# QUANTA

## VOLUME 7 ISSUE 6    JULY 1990

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## 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<br>Wychwood, The Street<br>Bramerton, NORWICH<br>Norfolk NR14 7DW<br>Tel (05088) 463 | General<br>Secretary | Philip Borman<br>62 Prospect Avenue<br>RUSHDEN, Northants<br>NN10 9DH<br>Tel (0933) 410277 |
| Membership<br>Secretary | David Johnson<br>The Corner House<br>Loxley<br>WARWICK CV35 9JT<br>Tel (0789) 842543 | Treasurer | Michael Jackson<br>21 Grove Cresent<br>Adlington, CHORLEY<br><br>Tel (0257) 480270 |
| Newsletter<br>Editor | Sarah Johnson<br>The Corner House<br>Loxley, WARWICK<br>CV35 9JT<br>Tel (0789) 842543 | Software<br>Librarian | Roy Brereton<br>94 Teignmouth Rd<br>Clevedon, Avon<br>BS21 6DR<br>Tel (0272) 871917 |
| Committee<br>Member | Dennis Briggs<br>53 Gilpin Road<br>Admaston, TELFORD<br>Shropshire TF5 0BG<br>Tel (09522) 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 (0789) 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<br>Gore Road<br>Rayne<br>Nr. Braintree | 2nd Sunday<br>Every Month<br>2.30 onwards | John Mason<br>'Karama', London Rd<br>Billericay, Essex<br>Tel (0277) 651593<br>or Dave Walker<br>Tel (0707) 52791 |
| Solent | Delta Leasing Ltd.<br>Garfield Road<br>Bishops Waltham | 1st Saturday<br>Every Month<br>1500 to 1900 | Graham Evans<br>(042) 121 3350 or<br>Eric London<br>(0329) 663501 |
| Sweden | Physics Dept<br>Chalmers University<br>of Technology<br>Goteborg | 2nd Saturday<br>Every Month<br>1100 to 1400 | Johan Boman<br>Toftaasgatan 73<br>S-421 47 Vastra<br>Frolunda, Sweden |
| Mid Anglia | Robinson Hall<br>Lolworth<br>Cambridge | 7.30 to 11.30<br>Every 2nd Monday<br>1.30 to 6.00<br>Every 4th Sunday | Peter Rowell<br>347 St Neots Rd<br>Hardwick, Cambs<br>Tel (0954) 210692 |
| Leicester | Ancient Order of<br>Forresters<br>35 St Nicholas Place<br>Leicester LE1 4LD | 8.15 every<br>2nd Tuesday<br>of each month<br>(ex July) | Peter Ash<br>53 Woodland Road<br>Leicester LE5 3PG<br>Tel (0533) 766857 |
| Birmingham | Holloway Pub<br>Holloway Head<br>Just off inner<br>Ring Road. Central<br>Birmingham | 7.30 every<br>1st & 3rd<br>Monday | Mike Bedford White<br>16 Westfield Road<br>Acocks Green<br>Birmingham B27 7TL<br>Tel (021) 708 2560 |
| Mid Cheshire | The Merlin Pub<br>Middlewitch Road<br>Crewe | Alternate<br>Mondays | Alex Robertson<br>12 Bude Close<br>Crewe, Cheshire<br>Tel (0270) 500565 |
| Merseyside | 3 Barnard Road<br>Birkenhead | Alternate<br>Mondays | Don James<br>3 Barnard Road<br>Oxton<br>Berkenhead<br>Tel (051) 652 7366 |
| Northampton | Kingsthorpe Community<br>Centre | 2 to 5pm<br>every 2nd<br>Saturday | Terry Harman<br>304 Obelisk Rise<br>Northampton<br>Tel (0604) 842875 |

| East Anglia | Guildhall<br>Thetford | 2nd Saturday<br>Every Month<br>6.30 to 11.30 | George Katsoulis<br>167 St Johns Way<br>Thetford, Norfolk.<br>Tel (0842) 753843<br>Geraint Jones<br>Tel (0842) 762406 |
| --- | --- | --- | --- |
| South-West | White Hart Hotel<br>Launceston | Next meeting<br>Sunday<br>8th July<br>2.30 to 7.00 | Roy R.Johnson<br>Flat 2<br>66 Victoria Road<br>Exmouth, EX8 1DV<br>Tel (0395) 275290 |
| Bristol | Portcullis<br>Fishponds | Sundays<br>every 4th week | Chris Gregory<br>7 Argyle Street<br>Eastville<br>Bristol<br>Tel (0272) 513653 |
| Newcastle<br>-on-Tyne | | 1st Sunday<br>each month | Denis Crowe<br>15 Midhurst Road<br>Newcastle-on-Tyne<br>NE12 9NU<br>Tel (091) 2665175 |
| Lancashire | Lisieux Hall Social Club<br>Dawson Lane<br>Whittle le Woods<br>Chorley | 1st Monday<br>each month | Steve Hutton<br>44 St.Mary's Road<br>Bamber Bridge<br>Preston, PR5 6TE |

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

## CALENDAR

| August 4th – 5th | Horticultural Hall, London | All Formats Show |
| --- | --- | --- |
| September 1st – 2nd | Essex | Quanta Workshop |
| September 1st – 2nd | Horticultural Hall, London | All Formats Show |
| September 30th | Portishead | Quanta Workshop |
| October 20th-21st | Worthing | Quanta Workshop |
| November 4th | Horticultural Hall, London | All Formats Show |
| November 24th-25th | Nottingham | Quanta Workshop |
| December 22nd-23rd | Horticultural Hall, London | All Formats Show |

## EDITORIAL

I will keep it short this month, since the magazine is thinner anyway. This is due to the fact that we are sending out the renewal forms to those members whose subs are due this coming month. I have to keep the number of A4 sheets to 18, in order to keep within the postal weight band width. The cost of postage for the month jumps considerably if we added the extra sheet.

I hope that you will all have noticed your FREE GIFT this month, a free ticket to The All Formats Fair in London. Note that the ticket is only valid on Sunday August 5th. If you are not sunning yourselves like the man on the ticket, why not go along.

I notice from your letters that there are several new sub-groups springing up. If you wish them to appear at the beginning of the magazine, please remember to give me the information for inclusion.
Sarah Johnson

## LETTER FROM YOUR CHAIRMAN

I am sure all our members will be sorry to hear that Leighton Davies has had to resign as Head Librarian due to additional demands on his time from his full time employment. When Leighton took the library into his care he immediately set about a complete reorganisation. The classification of programs was rearranged to make a more logical structure and culminated in every sub-librarian being provided with a new and complete set of library disks or cartridges. His job takes him away from home for most of the week, so every weekend was devoted to this task as well as carrying out his normal head librarian's duties. He sacrificed his summer holiday last year in order to complete the reorganisation, so we can be assured that he will hand over the library in very good order. I know all our members are very grateful to him and would want to thank him for the hard work he has put in for their benefit. I am pleased to tell you that a successor for Leighton has been found and we welcome Roy Brereton to the post. Roy is a keen member of the Bristol sub-group and one of the team who organised the very successful workshops at Portishead. Leighton will help in a smooth hand over of duties so I am sure there will be no undue disruption of library services.

Every month when I open the newly arrived copy of Quanta, I get a great feeling of pleasure in seeing thirty-odd pages of letters and articles, every one of which has been contributed by our members. The brightly coloured magazines which we see on the newsagent's shelves receive a considerable income from advertisers which enables them to pay for contributions to their pages, and they are able to build up a reserve of articles for future issues as well. This gives them a flexibility in the composition of their magazine's contents, so that they can avoid a preponderance of any one type of article in a single issue. Unfortunately, we are not in that happy position. We have no reserve of unpublished articles and you will remember that Sarah had to apologise in last month's issue because it contained so many hardware articles. If she had a buffer of about two month's copy from which she could select articles for publication, the quality of our magazine would be better and her job as editor rather less harassing. So, boot up Quill or whatever software you use, and write something for Sarah to print, to save the poor girl from the hand-to-mouth state in which she has to do her editorial job at present.

From enquiries which we frequently receive, it appears that some of our members assume that there is a connection between Adman Services of Telford and QUANTA. This no doubt arises because Dennis Briggs is the principal of Adman Services and is also a member of QUANTA committee. The confusion may also have something to do with the fact that Dennis specialises in repairs to and supplies spares for the QL, and is far more generous with his advice and time than one would expect from a trader.

Let me make it clear, therefore, that Adman Services is Dennis Briggs' personal enterprise and there is no connection whatsoever with QUANTA other than that they both share the talents of the same person.

Sydney Humphreys

## PDQL TAKING PAYMENT AND NOT SUPPLYING THE GOODS

On 28/11/89 I ordered a disk drive, by telephone, in response to a single sheet insert advertisement with a computer magazine. I was told it would be "with you in 7 to 10 days". PDQL took the £160 from my VISA account on 21/12/89.

I contacted PDQL by telephone on 2/1/90 and was told that the disk drive would be sent "before the end of the week". I sent a letter to PDQL on 16/1/90 and have had no response.

I still have not got the disk drive, and now have to go to the trouble and expense of getting a refund from VISA.

I trust you will publish this as early as possible, to warn other QUANTA members of the conduct of PDQL, so that they are not ripped off and ignored as I have been.

Mike Smith, 14 Augustus Close, Chandlers Ford, SO5 2BF
Tel: (0703) 262162
*{We read in the July edition of the QL World, that "Miracle Systems Ltd. and EEC Ltd. are applying for a high court judgement against PDQL for debts going back about a year". QL World like us have received numerous complaints about non-delivery of goods, or lack of response to customer's queries. SJ}*

## NEW SUB-GROUP

Well at last we have all managed to get together. Thursday May 17 saw nine QUANTA members assembled at the Southern Gliding Club's Parham Airfield. Between us there were six very different machines and as many interests. Once the machines were set up the atmosphere was rather akin to a mini workshop. People tended to group around the machine which was the item of the moment. We exchanged some thoughts and ideas and the time flew past.

In the very short 'formal?' part of the evening there was a consensus that a useful topic to discuss at the next meeting would be Tony Tebby's Toolkit II. That is, or as you read this; was, the main topic for the June meeting. Those of you in the area should have received a mailshot advertising this.

For anyone else that is keen enough to turn up, the future topics of interest are: More Toolkit, the many 'Minervas" and Comms. We meet at the Southern Gliding Clubs Control Tower at Parham. This is just off the A283 to the West of Storrington Sussex. Our July meeting will be on Thursday July 19. 19:45 till around eleven. If you can attend, and bring along a machine to add to the collection, please ring:-

Andrew Knights 0903-812820, Mon-Fri 1800-2000hrs.
'Kitlands', 57 King's Stone Avenue, Steyning, Sussex, BN44 3FJ

### EAST KENT SUB-GROUP

After a few years of unsuccessfully trying to find any QL members in our locality, my friend and I obtained a list of a few Quanta members and after writing to them all we have received replies from nine, and have had two very successful informal meetings; the first one in Ramsgate and the second at the end of May in Walmer. Seven members were present and a demonstration of QATS was given by the originator of the program.

The members range in experience from novices to at least two of them who have compiled programs or designed useful SuperBasic programs, so the meetings offer something for everyone. Will anyone interested please get in touch with me at the above address.

We still have not had replies from a few local Quanta members, but anyone interested is very welcome. Our next meeting is on the 14th of July.

Keith Mannering, 33 Lorina Road, Ramsgate, Kent CT12 6DA
Tel: (0843) 587847

### SOUTH WEST SUB-GROUP

Quanta South West Sub-group - and yours truly not least - shot itself in the foot recently. In March, we all blithely agreed to hold the next meeting on May 6. And why not? Well, we are supposed to meet on the second Sunday of the month, which the 6th. clearly is not; and May 6th itself was a Bank Holiday Sunday... Several members who doubtless would have been only too ready to attend perhaps dared not risk the wrath of their spouse, and opted for taking the kids to the beach or digging the garden or watching movies on TV, rather than playing with computers. I myself had to leave a family gathering to drive to Ashburton.

Still, we gained a new member, and discovered that even five QL nuts gathered together can have a worthwhile session. The only rather sour note was that the Dartmoor Motel - a very pleasant place - was under new management, and the cost of hiring our usual room had doubled. (In fairness, it had been very cheap.)

We agreed that the next meeting would be on either July 1st, or July 8th. Arrangements have now been made, and we are venturing further afield, hoping to persuade our Cornish confrères to attend. The venue is (just) in Cornwall, at the White Hart Hotel, Launceston, Sunday 8 July, 2.30-7 p.m. The meeting after that should be on Sunday 9th September, probably in Exeter: watch this space. This will be our AGM, so we will be very solemn and businesslike for a time.

Suggestions for activities, demos etc. would be welcome (for both meetings). I have long wanted to see the Psion Xchange suite running on an IBM, and at the Launceston meeting I hope I might be able to demonstrate something very similar: Xchange running on an Apricot Xi. I just couldn't resist recently buying two of these beasts – they arrived this afternoon. They date from around the time when the QL was launched, at which point they sold for c. £2500 (when the QL was £400). My two cost me less than one-tenth (each) of the 1985 price – including monitor, and 10Mb hard disk. I am now seeking a copy of the Apricot version of Xchange (at a similarly reduced price – in 1985 it was advertised at £495!)

Incidentally, if anyone is familiar with the Xi, and can give me any tips, I would be pleased to hear from them. Perhaps, if I really like the machine, I will ditch the QL... Sacrilege! (In truth, in view of what has happened to ACT of late, buying any kind of Apricot is perhaps as quixotic a decision as buying a QL.)

The Tandata modem proved its worth recently in serious context. One of my sons and his wife were staying with us at Easter, supposedly for the weekend, but said wife decided that her expected baby should be like the QL – premature launch, by some nine weeks. The week-end became very much longer, but my son (himself a QL buff) was able to do his job in part from here, by communicating with his works computers via the Tandata. It was interesting seeing the QL used just like, and communicating with, a "proper" computer.

Talking of proper computers, my friend who used to spend much of his working life programming IBM mainframes and a Cray 2, is still sulphurous in his comments on the QL to which he has descended, though I have gently suggested that comparing Sir Clive's masterpiece with machines like that is not quite fair. If I may quote from his latest letter:

"The Cray 2 had a facility for factorising numbers... I tried this idly one day with a ten-figure number and essentially instantly the answer came back 'no factors'... this from a machine that was, at the time, dealing with much bigger and more difficult problems from dozens of users. To paraphrase Mr. Dundee, 'That's a computer'!"

Another of my computer-literate sons was here just yesterday, and when I told him of my friend's letter, he wrote a little factorising program for the QL. The biggest number the machine would handle was $2^{31}-1$ – and it wasn't exactly instantaneous (and for the record, $2^{31}-1$ only has two factors – one and itself).

Talking of speed: Digital Precision's Supercharge comes with a little demo program for finding prime numbers. To find the first 300 primes, the Superbasic demo took 68 seconds; the compiled version, 2 seconds. Impressive, but as my mathematician son showed, the Superbasic demo is itself not as impressive as it might be: he wrote a Sieve of Eratosthenes which in Superbasic produced the first 300 primes in 22 seconds; compiled, it took just 1. When he returns to the school where he is head of mathematics, he is going to try the same program on an Archimedes. It will probably be almost as fast in Basic as the QL in compiled Superbasic.

Finally, may I revert to my pie-in-the-sky remark last month re. using the new Motorola 68040 in a QL successor? My remark was only semi-serious, and of course I agree with Sarah's comment that such a chip will doubtless be very, very expensive.

So is the 68030, the most powerful of the family currently in use, but it is not the expense of the thing that is worrying manufacturers at the moment: Apple use it in the bigger-and-better Mac, and Commodore in the latest Amiga, but as a result of a recent court decision in the U.S., following an action in which Hitachi sued Motorola for alleged breach of copyright in the design of the 68030, a hold has been put on the use of the chip until the case is decided finally. Where this leaves Apple and Commodore, not to say Motorola, one shudders to think. Aren't we QL owners lucky, using the ten-a-penny 68008!

(Dr) Roy R Johnson, Flat 2, 66 Victoria Road, Exmouth, Devon, EX8 1DW
Tel: (0395) 275290
1.6.90
*(Update from Roy Re. Sieve of Eratosthenes, my son tells me that the Archimedes, in uncompiled Basic, found the first three hundred primes in HALF a second!)*

## QL USERS IN GERMAN SPEAKING AREAS

I would like some sort of contact to find out the need for:
A: The Library service and
B: Any form of mutual cooperation in our area.
Please make contact in German or English.

It is easy to complain!
Most of us have had reason to complain about one or another supplier in the QL scene. I disliked to pay £150 for a QL-Service Manual, but this is not the point here. I have found two suppliers that demand mention for their outstanding service. Miracle for an unbelievable speed in their foreign delivery. And Dennis Briggs for pages of advice which are never paid for. Both demand a public sign of gratitude for their service, making life easier for the QL owner's outside of the U.K. Thank you.

A request for a Quanta Hardware Library:
Around in your drawers are some nice hardware projects, without the knowledge of other fellow QL-owners. As long as we do not have an official hardware library - I would like to collect ANY projects on my own. To make them later available to all Quanta members. Please send any contributions, with the best possible description to:
Tom Erlandsen, Gerbeweg 31, CH-3280 Murten, Switzerland

## LILLEY BOARD TO DESIGN SPECIFICATIONS

This letter is being written on a Lilley board completed to design specifications - 512k memory, Medic Interface, TKII and JS ROM. In a word, it all works as promised. Given the current price of QL's, maybe it was a little expensive, but on the other hand, the design spec does include disk drive interface for up to four drives, TKII, four unused (so far) expansion slots and memory expansion beyond 128k, which all costs, so probably it's a bargain even by that standard. I haven't kept detailed records, but I would hazard that it has cost less than say a basic 128k QL plus Trump Card. Appearance is very nice - it all fitted into the old Multitech CPM machine which I was using merely for its 5.25 80t drives. I took out the CPM board and the Lilley board fitted nicely in its place, a power supply was already there (though I had boug ' a separate Astec).

A Sinclair colour monitor perches on top. The keyboard is from Dennis Briggs, an 83 key Micro Switch (Evanston, Ill., USA) 83ST13-28E-T and has excellent action. As with all good things, however, there are also limitations.

## MINERVA AND MEMORY

Having got used to working with TrumpCard, anything less than 640k is cramping. More to the point, Xchange won't direct load into 512k. I do get it to load by hotkeying it under QRAM, but then QRAM isn't available. So memory expansion to 640k at least, and preferably 768k, is a high priority. Mike Lilley has prototyped a memory expansion board to 640k and is sending it along. As soon as it arrives, Norman Vacher will be looking at extending it if possible. On the other hand it's nice to have 2 x 3.5 plus 2 x 5.25 all on line so that even with "only" 512k RAM I have over 3 megs on line.

Mike's specifications for DRAM's was minimum 120ns chips. My board is working fine with a mixture of 100ns and 150ns DRAMs and JS ROM, but it fails the Minerva RAM test. Basically it would seem that with full buffering in the Lilley board, some signals get slowed down just enough that Minerva is too fast for them without the faster DRAM chips. So I've ordered some 100ns DRAM's, which should cure the problem.

Attempting to fit Minerva into the Lilley board led to an interesting discovery: on later version Minervas, when the RAM test fails, the screen shows three numbers in very large black type. The first is the memory location, the second is the number written to the address and the third is the readout, which is nice for locating where the fault is.

## KEYBOARDS AND COMPATIBILITY

All programs I've tried so far run just fine, including EMACS, except for where there is a keyboard limitation, e.g two CAD programs, QLAD from the Library and TechniQL. In brief, the keyboard on the Lilley board cannot support the KEYROW function to identify multiple keypresses. QLAD is based on it, as is clear from the SuperBasic source code, and presumably it or something like it is also used in TechniQL when you're into the large square screen. The cursor moves around fine when one is in the menus, but stops dead for drawing or cell selection. This is a problem in itself, but more important I think it raises issues of compatibility which I haven't heard discussed yet.

As I understand it, most keyboards have an 8049 microprocessor (or similar – the DEC Rainbow uses an 8051, my Micro Switch a P8749N) to convert keypresses into signals for the main computer. The design philosophy of the Lilley board was to make it as flexible as possible in accepting input from virtually any keyboard which produces 8 bit serial code output. It does not read the keypresses as such, rather takes the 8 bit code produced at the end of the keyboard connector by the internal keyboard processor and translates that through various circuitry including two EPROM's into 8 bit code corresponding to the QL's 8 bit code. Thus only 256 individual keypresses or combinations can be recognized by the Lilley board. One can program the EPROM's to assign any QL code (per the slightly erroneous list in the Concepts section of the User Manual or the correct version in Jan Jones' book) to any valid keyboard press, but this leaves one with two problems. First, not all valid alien keyboard presses correspond to valid QL keyboard presses, second, not all valid keyboard presses on the QL are available on the alien board.

The upshot is that by operating with the 256 possibilities ex the keyboard connector, it is impossible to emulate a QL keyboard, impossible to emulate the KEYROW function, and impossible to implement the doubling to 512 characters implied through the use of the QL ALT key as mentioned in Jan Jones' book. True emulation and compatibility have to start outside the computer board in the keyboard microprocessor so that ideally any successor board (Lilley, Medusa or whatever) should receive the same signals from the keyboard as are generated by the QL from the 9 plus 11 lines in the pigtails from the QL keyboard membrane. This would mean some additional complication in circuit design in the keyboard, but I would hazard that this would be more than offset by eliminating all the circuitry that Mike had to put on his board in the interest of flexibility in selecting alien keyboards.

The basic QWERTY keyboard is the same or almost so on both the QL and IBM type keyboards. That's a basic 8x8 matrix on both machines, needing 6 bits (64 codes). SHIFT is basically the same, and adds one more bit, doubling the number of codes to 128. After that, IBM type keyboards seem mostly to use the ALT key to achieve the next level of doubling (to 256 codes), but the QL uses basically the CTRL key. So the eighth bit is where the real confusion starts. I am no expert on keyboards, but on both QL and IBM type keyboards, there is the functional equivalent of a ninth line, i.e. we are into long words for transmitting keyboard signals. The keyboard diagram for the 105 key DEC Rainbow, shows an IBM type 8 x 18 keyboard matrix, the same as on the Micro Switch. An 83 key keyboard would seem to be sufficient, with its 10 function keys plus numeric keypad. Also it's small enough to avoid the problems involved in sawing off a piece which one has on a truly extended QL.

Pretty obviously these are issues that have been faced and largely overcome by the various suppliers of alternative keyboards, such as Schon and others now gone such as Rainbow. The current discussion of compatibility is very encouraging. Hopefully Messrs. Goodwin, Tebby, Oakley and others who are trying to coordinate the next phase will keep the keyboard issue in mind. Perhaps an existing solution could be dug up from somewhere without having to re-invent the wheel. Meanwhile Norman Vacher plans to design a bongle (that's a cross between a bodge and and a dongle) to bypass the keyboard EPROM's on the Lilley board and I'll try to make a contribution to re-programming the 8749.

## LILLEY BOARD KEYBOARD EPROMS
I've designed an alternative keyboard allocation to the one supplied by Mike which, I think, makes my keyboard more QL compatible than did Mike's allocation of alien keypresses to QL codes. But that's a personal view, of course, biased by my interests, which included keeping EMACS workable, preserving the funny foreign characters, my math character set, redefinition of keyboard and printer codes, and translating ALT & alphabet key from the keyboard into ALT & alphabet key in the Lilley board for Hotkeying (e.g., I call up Xchange with ALT & X whether I'm using the Lilley board or a standard QL).

## NO PARITY
I've managed to get my QL to drive a Roland DXY 880 plotter using the serial connection from ser2 (I want to leave ser1 free for the printer). The plotter's DIP switches had been set to 1200 baud and even parity so I left them at that, but got nowhere until I changed the DIP switches to no parity, and Eureka! it suddenly worked. When I told the story to Norman Vacher he said of course – the parity selection on the QL doesn't work.

He's never been able to get anything other than no parity out of his QL notwithstanding the directions under Communications and Devices in the Concepts section of the User Guide. On the other hand he has just rung up to say that his Lilley board responds to e,o,m,s quite nicely. Do we have a Bahrain bug with our QL's, or is there a more generic problem around? My QL is a D14 with Issue 5 (that's right, 5) board complete with mods. I don't recall having seen this mentioned in QUANTA, but if only no parity works with some QL's, it may explain some of the many difficulties encountered with attempts at serial communication.

ROLAND DXY 880 PLOTTER CONNECTIONS

The following gives the connections for a cable from the QL ser2 to the Roland DXY 880 serial 25 pin D connector.

```
                                     Roland 25 pin
            QL ser 2                  D connector

            GND    1    -----------    7 GND
            TXD    2    -----------    3 RXD
            RXD    3    -----------    2 TXD
            CTS    5    -----------   20 DTR
            DTR    4    -------┐---    5 CTS (i.e. 5 & 8 wired
                               └---    8 DCD    together )
            12v    6    no connection
```

The DIP switch settings on the Roland for 1200 Baud, no parity, 2 stop bits, 8 data bits are:

| SW1 | | SW 2 | |
|-----|-----|------|-----|
| 1 | off | 1 | on |
| 2 | off | 2 | on |
| 3 | off | 3 | on |
| 4 | off | 4 | off |
| 5 | on | 5 | off |
| 6 | off | 6 | off |
| 7 | on | 7 | on |
| 8 | off | 8 | on |
| 9 | off | 9 | on |
| 10 | off | 10 | off |

This gives keyboard and program control of the Roland. The next stage is to write the little program to get the Roland to output from TechniQL/Technikit.

Eggert Peterson, P.O. Box 33012, Isa Town, Bahrain.
13.4.90

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**EEPROMS**

I have recently looked into the new Intel Flash EEPROMs. Until now these have been difficult to program and needed a purpose-built programmer. Since they were also more expensive than UV erasable EPROMs, they were not suited for use by experimenters. Two EEPROMs - the 28F010 with 128K bytes and the 28F512 with 64K bytes capacity, have become available. All that is needed to program these is a 12V supply and suitable code for the programming. This means that such an EEPROM can be erased and re-programmed in situ in the QL.

Any of the EPROM boards described in previous issues of Quanta are suitable, though small modifications need to be made to accommodate the 32 pin IC and the address decoding. For example, the decoder board of D. Richards (Quanta, Oct. '88) could be used directly for the 28F512 with the delay set to the Q0 output. For the 28F010 the A16 line goes directly to the EEPROM while the 74LS138 is replaced with an inverter e.g. a 74HC06 so that the inverse of A17 can be used for the chip select line. A 12 volt line with an external on/off switch is also required.

The ROM port can also be used but only 16K can be accessed at any one time. The 16K segment to be accessed can be selected with a suitable switch on the A16, A15, A14 lines of the EEPROM. The 28F010 EEPROM permits 8 16K ROM images to be stored - very convenient for those who have a C ROM, a Pascal ROM and, perhaps, a utilities ROM, though care must be taken to insure calls are not made to inaccessible segments.

Even though these devices are still relatively expensive, I find them very convenient for hardware experiments where the EPROM contents need to be changed frequently. They could also take the place of the RAM-simulated ROM circuits. With the recommended programming and erasing algorithms they are guaranteed for 10000 erase cycles (this is 10 erase cycles per day for almost 3 years). The programming and erase times are only a few seconds.

I have written the appropriate set of routines based on the Intel Quick-Pulse Programming (TM and Quick-Erase (TM) algorithms and if any your readers are interested they can write to me directly. If there is sufficient interest I could send them for inclusion in the library.

I would also like to thank the Committee members for their work in keeping Quanta on the road. I have been a member of Quanta since the early days and still enjoy receiving the magazine each month.

John Tendys, 10 Carinya Ave, Brighton-le-Sands, New South Wales 2216, Australia 25.4.90

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### ARCHIVE: YOUR FLEXIBLE FRIEND

In a couple of recent articles, I sketched out how one might create a new database on the fly from within a program, and then transfer data from an old file into this new file. Here is a useful little number that does the transfer automatically instead of asking you to match each field by hand. It makes life a lot easier when you just want to enlarge a database with a couple of extra fields: you can use the database creation program described in the first article (April issue of Quanta, I think it was), and then this procedure to transfer the data from the old file straight into the enlarged, new file. As before, the technique used is to create an export file to which are spooled the detailed programming instructions for a given file transfer. The export file is then merged back in as a program procedure, and run.

```
proc transdata;oldfile$,newfile$
   local f$,f,m$
   REM .. f is fieldnumber counter
   REM .. f$ is string version of f
   REM .. m$ is current fieldname from "old" file
   look oldfile$ logical "old"
   open newfile$ logical "main"
   spoolon progdev$+"exptemp_prg" export
   print chr(28)+"Writing transfer script to disc ... ";
   REM .. *** chr(28) is carriage return and linefeed
   lprint "proc xtrans"
   let f=0
   lprint "print at 10,0;""Transferring data ... "";chr(27)+""B"""
   REM .. *** chr(27)+"B" clears screen from cursor
   lprint "first ""old"""
   lprint "while not eof(""old"")"
   let f$=str(f,2.0)
   REM .. ***
   REM .. *** This bit flashes up evidence of each record
   REM .. *** as it is transferred
   lprint "print at 11,0;"
   lprint "print fieldn("+f$+",""old"");"" .. "";"
   lprint "print fieldv("+f$+",""old"");"
   lprint "print tab 79"
   REM .. *** This bit winds into the program the list of
   REM .. *** fieldnames from the "old" file
   while f<numfld("old")
      let m$=fieldn(f,"old")
      lprint "let main."+m$+"=old."+m$
      let f=f+1
      endwhile :REM .. while f<numfld("old")
   REM .. ***
   REM .. *** This bit tells the program to update and move on
   lprint "append ""main"""
   lprint "next ""old"""
   lprint "endwhile: REM .. while not eof(""old"")"
   lprint "endproc"
   spoolon screen :REM .. Close spoolfile
   REM .. ***
   print chr(28)+"Merging transfer script back in as program ... ";
   merge progdev$+"exptemp_prg"
   print chr(28)+"Running transfer program ... ";
   xtrans
   endproc

proc closeall
   while 1
      close
      endwhile
   endproc
```

You then 'call' the procedure; for instance, if you wanted to transfer data from
a file called "flp2_names" to another called "flp2_newnames":-
```
   transdata;"flp2_names","flp2_newnames"
```

Once again, Archive must know what progdev$ is before this procedure will work. You could, if you liked, add it as a parameter to the procedure name when writing the program:

    transdata;oldfile$,newfile$,progdev$

Assuming your device for programs was "FLP1_", you would then have to 'call' the procedure in this sort of fashion:

    transdata;"flp2_names","flp2_newnames","flp1_"

I find I use this procedure constantly: together with the file-creation procedure, it makes re-jigging a database incredibly easy and quick.

The complete Database Management Suite, of which this procedure is but a small part, has been submitted to the Quanta library. A slightly more powerful version for MS-DOS is available from me for a small charge.

Hugh de Saram, Littlefield, Bath Road, Marlborough, Wilts. SN8 1NN
TEL: (0672) 512 572

## SOME THOUGHTS ON A QL REPLACEMENT

Some two years ago, Philips announced the PCB68070 processor. This is a low-cost highly-integrated 16/32-bit 68000 family device in an 84-lead plastic leaded chip-carrier package.

Features of the 68070 include: CMOS technology, four decoded interrupt inputs, two programmable interrupt inputs, decoded interrupt acknowledge, on-chip clock, on-chip MMU, two-channel DMA controller, I2C serial bus I/F, on-chip RS-232C serial I/F and a 16-bit counter/timer. It is fully software-compatible with the standard 68000 and 68008. The maximum internal clock frequency is 10MHz.

To go with the 68070, Philips has just announced a low-cost colour graphics controller, the SCC66470. This will give 768 X 560 pixel resolution with 16 colours. The horizontal resolution can be doubled by using two chips in parallel. The 66470 also includes all the 'glue' logic for a 68000 system, replacing up to 30 TTL devices. Smooth horizontal and vertical scrolling is supported, as well as transparent pixels, and a two times zoom or shrink of on-screen patterns.

Using these two devices, it would be quite feasible to build a very low-cost and compact replacement for the QL. A floppy disk controller could be included, on the main PCB. With a properly designed expansion bus, it would be very easy to add a SCSI hard-disk controller, or any other peripherals.

None of the QL's custom chips would be used, with the possible exception of the 8049 I/O processor. It would even be feasible to mount the new system in the existing QL casing, with the existing keyboard, to keep the cost down, although a PC-type case, power supply and keyboard would be preferable, if more expensive.

Provision could be made for additional processors, such as a 68020/30/40, interfaced to the expansion bus. The basic system would act as an I/O processor, in this case.

It should be quite easy to hack Minerva to run on the proposed system, although all the low-level hardware-related routines would have to be rewritten. The proposed system would be about 25% faster than the Atari emulator.

Please send your comments, criticisms, etc., to Quanta.

Leon Heller, 30 Baldslow Road, Hastings, East Sussex TN34 2EY.
Tel: (0424) 714790

## ANOTHER ARCHIVE BOOK AND MORE ON QL/OPD BOOKS GENERALLY

My article on ARCHIVE books and QL books generally produced a small flood of telephone calls and letters. So in response to this welcome interest I have unearthed details of another ARCHIVE book and provide some general information on QL books.

### ANOTHER ARCHIVE BOOK
'XCHANGE Management Applications - Database using ARCHIVE' by Tony Shaw published by Micropress in 1985 at £12.50. 162 pages. ISBN 0-7447-0038-8
Although written for Archive running under XCHANGE this book ignores the actual computer used - quite the opposite of the Glentop book on Archive. This is the first book on ARCHIVE I have seen to treat the DESIGN of the database seriously, though not to the extent of going into any theoretical treatment such as third normal form. A couple of real applications are described and developed - one on the control of documents being created in a typing pool is so unlikely for a home computer user to invent, that it must be genuine! On May 5th Foyles had two copies which have appeared on their shelves in the past 2 months.

### TONTO/OPD
Having met some members with the ICL OPD or its rebadged version the Merlin Tonto, they too might be interested in relevant books.

'Business Communications with the Merlin Tonto' by Martin Gandoff published by Newtech ( Century ) in 1985 at £12.95. About 190 pages. ISBN 0-89-161681-6
This is all about how the TONTO/OPD actually works. It describes the housekeeping operations (it monitors the life of the microdrives) and most especially how to use the built in telephone and voice message system. If you have a TONTO/OPD without the manual get this book! There were two copies on Dillons shelf on May 5 - possible more elsewhere behind the scenes.

'Business Computing on the Merlin Tonto' by Stephen Morris published by Newtech (Century) in 1985 at £12.95. 192 pages. ISBN 0-89-161671-9
This starts with a little introduction to the general use of the TONTO/OPD, but is mostly about how the XCHANGE package can be used for business applications. For its probable target audience of a computer shy executive the book probably appears a little TOO technical, for myself I found the treatment far to simple to be of any interest, other than advising me that the manufacturer (ICL) believes that microdrive cartridges will last a maximum of 20 hours reading/writing - a belief enforced by the TONTO housekeeping facilities. There were eight copies on Dillons shelf on May 5 - possible more elsewhere and Foyles have a copy too.

GETTING HOLD OF QL BOOKS

Virtually all QL books are out of print – some larger bookshops with space to spare will have retained unsold stock – for others either contact the specialist QL distributors – or look out for QL books on the bargain stalls at the various computer shows. Some QL books were among the hundreds on one stand at the May ALL FORMATS Computer Fair in London – but they were soon snapped up. It is quite likely that stocks of QL books lurk in dusty corners of remainder merchants who don't realise the value of what they have.

SIGMA Press and their QL books

Following my earlier article, some other members contacted SIGMA, asking about Malcolm Davisons book on Advanced Archive. SIGMA found two copies in their stock room – which are now sold. Their current catalogue contains no books of QL/Tonto interest.

FOYLES

See my list in April QUANTA and the above book. Most of those books were still available on May 5th. FOYLES are at 113-119 Charing Cross Road, London WC2. They do mail order, but it would be best to pay by credit card since they charge postage at cost and will not post without payment.

DILLONS

London's other large bookstore had the two TONTO/OPD books above plus the Langdon pocket book as in my April QUANTA list. DILLONS are at 82 Gower Street, London WC1E 6EQ Tel. 071 636 1577. They do mail order, but it would be best to pay by credit card since they charge postage at cost and will not post without payment.

BERNARD BABANI publishing

Three QL books published by BB are still in print and in their current catalogue. They should be available throughout the UK from book stores specialising in electronics which forms the majority of the BB catalogue as well as Dillons. The three are:

'An introduction to QL machine code' by R.A. & J. W. Penfold published by Babani in 1985 at £2.50. 96 pages. BP 156 ISBN 0-85934-131-3
'Into the QL Archive' by J. W. Penfold BP 161 published by Babani in 1985 at £2.50. 96 pages. ISBN 0-85934-135-6
'Counting on QL Abacus' by J. W. Penfold BP 162 published by Babani in 1986 at £2.50. 96 pages. ISBN 0-85934-136-4

Gerard T. Phelan, 17, Gunnersbury Court, Bollo Lane, London, W3 8JL
Tel: (081) 993 3273
10.05.90

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**THOR XVI SUB-GROUP**

I would like to hear from any THOR XVI users (I promise to answer) who would like to offer any advice or whatever. I would also like to know what hardware version of THOR XVIs you have (mine's one of the early machines) in case the hardware changes makes any differences to performance. In fact, I wonder if there are enough THOR XVI users to warrant the setting up of a THOR XVI sub-user group within QUANTA?
Malcolm Smith, Statsråd Ihlensvei 66b, N-2010 Strømmen, NORWAY.   15.4.90

### THOR PRINTER AND CLOCK QUERIES

Being a new member, and in response to the Editor's plea for more material, I thought I would attempt to seek a solution to two small problems through the pages of the magazine. My system consists of a Thor (early version) and Brother HR15 and M-1509 printers. Two difficulties sometimes, but not always, occur when powering up:-

1. The HR15 prints garbage at the lefthand margin. The way to correct this is to leave the printer on whilst re-setting the computer.
2. The Thor system clock can be incorrect, it could be either years slow or fast, and has to be adjusted.

I would be interested to know why these intermittent problems should happen, and if they can be prevented.

Stuart Johnson, 'Horizon', Longhaven, Peterhead, Aberdeenshire, AB4 7NY.
Tel: (0779) 813202

### SPECTRUM - PRINTER CONNECTIONS - NETWORKING TO QL

My son produced a program for his degree thesis on the Spectrum (48k I think) which from an input of initial stellar mass and temperature gave the composition as a function of elapsed time as the percentage of umpteen elements - oxygen, iron etc., starting for some reason from neon. All the programs and data are on microdrives so he was not best pleased a few years later when my first attempts to use the ZX drives on the QL indicated that the drives were useless.

Why they wouldn't work then remains a mystery; two of the three are now alright on both QL and Spectrum. To get the programs printed out we tried connecting the Spectrum to an 8856 Compact printer but it would not work. The problem is partly the use of different terms in the Spectrum and 8856 operating instructions. My attempt to match them up was based on guesswork and it is obviously not good practice to try all combinations. What I need to know is what the pin numbers at one end should be connected to at the other. The Spectrum Interface-1 has a 9 pin D-type male socket and the 8856 a female plug marked "AMP" with 16 sockets in a rectangular 2 x 8 arrangement which are numbered A01, A02 etc from top right and B01.. bottom right. I have used the 8856 with the QL for text and graphics (after help from A. Beveridge) but I wonder whether the 9v from the Spectrum interface, pin 9 of the D-type connector, is enough for the 8856 as the QL "H2" on the Ser1 and Ser2 "pin" 6 connects in the QL to 12v via a 680ohm resistor. I suppose the only question is which of the TXD,RXD pins from the QL correspond to "input signals" and "output signals" in the Spectrum interface, as power, ground, CTS and DTR pins are unambiguous. After the first try I got the wind up as the printer apparently locked up in a no-go condition; it would not even give a self-test. That fault turned out to be a Stanley blade which had been used to slice the paper instead of tearing it and had slipped inside, luckily without damaging anything. This had nothing to do with wrong connections to the Spectrum but further experimentation was inhibited pending proper connection information. The other thing to check is of course that the correct instruction to print is given to the Spectrum.

Another way to print out the information on the Spectrum cartridges would be via a networking link to the QL. I have searched through Quanta for any information on this but the only reference I could find was no help. Networking between two of my QLs has worked sometimes but is not reliable even with TKII in each. I have not yet tried the recent tip about measuring the change in voltage at the socket when a pin is shorted. I did extract the transistor during a non-working period and finding its gain to be 120 or so I put it back in position after which the net worked again, but as I also put a bit more pressure on the net socket spring contacts this may have been coincidental. The net still only works sometimes.

I should be grateful for any help on connecting the Spectrum to the 8856, Canon PW-1880A or Silver Reed EXP550 daisywheel (parallel input but with Miracle Centronics series adaptor) and on networking Spectrum to QL.

Daisywheel surgery
The use of different printwheels allows appropriate type styles and pitches which with various line spacings can spread a short letter over the page or condense a long text. Unfortunately some wheels do not have both pound and hash signs; they seem to be regarded as alternatives. However, one can do a limited amount of transplanting of characters from scrap wheels by snipping off the petal of the transplanted character near the hub and attaching it with cyanoacrylate adhesive ("Superglue") to the petal, snipped off near the top, of an unwanted character. The wheel and the new character can be held down with Bluetack while a drop of the glue is applied and the overlapping stems are pressed together. Though the joint may look good the transplant sometimes falls off, always when you are in a hurry, so wrap the overlap with some very fine wire or thread and add another drop of glue. The result is now permanent. A bit of gentle bending may be needed to prevent the joint fouling the ribbon guard. It is surprisingly easy to get the alignment right, but make sure adjacent petals do not get stuck together. My "scrap" wheel came from a bargain basket at Laskys for 24p; one of the few occasions when it really did "come in useful one day". Though made from a different plastic it can be stuck just as well. The pound went to one wheel and the hash to another. They all have the mighty dollar and even a cent, though I have not found occasion to use the latter and the EXP 550 code for it is a bit cumbersome.

Printer reset, or keeping the ink off the roller
Steve Horn (Quanta March 1990) does a printer reset by a (CR?) code in the preamble and if you can bear to go through the tedious "install" process this is probably the right way. It certainly is annoying to start printing with the print head in the middle of a line, having expected it to start from "home", and the method I use is to put unprintable characters (not a rude word) at the top of the first page – CTRL+apostrophe makes an umlaut on the screen and a squeak on the printer. I use two of these, on the first and second lines, before the first line of text, but I have to remember to turn the paper back six clicks and of course to adjust the lines per page in Quill's "design". One would expect that the unprintable character could be followed by an instruction to turn the roller back by two negative line feeds, all this being saved in each of the dummy Quill documents for letters etc. Unfortunately the Silver Reed has "Serial" and "Line" print modes switched not by software but a physical switch; one allows underlining etc and the other variable line spacings, reverse line feeds and so on, but most of the facilities in one group can not be used at the same time as those in the other.

There is also the problem of the QL command codes being different from those of the printer - the umlout, CTRL+apostrophe, QL code 135, is seen by the printer as code 7 (BEL to the printer), but it is not obvious what number in the QL set corresponds to the printer's CR (printer 13) or how it should be keyed into a Quill document. One might expect the QL code to be the printer code + 128, i.e. 141 which is CTRL and - pressed together. This symbol in Quill is "a" with a grave accent, but the printer doesn't see it as CR.

CR should be used instead of BEL, or rather two BELs; the printer has to do a CR before it can pretend to print the second BEL but one CR would return the carriage without needing to adjust the number of lines providing an LF does not follow the CR.

Whistling disk
QL#2 has a Technology Research Delta disk interface which sometimes chooses to ignore files loaded via the Microperipherals interface of QL#1, and vice-versa. There is also some disagreement between them about the number of vacant sectors, and the MP one seems to keep better account of how much space there is on a disk. So its opinion is frequently sought on the other's disks - though we are now in a new ball game as a QFLP "update" ROM, has just gone into the MP i/f and will be revealing its own idiosyncrasies over the next few weeks. One disk, which had worked quite hard on the TR QL, gave out a low whistle when interrogated by the MP one (old, i.e. MP, ROM) which returned only a "seek error". All its files were copied to a blank disk using the two 3 1/2" drives run by QL#2 and the TR i/f; the whistling disk was re-formatted on QL#2. No whistle, so it had not been simply a mechanical effect. The files were copied again on to the original disk. The mysterious whistle reappeared after about four "dir"s. It came from the drive itself with this particular disk; no other, with files written by either interface, has ever caused it. Deleting the files one by one - a daunting prospect - luckily gave the answer at once. The first one deleted - it had been the last one copied to this disk, an Abacus one which has a lot of data built in and performs several calculations, was the culprit. When it was deleted the whistle had gone too. When re-copied to the disk it produced the whistle once again. It still whistles with the new i/f ROM, though will at the same time reveal the directory. The whistle has a constant pitch so may be an electronic / electromagnetic response to some freak combination of disk, drive and file.

The Microperipherals interface has no additional memory of its own. It plugs into the 64 pin expansion socket of the QL, or of a memory expansion with "through" connector. Then the total memory is that of the QL plus expansion - over 600k with 512k Expanderam, or about 340k with 256K Expanderam (Print free_mem). Though both expansions have through connectors there is nothing to be gained by trying to use them in series, as the memory is then just the QL's (85k) on those few occasions when the dreaded "white screen" can be driven away. (The W.S. seems to be a result of too high a current demand). It is all too easy to bend a few pins when doing all this plugging - avoidable by lifting the lid to ensure a proper approach.

The TR Delta i/f itself contains 128k extra memory, but this seems to be all that is available; QL+256k Expanderam = 342k, QL+Delta = 213k, QL+Expanderam+Delta, a neat cancellation showing 85k. Is there any simple way of combining the Delta's 128k with the 256 or 512k of an Expanderam ?

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# QUANTA - DESKTOP PUBLISHING
- Chap. Four

Our sheet now has a series of items that we have talked about in the first three chapters and, as promised in the last one, we are now going to deal with the arrangements of the material into two or more columns.

Quite a fair number of the sheets that are produced deal with sports of various kinds and so this month's logo is of a cricketer.

You will also see that I have laid out this month's contribution in two columns. The software-either Desktop Publisher or Professional Publisher-will easily allow you to define two or more columns although there is no point in having columns that are too narrow to be useful.

Desktop Publisher has an underlying format that you can line up to and then type to thus ensuring that your type remains within the column framework.

Professional Publisher has the same system but provides for immediate snapping into the framework on the depression of a single key.

The general rules that you have used so far still apply but now you have to consider:

1. How many columns do you want?
2. How much gap do you want between the columns?
3. Do you want margins &, if so, how wide are they going to be?

The software can allow you up to 9 columns and the gap between columns is known as the "gutter".

Margins could be useful if you are going to keep copies of your sheets in a binder and you want to be able to refer to them easily.

## EDITORIAL

The bulk of your material may deal with single issues such as:

Visit reports  Sports results etc.

which will provide an opportunity for the Editor of the sheet to make comment on the entire organisation:-

Direction or redirection
Major items of news etc.

The editorial can be emphasised by larger/different type styles and it can be a large/small one dependent upon other news items. However, it is the Editor that decides what is important and isn't.

## BEGINNINGS & ENDS

Some people can write freely but others can't and, in general, each article should have a beginning, a middle and an end.

The beginning will introduce the subject and possibly link with the previous subject.

The middle will provide the meat of the subject with enough detail to enable decisions to be made.

The end will summarise the meat of the article.

From time to time questions present themselves:

How much should I put in?

Have I got time/space for that?

Here we arrive at priorities:

1. Is there information that your readers MUST know?
2. Is there information that your readers SHOULD know?
3. Is there information that your readers COULD know?

The priorities set themselves here as anything after 1. is optional and dependent upon the space that you have.

### ODDS AND ENDS

I have given a broad view of Desktop Publishing and, as the makers have produced very good manuals, I don't intend to go into detail about operation but there are variations that I can refer to next month.

Bob Gingell

## SCHON KEYBOARD WITH DE-BOUNCE CHIP AND PRESTEL

Recently, I upgraded the keyboard on my trusty JS QL, to the Schon standard QL replacement keyboard with de-bounce chip replacement (Intel 8749). The new keyboard was a dream to use. However, a couple of days later I logged onto Prestel only to find the screen was filled with the Prestel screen but the CR and LF seemed to be missing as the lines seemed to scroll onto one another. After many hours effort, I decided to change the chip back to the NEC 8849. Low and behold, comms was up and running. The only problem now is the continual repeating of keys - a major headache when I try to log on with passwords.

I have been in touch with Tony Firshman (QL Terminal), he says even the QLW chip fails to solve the comms problem. Anyone out there know of either a software solution or a complete hardware solution (one chip replacement).

Alan Wilson, 24 Blenheim Place, Larbert, Stirlingshire, FK5 4PP

## THE JOY OF A BULLETIN BOARD

In this article I will show why I enjoy using a Bulletin board, with the aim of having you want to share in the joy too. For starters, I have an ordinary QL - the same one delivered in June 1984! Now it has 512K Expanderam and Dual disks. The magic in the combination is the Tandata modem stack, so cheaply acquired via Quanta and the EXCELLENT QUALSOFT terminal program.

Starting up is as easy as plugging the modem into the BT socket, booting up with the correct disk - which autoloads everything and then pressing D(ial) for my favourite Bulletin board. The QUALSOFT program allows a complete log, from which I took these extracts:

> This is your 22nd call to this system.
> Your previous call was on Fri 27 Apr 1990, 01:00:19
>
> Welcome to QuaLsoft BBS, mainly providing support for users of the Sinclair QL
>
> sysop - Tony Firshman (TF Services) co-sysop - Tony Price (Rambler)
>
> Scanning message base...
> New messages for you in area(s) 10, 20
> There are new messages in area(s) 1, 2, 4, 5, 10, 11, 14, 17, 22
> There are new files in area(s) 2, 7
>
> Main: [M]ail section, [F]ile section, [B]ulletin, [E]ditorial,
> [I]nfo, [G]oodbye, [C]hange user settings, [U]sers list,
> [Y]ell sysop, [A]nswer questionnaire, [V]ersion:

This is the main menu with three key sections - [M]ail containing everyone's messages, [F]iles available for download and [I]nformation on all sorts of useful things. The system tells me that I have been sent messages in two different subject areas and that overall a lot of new messages have been added since I last logged on. Lets start with [M]ail    This is a list of the message areas.

```
----- MESSAGE AREAS -----
 1 .. General                      2 .. QuaLsoft
 3 .. Astracom                     4 .. TF Services/QuaLsoft orders
 5 .. MINERVA                      6 .. International area
 7 .. QCONNECT (BLAK STAK)         8 .. Small Ads (no trade)
 9 .. Portable Computers          10 .. QDOS
11 .. Hardware                    12 .. Christian (Jeremy Davis)
13 .. PSION programs              14 .. MS-DOS/IBM PC
15 .. Basic programs              16 .. QL Emulators
17 .. QL Basic compilers          20 .: QBOX (QBBS software)
22 .. Q U A N T A (R)
```

For me the greatest thrill has been the close contact with software houses - with both QVIEW ( MINERVA ) and Liberation Software active. One day we suddenly learned about multiple basics...

> #194  Sun 18 Feb 1990, 22:35:06
> From: Laurence Reeves
> To  : All
> Subj: Multiple Basics!
> Well... I finally got round to it! Just a little while ago, I had me a pair of basics running, but... it's only half complete. I haven't yet added the bit that will drop off the back of one name list, and try to find m/c proc/fn's it it's parents. That's not too hard, but at the moment I have multiple basics that don't have any built in names at all! I can do things like "FOR i=1TO999: REM", and even "100 DEFPROC fred: ENDDEF", and "jim=2*3^f/22", but PRINT"Hello" is beyond it! Sooonnnnn......

Then we got information about further changes..

> A final comment (though I think I've forgotten something I meant to mention)... the Multiple Basics are in all senses just additional jobs running on the machine. You can use TK2, for instance, to change priorities, remove them, or do whatever you like!

A release started to loom closer...

> #225  Mon  5 Mar 1990, 22:17:25
> From: Laurence Reeves...
> Well, they're getting pretty stable these days... I have 18 Basic's running on an unexpanded QL at the moment... not that you could do a lot with them all, they have to have some code to do anything, which will increase their sizes... mind you, that's merely about 4K total each, including a 'con' channel for each!
> Ho hum... near to time for a release...

And useful feedback about how other people find new products together with the solutions to problems I hadn't yet encountered!

> P.S. I just spent 24 hours configuring QPac2 to work like I want it to... a problem I had, which I solved, was how to set up MultiBasic as a "Button"... the trick is to give it's name as "SB.", definitely including the dot. My boot file now BT_EXEC"SB."'s a treat.

Well, we got the 1.7x MINERVA with multibasics.

Finally, if you think you have found a MINERVA bug or two - how about a list from the people who ought to know.

> #41   Sun  6 May 1990, 21:41:35
> From: Laurence Reeves
> To  : All
> Subj: Problems in 1.77
> I'm not sure if I've mentioned any of these before, but here they go:
> 1) I will stop RENAME from changing the date on MDV files.
> 2) I noticed a bug whereby RENUM didn't get the listing range renumber properly, which will be fixed.
> 3) In the 1.7x range, I put in a check that prevented FORMAT from going down to the driver if there were still files open. This caused the problem with CONQUEROR, where "FLP1_*d2d" was kept open when it tried to do it's FORMAT on a disk. I accept that this "direct sector access" type of file is about the only thing that shouldn't be a problem, but how does QDOS know that? I'll do something about this problem, but I'm not sure what! (The reason I put in the check was that I noticed that a RAMDISC driver didn't check this and would cause a horrendous crash!)
> 4) If you use one "ser" port, close it with input from the port still pending (which Minerva holds onto for you), and then try to use the other port, AND the handshake line had been used on the first port, AANNDD that handshake is held, you can't get stuff to go OUT to the other port! That sounded a bit obscure, but it cropped up when I'd been using my printer (which sends CTRL/S CTRL/Q back at me as well as handshake!), I had turned off the printer (handshake goes up), then I was using the modem, and I couldn't seem to type anything. If you find this happening, pop into SB and "copy ser, scr" (or "copy ser2,scr")
> Phew!

*{NB. This version has long since been superceded by at least 2 versions, and the above problems have been fixed. SJ}*

There is more to Bulletin boards than messages - how about all those fascinating files to download. But that must wait another day and another QUANTA.

Of course there are some other Bulletin boards too. This is the list compiled by Tony Firshman on his board.

BULLETIN BOARD LIST   (30 Apr 90)
--------------------------------------------

```
    KEY:     3  - V23     (1200/75)
             1  - V21     (300/300)
             2  - V22     (1200/1200)
             2b - V22bis  (2400/2400)
    V - viewdata  (V23 EVEN parity)
    T - scrolling  (8 bits NO PARITY - also called SPACE parity)
    R - ringback. Dial and let phone ring twice. Then re-dial.
```

| Lau | V,3,R | 081-751 6896 24hrs QL info + CET downloads. |
|-----|-------|----------------------------------------------|
| Village Fayre | V,3,R | 081-841 5971 24hrs.Fun and relaxation |
| | | (beware answer m/c) |
| QBUG | T,1,3,R | 0272-666187 2230 to 0830 (? times). |
| | | Runs QBOX/QL/Astracom |
| Sector | T,1,3 | 0772-454328 NON office hours. QBOX/ QL areas |
| (SUB) | V,3,R | 0388-773737 Try and see! |
| Peacenet | V,3 | 0895-448998 24hrs. QL section (*ql.0). |
| Fen Tiger | V,3,R | 0954-210692 24hrs. Quanta Mid Anglia group |
| Gnome | V,3 | 081-888 8841 24hrs. Same software as Peacenet |
| Cybernet | T,1,2,2b,3 | 071-978 8595 24hrs. Dave Bodger |
| Network 23 | V,3 | 0274-482021 10pm-7am. QL Qview board Chris |
| | | Dalby wants 'Yorkshire QLers'. NEW NUMBER |
| 4th dimension | T,3 | 0202-600305 21:00-18:00 (QL/Spectrum) |
| | | Wayne Weedon – QBOX software |
| QBBS | T,1,2,2b,3 | 071-706 2379 24 hrs. TF board! QL/IBM/Atari. |
| | | QuaLsoft/TF Services support. Quanta area. |
| ?? | T,1,3 | 081-994 9119 24hrs (?) – Chris Butterworth |
| QUBBE | V,3,R | 0376-47852 24hrs. Essex Quanta group. |
| Jan B | T,1,2,2b,3 | 010-3135237178 24 hrs (HOLLAND) |
| | | Sysop wrote QBOX |

Gerard Phelan, 17 Gunnersbury Court, Bollo Lane, LONDON, W3 8JL
Tel: (081) 993 3273
10.05.90

## INTERNATIONAL QL CONFERENCE

Here is a list of Bulletin Board Systems which carries the International QL
Conference. It is 'echoed' between these BBSes so that a message written on one
system will appear on the others as well within a couple of days.

| Country and name of BBS | Phone number | Fidonet node number |
|-------------------------|--------------|---------------------|
| Britain: | | |
| Fourth Dimension BBS | 0202 600305 | 255/26 |
| TF Services, London | 071 7062379 | |
| Holland: | | |
| Syncnet BBs, Hilversum | 035 237178 | 283/500 |
| Ku-El Tel | 01650 37105 | 285/102 |
| (from the UK call 010 31 35 237128, or 010 31 1650 37105 | | |
| Sweden: | | |
| Jamten-TCL | 0642 10300 | 202/602 |
| P.I.X. | 031 960447 | 202/300 |
| EDKX 1. | 08 7195789 | 201/108 |
| (all 3 BBSes are in Swedish) | | |

All the above bulletin systems use 8 bits, no parity. I think they all should cope with 2400 and 1200 baud, some can also take 1200/75 and 300 baud rates.

If you have a modem why not take the opportunity to call one of these and join in the QL conference. Anyone requiring more information can contact me at the following address.

Michael Cronsten, SYStem OPerator, Jamten-TCL, S.Soere 1073, 83030 Lit, Sweden

## Q.U.B.B.E. (QL User's Bulletin Board in Essex) UPDATE

During the past four months of running Q.U.B.B.E. I have noticed that not everybody, who has accessed the Board, is aware, or understands, that the Board is using the Ringback system. So as the first item of this Update I will try to explain the use, and the reason, of the Ringback system.

Ringback
To be able to communicate with Q.U.B.B.E. and any other Bulletin Board that uses the Ringback system just follow the instructions below:-

1) First manually dial the Bulletin Board number, as if it was a normal voice call.
2) Allow the the phone to ring two to three times.
3) Replace the telephone, in other words disconnect the call.
4) If using the Tandata black stack without the Autodial facility, manually dial the number again but this time you should wait until you hear the tone from the modem you are calling. Once you hear the tone then connect your modem on line. Lo and behold you should be through to the Bulletin Board.
5) If you are using an Autodial modem you can now re-dial the number using the Autodial facility. Once your modem hears the tone sent from the called modem your modem will automatically connect to line. Lo and behold you will be through to the Bulletin Board.

The reason for this system is so that the telephone line can still be used as a normal voice line as well as a line for the Bulletin Board.

Software Section
I am very grateful to the people that have donated some Software programs to be placed onto the Board for User's to download. The more the merrier please. Unfortunately, due to the size of some programs, especially executable ones, I am unable to place them onto the Board for downloading. Also some user's may have missed or were unable to download some of the Software that has been on the Board already. Consequently I have decided to offer a similar service to that given by the Quanta library, but without the charge, for the user's of Q.U.B.B.E.

If you send a stamped address envelope to Q.U.B.B.E., marked "Soft list". I will return to you a list of all the Software that has been available for downloading, up to the present date, plus the Software that I have been unable to place on the Board due to the size of programs.

Once you have received the list and made your choice if you then send me either a 3 1/2 inch disk or microdrive with a return address and stamp in a Jiffy bag, I will copy on to your medium the program or programs that you requested and return forthwith.

New Sections
I have introduced two new sections on the Board just recently, both of which can be accessed from within the Q.L. Menu page.

The first new section is called "Inter User Private Mailbox". This can be accessed by Keying 4 from within the Q.L. Menu. This section allows the User to leave messages to other user's of the Board. The messages that are left can only be read by the person's that they are intended for, thus the messages are classed as "Private". When you access this section you are given the opportunity of viewing a list of the User's Mailbox numbers and associated names before sending your message. This facility is there just in case the person you intend sending a message too does not have a Mailbox.

The second new section on the Board is called "Questionnaire". This section can be accessed by Keying 8 from within the Q.L. Menu. The section explains that I am thinking of changing the Board from a Viewdata style to a Scrolling style similar to Tony Firshman's Board. Before I make any decision I thought I would ask the user's of the present Board their views of both types of system. I would be very grateful if all the user's of the Board, regardless of if the user has registered or not, would fill in the Questionnaire so that I can come to a decision one way or other.

Well that's all folks. I hope to be able to send in an update of the Board's progress approximately every three months.

Ron Dunnett, Q.U.B.B.E. Sysop
38, Brunwin Road, Rayne, Braintree, Essex. CM7 5BU.
Tel No: (0376) 47852

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### MicroEMACS

I am quite a new member of QUANTA, having joined only on 1st. January. From the very beginning I have been greatly impressed with the standard of service that I have received from the various officers of the organisation. I really do wish I'd joined when I first bought my QL, some 3+ years ago.

On 25th. March, I attended our annual general meeting. Quite a rowdy affair at times with much 'cross floor' debate, i.e. not always through the 'Chair'. In fairness to everyone who attends these meetings, I sincerely hope that future A.G.M's can be conducted with a little more attention to the formality of the occasion. Although arriving at the rooms only a very short time before the start of the A.G.M., I did manage to meet and speak to several other members over a 'cup of char and a wad'. As has been said previously in these pages, all who I met seemed to have a keen and genuine interest in the QL and, once the ice was broken, much useful information etc. was exchanged. If the man from Cheadle, Staffs., with whom I spoke over a sandwich and whose name I failed to get, reads this, would he please get in touch; it might be good to know another local enthusiast in times of trouble. I do wish that I had been able to arrive at the building a little earlier so as to be able to have a really good look at the systems being displayed and at what was on sale. For anyone who has not been to one of these gatherings, I would urge you to attend the next one in your area. Meetings of people with such a dedicated interest in our computer are an absolute mine of information and there didn't seem to be any pressure to buy anything.

Having got that lot off my chest, let me say that, in keeping with our name, i.e. Q.L. Users' and Tinkerers' Association, I am a tinkerer. Not exclusively, you understand, but mostly. I do use the machine for a couple of serious applications associated with business, using the four Psion applications that came with it. Seeing the listing of the QUANTA library, however, my eyes took on quite a sparkle. I quickly made out my shopping list an sent it to David Johnson. Almost at the speed of light, my padded envelope was returned (with only one damaged disk, courtesy of The Post Office). At first, fancying my chances at becoming the world's next newspaper magnate, my daughter and I started to get to grips with Page Designer. After having produced the obligatory picture of a pig (or perhaps it was rabbit) and some columns of text with fancy headings our dreams of future wealth dimmed somewhat and so I thought I'd have a look at that eighth wonder of the civilised world, the MicroEMACS editor.

I've my own copy of The Editor and, from time to time I've learnt a little more about how to use it, e.g. reading in an executable file, changing the odd unprintable character and then watching the fireworks when I tried to execute it. Just a tinkerer at heart, you see. But this Emacs is something else. I "wstat'ed" the files on the disk to see what the sizes are; monumental I thought, there's no way I'm printing out that lot. So, after several attempts at "Ex'ing" emacs, setting the work area to various sizes, eventually 300k, (nice to have Trump Card, isn't it?), I managed to read in emacs_mss and began reading through it. Then I did the same with emacs_tut and later emacs_hlp, eventually printing our the sections of those files I thought would be of most immediate use. I'm now considering a book entitled "1001 Things You Can Do With an Editor".

On a more serious note, I would like to give the benefit of my 'tinkerings' with MicroEMACS to my fellow members.

1. Whilst CTRL V - scroll down, does work, CTRL Z - scroll up, does not. I don't know what it's doing to my display, but it doesn't half make a mess of it. ALT Down. does, however, work and so there really isn't a problem, but does anyone know why CTRL Z won't work please?

2. Contrary to what's written in the file emacs_mss, CTRL C will work. All you have to do is to have a line in your boot program which reads 'POKE_W 163986,28'. This, I have learnt from the boot program of Taskmaster, disables the desire of CTRL C to say 'and now for something completely different'. What it does is to make CTRL SHIFT ¦ (that's a raised \) achieve the same thing, thus leaving CTRL C available within Emacs.

3. I thought I'd like to have some more function keys active to achieve such things as having the sizes of Fillcolumn and Tab set automatically, with Wrap mode on, to set up a buffer for sending to a printer using various character sizes/line lengths. Scanning through the emacs_rc file I discovered that all of the FN key features are selected by using the 'bind-to-key execute-macro-#' command at the start of the file and then defining macro-# later in the file. Imagine my horror, therefore, when I discovered that I could not add more than one extra macro-# (there being ten already defined). Does anyone know of a way around this problem, particularly as it is doesn't seem possible, at present, to use the 'execute-macro-#' command directly from the keyboard?

4. Although regular users of this application will undoubtedly know this, I thought it might be beneficial to others to know that it is quite easy to embed printer commands directly in to the text. Using the CTRL-Q key to place, say, ESC (which prints to the screen as ^[ ) in to the on-screen text, followed by the other appropriate character/s and/or chr$(#) will allow such normal embellishments as underlining, Elite, enlarged or condensed typeface, subscript or superscript characters, etc. etc. to be printed out. The format of the embedded commands for Epson and compatible printers is, for example

Underline on – CTRL-Q ESC (press the Esc key) {prints ^[ } followed by
-(minus) followed by CTRL-Q and then CTRL-A (decimal 1)
{prints ^A }
Underline off – CTRL-Q ESC followed by – followed by CTRL-Q and then
CTRL-£(pound sign-decimal 0) {prints ^£(pound sign)}

This technique means that it is possible to mix many printing styles/features not only within the same document but on the same line. It may make the screen presentation a little unusual, but it does work.

5. Does anyone, more practised in the use of MicroEmacs, know why it is necessary for me to set a work area of 300k to be able to properly load in a file of only 137464 bytes. Working up in stages of 50k, I had to get to 300k before being able to load in emacs_mss. Might it have something to do with the 'kill buffer' requirements?

As I said earlier, I'm a natural tinkerer and shall, undoubtedly discover more about this wonderful (and practically free) piece of software. One of its greatest advantages to me over, say, The Editor, is its ability to handle several buffers at once, with the same or different text in them. I shall be going back to have a much greater tinker with Page Designer and, if I find anything which I think may be of interest I shall put printhead to paper once more.
George Dale, 96, Heaton Terrace, Porthill, Newcastle. Staffs. ST5 8PL.
Tel. (0782) 636992
20.4.90
{There is an error in the Emacs manual. The memory allocation command should read – EX FLP1_Emacs; 'EM %80000 FLP2_file1_txt'. Can someone more knowledgeable about Emacs, answer the queries raised in this letter. We would also like to see some more programs from the library reviewed please. SJ}

## EXTBAS_CODE (Disk UTIL_TKMC1)

I have found Tony Lambord's collection of extensions to SuperBasic very useful, since it (in particular the EX_T function) enables me to switch in and out of EXEC_Wed programs like Quill and do something in SuperBasic in between. I was, therefore, a little perturbed to find when I plugged in my Minerva chip that the EXEC related extensions no longer worked (they fail on a JM too.) However, the others like CLSM (to clear the whole screen in one go) still did. I'm not much of a machine coder, but I thought I'd get out my trusty copy of D_Mon and try to see what was going on. I soon realised that the problem routines still call the ROM EXEC routine but add refinements before and afterwards. In order to call it they have to know where it is, so there is a bit of code to search the ROM for it, and that is what failed. Something to do with not resetting a flag before doing a test I suspect, but since neither of my "poor man's" assemblers would work on the asm file without editing I decided to do a SuperBasic bodge.

I have written a short SuperBasic program which searches out the address of
the EXEC routine in ROM and patches it into extbas_code in such a way that it
cannot fail to find it. I shall also submit it to the library. It would be nice if
Tony, or someone with an assembler, could do a proper fix so that the same code
would work on all ROMs.

My program contains a FuNction, ROM_address(c$), which can be used to find the
address of any of the ROM keywords. As far as I can see the names appear in
the following format. Starting on a word boundary (even address) a byte giving
the length of the name followed by the letters of the name. The preceding word
(two bytes) contain the offset to the start of the routine. My FuNction assumes
that keywords with the same first three letters in their names are of different
lengths, and will need slight modification for two letter names like AT and TO.

```
5 REMark Patcher for extbas_code, h.j.c. 1990.03.23
10 CLS: dev$="flp1_":    REMark Change as required.
15 ad=ROM_address("EXEC")
20 IF ad: IF OK: Patch_extbas_code ad
100 REMark ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
105 DEFine FuNction                ROM_address(cd$)
110 REMark can be used to find any command in ROM.
115 LOCal b%,word1%,word2%,i,j
120 word1%=256*(LEN(cd$))+CODE(cd$(1))
125 word2%=256*CODE(cd$(2))+CODE(cd$(3))
130 PRINT "Searching... "
135 FOR i=0 TO 48*1024 STEP 2
140   AT 0,13: PRINT i
145   IF PEEK_W(i)=word1%
150     IF PEEK_W(i+2)=word2%
155       PRINT cd$;" found at (dec) ";i
160       FOR j=i TO i+ 10
165         REMark print out a few bytes for check.
170         b%=PEEK(j): PRINT j!b%; TO 10;CHR$(b%)
175       END FOR j: EXIT i
180     END IF : END IF : NEXT i
185 PRINT cd$;" not found.": i=0
190 END FOR i: RETurn i
195 END DEFine
300 REMark ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
305 DEFine PROCedure            Patch_extbas_code(ad)
310 LOCal i%
315 OPEN#4,dev$&"extbas_code"
320 SCROLL#4,96,42: REMark See QL World Feb 89 p.18
325 PRINT #4, CHR$(ad DIV 256);CHR$(ad MOD 256);
330 CLOSE#4: PRINT "Patching done"
335 END DEFine
400 REMark ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
405 DEFine FuNction                            OK
410 PRINT "OK to patch with this address? (y/n)"
415 yn$=INKEY$(-1): RETurn yn$=="y"
420 END DEFine
500 REMark ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^The End
```

BOOTING QUILL with EXTBAS
The following are the essential lines which I use in my boot on a 640k system
with Minerva (single screen mode) and TK II.

```
1 DIM dummy(256,256)
2 LRESPR flp1_extbas_code: REM patched to suit your ROM!
3 b$='close#1:close#2:spjob 1,1,32:fjob 65537:ssjob 0,-1'
4 ALTKEY 'q',b$,'': ALTKEY 'Q',b$,''
5 ALTKEY 'W','spjob 1,1,0:open#1,con_:open#2,con_',''
6 id=EX_T(flp1_Quill)
7 CLOSE#1:CLOSE#2
8 FJOB id: SSJOB 0,-1
```

This is a sufficient minimal boot, but you will probably want to add a few lines
of your own. It puts you straight into Quill as normal, but pressing CTRL SPACE
puts you back into the normal operating system. First enter CLEAR, to clear out
the dummy array that has been reserving memory from the predations of Quill
(only necessary the first time.) Then ALT W will re-open channels 1 & 2 (you
can extend the string to define windows as you wish.), and away you go in
BASIC. Pressing ALT Q/q seems to do nothing, but you are back in Quill, press
SHIFT F5 to restore the Quill screen.

If you do not have exactly my combination then you may have to change some
items. Experiment with the size of the dummy array until you get what you
want. Minerva tags jobs differently from the earlier ROMs so you will need to
find the value of variable id before you CLEAR, and insert it after fjob in line 3
(I think it is 1 rather than 65537 in non Minnies.) If you do not have TK II you
will have to RESPR and CALL in line 2, and you will not be able to use the
ALTKEY commands. Try Fkey20Z_code from the library or some other way to
avoid typing the rather long set of commands by hand.

Howard Clase,   Box 9947, Station B, St John's, Newfoundland, CANADA, A1A 4L4.
15.4.90
Tel:  (N. Am.) (709) 753-6415    (U.K.) 0101 709 753-6415
e-mail:  hclase@kean.ucs.mun.ca.bitnet

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## A CHANGE OF ADDRESS FOR TIMO SALMI

Having a number of programs in the Quanta library, I would like to inform
Quanta members of a change of address. But please make any subscriptions of
the programs directly to your librarian, just as before.

Let me also take the opportunity of telling that I had many nice years with the
QL, but I have little by little moved over to using IBM PC compatibles, and very
seldom use the QL any more. Most of the programs I have developed for the QL,
now have their PC counterparts.

Please note, however, that I would much prefer electronic mail in any
communications, and thus strongly recommend this alternative should you like to
contact me for one reason or another. My email addresses are
     InterNet: ts@chyde.uwasa,fi
     BitNet:   SALMI@FINFUN
With all my best wishes to Quanta members,
Prof. Timo Salmi, Rossinkatu 10 E 12, SF-65380 Vaasa, Finland.   30.4.90

**LIBRARY INFORMATION**

When ordering from the library you should send the following:
A formatted disk for EACH library disk ordered. They will be upated for you free, when they are classed as full, if they are not currently so.
An adhesive self-addressed return label.
Return postage, the same stamps in your jiffy bag as on the outside.
A cheque or Postal Order, never stamps or cash, made out to QUANTA, AND NOBODY ELSE, for your options, 50p per disk copied, 20p per cartridge copied.
Write your requirements on the reverse of the cheque. eg. CAD_1
Pre-labelled disks can be helpful to the librarian.
Proof of membership, a complete CURRENT Quanta envelope.
A Jiffy bag for sending and returning your order, we prefer to try and re-use the jiffy bags where possible, so think about this when you seal them up, (We also wish to save trees)

Only complete disks can be ordered, except for the charged programs, which are available individually, and can be added to other disks. Sub-librarians will NOT be able to pick out and copy individual files except for the charged programs.

Please note that David Johnson WILL NO LONGER copy disks as a sub-librarian, although will continue as the library quality controller.

Instead we have added two new librarians to our list and you may send disks to:-

| | |
|---|---|
| Tom Mould, | Norman Dunbar, |
| 141 Springbank, | 21 Ferguson Court, |
| Hull, | Bucksburn, |
| HU3 1BL. | Aberdeen, |
| Tel: (0482) 212184 | AB2 9AG. |
| (3.5 and 5.25 disks) | Tel: (0224) 714848 |
| | (3.5 and 5.25 disks) |

As you may have read at the front of the magazine, Leighton Davies has had to resign from the post of Head Librarian, but will now be able to copy disks for any member. Leighton can handle most sizes of disks including 3 inch, and single sided. If you send single sided disks remember please to include two disks for each standard disk ordered. Roy Brereton on the other hand will ONLY be copying disks for those members overseas who do not have their own librarian, as he now takes on the (hard) work of Head Librarian. All these changes take affect as of the 1st July.

David Johnson, The Corner House, Loxley, Warwick, CV35 9JT

## SMALL ADS

**FOR SALE**
Trump Card 896K with disk interface and Super Toolkit 2 about 6 months old, perfect £175.
Don James,
Merseyside QL Club, Quanta Sub-Group, 3 Barnard Road, Birkenhead, L43 1TT.
Tel: (051) 652 7366

**FOR SALE**
JS QL, Philips mono monitor, Supercharge, Assembler, Workbench, Chess, Tankbusters, magazines, microcartridges. All as new and boxed. £130 the lot. Will deliver locally.
Alan Gregory, 2 Rayleigh Avenue, Brimington, Chesterfield, S43 1JS
Tel: (0246) 277417

**WANTED**
Archive book, 'Advanced Archive on your Sinclair QL' by Malcolm Dacison, published by Sigma Press in 1985, priced £7.95, ISBN 1-85058-026-X. I am obviously prepared to pay a reasonable price.
David McCullagh, 244 Sundrive Road, Dublin 12, Ireland.

**FOR SALE OR EXCHANGE**
For sale or exchange for Cambridge Z88: Psion Organiser LZ32 (4 line display), with 2x32K EPROMS, one 64K - both little used, three pieces of software: Spelling Checker, Finance Pack and Travel Pack and book. All in all about 400 quids worth.
Simon John Ghent, Spinney End, 218 Breedon Street, Long Eaton, Nottingham.
Tel: (0602) 733085 after 7pm

**FOR SALE**
JS QL for sale, with a Tandata Modem, and terminal program, and all the usual. Will split. £70 ono.
Alan Preece, 1 Haughmond Court, Featherbed Lane, Harlescott, Shrewsbury, Shropshire, SY1 4NJ.
Tel: (0743) 235381

**WANTED**
N. American QL (Samsung build with D9 connectors preferred - any ROM OK,) Extra memory - 256K or 512K neither through connection nor disk I/F required, but considered if cheap (for backup machine). Assembler.
Howard Clase, Box 9947, Station B, St John's, Newfoundland, Canada, A1A 4L4.
Tel: (N. Am.) (709) 753 6415    (U.K.) 0101 709 753 6415

**WANTED**
Copies of QL World (not photocopies) for June 1986, October 1986, November 1987, and January 1989. Price to:
Mr R.E.Snow, 1 Kensington Gardens, Bath, Avon, BA1 6LH
Tel: (0225) 311772

**WANTED / HELP**
In reply to a letter of mine in an earlier Quanta, in which I asked how to work out the position of my character sets, which have been shifted by the Medic's memory requirements, a member in England sent me a simple and brilliant "one-liner". Whilst sorting out my overflowing QL filing drawer, I apparently also sorted out this member's letter, because I can't find it any more. All I remember is that the line included a couple of PEEKs. If anyone knows what I'm talking about, could they let me have the one-liner again?
Dane Kurth (Mrs), Langgasse 51, CH-3292 Busswil, Switzerland
Tel. & Fax. 01041-32-842289

Yes folks, it's a deeply informative advertisement for that wonderful operating system you hear not enough about. We've wrapped this text around the front cover of the (ta dah!) printed manual, available to existing M7ЛΣVΔ owners "real soon now" for a mere £5 of your Earth money. Honest, I took the masters to the printer myself on Monday night, so it must be true. "But what if I don't have a copy yet?" I hear you cry. Well I don't, actually.

Probably 'cos the neighbours have banged on the wall and told you to shut up and use the telling bone like everybody else does. And that's the answer! That nice Stuart McKnight (N.B. all speling

**MegaCorp HQ is...**

QView
29 Carnaby Close
Godmanchester
Cambridgeshire
PE18 8EE
(0480) 412884

# Technical Guide

corekt for a change) is on (0480) 412884 and eager to take your Access or Visa card number in exchange for (1) a clever piece of hardware with the even cleverer M7ЛΣVΔ operating system in it, (2) a copy of the manual, as soon as it becomes available, and (3) a disc with sundry goodies such as a SuperBASIC TRACE routine and the MultiBASIC program. For this you, as a Quanta member, have the privilege of paying a measly £35, plus an extra £2.50 postage if you live overseas. If you're *not* a Quanta member, what are you doing reading this advert? And you get to pay £40, unless you decide to join Quanta first. Go on, buy M7ЛΣVΔ *and* join Quanta, they're both jolly good. If you need the extra files on a microdrive cartridge, please send us one to put them on, as they are rather expensive and difficult to obtain. Note also that we don't require you to send us a "ROM image" any more.

## Compatibility...

...can be a bit of a problem when your fundamental idea is to change everything in sight! We currently have over four hundred customers, and know of no problem for which there is no solution, either available now or soon.

## Installation...

...is as simple as we could make it. Open your QL (using cross-head screwdriver), extract the original ROMs (using ordinary screwdriver) and put the M7ЛΣVΔ hardware in place of one of them. Put QL together again. Go on, it's easy. Or get someone at your local Quanta sub-group to do it for you.

Another tasty product
from those awfully nice people at the

VIEW Q

## International MegaCorporation

### Upgrades...

...to the latest version are available. The first is *free*, subsequent ones may incur a charge, at our discretion.

## MultiBASIC...

...is a mixture between an ordinary EXEC job and the SuperBASIC interpreter. If you've got enough memory, you can start one or more up at any time to run any SuperBASIC program *at the same time as* all your other jobs - unlike the QL World "bodge" where you can only use one at a time.