduced, the ILO officer should be in close contact with the hardware and software products, to give Quanta the early information on developments. Geraint Jones suggested that the ILO officer as currently seen, is redundant since the organising of traders to workshops is being done by the subgroups. Phil Dodd proposed that the committee spend time over the next year, defining the roles to be brought to the next AGM. Richard Lee proposed Dennis Briggs as a Committee member, seconded by Peter Christie, the vote was a majority in favour.
George Katsoulis recommended that a paper library was required, in particular for retaining information on hardware. This would need a technical advisor to check and collate the information.
Software Librarian: Leighton Davies, with no other nominations, was unanimously elected. Proposed by Phil Borman, seconded by Sarah Johnson.
Chairman: There had been no nominations. Syd Humphreys was asked if he would stand. Proposed by Tom Mould, seconded by Peter Christie, the vote was unanimous.

3. Appointment of an Auditor:
Syd Humphreys proposed that AN auditor rather than a specific person be appointed, the selection being left to the committee. This was because it was convenient for the Treasurer and the auditor to be near each other and the Treasurer would probably choose someone local. Syd Humphreys also proposed that the qualification of any new auditor should be such that he could audit a limited company.

4. To consider a Formula for the calculation of Honoraria:
There were arguments for and against Honoraria for committee members. Joe Haftke was against selected people being awarded honoraria, when there were others like sub-librarians and software contributors that go unrewarded. He also suggested that when the amount of work warranted it, subcontractors should be used, to help out the treasurer for example. Phil Dodd, for honoraria, pointed out that it is impossible to keep track of all expenses incurred. Syd Humphries responding for the committee said that they could not, nor wished to produce a formula. As to out of pocket expenses, he used an example of the petrol allowance, where the AA rate from April 1989 was over 30p per mile for an average size car. Committee members currently can claim 7p per mile.

Tony Gordon proposed an amendment: That the committee be paid expenses incurred on Quanta business and car mileage at two thirds of the prevailing AA rate. This motion was accepted and there would be no honoraria. Proposed Tony Gordon, seconded by Joe Haftke.

The chair thanked everyone for attending and closed the meeting.

Sarah Johnson (Editor)

A WORD FROM YOUR CHAIRMAN

With the Annual General Meeting behind us, your committee is looking forward to a busy but exciting year ahead. The mix of four former committee members plus Sarah Johnson, who valiantly stepped into the breach in January, and two new members, should ensure that the lessons learned by the old hands during last years spell of office will not be lost, while the injection of new blood will be both a source of energy and new ideas. Although at the time of writing this, we have yet to get together at our first formal meeting, the telephone lines have been very busy between us, and it appears to me that there is a lot of goodwill and enthusiasm there which, hopefully will make QUANTA an even better club for its members.

Although I was glad to be relieved from the pressure of the Treasurership, I very much enjoyed the job and hope my successor Michael Jackson does so too. I hope that he also enjoys the halo of prestige that I was surprised to find went with the job. In my case, I discovered that our local postman had spread it about "that Mr. Humphreys do get a log of mail. Fancy a chap in a little place like this being Treasurer of that Australian air line." I hope he tells them all that I have been promoted to Chairman now.

Sydney Humphreys

SUBGROUP NEWS

LANCASHIRE

Several members of Chorley Computer Club of which I am a member have shown an interest in forming a Lancashire subgroup. Would any Quanta members interested in supporting such a group please contact me so that we can explore the possibilities.

Keith Reading, 50 Howkshead Avenue, Euxton, Chorley, Lancs, PR7 6NZ.
Tel: (0257Ø) 77482

SURREY

If anyone if interested in a subgroup, please contact Tony Gordon on (Ø372) 58180 or leave a message on Qualsoft Bulletin Board Ø1-706 2379.

SOUTH-WEST

We had another successful gathering at Ashburton in March, a week after the Portishead workshop. Eight of our potential nineteen members attended, and a variety of interesting hardware and software was on display as usual, including Conquerer again, and Eric Dawson's Thor XVI, with which he is still having some trouble.

Our next meeting is scheduled for Sunday, 6th May, at Middlemoor, Exeter, and we hope for a good attendance. Any Quanta member lucky enough to be in this delectable part of the world is welcome to come along (and if you want to know how to get there, ask a policeman: phone Dave Price on Ø395-273446 for precise details; or even me on Ø395-275290).

Among other things, there will be a Panasonic KX-P1124 24-pin printer on demonstration, a machine I highly recommend. It is possible also that one member will be bringing an IBM clone and putting Psion's PC Four through its paces - it will be interesting to compare the speed with Quill etc. on the QL.

The following meeting is provisionally scheduled for 1st July, also at Middlemoor.

Roy R Johnson, Flat 2, 66 Victoria Road, Exmouth, Devon, EX8 1DW
Tel: (0395) 275290

REVIEWS

REVIEW OF FILES II

Users of TaskMaster will be familiar with Files, the files utility package that forms part of that excellent front end program. Recently Sector Software have improved on it and the new version, (Files II) may now be used both inside and outside the TaskMaster environment. TaskMaster users just have to overwrite the Files program on their working disk. Non TaskMaster users can just 'exec' the program and enjoy almost all the benefits of this very useful program.

For members not familiar with the old Files program I will briefly describe how it works. It is possible to operate at two 'levels'. At the first level (simple) it is a program that allows one to copy, back-up, delete, rename, choose files for another program like Quill, add another program into TaskMaster, format disks and check directories of microdrives, disks and RAM disks. All these tasks are performed with the minimum of key presses. For example, when activated, the sequence of key presses 1,1,2,1 will copy the first file on FLP1_ to FLP2_. If the file existed on FLP2_ it would ask you if you wanted to overwrite it.

At the second level of usage (advanced) it operates in a similar fashion, however in this mode many more options are available. By pressing F2 an additional window appears in which one is allowed to set Mode (three ways for files to be overwritten), Before (four choices of date), After (six choices of date), Containing (six file types _doc, _dbf etc may be specified), Type (Four types of file may be specified). For example in the copy command you may copy all the quill_doc files that you have created today. There are literally thousands of possibilities.

Well, how does Files II differ from Files? The first addition to the program is the ability to 'shrink' the list of files being examined. For example, in copy mode instead of just scrolling up and down till you get to the file you want to copy you may start to type the name of the file you are after. Typing 'Q' would select only files starting with 'Q'. Typing 'QU' would select only files starting with 'QU' like Quill. This obviously speeds things up on full disks.

Having nearly selected the file you think you want to operate on, there is now a facility (pressing CTRL + file number) to view the file. It is possible to even view executable programs like Quill. The screen will mean nothing to the majority of users but one can read the headers! You can therefore be 100% certain you are working on the right file.

It is now possible to copy a file to the same medium under a different name.

When you were deleting files with Files the file name disappeared and the numbers changed. This meant that if you wanted to delete files 1,2,3 you either deleted files 1,1,1 or 3,2,1. Now the numbers stay the same and the word 'DELETED' appears on the screen. You can now press 1,2,3 or 3,2,1, it does not make any difference.

With the old Files program (like the ordinary QDOS copy command) when you copied a file, it was copied with the current (assuming that you had set the clock!!) time stamp. Now when a file is copied the date/time is taken from the header so one can keep track of versions.

Winchesters are now catered for as devices. WIN1_ and WIN2_ now join the existing ranks of FLP1/2_, MDV1/2_ and RAM1/2_ and your own choice option. One has access to 9 devices in the copy, delete, rename etc options.
These additions improve an already superb program.

Alfred Kendall, 22 Langley Hill, Kings Langley ,Herts, WD4 9HD
23.3.90

REVIEW OF QPAC2

Having been a QL owner from the beginning and a member of Quanta since 1986 I feel very guilty at not making any contribution to the magazine. The amount of help and interest it has given me is immeasurable. The library is another area which I have not put to good use. Ideally it would be nice to have the whole library, but I feel its a lot of copying to ask of a sub librarian.

Enough of the waffle and on with what I intended - my impression of QPAC2. Excellent is the first description that springs to mind. QPAC2 is a complete replacement for QRAM giving all the facilities which were available before and many more. The only exception to this is the Window Dump option which seems strange. Can we have this in the next release please Tony? Whereas QRAM gave you an initial menu to pick the function you required, QPAC2 is configurable in so many ways you can set it up to give as many or as few functions as you want. It is well worth spending some time experimenting to get the best use out of it. Combined with HotKey System 2 (which is supplied with QPAC2) it now makes it so easy to multi-task software that I find myself running out of memory. I use a Minerva QL with 640Kb and mostly use Quill and D.P's Editor. I have set up my main disk to load these two packages with QTYP sitting in the background. I am very pleased with this arrangement as it is so easy to switch between documents using hotkeys. The only problem I have found is when memory is getting very short, and you open up another window, it is possible for the machine to lock up. Whether this is a problem with QPAC2 or my QL I do not know but I can easily repeat the fault and I have had no problems with QRAM.

A new concept introduced is Buttons. These are small windows with the name of a job in it. These are easy to set up and can be displayed anywhere on the screen or in a pre-defined Button Window. By pointing to the required button, that job will be woken up if it was asleep, or a new job started if one is not already in memory. Although a job is described as asleep it will still run if it does not require any screen access. It's possible to put SuperBasic to sleep and have it appear as a button but I've only found this possible from the keyboard, not from a program.

You can define a Hotkey to wake the button window which means when the buttons have been lost under other windows they can easily be brought to the top of the pile. Very impressive! On our workstations at work there is a similar facility and when I mentioned the fact my QL could also do this everyone fell about laughing. It is a great shame the QL has got such bad press.

The largest part of the package is the files menu. It differs to QRAM in that only one device is displayed at one time. In front of every file name is displayed a character. This can be used to select any file for the current operation. Files can also be selected by the mouse or cursor keys. This choice of how you do things is typical of the whole package and makes things just as easy whether or not you have a mouse. To change device, yet another menu drops down. This gives the choice of MDV, FLP or RAM but no win device. I wonder if this is an error as the RAM device appears twice. Sub directories are nicely handled. You can add the name of the sub directory to the device name or, by 'hitting' the empty box below the device names, a list of possible sub directories is displayed and can be selected. To move back up a directory you just hit the '<-' item. A feature which is consistent throughout the package is if you 'hit' (space bar or left mouse button) an item it will carry out the required function and then return to the same window whereas if you 'Do' (return key or right mouse button) an item it will still do the function but the window will disappear. From the Files menu you can View, Sort, Copy, Move, Backup, Update, Execute, Print, Delete and Format. Once you have done the required operation you can Quit which makes the Files job disappear or you can put it to sleep so it appears on the screen as a button. The button name also contains the operation that was last in use so it is possible to have different file buttons ie. 'View FLP2_doc' or 'Copy FLP1_'. I've probably made this sound very complicated but it isn't. Once you see it in operation it's a joy to use.

Other options provided include Jobs, Things, Hotkeys and channels. To go into detail on all these would take all day. To give an example of how many different ways there are to achieve the same thing, take finding out which jobs own which channels. To start there is the channel menu which can be called from a Hotkey, a button, or woken from the wake menu or the Hotjobs menu. The Jobs menu will also display channel information for each job along with memory used in a similar graphic representation used by Sysmon.

The Manual supplied with QPAC2 is, as one has come to expect from QJump, of a very high standard. It includes tutorials for QPAC, the Extended Environment and HotKey System 2. These tutorials are run from the boot disk and are used in conjunction with the manual. There are various Boot programs on the disk and printed in the manual to help with incorporating QPAC2 on to your system.

In conclusion, I have found it extremely useful and am in the process of incorporating it on my most used disks. My only concern is the lock up problem and going on previous QJump products I would think my hardware is the most likely culprit, but as long as I leave at least 20Kb of memory free everything is ok.

On a different subject, has anyone experienced the problems I have been having using the network? I now have a spare QL and am keen to have the two networking. On some days it works perfectly but on others it displays a strange fault. Both QL's have Toolkit 2 on ROM and I have done all the checks on the hardware which have been mentioned in recent issues of Quanta and QL World.

When it's playing up it's not possible to get a directory of a device on the other machine. I have found that the commands 'sbytes neto_1,131072,32768' on one QL and 'lbytes neti_1,131072' on the other (to copy one QL's screen to the other) work at all times, but when the network is playing up it takes about 50 seconds with a pause between each block of data whereas when it's working it only takes about 10 seconds with no pauses. I use these commands quite a lot, as it saves me trying to find room on an already crowded desk for a portable TV, so I can see what's happened on the other QL. Now I have Minerva fitted on my main machine it's possible to use the second screen as a copy of the other QL screen by using the command 'lbytes neti_1,163840'. Of course, you must start the QL with the second screen enabled, or the screen is loaded into the system variables - extremely fatal!!
{Any ideas on this intermittent problem? SJ}

Thanks to Oliver Fink for his beginners course on QPTR. His description of those who bought the package and then left it on the shelf fitted me perfectly. More of the same please Oliver.

Dave Hancock, 28 Grange Rise, Codicote, Herts SG4 8YR
Tel: (0438) 821280
24.3.90

QTYP - SPELLING CHECKER

I have been using my QL for editing a small Scout magazine. Clearly, getting the majority of spellings correct was a prime function and was usually done by printing a draft copy of the magazine and letting a number of people read it! The draft copy is an essential stage in production, but should be used to check the overall balance and content, and not my terrible spelling. Now a product which would check the spellings of all common words as I typed them into Text87 (Quill or The Editor) would be a boon. I decided to buy QTyp because the author, Tony Tebby, has produced some superb software (ToolKit2 and was a part creator of QDOS).

First Impressions
QTyp arrives in a Video Tape box with two ring bound manuals, one for QTyp, and one for HotKey System 2. It looks very professional, though I cannot imagine how Video boxes can be cost effective given the space that they occupy. As is standard, a working copy of the software is made using a simple routine which is supplied.

Getting Started
QTyp uses the HotKey System 2 in much the same way that Turbo compiled programs use a run-time toolkit. The hotkey modules must be loaded following a system reset using, for example, LRESPR <HotKey2_file>. The Hotkey system is in three parts:- the 'Pointer' environment extensions; the HotKey extensions and a Window Manager. Although these are not within the scope of the QTyp review, their use produces an immediate change - the use of CTRL-C to switch between windows (eg between Text87, QUILL and Basic) no longer destroys the program screen - so if you start an editing session and want to do a DIRectory listing, then switch to basic, type DIR, switch back to editor, load a file, switch back to basic - the complete DIR list is re-displayed, back to Editor and the text returns without the need for special key presses. This is Wonderful AND it works for QUILL too! Hotkey allows most programs including Quill etc. to multi-task!

You must include some extensions for QTyp to (Qtyp_Spell). The manual describes some SuperBasic commands and also the machine code 'hooks' to these routines so that you can customise your own software to include spelling checking. Then you must include a line in your boot program like:

```
ERT HOT_RES ('t', 'flp1_qtyp') :REMark ** HotKey Commands!
```

This causes the Hotkey system to load QTyp into the window that you are using when ALT-t keys are pressed. So if you want QTyp in Text87 then load Text87, and press ALT-t. The spellings are checked only for that window, but you could load it for any window, including SuperBasic! REMEMBER, the QTyp program loaded with ALT-t uses the QType_Spell extensions loaded earlier, but you could customise your own program to use the QType_Spell extensions directly, without this ALTkey press (as in Text87 version 3).

In Use

The first thing that greets you following the ALTkey press, is a 'pop-up' window. This is the Spelling Manager Window and allows you to switch the checker on or off, or from a beep to warn you of a mistake, to a hyperactive mode where the word in error is highlighted in a pop-up window. The ease of use, and smoothness of operation, even at this stage, is astounding. It feels SO professional that you begin to wish that ALL programs could be like this. All windows can be exited with ESCape key press, and all options can be selected by pressing the first letter of the option or by moving the arrow (the Pointer) with the cursor keys or mouse, if you have indulged in one, over that option. The selected items are very clear - the paper colour changes from white to green, and the overall look is neat and tidy.

Once you have selected the mode of operation press ESCape, and you return back to your application. Press CTRL-t will Pull-Down the Manager Window (rather than ALT-t which would load another checker). Press CTRL-w and the Dictionary window is Pulled-Down. Typing words into your application program (Text87, SuperBasic etc.) cause the spelling checker to operate. When it encounters a miss-spelt word, it Pulls-Down a warning window (in hyperactive mode) and you can select to:

F1 List words in dictionary
F2 Save to a temporary word list (for names & special words)
F3 Resurrect the Manager Window

or you can simply ESCape! You get used to the warning window very quickly, and sometimes you know that it is coming, so you press ESCape automatically. It is rarely annoying.

If you were to press F1 the Dictionary window will pop_up listing all words that is found starting with the word in error, so typing 'spea ' (punctuation or space ends a 'word') will list the words speak to spears. You may move the word selection arrow down to the desired word and press ENTER. This new word replaces the one that you typed (QTyp will delete the word you typed, and type in the one you selected). If the word you want is not in this list, then move the pointer over your misspelt word and press SPACE or ENTER. You can then edit the word. So you could type 'Thorerly' and in the Dictionary window edit this to 'thor' then you may find 'thoroughly', which is what you really wanted.

You can even cheat. For long words, just type the first letters, eg 'Thou' and press CTRL-w. The dictionary window Pops-up to show all words starting with 'thou'. You can then pick 'thoughtlessness', which is what you wanted but were too lazy to type yourself!

Speed and Ease of use
As mentioned earlier, it is certainly easy to use. The only tricky bit is once in Dictionary Window when you want to edit your word - without a mouse you hit the left arrow key, then press SPACE or ENTER, which takes getting used to.

It is QUICK. It has not slowed me down while creating this report (in fact it has made it faster as my confidence in the articles' spelling has reduced the amount of time spent re-reading it.)

The temporary word list can be saved by going to the Manager Window and pressing F for files. As you can see here, you can use a specialist dictionary too. These features make the system very powerful, as well as improving the ease of use.

The Drawbacks
One drawback is that if a word that you type has a Capital LeTTer in it, and QTyp re-spells it - bang go your capital letter's. A customised application may not suffer from this.

Secondly, you cannot use 'wildcard' characters. It only matches the first characters of a word. It would be nice, for example, to type 'th_ing' and QTyp to list words beginning with 'th' and ending in 'ing'.

Lastly, you can sometimes loose characters. If you make a mistake, but continue typing (as touch typists do), you loose all characters following the punctuation character after the misspelt word. You soon learn this though, and press ESC after each name or special word.

Extra Facilities
You are also given a file checker, which scans though a text file. You can 'MARK' words in error, or ignore them, or add the word to the temporary word list. The words that are MARKed can be edited later. This is so that the length of each text line is not interfered with (especially noticeable with proportionally spaced character printers), nor the overall length of the text file.

Another program lets you include the words from the temporary word list into the main dictionary. It is pointed out in the manual that the dictionary MUST include plurals, tenses and all other versions of a word in order to be complete. This word editor helps you to do just this.

Documentation
It is strange, but the documentation, though very neat and well presented (unlike some!), is somehow difficult to understand. Now that I have used it for some time, the manual is almost plain sailing, but a new user may find some difficulty. The HotKey manual is slightly the worse, and needs to be split in two sections - a user guide followed by a reference guide.

Verdict & Opinion
This is a truly excellent piece of programming. It is well worth the price if you do any typing of much size, or if you just want a decent piece of software on your QL to show off to your friends! And remember, you get two products in one - the spell checker AND Hotkey/window manager.

Product Details
QTyp is available from Care Electronics or Software87, or other places, for £30. It was coded by QJump, who also produce QPAC and QRAM (which is now QPAC2 - but strangely without calculator or calendar). Tony Tebby of QJump produced ToolKit2 (the most widely used and indispensable toolkit). Another member of QJump has helped in the latest Minerva ROM product.

NewsFlash!
QType has been incorporated into Text87 Ver 3.0. Unlike QType, this version does not check while you type, but allows you to scan the whole file from top to bottom. The unfortunate difference is that when a spelling is in error, you cannot just pick the correct one from a list and let it re-type the word, as in QTyp. Also, QType uses the misspelt word as a starting point for the list of words, Text87 makes you type in the word from scratch. I strongly recommend the use of both QType & Text87. These are two of the most professional programs available for the QL.

Merlin Beedell, Maracas, St Johns Road, Crowborough, E.Sussex
29.3.90

TEXT87 VER 3.0

In my quest for ever improving presentation I bought Text87. This followed 1 year of Quill, 1 year of The Editor and 3 weeks of Professional Publisher. At that time I had an Epson compatible 9 pin printer (The Excellent Star NL10 which Star has upgraded to the LC10). This printer could only print in fixed pitch, which meant that large gaps can appear in justified text.

Quill was OK but slow and not very powerful. The Editor was fantastic, but not very competent at mixed fount pitches. ProPublisher can only do one page at a time, and is a real pain anyway - even though the page that is eventually produced looks great. Finally Text87 came & I have never looked back! Its best feature is to place each word on the printed line precisely - using finely adjusted gaps between words. Basically this means that even with a fixed pitch printer, the characters on several lines of text do not line up in columns, but are placed correctly. This is most pleasing to the eye.

First Impressions
The package is very professional, and comes in a video cassette box with a well printed ring-bound A5 manual. Once you have copied it onto your working disk and booted (which in my case is...

```
BOOT
180 TK2_EXT
200 LRESPR 'lng_text_ext' [Lightning]
230 LRESPR 'ptr_gen' [QType]
240 LRESPR 'wman'  [QType]
250 LRESPR 'hot_rext' [QType]
260 LRESPR 'qtyp_spell' [QType]
270 ERT HOT_RES("t","flp1_QTYP")
280 ERT HOT_LOAD ("q","flp1_test87")
300 ERT HOT_WAKE ('0',")
310 ERT HOT_WAKE ('1','test87')
330 HOT_GO
340 LRUN boot1
```

```
BOOT1
... menu goes here ...
380 DEFine PROCedure  text87
390  IF ChangeMedium ('flp1_text87') = 1 THEN RETurn
400  EX 'flp1_text87'
410 END DEFine text87
480 DEFine PROCedure recon
490  IF ChangeMedium ('flp1_recon') = 1 THEN RETurn
500  EX 'flp1_recon'
510 END DEFine
740 DEFine FuNction ChangeMedium (FileNameS)
750   LOCal exists%
760   LOCal KeyPressS
770   REPeat loop
780     exists% = FTEST (FileNameS)
790     SELect ON exists%
800       = 0:   RETurn 0
810       = -9:  PRINT #0, 'File '&FileNameS&' is in use': RETurn 1
820       = REMAINDER
830             PRINT #0, 'The program is not on this disk. Change disk then press
any key (or ESCape).'
840         KeyPressS = INKEYS (#0, -1)
850         IF KeyPressS = CHR$(27) THEN RETurn 1
860     END SELect
870   END REPeat loop
880 END DEFine ChangeMedium
890 :
1000 REMark date ALTKEY definitions. See QLWorld mag.
1001 REMark <ALT> d = 'Wed 15 Feb 1989' [Long Date]
1002 REMark <ALT> D = '15/02/89' [Short Date]
1010 :
1020 DEFine PROCedure date_key
1030  LOCal i, mnS, dtS
1040  dtS = DATES
1050  RESTORE 1130
1060  FOR i = 1 TO 12: READ aS: IF dtS(6 TO 8) = aS(1 TO 3): EXIT i
1070  IF i > 9
1080    mnS = i
1090  ELSE
1100    mnS = '0' & i
1110  END IF
1120  LongDateS = DAYS &dtS(9 TO 12) & aS &' '& dtS(1 TO 4)
1130  ShortDateS = dtS(10 TO 11) &'/'& mnS &'/'& dtS(3 TO 4)
1140  ALTKEY 'd', LongDateS
1150  ALTKEY 'D', ShortDateS
1160      DATA  "January",  "February",  "March",  "April",  'May',  'June',  'July',
'August', 'September', 'October', 'November', 'December'
1170 END DEFine
```

(this uses Toolkit2 commands). Using BOOT1, just type 'Text87' and enter. This will load & run text87. The supplied boot is much shorter and simply loads Text87 following a system reset.

Text87 will normally occupy the whole screen, though you can change this from a menu selection. There is a large blank area marked by a thin white border (Mode 4) and below it are three lines - a menu/information line; a command line and a status line. You type your document into the large blank area. Pressing F3 (function key 3) invokes the menu, just as on Quill, and places the cursor to the command line below.

New users that have just booted and have the (nicely uncluttered) text87 screen with the red cursor in the top right hand corner, can type and type. Lines are wrapped very quickly, and cursor movement is also fast. Press F3 for commands, P for print, and Enter (or S for sendout) to print. If nothing happens then check the Context Parameters for printer port & baud rate. If these are wrong then simply change them, and Save the new Context. This will now always be set correctly. A large improvement over Text87 ver 2 is that the current settings are now clearly shown. There are several 'hidden' features of text87, ie. they are not on a menu, nor are they described anywhere on the screen - there is no online help facility. For these you MUST read the manual. The first is F3 for the command menu. Then F2 to provide the Ruler at the top of the display plus the fount under the cursor is described in the menu line (though Quill users will use these instinctively). F1 now provokes the spelling checker, scanning through the file from the cursor position till a spolink mistake is found! Shift F3 for fount selection, F5 for page break and several more.

What it does/should do
My main reason for buying Text87 was to have mixed typefaces on a single printed line. Sure you can do this in Quill and The Editor. But properly justified? No way. Text87? Yup. It gets it right, so long as the printer driver that you are using EXACTLY matches the printer that you use. Get this right and you can have true proportional spacing. If you ask Text87 to produce a 15mm column of text, it will do so in ANY typeface or mixture. Not only that, but you do not have these ugly Control characters littered about the text, as you have to in Quill or any text editor. And the ruler allows very accurate tabulation, as well as precise line feed size control (for double height typefaces - or just for extra spacing).

Now Text87 Version 2 allowed me to do all this. So how has Version 3 improved or changed Text87? The major inclusion is of the Alpha and Doc commands, thus making the full list of menu options (which now ALL work) as follows:

Alpha - Spell Checker (Ver 3);
Block - Text selection for move etc.;
Context - Environment parameters & printer driver;
Doc - Global Changes (Ver 3);
File - Load & Save etc.;
Goto - Fast movement & Page check;
Layout - Page size & printed columns;
Mode - Various settings for speed verses WYSIWYG;
Print - Define header/footer and to print document. No draft mode;
Ruler - Define & alter Tabulation rulers;
Search - Very simple search or search and replace;
Type - Select printed typefaces (ie Courier 12 pitch bold);
Zap - Clear document or Quit Text87.

All menu items, like Quill, are selected by a single key press. This is also true for sub-menu items. When you finally have to enter something - like a file name or a number - there is now (Ver 3) a suggested default. Select the default with Enter, or type something else. There are many times that the default is not what you want, or that a default is not given. I am sure that as this product grows through the nineties that the defaults will become more intelligent. All options can be ESCaped before you do any harm. It is very consistent and clear at all times.

The new features

The Alpha command controls the Spelling Checker. Pressing F1 will start the checking process from the current cursor position onwards. If it finds a miss-spelt word it stops and highlights it, allowing you to Ignore it, Browse through the dictionary or to Add the word to a temporary word list (useful for names and places). Now if you Browse, you must type in the first letters of the word you are looking for. A column opens in the window and a list appears. If you can see the correct spelling, then write it down on some paper, ESCape, retype the word and press F1 to continue. The other feature missing is that the word list produced is only as long as the text window, you cannot scroll the word list, so you can only see up to 18 words at a time. At this point, users of QTyp will recall that QType uses the misspelt word as the search word, and that the chosen word is automatically retyped to replace the misspelt one. Nevertheless Text87 Spell Checking is quick, and checks the whole file in one go. It also uses the QTyp dictionaries (English, German and French) which are quite extensive.

The Doc facility allows you to re-select the typefaces or rulers throughout a document. So if I want all of my Courier 12point to be Prestige 10point, then this lets me do it. In version 2 you could only do this on Blocks of text but this method scans the document for the start of each change of typeface/ruler. If you want some text unchanged, however, the system does not continue to find the next occurrence, but stays on the current one. You must ESCape, move the cursor on, and then continue the changes. Again, there is room for improvement in this command, but it really is useful at times.

You can merge documents, preserving any new rulers (common ones are unaffected). There are more import and export options to cater for most file types.

Pagination is made slightly easier with the Goto command having First, Next and specific page searches.

Ruler editing is slightly enhanced, providing fast movement in inch/25mm units and to left/right margins. I am unsure why the TAB key is not used to move to the next tab stop (and shift tab to go back).

Deleting ends of lines was also strange in Ver 2, but now the next line will be pulled back to fill the gap.

Probably the greatest enhancement for those of you with a slow printer or who use Fountext87 graphic printer driver, is that you can now ESCape while printing. When a page takes 15 minutes to print and half way through you spot a mistake, the ESCape key is just essential!

There are many other minor improvements over Ver 2, but there are still some things that Text87 still does not do, or does not do well...
You can only specify 1 header and footer at print time for a document. In most manuals or books each chapter has its own header. In some instances the odd pages have one header, and the evens another. You can store each chapter in separate files. [If you do this I beg you to buy QPAC2, or use the window manager of the QTyp spelling checker. This allows you to 'DIR FLP2_T87' the files to a window - and that list is not destroyed when you press CTRL-C. You can see the file list at any time by only pressing CTRL-C.] But if you have one long document needing several headers, then you have to print it in several goes. The Default values for header/footer and line (and not page) when you try to print are not entirely helpful in this respect.

In the same vein, the even pages could have the layout reversed, thus preserving the margin gaps (our photocopier can make two sided copies from two single sheets).

There is no cross-reference facility. You cannot say 'see page <label>', and when it is printed the <label> is converted to the number. This facility would make true Merge letters possible. Text87, however, must know the exact width of every item before printing, but a label is usually undefined until it is printed (ie. a two-pass printer driver is required).
It is also true that it does not:

- Draw lines (for a box, or to place a line across the page for a title, or for joining list items to their.....values)
- Include of gaps of a specified height (for pasting in photos etc.)
- Change case of a word to UPPER, lower, or Mixed in a single key press.
- Allow two Printer Drivers (Fountext graphic driver + normal one). Yet!
- Allow mixture of Layout columns throughout a document.

Well, the list could go on, becoming a personal wish list. The product, however, has not changed very much from Ver2, except for the spelling checking, and version 2 was already a highly competent Word Processor.

Presentation/Documentation
Version 2 came with an A5 manual which was generally clear, and had excellent examples too. Version 3 upgrade comes with a short (16 page) supplement. Both are clearly typed and professionally presented. The software squeezes onto a 3.5" DSDD disk. Unfortunately, there are no tutorials, or simple example documents to guide new users.

The screen is uncluttered, and well thought out. Version 3 displays the current frame area (header/footer/text) that you are in, as well as Filename, Number of words and current line number. Most users will always press F2 to display the Ruler (which appears like magic at the top of the window) and the current printype Option and Feature.

Speed and ease of use
The entry of text, and general movement is very fast. Block selection is a huge improvement in terms of speed over Quill, though is not as flexible as in The Editor. I am not sure if Version 3 is slower, it is not noticeable. The only slow thing is to scroll line by line. The menus are fast to navigate, though they can be tiresome and there are no shortcuts other than with ALTKEY definitions. Spell Checking is like lightning (which I also recommend), except when you have to stop and actually correct the word!

Text87 is not, nor tries to be, as flexible or as fast as The Editor, and other text editors. However, if you want to produce first rate letters, manuals or books then this is far superior and a superb compromise between speed and WYSIWYG.

My only qualm is about the implementation of mixed founts/typefaces. They take some getting used to! As many users have justifiably stated, it is tricky to change between typefaces. In my case there are about 1000 typefaces/variations to choose from, and to select any one you must press F3, T for Type, F for feature (change fount/size) or O for Option (bold/underline etc), type in a number (the 'view' facility in this case is not helpful), press Enter, ESCape to the text, then Shift F4 to start using it! You can use HotKeys/AltKeys to speed things up, but I hate these 'hidden' facilities. Anyway, I do not have 1000 keys on my keyboard. Having said this, it is something you get used to, and you often only need to work with a very small range of typefaces anyway.

Conclusion & Value for money
For new users, Text87 Ver 3 is excellent value for money. This is also true if you are upgrading and do not already have QTyp spelling checker. It is, however, quite exspensive to upgrade if you have purchased QTyp, as the other improvements may not be essential to you. Having both, however, is quite useful at times, as QTyp re-types the miss-spelt words for you, whereas Text87 does not.

There is still room for several improvements and enhancements, but there are no bugs that I have found. It really is a quantum leap forward from Quill.

Text87 is often compared to IBM PC software, including Wordstar and PageMaker / Ventura. There is no question of doubt in my mind that they can be far superior to Text87, given the financial backing and high volume sales they achieve, but I do not have a PC with hard disk at home, preferring the multi-tasking environment of the QL.

There exists products like PCTex (for IBM etc.) where you include command strings like {begin section (Motorbikes of the 80s) \bold Five ...}, within the document which is then compiled! Take it from me, these documents can look fantastic - tables, boxes, mathematical formulae, margin notes, indexes are possible, but the approach is quite, quite different. Tex (unlike its derivative, PCTex) is public domain, but the complete user guide is $2,000! This shows how complex true computer type setting is (and it sure is tricky to learn).

Product Information
Text87 can be bought from several sources now, but the main supplier is: Software87, 33 Savernake Road, London NW3 2JU. Software87 have always been fast and given sensible and polite replies to my enquiries. They also supply QTyp and QPac2, as do Care Electronics, which were written by QJump. They make useful companions to Text87 (and the others). Digital Precision supply The Editor.

Merlin Beedell, Maracas, St Johns Road, Crowborough, E.Sussex
29.3.90

PROBLEMS / QUERIES

LEARNING MACHINE CODE

I am in the process of trying to learn machine code and although I have 3 books on the subject :- Machine code programming on the Q.L by Martin Gandoff, Assembly language programming - Q.L by Andrew Pennell. The Sinclair QDOS companion by Andrew Pennell, I am still in need of a very easy to follow tutorial. I have subscribed to, Q.L technical review which contained an easy tutorial in the first edition, did not in the second and the third is not due for a couple of months. I bought all the back editions of QUANTA and on the back of volume 2 issue 2 (march 85) there was an advert for a m/c tutorial program from SNOWSOFT. I wrote to them but the reply said that the program was no longer sold. If any member has a copy that they have finished with I would like to buy it. I do not have a phone so please write.

R.C.Myers, 18 Mirlees Court, 45 to 56 Coldharbour lane, Camberwell, London S.E.5 PQW

SAM, THE LITTLE SPACEMAN

Has anyone successfully managed to transfer Alohasoft's 'Sam, The Little Spaceman' onto 3.5" disk from the original MDV, or indeed, has anyone else been experiencing problems getting the original to work?

I received one copy which refused to load from MDV1_ not even when I removed my RAM expansion. I sent it back and received another copy from Alohasoft, which won't load either, be it with RAM expansion (and trying various memory-reduce programs) or without it. Alohasoft suggest it could be that my MDVs run at a different speed.

Seeing as I have proof of purchase, would anyone be prepared to let me have a copy on 3.5 disk?

Mrs Dane Kurth, Langgasse 51, CH-3292 Busswil, Switzerland

LETTERS

THANKS

Would you please pass on my thanks to the organisers of the recent Portishead "workshop", which I found interesting and enjoyable. They must have put in a lot of work, both previously and at the event itself. A very minor criticism - might it be possible at future events for a timetable to be prominently posted showing who is speaking on what and when.

Paul L. Harris, 2 Tippett's Close, Enfield, Middx. EN2-0QR
Tel: 01-367-5992
7.3.90
{ Although it would be useful, in practice it is very difficult until you know who will turn up. Maybe we could look at using a blackboard. SJ}

QUANTA - DESKTOP PUBLISHING - Chap. Two

My first article, in the April edition of the Quanta mag, set the stage for your trip into Desktop Publishing and left you wondering why you bothered to read the article in the first place.

Well, I DID say that it is a big subject and we must take each step at the pace of the beginner-if I have already left you behind just drop a line to Sarah Johnson and I'll cover the problem later. At the same time, if you already have experience, just bear with me while I lay out the ground rules.

To pick up from Chap.1 we have reached the stage of deciding on type sizes for our sheet and the first problem may be the title. There is not a lot that I can tell you here as the title may have some local flavour and only you will know what it is. The group that you represent must be able to recognise what it is and, in time, the title may not matter as the group will recognise your sheet by its style and/or logo.

I have given these articles "Quanta - Desktop Publishing" - to separate them from the other articles and I have used a font from Page Designer 2 called "OLDE_hires". The normal print sizes in the QL are:

Size	Width	Size	Height
0	6 pixels	0	10 pixels
1	8 pixels	1	20 pixels
2	12 pixels		
3	18 pixels		

which will allow for combinations like: 0,0:0,1:1,0:1,1:2,0:2,1:3,0:3,1

The normal font sizes follow the QL sizes while the _hires fonts can be multiplied up to 25 times in width and 7 times in height enabling banner headlines although, at 25x7, a single letter will fill a screen.

My headline, as I said, used OLDE_hires set at multiplication level 1 in width and 1 in height.

I have referred once or twice to a 'logo' and, if you are wondering what a logo is, it is simply a design, picture or form of lettering that enables you to recognise what the subject is.

British Rail and Shell each have readily identifiable logos and, although you can make your own if you want, it could be easier to use one of those already available in Desktop Publishing software under the title of "CLIP ART". Clip Art is merely a selection of predefined pictures that you can transfer to your sheet and enlarge/shrink to fit the space available. It seemed appropriate to use a computer picture as a logo for Chapter 1 but, as you can see, for Chapter 2 I have used a picture of a Town Crier.

I shall continue to range through the alternatives as these articles progress and you will be able to see some of the options available for your own particular newsheet:

a) When you buy a Desktop Publishing program, and

b) When you begin to develop your own project - newsheet or whatever.

Chapter 3 will deal with text, paragraphs and drop-letters. Sorry to keep you in suspense.

Bob Gingell

Page Designer 2 - Sector Software - £35.00

PRINTERS

Dot-matrix printers (9-pin variety) are all very well, but on some, the NLQ fonts are more N than LQ - though I confess the quality on my Star SG10 always seemed to me pretty fair. However, for really first-class presentation, one cannot beat a daisywheel, and for some time I have had hooked up to the serial ports of my QL both the Star, and a Triumph Adler Royal 2000, a hefty, wide-carriage daisywheel which Matmos were selling for a ridiculous price last year.

The daisywheel is about as fast as the Star in NLQ mode, which is to say, not very (a claimed speed of c. 20 c.p.s.), so sheer impatience and a disdain for financial probity led me a few weeks ago to buy a Panasonic KX-P1124, a 24-pin printer of considerable merit. It had been widely and favourably reviewed, and Adrian Sycamore, a Quanta South West member, had told me how pleased he was with his.

I am glad I took the plunge. The machine is considerably bigger than the 9-pin Star, and feels at least as rugged. Its print quality, even in draft mode, is good, and its five LQ fonts (Courier, Prestige, Proportional Bold, Script, and Sans Serif) are superb: not quite so fine and crisp as the daisywheel output - more like daisywheel bold - but crisp enough and quite without "dottiness". Each can be printed in 10,12,15,17 or 20 c.p.i., and in bold, double-strike, and Italic - or any mixture thereof.

The unusual feature of the Panasonic is that, though pitch and typeface can of course be software invoked in the normal way, each is also controlled by an elaborate series of touch pads on the front panel: a little daunting at first, but when mastered, a delight to use. (The great advantage of this for QL users is that it frees some of the irritatingly limited translates from the Psion drivers.)

Paper can be fed from front, rear, or (the best) bottom, and there is a choice of tractor pull, tractor push, or friction feed. There is also paper parking, and feeding in single sheets with fanfold paper still in place is no problem (though I have had a little trouble with envelopes - which is probably my ham-handedness, and anyway I usually switch to the daisywheel for envelopes, so that is no problem).

Not the least of the attractions of the Panasonic is the low price: I have seen it advertised for as little as £214 + carriage + VAT - less than £260 total. If you really need first-class output, and do not want the speed limitations and lack of graphics capability of a daisywheel, this is as good a price/performance combination as you are likely to find.

We-can-dream-can't-we?

Various Quanta members have been speculating on the shape of things to come - i.e. QL successors or Thor beaters. If such a successor (i.e a complete new machine, not an emulator on Atari or whatever), does see the light of day, I trust it will either use, or be upgradable to, not the more lowly members of the Motorola 68000 family, even the 68030, but the recently-announced 68040. This sounds a quite wonderful product - and should out perform even the Intel 80486. Read the article in the April Personal Computer World - and drool.

(I agree that the 68040 sounds fantastic, but I suspect the price will reflect its performance also. SJ)

Keyboards

I have recently added a Schon IBM-style 102-key keyboard to my main QL, and it is even better than the Spem on my back-up machine. Nevertheless, there is one strange problem: now and again - not often - the keyboard decides to hit F1 of its own volition: whatever program I am using, suddenly the disk drive whirrs and "Help" (if on the disk) appears. This is rare enough not to be a nuisance, but it seems to me very strange. Any explanations? Has anyone else had this problem?

Roy R Johnson, Flat 2, 66 Victoria Road, EXMOUTH, Devon EX8 1DW
Tel: (0395) 275290
4.4.90

ARCHIVE: YOUR FLEXIBLE FRIEND

Last month I offered an Archive procedure for creating brand-new databases on the fly from within a program. This month we move on to a rather more complex procedure to enable you to transfer records from one file to another of a different structure, again, on the fly from within a program. The typical use for such a procedure is when you create a database, fill it with useful data, and then find you have missed out one crucial field. Using last month's procedure, you can create the necessary new database file; using this month's, you can organise the transfer of records from the old file to the new. The procedure offers you considerable flexibility: the field names do not have to match at all, and you can even change field types (from numeric to string, or vice versa) if appropriate and if you feel like it.

As mentioned in the original article, these procedures form part of an extensive Database Management suite which I have now translated from MS-DOS Archive into QL Archive. It runs somewhat slowly on an ordinary QL, but an Atari/QL keeps up well with the MS-DOS version.

```
proc dotransfer
 local oldfile$,newfile$,x$,oldf$,newf$,fn$,chtype$
 REM *** Transfer data to new _dbf file created by proc donew
 cls
 input "Drive and file to transfer TO, or x to Xit: ";newfile$
 if instr("Xx",newfile$): return
  else
  error opfile;newfile$,"main"
  docheck;errnum()
  if not errnum()
   if count()>0:warning: endif
   input "Drive and file to transfer FROM: ";oldfile$
   error lookfile;oldfile$,"old"
   docheck;errnum()
   if not errnum()
    spoolon datadev$+"prog" export
    lprint "proc xtrans"
    lprint "use""old"""
    lprint "while not eof(""old"")"
    use "old"
    let n=0:REM .. n is counter for fields in 'main'
```

```
while n<numfld("main")
  use "old":prfields;""
  print "Enter one of these fieldnumbers"
  print "       to be matched with ";newfile$;" ";blue$;fieldn(n,"main");black$
  print "OR (n) if no match required;"
  print "OR (t) to move to the data transfer stage;"
  print "OR (a) to abort ... : a";cursorback$;
  input fn$
  if len(fn$)<1: let fn$="a": endif
  if instr("Aa",fn$): return : endif
  if instr("Tt",fn$)
   prblanks;"main",n,numfld("main")
   let n=1000:REM to allow exit from 'while' loop
   else :REM .. ie if fn$="n" or is a valid number
   let oldf$="old."+fieldn(val(fn$),"old")
   let newf$="main."+fieldn(n,"main")
   if fn$=str(val(fn$),2,0):REM .. if fn$ is a valid number
    if fieldt(n,"main")=fieldt(val(fn$),"old")
     lprint "let "+newf$+"="+oldf$
     else :REM .. ie if fieldtypes don't match
     print blue$;"Oops! One field is numeric and the other non-numeric;";black$
     print "ARE YOU SURE you want to change field types??? (y/n)"
     setchoice;"n","yn"
     let chtype$=xchoice$
     if chtype$="y"
      lprint "let "+newf$+"=";
      if fieldt(n,"main"): lprint "str("+oldf$+",3,0)"
       else
       lprint "val("+oldf$+")"
       endif
      print
      else
      print "Please try again.  Press any key to continue ... : ";
      let x$=getkey()
      let n=n-1:REM .. negate increment of fieldnumber below
      endif :REM .. if chtype$="y"
     endif :REM .. if fieldt(n,"main")=fieldt(val(fn$),"old")
    else :REM .. if fn$=str(val(fn$),2,0)
    lprint "let "+newf$+"=";
    if fieldt(n,"main"): lprint """""""": else
     lprint "0"
     endif
    endif :REM .. if fn$<>str(val(fn$),2,0)
   let n=n+1:REM .. increment fieldnumber counter
   endif :REM .. if not instr(fn$,"Xx")
  endwhile :REM .. while n<numfld("old")
lprint "append""main"""
lprint "next""old"""
lprint "endwhile"
lprint "endproc"
spooloff :REM .. Close spoolfile
merge datadev$+"prog_exp"
```

```
      print
      print "OK!  Churning old data into new file ... ";
      xtrans:REM This is the name of the new proc created by proc 'dotransfer'
      kill datadev$+"prog_exp"
      endif :REM .. if not errnum()
     endif :REM .. if not errnum()
    endif :REM if instr("Xx",newfile$)
   endproc

 proc docheck;n
   local x$,errmess1$,errmess2$
   if n>0:REM ie if there has been an error somewhere
     let errmess1$="Sorry!  Something wrong here: error no. "+str(n,2,0)
     print blue$;errmess1$;
     let errmess2$="Consult the PC4 handbook, end of the Archive section, for details"
     print rept(" ",len(errmess2$)-len(errmess1$))
     print errmess2$;black$
     print
     print "Press any key to continue: ";: let x$=getkey()
     start
     endif
   endproc

 proc lookfile;f$,l$
   look f$ logical l$
   endproc

 proc opfile;f$,l$
   open f$ logical l$
   endproc

 proc pf
   local n: let n=0
   window;"fields"
   while n<numfld()
     print num(n,2);" ";fieldn(n)
     let n=n+1
     endwhile
   window;"setfields"
   endproc

proc prblanks;f$,n,end
  local newf$
  while n<end
    let newf$=f$+","+fieldn(n,f$)
    lprint "let "+newf$+"=";
    if fieldt(n,f$): lprint ""
      else : lprint "0"
      endif
    let n=n+1
    endwhile
  endproc
```

```
proc prfields;str$
  local i,n,m$
  window;"sliver"
  window;"setfields"
  if numfld()<12:pf: else
    if len(str$)>0: print str$: endif
    print "Press ENTER to escape from fieldlist;"
    print "Press any other key to keep viewing ... "
    window;"fields"
    let n=0: while n<numfld()
      let i=0: while i<10 and n<numfld()
        let f$=fieldn(n)
        print num(n,2);" ";f$( to 10)
        let n=n+1
        let i=i+1
        endwhile :REM .. while i<10 and n<numfld()
      let m$=getkey()
      if code(m$)=30:window;"setfields": return : endif :REM .. Enter key
      if n=numfld(): let n=0: endif
      endwhile :REM .. while n<numfld()
    endif :REM .. if numfld()<12
  endproc

proc warning
  local r$
  print: print blue$;"This is NOT AN EMPTY FILE.          "
  print "Risk cockup (c), or do backup (b)? ";black$
  setchoice;"b","bc"
  let r$=xchoice$
  if r$="b":start: endif : REM .. NB These procs are just part of a
          REM .. bigger whole
  endproc
```

Hugh de Saram, Littlefield, Bath Rd, Marlborough, Wilts SN8 1NN
(0672) 512 572

MUSINGS ON MINERVA. Or how I changed my mind!

I have had Minerva installed for about a month now. I bought it on the strength of bug fixes, features added to BASIC and go-faster stripes. I discounted the second screen feature as a gimmick, since on their own admission, little software was compatible with it, especially not the Psion four. If you read to the end of this article you will see how my opinion has changed.

a) Bug-fixes. All the claims are true, but they were rather obscure bugs and I have never knowingly suffered from them. Still, having converted from a 'JM', it's nice to get the cursor back automatically when the last job is removed to leave only BASIC. I regularly use Lightning, Taskswopper & the Talent Ramdisk utility and I have not noticed any incompatibilities with Minerva.

b) Additions. The additions to SuperBasic are nice but after almost six years of not having them, one has to remember to use them. It is nice to be able to use integer FOR loops & arithmetic etc in programs before compilation. The COMPOSE feature is brilliant. At last foreign characters are available without straining the memory. I have made up suitable printer-drivers for Quill so that my children can use it for their French & German homeworks. Previously it just wasn't worth while. The boot program controls which printer driver (English, French or German) is used, based on a SELECT ON string (E,F or G) construction! The add-on TRACE facility also works better than any I have seen.

c) Speed. I read somewhere (Quanta I think) of someone asking for figures and since I have not seen any reply to date, here are some that I have obtained.

i) Maths.

I have used some benchmarks published by Popular Computing World in Dec 1986. Intmath sets X%=0,Y%=9 and does

```
FOR n=1 to 1000 : x% = x% + (y%*y%-y%) DIV y%.  Realmath does the same with real
                                                numbers, i.e set x=0,y=9.9 and
FOR n = 1 to 1000: x = x + (y*y-y)/y.  Triglog also sets x & y to 0 & 9.9 and then
FOR i = 1 TO 1000 : x = x + Sin(Arctan(Cos(Ln(y)))).
```

The results (in secs) for my setup are.

Conditions	Intmath	Realmath	Triglog
Qdos	6.45	4.95	22.16
Minerva (no changes to prog)	4.20	5.02	20.30
" (integer FOR loop)	3.88	4.68	20.00

Oddly enough, the Realmath benchmark is very slightly slower with Minerva unless FOR loops use integer counters i.e. FOR n% = 1 to ... Now how about compiled BASIC etc? I have Q_Liberator, and Computer One Pascal & Forth. Since original flavour SuperBasic didn't support true integer arithmetic (it converts integers to reals for arithmetic and back again afterwards & so is slower than real arithmetic) all compilers etc provide their own routines and this seems to be so also for real +,-, * & / as well. None of my three packages show any changes for Intmath or Realmath. Interestingly, they all show a small improvement for Triglog, Q_Lib & C1 Pascal (14.10 to 12.54 sec) and C1 Forth (14.10 to 12.38 sec). Since the Lightning maths extensions have no effect on programs produced by these packages, this 12% improvement is welcome.

ii) Graphics.

There is a PCW benchmark, Grafscrn which uses two FOR loops to plot 10000 pixels. It specifies using real not virtual pixels. For the QL this means using the BLOCK, not the POINT command. However the latter is more relevant to real programs where the plotting is done relative to a Window and so I used

```
FOR i=1 to 100
 FOR j= 1 to 100 : POINT i,j
ENDFOR i
```

QDOS SuperBasic	177(secs)
Minerva	92
" (Integer FOR loop using i%)	85

I also found an old timing I had carried out circa 1984 on

```
FOR n = 1 to 200 : CIRCLE 50,50,n
```

This took 18 sec under QDOS and now takes 12 sec with Minerva. Interestingly, 99.99% of the time with this test is used in following ROM routines and integer FOR loops and indeed fast or slow memory make very little difference. Qview now claim their graphics acceleration is 100% that of the Lightning extensions but I have no information on this.

iii) General computing

I also have data for two small programs which do not involve much arithmetic. The first is the famous Sieve of Eratosthenes, used to find prime numbers and formerly by Byte magazine as a benchmark. It involves some looping, integer counting and a lot of assigning values to arrays and testing for '>' condition. Under QDOS this took 202 sec to find the first 1899 prime numbers. The same code with Minerva took 183 sec, reducing to 170 if integer FOR loops were used. If integer arrays were used the time went up to 173 sec! There was no effect on compiled programs. C1 Forth takes 4.2 sec to do the same thing with either system. The other program, I read about in a magazine some years ago. It assigns a$ = 'abcd.....xyz' and then swops a$(1) with a$(26), a$(2) with a$(25) and so on until a$ = 'zyx...cba'. This is then repeated 5000 times. This took 649 sec with QDOS, 608 sec with Minerva and 573 if the FOR loop used an integer counter. Both programs therefore show about a 12% gain but again no effect on Q_lib, C1 Pascal or C1 Forth programs that do the same thing.

d) Second Screen. You can swop between screens using either the key combination CTRL+TAB or via software with MODE 80,-1. In single screen mode such swopping shows a colourful display of the system variables as red green & white dots. Those variables whose values vary give a pleasant flickering display. If I use Taskswopper with e.g. Quill and save a screen, part of the saved screen can be seen after CTRL-TAB.

SuperBasic of course works with the second screen and like Joe Haftke (Quanta March issue, p20) I altered a BASIC program so that it did some drawing on the second screen (MODE 96,-1 causes any further windows to open on the second screen until another MODE 96,-1) and then switched to view it. However I decided to play around to see if any of my programs would be compatible with the second screen mode and I found that C1 Forth and Pascal programs compiled with C1 Pascal are perfectly compatible. Possibly other Computer One products are also! Now if I give MODE 96,-1 before loading Forth (EX mdv1_FORTH) the microdrive whirrs but the screen doesn't change. Then CTRL-C and you are in Forth on the second screen. Set it doing something and CTRL-C back to the first screen and the Forth program continues running, writing or plotting on the second screen but not affecting the first, original screen. I can now load and run a compiled Pascal program (having ensured that it will go to screen one) and it can use the screen to its hearts content without affecting Forth (of course, the Pascal program could be on screen two instead of Forth). With two jobs running and active, CTRL-C will not swop into them (it never would) but you can see how things are doing using CTRL-TAB to switch, not between jobs, but between looking at screens. Now we are in the same class as 80286 or 80386 computers with OS/2 or WINDOWS, all for an extra £25!

I must say that I find this really impressive. The Taskmaster, Taskswopper type of program was wonderful because it allowed you to use several Psion programs and swop between them. Certainly with Taskswopper, you can exit a program and leave it running but if it uses a screen it will interfere with anything else you are doing. Now, with Minerva you can have two jobs running totally independently, both writing or drawing on their own screens, just like on computers costing thousands of pounds (though probably not quite as fast!).

Are there any flaws? Well of course the Psion four cannot be used in second screen mode so it is business as usual with Taskswopper etc and one screen for these. Secondly, MODE 8 doesn't appear to work properly. If I run the BASIC program mentioned above in MODE 8, screen one is OK, then switch to screen two and it is there, but the colours are not those expected and if I now switch back to screen one, parts of it are flashing. A MODE 4 cures all and I can live without MODE 8 for most purposes (Turboquill also doesn't like MODE 8). A more important problem is that MODE and NEW commands effect both screens so when the editor is loaded in C1 Forth and the screen redrawn, the other screen is also cleared. It would be nice if QView could rewrite the MODE command (or whatever it is)to apply to only one screen. Finally (and greedily) there are only two screens to do this with.

David Guthrie, 2 Hillside Drive, Belfast BT9 5EJ
Tel 0232-666494
10-3-90

NUMBER THEORY AND PROFESSIONAL PUBLISHER

An earlier contributor has questioned the use of the words 'billions' and 'colossal' in an artical on Digital Precision's Professional Publisher. Professional Publisher is a superb program, a view echoed by Mike Lloyd, Bryan Davies and Ron Massey in reviews in QL WORLD.

The word "billions" was used in connection with the number of possible fonts that would need to be stored if they were not calculated at run time and "colossal" was used in respect to the amount of storage space required to keep the billions of fonts. The use of the words is, I believe, justified by the following maths:

A single font can be modified at will by changing one or more of the characteristics listed below. As they can be varied at will the contribution to the total is the product of the 'factors' listed in the right hand column.

Characteristic	Variability	Factor
Bold	on/off	*2
Italics	-16 to +16	*33
Reverse	on/off	*2
Invert	on/off	*2
Rotate	See note 1	*2
Inverse	See note 2	*256
Magnification	See note 3	*50
Style/merge	See note 4	*250
Colour	on/off	*2
Underline	off/single/double	*3

Note 1. In theory there are 4 possible rotations but it is possible to prove that half of them can be obtained by permutations of Invert and Reverse.
Note 2. With inverse any combination of the 8 bars are possible therefore 2^8 combinations.
Note 3. With the exception of the biggest font there are 64 combinations. The average number of combinations is about 60 but I will be conservative and use *50.
Note 4. Style has 4 values (OR, XOR, AND and OFF). Merge (grey scale) has 83 values, but the value does not matter if style is set to off. Hence the number of combinations is 1+3*83=250, therefore * 250. I am being very severe as merge/style works with any of dozens of supplied patterns and not only with the grey scale.

Being very conservative, the number of automatic permutations from a single font is therefore at least

2*33*2*2*2*256*50*250*2*3 = 10,137,614,400

which is billions, 10 of them! I have not taken into account the 65*9=585 permutations of overall proportionality because my calculator overflows and I have not got a transputer.

Font sizes vary from 2K to 50K but are typically around 5K. If ALL of these possible fonts were saved then you would need to cater for 10,137,614,399 * 5K's worth of data. This would require over 70,000,000 1440-sector disks. This is truely colossal. On this reckoning I do not believe that Digital (with whom I am not connected) were not guilty of imPrecision!

Alfred Kendall, 22 Langley Hill, Kings Langley, Herts, WD4 9HD
23.3.90

COMPUTER 1 PASCAL

I bought this package as I use Borland Turbo Pascal at the office on occasion and so was attracted to it by it's portability and low cost (£30).

This version of Pascal is close to the ANSI standard but does have many QL specific procedures and functions in addition to permit access to the power of QDOS, many of these are similar to the BASIC screen handling and binary interface functions. The Pascal binary interface is particularly efficient as is demonstrated by the small program enclosed. This displays the job name (or failing that job ID) of the current keyboard queue owner and also permits the user to use the key combination CTRL-ALT-ENTER to swap around all console channels. This permits access to tasks that are not considerate enough to put up an active cursor.

The Pascal system is a complete operating environment with editor (that displays error messages from the last compilation) compiler and executable task maker. Unfortunately this environment is run from BASIC using a new keyword 'PASCAL' and so will not multi-task. The compiled jobs do multi-task however. There is much accessing of system files as a user goes through the development cycle of edit-compile-edit-compile-makejob- etc. If you have a memory expansion then modify the boot file to load the system files into RAM disk and configure for same which will speed things up.

A Pascal task doing repeated floating point arithmetic is about 50 times faster than the SuperBasic. Interestingly the same operations using the 386s + co-processor at work are 40 times faster for integer and 200 times faster for floating point arithmetic than the QL compiled task. I can't quite understand this in the case of integer maths.

JOBRENAME

I have found it somewhat troublesome when many tasks are running on the QL and most do not have a valid job name - this makes a TK2 job listing very confusing. I have solved this by adding a job name to an executable file along with the necessary M/code instructions to jump around this tacked-on job header. The second listing gives a SuperBasic program to do this (also uses TK2 commands). I have found this works OK with all the tasks I have used it on including the Psion 4, compiled Pascal and C tasks.

Lester Wareham, Stanmore, MIDDX
13.3.90

LISTING 1 EXAMPLE PASCAL PROGRAM

```
program jobcontrol;
const strl      =16;
      sdkbd     =104;
      chowner   =8;
      svchmax   =114;
      scrl      =131072;
      sdscrb    =50;
      {keyq change combination cntrl-alt-enter}
      rl        =7;
      cl2       =6;   {2+4   contrl-alt}
      r3        =1;
      c3        =1;   {1   enter}
type  str       =array[1..strl]    of char;
      mcc       =array[1..4]       of char;
      ipc       =array[1..8]       of char;
var   com                                       :ipc;
      d                                         :dreg;
      a                                         :areg;
      svident,jblen,svjbbas,svkeyq,ownid        :address;
      svchbas,chdriver,driver0                  :address;
      ownloc,job,tag,n,chlen                    :integer;
      jn                                        :str;
      eflag,debounce,twoscr                     :boolean;
      sc,sc0                                    :text;
procedure  trap(num:integer;var eflag:boolean); {routine to call QDOS trap vectors}
var    mc :mcc;                                 {space for m/code}
begin
   mc[1]:=chr(78);  mc[2]:=chr(64+byte(3,num));  {trap num}
   mc[3]:=chr(78);  mc[4]:=chr(117);             {rts}
   call(loc(mc),d,a);                            {do it}
   if d[0]<0 then eflag:=true;
end;
```

```
procedure defscr;
begin
   d[2]:=0;
   d[1]:=65440;                          {toggle default scr}
   d[0]:=16;                             {mt_dmode}
   trap(1,eflag);
end;
function findq:integer;
var      k                              :integer;
begin
     findq:=0;
     for k:=0 to peekw(svchmax+svident) do
         if peekl(svchbas+k*4)+sdkbd=peekl(svkeyq) then
         begin
            findq:=k;
            k:=20000;
         end;
end;
procedure chscr(scr:integer);
 const  mask  =  61312;          {mask for Minerva O/S call}
                                 {no redraw only set scr absolute}
begin
     d[2]:=0;                    {monitor mode}
     d[1]:=mask+16*(scr band 1);   {set scr bit}
     d[0]:=16;                   {mt_dmode}
     trap(1,eflag);
end;
function ipc9(row:integer):integer;
begin
     d[0]:=17;                   {mt_ipcom}
     a[3]:=loc(com);             {command location}
     com[7]:=chr(row band 7);    {set row}
     trap(1,eflag);
     ipc9:=byte(3,d[1]);         {returned collum}
end;
function polekbd(row12,col12,row3,col3:integer):boolean;
begin
     if ( ipc9(row12) = col12 ) and ( ipc9(row3) = col3 ) then
        polekbd:=true
     else
         polekbd:=false;
end;
procedure nextq;
var       keyqch                    :integer;
          found                     :boolean;
begin
     keyqch:=findq;
     found:=false;
     while not found do
     begin
          keyqch:=keyqch+1;
          if keyqch>peekw(svchmax+svident) then
```

```
            keyqch:=0;
          chlen:=peekl(svchbas+4*keyqch);
          if chlen>0 then
      if (peekl(chlen+4)=driver0) and (peekl(chlen+sdkbd)>0) then
          begin
             if peekl(sdscrb+chlen)=scr1 then
               chscr(0)
             else
               chscr(1);
             pokel(svkeyq,chlen+sdkbd);
             found:=true;
          end;
      end;
end;
{main program}
begin
   fill(loc(com),8,chr(0));          {set-up IPC9 command}
   com[1]:=chr(9);                   {for pole kbd}
   com[2]:=chr(1);
   com[8]:=chr(2);
   debounce:=true;
   attach(sc0,'scr_96X10a414X230');
   rewrite(sc0);
   paper(sc0,green,white,0);
   ink(sc0,black,black,0);
   eflag:=false;
   d[0]:=0;                          {mt.inf}
   trap(1,eflag);
   svident:=a[0];                    {find start of SV's,may be under Minerva}
   if svident=163840 then  {two or single screen mode}
     twoscr:=false
   else
     twoscr:=true;
   d[0]:=11;                         {mt.prior}
   d[1]:=-1;                         {this task}
   d[2]:=1;                          {min priority cos' no need for speed}
   trap(1,eflag);
   if twoscr then
   begin
      defscr;
      attach(sc,'scr_96X10a414X230');
      rewrite(sc);
      paper(sc,red,black,0);
      ink(sc,white,white,0);
   end;
   if eflag or ( ioresult <> 0 ) then halt;
   svjbbas:=peekl(svident+104);  {start of job table}
   svkeyq:=svident+76;           {current keyboard queue location}
   svchbas:=peekl(svident+120);  {start chan table}
   driver0:=peekl(peekl(svchbas)+4);
   while true do                 {inf loop}
   begin
```

```
      if polekbd(r1,c12,r3,c3) and debounce then
           begin
                nextq;
             debounce:=false;      {set true at program start}
           end
           else
               debounce:=true;
      if (peekl(svkeyq)) > (svjbbas+sdkbd) then
{not hopelessly out}
      begin
         {id of keyq owner}
         ownid:=peekl(svkeyq)-sdkbd+chowner;
         tag:=peekw(ownid);
         job:=peekw(ownid+2);
         ownloc:=peekl(svjbbas+4*job);                          {where's the job}
         if ownloc>0 then                                       {still running?}
         begin
            fill(strl,loc(jn),' ');
            n:=0;
            if (peekw(ll0+ownloc) = 19195) and (job > 0) then {has a job name?}
            begin
               n:=peekw(ll2+ownloc);                            {how long's name?}
               if n>strl then n:=strl;                          {not too long}
               if n>0 then move(n,ownloc+ll4,loc(jn));          {get it if there}
            end;
         if job=0 then jn:='SUPER BASIC                         {if SB say so}
            at(sc0,0,0);
            if twoscr then at(sc,0,0);
            if (job = 0) or (n > 0) then
            begin
               write(sc0,jn);
               if twoscr then write(sc,jn);
            end
            else
            begin
             write(sc0,' job ',job:3,' tag ',tag:3);            {and display}
             if twoscr then write(sc,' job ',job:3,' tag ',tag:3);
            end
         end
         else
         begin
            at(sc0,0,0);
            write(sc0,'  no valid job  ');
         end;
      end
      else
      begin
        at(sc0,0,0);
        write(sc0,' no valid queue ');
      end;
   end;
end.
```

```
LISTING 2   BASIC JOB RENAME PROGRAM
100 REMark job_name_adder L.K.Wareham 1990  V 1.0
120 PRINT 'old file name ? ';:INPUT innam$
130 PRINT 'new file name ? ';:INPUT outnam$
140 PRINT 'new job name ? ';:INPUT jobnam$
150 jnl=LEN(jobnam$):hdr=10
160 IF jnl=0 THEN
170 PRINT 'ERROR - no name to add'
180 STOP
190 END IF
200 IF jnl>50 THEN
210 PRINT 'ERROR - job name too long'
220 STOP
230 END IF
240 IF jnl DIV 2 <> jnl/2 THEN
250 jnl=jnl+1:jobnam$=jobnam$&' '
260 END IF
270 IF FTYP(\innam$)<>1 THEN
280 PRINT 'ERROR - '&innam$&' not an executable file'
290 STOP
300 END IF
310 dat=FDAT(\innam$):lenf=FLEN(\innam$)
320 c='_' INSTR innam$
330 temp$='raml_'&innam$(c+1 TO jnl)&'_tmp'
340 COPY_N innam$ TO temp$
350 base=ALCHP(lenf+jnl+hdr)
360 LBYTES temp$,base+jnl+hdr
370 DELETE temp$
380 POKE base,96
390 POKE base+1,0
400 POKE_W base+2,jnl+hdr-2
410 POKE_W base+6,HEX('4afb')
420 POKE_W base+8,jnl
430 FOR n=0 TO jnl-1
440 POKE base+hdr+n,CODE(jobnam$(n+1))
450 END FOR n
460 SEXEC outnam$,base,lenf+hdr+jnl,dat
470 RECHP base
480 PRINT 'renamed task saved'
```

SMALL ADS

FOR SALE

THOR(8) 4.21 system, twin floppies, 640k RAM. Speedscreen and Interlogic Toolkit Extensions in ROM. Microvitec monitor. External microdrive. Ser and Par cables. Software includes Xchange 3.90, QL Liberator, Eye Q, Digital C, Sidewinder, Graphics Construction Kit, and Computer One Pascal. Many books. Price £325. SPEM Digitiser with software on Disk and Microdrive. All cables. Hardly used. Price £60. The SOLUTION chocolate edition. MS-DOS 4.00 with all documentation and some PD programs. Price £40. Or, for quick sale, all the above for £400 (buyer collects).
R L Latham, 26 Whitedown Road, Tadley, Basingstoke, Hants. RG26 6BY.
Tel: (0734) 814547 any time

WANTED
5.25" DS/DD single drive, preferably switchable 40/80 track, in good working condition.
David Steward, 1 Green View, Hartest, Bury St. Edmunds, Suffolk. IP29 4DR
Tel: (0284) 830677

FOR SALE
640K QL (JS ROM D15 Ed.), Tandata 2 piece modem, Phillips 80 (Amber) Monitor, Cumana disk interface, New ALPS 3.5ins drive (never wired up but with cable, connectors and pin out diagram). Miracle printer interface.
Taskmaster, Editor, Psion Suite, Mprint, Write-turn, Q_Connect, QL Index, 46 Mdrives in 2 boxes. £250 ono.
Dr. E. Squance, 11 Ballymenoch Road, Holywood, Co. Down. BT18 0HH.
Tel: 02317 - 2762.

FOR SALE
TrumpCard (768k) £150, Eidersoft Ice ROM with mouse, Artice and The Designer (Pyramide) £50, 3.5" single-sided (360K) disk drive with power supply £25, Serial 8056 Printer with leads, manual & large roll of paper £25, PC Conqueror (with MS-DOS 4.0 and all manuals) £90, Page Designer 2 (Sector) £15, Taskmaster (Sector) £12, Sign Designer £6, Spellbound (with Filebound) £10, Zapper & Eagle (Eidersoft) £4, Inkwell Delux Typer (font editor, print utility) £6, GraFix (comprehensive printer driver) by PDQL £10, Lightning (DP) £12, QL Chess (Psion) £6, QL Pawn (Magnetic Scrolls) £6, Tankbusters (Sellasoft) £6, 48K Spectrum £20, Books - 9 volumes in Hutchinson Press' "The QL Series" at £2 each (£15 for all 9), - 5 volumes in the Sunshine Books series £2 each.
Torch computer (CF 240M) with Hi-Res colour monitor and dual 720K 5.25" DS DD built in, seperate keyboard. Contains complete, working, BBC circuit board and its own Z80 based CP/M board. I use monitor/drives for my QL. Phone for details.
John Arnold, 12 Harting Down, Petersfield, Hampshite, GU31 4PG
Tel: ()730) 67486 Evening and weekends

WANTED
Circuit diagram for Micro Peripherals disk interface, expenses reimbursed. Also wanted, QL DEVPAC (HiSoft), must be complete GEN/MON suite, reasonable price paid.
C.J.W. Powell, 16 Edward Street, Oswestry, Shropshire. SY11 2BN
Tel: (0691) 650388 weekends only please.

FOR SALE
Tandata modem new unused in all its original packeting with software. It is dedicated to a QL. £30.
Graham Biggs, Homestead, 11 Main Street, Seaton, Nr Oakham, Rutland, Leics. LE15 9HU
Tel: (057) 287878 evenings.

WANTED
A good, second hand colour monitor, with the standard QL 8 pin plug/lead.
Bruce N. Blake, Chief Designer, Advanced Airship Corp. Ltd., Airship Facility, Jurby, Isle of Man. Tel: (0624) 897962 Facsimile: (0624) 897006

FOR SALE
640K QL (512K Miracle Expanderam) Issue 7 board. JS ROM Set + (Minerva V1.66 fitted), Schon Keyboard, Cumana disk interface and 3.5" drive, Anti-bounce chip, Switch Mode PSU, Cooling Fan, ICE ROM, Centronics printer lead. All hardware housed in professional computer case, Ferguson Mono Monitor. Joystick.
Software - Chess, QL Games, Art-ice, Choice, Icicle, Touch Typist, Turbo + Toolkit (no manuals), Datacad, Psion Package V2.3, Page Designer, Grey Wolf, Quanta Library Guide, Cad 1, Lightning, Karate, Citadel, Pharoah, Quanta Software (various), 37 Microdrives, 23 x 3.5" disks.
Books - QL Manuals, QL Machine Code, Desk Top Publishing, QL World Mags March 1986 onwards, Quanta issues Jan 89 onwards.
Price £280 the lot.
Separates - PC Conqueror MS-DOS V4.01+GW BASIC (originals) £70, QL Keyboard £10, QL Power Supply £10, QL Flip-back Connector £5, QL Quest 128k Expansion Board £15, Astec Switch Mode Power Supply (+12v +5v -5v) £10.
Silver Reed EB50, Colour Typewriter/Plotter with Printer Interface, Battery or Mains, spare pens. £150
Geoffrey Leagas, 121 Mowbray Road, Hartlepool, Cleveland TS25 2NB.
Tel: 0429-871130 after 6pm

FOR SALE
Sinclair QL purchased in the USA, with all the original microdrive tapes. Many other tapes, blank and with programs, commercial (Psion chess, typing tutor, etc.) and others with programs from Quanta Library. Also joystick, Modaptor for modem, QL books. $100.00
Hyman Meltz, 3988 Sabal Drive, Oviedo, FL 32765, USA.
Tel: 407-365-6387

WANTED
A copy of PC 4 or Xchange.
Eli Kronstein, P.O.Box 554, Jerusalem 91 004, Israel.
Tel: 00 972 2 711330 Fax: 00 972 2 724703

FOR SALE
Micro Peripherals MP165 NLQ printer. Fully Epson compatible with the addition of a QL ROM enabling all QL characters to be printed without translates. £100
David Johnson, The Corner House, Loxley, Warwick, CV35 9JT
Tel: (0789) 842543

FOR SALE
QL membranes £5: 3 = £13.50: ZX8301 £10: ZX8302 £10. Post free to Quanta members.
Don James, Merseyside Quanta Subgroup, 3 Bernard Rd, Birkenhead, L43 1TT

DJC

Dilwyn Jones Computing

41 Bro Emrys, Tal-y-Bont,
Bangor, Gwynedd LL57 3YT
Tel: Bangor (0248) 354023

BASIC REPORTER

Need some information on your SuperBASIC program? Send in a REPORTER to get the facts! BASIC Reporter is a program that provides a variety of reporting facilities for the BASIC or compiled BASIC programmer. Lists of names used, calls made by procedures (see what effect removing a procedure or function could have!), trace, keyword search (find DATA lists to be changed, REMark statements to be removed and so on), type and address of machine code extensions, variable types, which program lines contain references to given names and many more uses. All lists and reports can go to the screen, printer, or to a file. An invaluable aid when writing BASIC programs. Only £10.00

VISION MIXER

The ultimate screen display system for advertising, promotions, displays, seminars, exhibitions etc. Give it some mode 4 or mode 8 screens (e.g. prepared with Eye-Q or Page Designer) and it will display them and switch between them in a rather pretty way with several fancy effects. Let it run automatically, at random, or program it yourself to display what you want when you want! Very eye catching and so easy to use. Expanded QL only. Only £10.00

WORDSCHECK

Give it a text file (ASCII or QUill _doc) and this little program will count up the number of words in the file. Not just a simple word count - all words are recorded and frequency of occurrence reported. This program is handy for word useage and text analysis. Only £6.00

SUNDRIES

FLOPPY DISCS	3.5 INCH DSDD	60p	50 for £25.00
	5.25 INCH 80 TRACK	35p	(labels included with discs)
DISC STORAGE BOXES	3.5 INCH, CAPACITY: 40 DISCS £5.00, 80 DISCS £7.00		
	5.25 INCH,CAPACITY:100 DISCS £7.00		
PRINTER STAND	WIRE CONSTRUCTION, WITH PAPER SHELF £9.00		
PRINTER RIBBONS	£4.00 EACH, COMPATIBLES, BLACK, AVAILABLE FOR STAR LC10 AND LC24-10, CITIZEN LSP/120D, BROTHER M1009/CENTRONICS GLP		
DUSTCOVERS	INDIVIDUALLY MADE. EXPANDED QL (E.G. TRUMPCARD) £6.00 UNEXPANDED QL £5.00		
LABELS	3.5 INCH DISCS ON ROLL,		20 FOR 50p, 50 FOR £1.00
	5.25 INCH DISCS,		20 FOR 50p, 50 FOR £1.00
	MICRODRIVE CARTRIDGE LABELS,		100 FOR £2.00
	ADDRESS LABELS ON TRACTOR FEED,		100 FOR £2.00

Please add £2.00 Postage and Packing except for small software orders. Please make cheques etc. payable to Dilwyn Jones Computing. Send a stamped addressed envelope for further details of the above programs. The programs are available on 3.5 inch discs or 5.25 inch discs only - if you require a microdrive copy, please send a cartridge with your order, due to shortage of supplies. Vision Mixer requires 2 cartridges. Goods remain the property of Dilwyn Jones Computing until paid for in full.

Proprietor: Dilwyn Lloyd Jones

☆ sinclair QL ☆

EEC LTD MAIN SUPPLIERS OF Sinclair QL COMPUTERS & LOW COST PRINTERS. QLs FROM £90. PRINTERS FROM £80.

BACKUP QL THE QL WITH POWER SUPPLY UNIT, & TV LEAD — JM ROM **£90**
KEEP IT AS INSURANCE, OR FOR NETWORKING.
CHEAPER THAN CHANGING TO ANOTHER SYSTEM. — JS ROM **£100**

QLs COMPLETE. FULLY TESTED AND WITH 3 MONTHS WARRANTY.
TV LEAD. QL SOFTWARE 2.35. ALSO COMPLETE BOUND USER GUIDE FOR THE QL, SUPERBASIC, & FOR THE SOFTWARE; QUILL- WORD PROCESSOR, ABACUS- SPREAD SHEET, ARCHIVE- RECORDS, EASEL- BUSINESS GRAPHICS. — JM ROM **£120** / JS ROM **£135**

CUSTOMERS BUYING ONE OF THE COMPLETE UNITS ARE GIVEN ONE YEAR'S FREE MEMBERSHIP TO QUANTA (Help, Newsletters, & 400+ Library Programs- most Free). QUANTA MEMBERS CAN OBTAIN A £5 DISCOUNT

* NEW ITEMS *

1MB 3.5 DISK DRIVE UNIT. CITIZEN TYPE OS/DC. WITH FRONT BEZEL 3 ms Access, 15 ms Settling. 5volt, 1.8 watt. 23 mw on Standby **£49**

2MB 3.5 DISK DRIVE UNIT. FUJITSU TYPE M2537K. 1.0/2.0 MB. **£57**

TANDATA MODEMS. Q-MOD, Q-CONNECT, Q-CALL. £20 each, or the SET **£40**

SPARES & ACCESSORIES
THESE ARE STILL AVAILABLE, INCLUDING CARTRIDGES. PLEASE PHONE FOR DETAILS OR ASK FOR PRICE LIST

LOW COST PRINTERS. WITH INSTRUCTIONS FOR QUILL, ABACUS, & ARCHIVE.

SEIKOSHA GP100A. CENTRONICS. 80 COL, 50 CPS. GRAPHICS. TRACTOR FEED. CENTRONICS INTERFACE £20, IF BOUGHT WITH PRINTER **£80**

STAR NL10 DOT-MATIX 9-PIN PRINTER. EPSOM TYPE WITH 120 CPS DRAFT & 30 CPS NLQ. FRICTION AND BUILT-IN TRACTOR FEED. TOP PANEL CONTROLS. 5K BUFFER. CHOICE OF PLUG-IN INTERFACE MODULES NOW SUPPLIED FOR SERIAL, PARALLEL/CENTRONICS, IBM/PC, OR COMMODORE. AVAILABLE SEPARATELY @ £20 each. **£140**

C.ITOH SERIAL DAISYWHEEL PRINTER. PRINTS AT 20 CPS. CAN PRINT 1+3 COPIES. PAPER WIDTH 13 INS. CHARS PER LINE; 115, 136, OR 172; SELECTABLE ON TOP PANEL. BUFFER 256 BYTES. OBTAINABLE EXTRAS; CENTRONICS MODULE, 2-COL RIBBON, TRACTOR, & AUTO SHEET FEEDER. **£140**

QL SOFTWARE CASH TRADER. DECISION MAKER. HOME FINANCE. £20 ea
TOUCH & GO (Typing Tutor). QL GAMES CARTRIDGE. £10 ea

TERMS CWO, ACCESS or VISA.
MINIMUM ORDER £8. P & P £8.00 FOR PRINTERS & QL (OVERSEAS £15.00). OTHER ITEMS £3.00 (OVERSEAS £6.00)

EEC LTD

18-21 MISBOURNE HOUSE, CHILTERN HILL, CHALFONT ST PETER, BUCKS, SL9 9UE. Tel: 0753 888866. FAX 0753 887149