QUANTA

VOLUME 7 ISSUE 7 AUGUST 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 Wychwood,The Street Bramerton, NORWICH Norfolk NR14 7DW Tel (05088) 463	General Secretary	Philip Borman 62 Prospect Avenue RUSHDEN, Northants NN10 9DH Tel (0933) 410277
Membership Secretary	David Johnson The Corner House Loxley WARWICK CV35 9JT Tel (0789) 842543	Treasurer	Michael Jackson 12 Church Street Adlington, CHORLEY Lancs, PR7 4EX Tel (0257) 480331
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Committee Member	Dennis Briggs 53 Gilpin Road Admaston, TELFORD Shropshire TF5 0BG 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 Editor reserves the right to publish or reject, to cut or condense, any material submitted. 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	Ron Dunnett 38 Brunwin Rd, Rayne, Braintree Essex, CM7 5BU Tel (0376) 47852
Solent	Delta Leasing Ltd. Garfield Road Bishops Waltham	1st Saturday Every Month 1500 to 1900 (none 4th Aug)	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 2nd Monday 1.30 to 6.00 4th Sunday	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 BZ7 7TL Tel (021) 708 2560
Mid Cheshire	The Merlin Pub Middlewitch Road Crewe	Alternate Mondays	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 16th Sept. 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 Argyle 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 Soc.Club Dawson Lane Whittle le Woods Chorley	1st Monday each month	Steve Hutton 44 St.Mary's Road Bamber Bridge Preston, PR5 6TE
Humberside	141 Spring Bank Hull	Next meeting 23rd August 7.30	Tom Mould 141 Spring Bank Hull, HU3 1BL Tel (0482) 212184
Sussex	Southern Gliding Club Parham, Nr. Storrington Sussex	2nd or 3rd Thursday each month 20.00-23.00	Andrew Knights 'Kitlands' 57 King's Stone Ave Steyning, Sussex BN44 3FJ Tel (0903) 812820
Northern Ireland	Venue varies Phone contact for details	Last Saturday each month	Billy Turkington 'Fairyhill', Rostrevor, Newry Co. Down, BT34 3BB Tel (06937) 38567
Kent	Venue varies		Keith Mannering 33 Lorina Road Ramsgate, Kent CT12 6DA Tel (0843) 587847

CALENDAR

August 4th - 5th	Horticultural Hall, London	All Formats Show
September 1st	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

Apologies are in order again, for the change in print style of the magazine. Unfortunately, the 24 pin Panasonic decided to give us problems during printing of last months magazine. Four weeks later, we have still not had the repaired printer returned to us.

I intend this to be the last magazine with a full list of sub-groups. Hopefully, by the time of the next magazine, you will all be proud owners of the long awaited 'welcome' booklet. This will contain a full list of all the current sub-groups and other information. The magazine sub-group section will then be used for general updates to the list.
Sarah Johnson

SOLENT SUB-GROUP

There will be no August 4th meeting due to holidays etc. Our next meeting will be on September 1st (1st Saturday) as usual. We now meet at Bishops Wlatham (Delta Leasing, Garfield Road) 2 to 6pm, by courtesy of Graham Goodwin, one of our business members.

At one of our recent meetings we provided computer facilities for a gifted childrens group and also gave some software demos, ranging from games to molecular models and fun was had all round.

Last month ten members enjoyed many hardware and software discussions. These included accountancy problems and an attempt to link up some troublesome 3.5" disk drives. One of us has found a combination of 5.25" and 3.5" drives works well on the QL with 'Discover', in providing a good route to using free 5.25" disk demos and utilities from the 'PC Plus' magazine, on a PC with 3.5" drives. These free 5.25" disks should of course run directly on the QL with a PC emulator and our drive combination.

Thank you for the continued high standard of QUANTA. It must be the envy of many clubs.
Eric London (Hon. Sec. Solent Group)
20 Seafield Park Rd., Hillhead, Fareham,Hants PO14 3LY.

NORTHERN IRELAND SUB-GROUP

In spite of rumours to the contrary, QUANTA is alive and well in Northern Ireland. To date we have had two successful meetings, both well attended. Fourteen out of the twenty Quanta members in Northern Ireland have shown positive interest.
We meet the last Saturday of each month at 2:30 PM, except when it clashes with a Bank Holiday weekend. Venues vary, for details please phone.
Billy Turkington, 'Fairyhill', Rostrevor, Newry, Co. Down, BT34 3BB
Tel: (06937) 38567

AT LAST!

I have just started arranging the long awaited London sub-group. Lots of people have expressed an interest through Tony Firshman's bulletin board, and all 168 members in London should have got a letter from me by now. If you live outside London, and are interested in attending, please let me know of a time and date convenient to you.

This sub-group should be the largest one there is, so should be beneficial to all attending.

Jeremy Davis, 6 Elmcroft Crescent, Harrow, Middlesex, HA2 6HN
Tel: 081-863 1631 after 6pm

ESSEX SUB-GROUP

The earlier re-organisation of the sub-group appears to be paying off as, having decided upon giving up part of each monthly meeting to a talk on a selected computer subject, in May there was a talk on Desktop Publishing by Bob Gingell.

In June Bob Gingell gave a talk on Family Trees using an earlier genealogy program from QL User and a Royal Family chart dating from King Canute. The subject seemed to be popular - one member has used the program to input 169 members of his own family!

The July meeting intends dealing with QPAC2 with the help of Dave Walker. In August the idea is to use the screen dump from QRAM in conjunction with QPAC2 to produce a screen dump of a Family Tree!

The group's library is slowly being established and preparations are well under way for the Essex Workshop at Rayne on September 1st. An average of 15 members attend each month and new faces are starting to arrive. However, there is ample facility for additional members.

Bob Gingell, 22 Paley Gardens, Loughton, Essex, IG10 2AN
Tel: 081-508 8370
16.6.90

LANCASHIRE SUB-GROUP

Our first meeting, on May 7th at Lisieu Hall Social Club, near Leyland was attended by eleven members. The second, on June 4th, by sixteen.

Both evenings were enjoyed by all concerned with a very interesting exchange of ideas and several systems on display - one unusual one being my own. You've read in QL World of the enthusiast sawing a QL in half; I did that years ago, as must have many others, to fit the lot into a box. At the same time I fitted a Schon Keyboard.

That recently went on the blink so, to maintain use, I got the keyboard ribbon connectors from an old QL, some 25 way ribbon cable, an empty QL case and now have that empty case directing operations on the boxed QL. With the expansion slot covers removed it is possible to type while someone else is using the keyboard as a telescope!

Being a new group, we are short of knowledge on how to run the group to the best advantage of all concerned and Steve would welcome ideas from members of established Sub Groups, who are, of course, welcome to call in on us - first Monday of each month, 7pm.

Ken Davis.
5.6.90

STARTING A NEW SUB-GROUP

I have been asked to write an article to give guidance to those wishing to start a new sub-group and to give some pointers to help those who are having problems with small existing sub-groups.

The key points are as follows:- advertising, location, catchment area venue, times of meetings, pattern of meetings, cost and object.

Advertising: The first thing to establish is how many members does QUANTA have in the proposed area. Contact the membership secretary for a list of members with postcodes which are covered by the area. Circulate these members with a letter proposing the group and get their reactions. Having determined that there is enough initial support, I would suggest 10 as a minimum, you can go ahead with the formation of a group. Further advertising can take the form of BRIEF letters to Quanta and other suitable computer mags. Posters for distribution to local libraries in your area. These should be of good quality and prepared with a DTP program avoiding as many sloping letters as possible, even if you have to alter an existing font. Find out from the main library how many copies they will require for distribution. Computer shops may co-operate but bear in mind that very few will be interested in the QL and are looking to sell Amstrads, IBM's and other types. If you have an acquaintance who has an Apple Mac with an inkjet printer, it can produce perfect lettering which will pass any scrutiny.

Location: This will depend on the nearness of another group and on where you can obtain a venue. It may not be close to you (I have to travel 6 miles each way to QMAS).

Catchment area: Will depend on other groups, ease of travel and major road network. You will have to assume half the distance to the nearest other groups in that direction, with a maximum of 40 minutes driving according to the roads (20 miles in country lanes, 10 in urban areas, 35 on major roads).

Venue: When looking for a venue for your meetings, try small village halls, if they are under used you may be able to get them for a very reasonable charge. Schools are another possibility but remember that they usually want to close fairly early, so you may only be able to get them for a 2 hour session. I find it difficult sometimes to get QMAS members out after 4 hours. Setting up and dismantling equipment reduces the time available. If all else fails, try pubs, but be warned, members are there for computing NOT for a drinking session. Computers and drink are not compatible and many members will have to drive home afterwards. You may get a room free at a pub but the landlord will expect good takings and the cost to members may be higher than they expect or the landlord may not be keen to allow use of the room.

Times of meetings: This will depend on the day and what time members can get there. We find that evenings 7.30 to 11.30 and Sundays 2.00 to 6.00 are suitable. Mondays and Sundays are often good days for getting a booking at a village hall.

Pattern of meetings: You must bear in mind that whatever you may want to do, ultimately it is the members who will decide whether it is a formal meeting with lectures or an informal meeting where members help each other with problems. We have found that members mostly want the latter. I started QMAS with the assumption that I could learn a lot from other members, I am not an expert but have gained more expertise from my fellow members.

Cost: The initial circulation postage should be available from QUANTA, and ongoing costs must be borne by the members. You should aim to cover your costs plus a small surplus in order to build up a reserve against poor attendance due to bad weather. As a guide, the hall cost us £7 an evening for the first year, I provided tea, coffee and biscuits twice during the evening, for a charge of £1 per member. This has allowed a surplus for contingencies and to purchase some equipment for loan to members in the event of a breakdown. Most Minerva EPROMS have been tested on our spare QL.

Object: The object of a sub-group should be to get members together to (develop expertise and solve problems, a secondary consideration is the repair and modification of equipment. Many repairs and modifications have been carried out at QMAS meetings. It is not unusual to see equipment with the case removed while adjustments are carried out by some of our experts. We are particularly lucky in having experts in most equipment used with the QL.

Finally, if you are starting a new sub-group, QMAS wishes you every success, we are dedicated to the QL and QUANTA and are firmly convinced that the QL has many years of service ahead, possibly into the next century.

Peter Rowell

Quanta Mid Anglia Sub-group BARBECUE

A barbecue was arranged at 347 St Neots Road, Hardwick, Cambridge, in order to thank Mr Tony Tebby for his support to QL owners in the past and to wish him and his family every success in their future life in France. It was attended by approximately 30 persons (members, wives and friends) in the evening of a beautiful Summer day, Saturday 16th June.

Mr Sid Humphreys, Quanta Chairman, presented Mr Tebby with a crystal wine carafe and four matching glasses. He thanked Mr Tebby, on behalf of QUANTA, for the valuable support and software which has been available to QL owners and in particular, Quanta members, for the past six years. He wished him a happy future in his new home, hoped he would remember his many friends in Quanta and that we would see him at workshops, both here and abroad. Mr Humphreys then presented Mrs Tebby with a bouquet.
In reply, Mr Tebby said it was unusual for a dealer to receive a gift from his customers, it was usually the other way round. He said he appreciated the gesture and as he was going to live in a wine district in France it would bring to mind his many Quanta friends as he enjoyed sampling the local vintage.

I have since ascertained from Mr Tebby that his software will still be obtainable from Care Electronics of Watford, who have handled many of his products in the past. He will still attend shows and workshops when possible. His current project which is near completion, is a 4Mb Atari with QL emulator, single floppy disk and twin hard disks (varying from 40 to 200Mb). One hard disk is permanent for storing programs whilst the second is removable for storing data, which allows for a number of data hard disks to be in use. I look forward to seeing it in action, although I could not afford and would not have use for such a large capacity machine.

Peter Rowell, Organiser, Quanta Mid Anglia Sub-group.
Tel: (0954) 210692
18.6.90

ALIVE AND WELL AFTER 2 YEARS

After owning a QL for a number of years I've finally got around to joining QUANTA. I've been unemployed for most of the last two years (despite strenuous efforts to find work) and I thought membership would help to pass the time. Of course as soon as I'd joined I got an offer of a contract to assemble printed circuit boards so now, being self employed, I'm working harder than I've ever done before. I mustn't moan as I'm also making more money than ever before.

Speaking of moans, but briefly, there is a definite need for some kind of welcome message for new members- a simple "Welcome to QUANTA- this is how to order the library guides' would suffice. I telephoned Leighton for this information (what a nice chap he seems to be).

During the inevitable natter that ensued I mentioned that my QL had been on top of the wardrobe for two years and he thought that my reason for rescuing it might be of interest.

Well, on Friday nights when I put on my Batman outfit I was finding that there was not a lot of room up on the wardrobe...
Seriously, I started out with a ZX81 kit. Six months after posting my order it still had not arrived so I obtained Uncle Clive's home telephone number (by a method which must remain a secret unless someone writes to the magazine asking how I did it). A phone call at 11 pm on a Sunday did the trick, the kit arrived on the Tuesday. I had intended to ring at 2 am but impatience and tiredness won the day.

I well remember my delight that the thing worked first time and my disappointment at not being able to fit my Lunar Lander (adapted from Sinclair's programmable calculator) into 1k. I bought a 2k chip and thought I'd got the Earth!. Now I was really hooked on programming.

Then adverts for 'massive RAM expansion' (an incredible 16k) appeared but I went over the top and bought a 64k module. I had to write some machine code to enable use of BASIC above 16k. Then the infamous Ram pack wobble started...

For those who never experienced the heady delights of ZX81 ownership the case was inclined to flex when you pressed any key resulting in momentary loss of contact of the RAM pack. The result was loss of everything you'd typed in. As it took 16 minutes to load a long program (if it loaded at all) this was a trifle irritating. It wasn't too bad if you SAVEd every ten minutes but ten minutes of typing followed by four minutes of SAVEing was not a lot of fun. Eventually the thing received a vicious thump and refused not only to load but to do anything at all.

That's when I bought a Spectrum. I was very happy with it and spent almost all my computing time writing a sophisticated adventure driver and a couple of adventures. The adventures did not sell well because they had no spelling errors. Also they required logical solutions to problems- no illogical stuff as in the best-selling drivel 'Hobbit", the Ket trilogy and that trivial maze game 'Valhalla' (you can't go north if you're carrying Boldlr or something like that).

The QL looked promising at first but the well-deserved hammering it got in the press decided me against down-grading. Then my beloved wife became very seriously ill. After a few sleepless nights I was quite ill myself. One of my stepsons who had come over steered, me into Dixons and almost without my being aware of it I was presented with a QL 'to take my mind off things'. He took my beloved Spectrum when his mother recovered and he returned to Telford. The QL's power socket snapped off the first time I plugged it in. Not wanting a fifteen mile drive to Dixons I repaired it myself. Then the games cartridge was faulty, as was its replacement. I was not impressed.

I started to rewrite my adventure driver but due to several cartridges becoming defective I was making three copies of everything. The thought that occurred to me often at this time was that saving and loading was as fraught with uncertainty as these activities had been on the ZX81.

After a week or so the reds disappeared resulting in an invisible cursor when using Quill. I repaired this, it was caused by the leg on a capacitor not having gone through its hole, having bent upward instead. It was when I tried to replug the membrane that it split for the first time. A careful trim with scissors ameliorated things somewhat but made it almost impossible to plug in the shorter connector, whilst trying to do this the lid fell over and out came the LED leads. A few weeks later the reset button refused to work, there are still two wires hanging out of the side, I touch them together to reset.

I bought the Metacompco assembler from someone in the Channel Islands who was selling up, together with a few games that were absolute rubbish; Night Nurse and English Softwares road race thing are truly appalling. I bought Adam Dennings 'Advanced QL Machine Code'. Machine Code it is, advanced it is not.

The QL settled down (and so did I) and I began to enjoy using it. But I was disheartened by the lack of support and its apparently dismal future (I should have joined QUANTA!).

I was busy rewriting my adventure driver which, if I say so myself, is quite sophisticated. It can cope with up to four commands at a time, separated by commas. It can cope with things like "John and Mary carry the chest". One can have up to twenty characters in a game. There are more than forty conditions and over forty commands that can be used in command table/status table entries. All game data is entered and edited from BASIC.

In parallel I was writing an adventure which was useful in testing and developing the driver. I thought the adventure was pretty good (of course!). I sent a copy of an incomplete adventure for evaluation. One of the evaluators seemed to like parts of it but wrote that as QL users were morons I would have to liberally sprinkle the adventure with clues to the solution of problems. As the adventurer was accompanied everywhere by a funny little creature who chattered a lot and constantly gave clues to future problems I was a little put out. He also wanted so many changes making that the adventure would no longer have had anything of me in it. He inferred that Guardian readers are illiterate in one missive. I got the distinct impression that he was the worlds greatest snob and a towering bore. The guy may be quite likeable but that is far from the impression he creates on paper. In any case it was the last straw and I gave up on the idea of having a game on the market and of continuing with the QL. Then my beloved Spectrum came back home and the QL went on top of the wardrobe (no-one would give me £50 for it). So why did I rescue it after two years?. The answer is simple. The Spectrum blew up and I could not justify to myself the cost of a replacement, being unemployed.

Actually things aren't so bad. I've been reading the diary I kept (12000 words) and playing a game I wrote and working on my adventure driver and feel an enthusiasm for the QL that I never felt before. Then again, I dare start drooling over disk drives with my new-found wealth.

Perhaps I'll feel an enthusiasm for machine code which I did not before. I enjoy typing in a few hundred lines and then watching the QL do things-I believe it's called programming. I use mainly BASIC but intend to learn other languages, simply to keep my fifty-five year old brain alive. Having an IQ of 145 I am interested in mental fitness.

I'll stick with the machine for the forseeable future. I intend to add disk drives and Minerva soon and to replace my 256k expansion with something bigger. My needs are simple, I do not want a 20k Boot to load up sixty Quills plus six of everything else. I like Quill, perhaps because it's the only word-processor I've ever used.

I use an ancient mono portable until I get around to repairing my 24 inch colour set. Judicious placement of powerful magnets enables me to see an eighty-five column display.

The QL is alive and well and living at 24 Fury Avenue!. My thanks go to Stephen Hewitt for the favour he did me. I still marvel at my cheek in asking him to copy Quill for me, both my original and the backup failed to load, having been sitting for an unknown period on a highly magnetic executive toy that one of my stepsons imagined I would enjoy owning.

Finally, if you're still awake, some computing terms and their true meaning.
Allow 28 days for delivery (We are looking for a site for the factory).
It is bad programming to jump out of a FOR-NEXT loop (My inferior computer does not allow jumps out of FOR-NEXT loops).
One should never never never use GOTO (I couldn't write a decent program if I spent ten years on it but saying things like that makes people think I'm an expert and got me a job on a magazine).
This game has incredible, superb, state of the art graphics (this game has graphics).

Does anyone else have translations of computing cliches?. They would make a welcome change as light relief from all those printer driver thingies. (Sorry editor, you may decide what you want in the mag!) I'll be writing again. My fee for not doing so is quite reasonable.
Alan Pywell 24 Fury Avenue Manby Lincs LN11 8UN
Tel:(0507) 328782

GREATER REALISATION

On reading Raymond Fowles letter in the June issue I realised how close to the crux of the problem that bedevils illiterates, like me, he is. We live in a world of jargon and acronyms and nowhere is this greater than in the computer world.

How one overcomes this problem is very difficult for I believe that it is a fault of which, regardless of our expertise, or lack of it, we are all guilty to a relative degree. There is no doubt that when having something explained to you, by one who knows, one can leave the session more confused than when you started. In my mind there is little doubt that the best tutor is one who is just one step ahead of you.

One outcome arising from my letter in the March Quanta was that the existence of Club Ql was drawn to my attention. This is a monthly newsletter circulated to, and contributed by, Ql users. I have taken advantage of this club and discovered that there are many people like me and that they all seem to be friendly and keen to share their hobby. This perhaps is what it is all about. This computer does different things for each of us and possibly for each of us, novice, expert, young and old, it is at one and the same time a source of much frustration and much pleasure. I enjoy taking a program, which I will never understand, and trying to use it. If I succeed great! If I fail, and I generally do, I can always blame the writer of the manual, and generally do, but in the trying I have had fun and satisfied the masochist in me. No doubt the writer of that program also experienced similar hopes and frustrations.

Age must also play a large part. I know that my powers of concentration, memory retention and powers of recall are now much less than they were, and I have learned to live with that, similarly my Everest is now the little hill not too far away, but I can get as much satisfaction from scaling that hill as I might have got years ago form scaling a mountain. Of one thing I am sure and that is that my QL is and has been a great friend to me and has become very much part of my life.

Tommy Thompson, 15 Thrasher Road, Aylesbury, Bucks, HP21 8DZ
Tel: (0296) 431173

A PROGRAMMING LANGUAGE

A long time ago I reviewed MicroAPL's implementation of APL for the QL very favourably. I recently got interested in APL again, and having found the review package in a box in the garage, set it up on my system.

If an interactive programming language that lets you do in a couple of lines, what other languages take a whole page or more to do, gives very high execution speeds, and 16 significant digits of precision (ie 64-bit floating-point arithmetic) appeals to you, you should dig out my original review, and/or get a book on APL from your local library. Much to my surprise, MicroAPL still has stocks of its QL product - both the 'squiggle' version and the keyword version - at about £100. It also sells Amiga and Atari versions for the same price.

MicroAPL Ltd. is at South Bank Technopark, 90 London Rd., London SE1 6LN. Tel: 071-922 8866.

I-APL Ltd. distributes public domain versions of APL for the Beeb, Archimedes, and PC. Some time ago Anthony Camacho of I-APL sent me a beta-test copy of an implementation for the QL, which seems to work fine, but lacks any file I/O. The person doing the implementation lost interest in the product, and Anthony is looking for someone to complete it. Is anyone interested? You'll need to know something about QDOS, and be reasonably au-fait with 68000 assembly language, of course. For those interested in such things, the PD version is machine independent, and runs on a virtual APL machine. The virtual machine instructions are executed by a run-time interpreter written in 68000 assembly language, in the case of the QL. Please give me a ring if you would like more information.

The MicroAPL implementation is written in native 68000 code, and therefore is a lot faster than I-APL's.
To give you some idea of the power of APL, I generated a vector of 10,000 random integers with a single statement, and then sorted them, with another statement. Generating the vector took under 11 seconds, and sorting took under 23 seconds. The two statements looked something like:

```
L←-10000 ? 10000
X←-L[⍋L]
```

where ⍋ represents the APL ascending sort symbol (a delta with a vertical bar overstrike). With many APL systems you generate compound symbols by backspacing and typing the second symbol, but on the QL, the compound symbols are generated with the help of the ALT key - a bit quicker, if harder to memorise.
Leon Heller, 30 Baldslow Road, Hastings, East Sussex TN34 2EY.
Tel: (0424) 714790

E-MAIL

We people who work in universities and suchlike have access to various e-mail networks that can be used for sending messages, computer files and for "reading the news". Most of these networks are linked so it is possible to do this more or less all round the world. E.g. I have been in contact recently with people in Warwick, Dublin, Helsinki, Taiwan, & New Zealand. At Memorial University we are on BITNET, which is linked via EARN to JANET in the UK etc. Some commercial organisations e.g. Acorn are on NETS too.

"Reading the news" is one of the most interesting aspects, since the E-newspaper is written entirely by its readers, and anyone can contribute their pennies worth - making it a bit of a world wide gossip column! The news is subdivided into many news groups, and I regularly look at a few of the over 400 available; two of these are "comp.misc" and "comp.sys.misc", and from time to time little appeals appear along the lines of "I've just bought, very cheap, a small black plastic box that says QL on it and claims to be a computer, does anyone know which way up it goes?" I've tried to reply to these with helpful messages and where to send their QUANTA subscriptions.

I have also been in touch with a few QL users individually. There are probably not enough of us to get a full sub-group (comp.sys.ql), since we need 100 users I think, but I'd be interested to hear from any other QL users on NETS about how we might be able to keep in touch this way. For example we could exchange information and programs. (A friend here in Newfoundland with an Archimedes has been able to get software updates directly from Acorn over the NET, and I have exchanged BBC programs this way.)

However, this depends upon being able to use the QL as a terminal, although there is a VT52 emulator in the library that works quite well I have not been able to get it to generate the hard "BREAK" that our VAX needs to wake it up. I have tested it by logging on with my BBC and then switching the plugs, not really an approved procedure, and liable to blow something. That leaves me with transfering files to the BBC via the RS232, and into the VAX from there, fiddly, but it works! I have been able to use the VT52 emulator over the phone using a modem, but while files get from the QL to the VAX all right I lose some characters coming into the QL. This is, I suspect, because handshaking is not possible with this arrangement, and I need a modaptor or something.

I am going to try to set up a moderated QL news group via e-mail. I will receive contributions, and send them out to anyone who registers their interest with me. If you are on a net and would like to participate please let me know at the e-mail address below.

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

TURBO or not TURBO - That is the question

I am just a simple user who bought TURBO (V1.12) some time ago, to speed up my programs. Whilst others have written volumes describing the clever things TURBO can do, many members perhaps confused by huge lists of features filling the fine print of advertisements, will want just a little simple information to help them determine if they can make it work for them.

What I got
A disk and a 350 A4 page manual printed on bright green paper. The media includes 25 files, mostly related to TURBO Toolkit (reviewed QUANTA Jan 87), but also including manual updates.

Getting started
Those 350 pages are a rather daunting prospect! Page A-2 insists that you run backup programs and tells you that to use TURBO you must firstly LRUN the TURBO Toolkit boot program.

Page A-3 tells you that the program compiled is that LOAD'ed into the QL at the time you type CHARGE. And that's all there is to getting going. CHARGE brings up a pretty screen with a few boxes on it to fill in. You tell TURBO what to do with the compile messages, the windows your program needs and a name to give the EXEC file created. For straightforward programs that will be all you need to do and you've only had to read up to page A-9!

Does it compile everything without changes?
Not entirely. If your program uses TOOLKIT extensions, then you may have to amend their references, thus:

10 WCOPY letter,letter2 becomes: 10 WCOPY "letter","letter2"

Rather less obviously, the extensions must be present at the time of compiling. This means you run the boot program that loads them or initialise built in toolkits, before compiling any program that uses them. You will also get a lot of messages about string lengths. In SUPERBASIC a statement like: 10 INPUT NAME$ is perfectly acceptable for names up to 128 characters. TURBO needs to know how long the string NAME$ can be, so it gives a default of 100 characters and tells you about it. In most cases you will not need to take action. You also get messages about poor program structure. Ordinary structure errors permitted by the interpreter, such as missing END statements are automatically corrected by TURBO.

How fast is the edit/compile/test cycle?
TURBO will not compile from a file, the SUPERBASIC program must be in memory. There of course it may be edited and run. Typing CHARGE compiles it to a file on disk or microdrive. You can test the compiled code at once by typing EXEC_W dev2_yourname_task. If it works - fine. If not then the BASIC is still in memory and may be directly changed and reCHARGEd. Using an editor program even if it is multi-tasking is slower for small changes, because it operates on a file and you have to reLOAD the edited BASIC from the file back into memory.

What about the other 341 pages of the manual?
If you have ever bought DP programs you will know they love to use a sentence when a word will do or a page when a paragraph is adequate. The manual is chatty, friendly and really great fun to read. Apart from detailed contents, index, glossary, historical analysis and speculation on future products, the manual is concerned with those aspects of programming that relate to compiled programs and to the additional features TURBO allows you. As a beginner you may be concerned that you're missing out or OUGHT to understand some of the more complex features. DON'T PANIC! All that stuff on task linkages, parameter passing, fast arithmetic, displays and tuning is directed to those writing top quality software for commercial distribution. That it exists at all suggests that there will be some great programs around which started life as basic programs - and indeed there are!

Minerva?
Almost there! There were a few problems with Turbo toolkit, now corrected by DP (Turbo publisher). QVIEW (Minerva developer) and DP are in regular contact. According to Freddy Vachha of DP, his problem is that Minerva compatibility is a rapidly moving target. Programs using standard SUPERBASIC commands will have no problems today.
Gerard Phelan, 17 Gunnersbury Court, Bollo Lane, LONDON, W3 8JL
Tel: (081) 993 3273

IN THE BEGINNING

I've always been interested in things mechanical and electrical and the advent of the Sinclair hand held calculator was a sensation in our office where the slide rule, the human brain and the hand cranked adding machine reigned supreme.

A trip to the library at college turned up some books on COBOL and FORTRAN which were totally meaningless. Numerical control it seemed was all the rage and this was done with punched tape so some time was spent exploring this avenue.

The next move was to start messing about with transistors and bits of Vero board and then it happened. The ZX80 with a whole kilobyte of memory on the same board!! I made mine on the kitchen work top with a constant stream of abuse from the Domestic Government of the day. The next problem was what to do with it. There was no way to connect this marvel to anything so really it was an expensive luxury. Still I persevered and managed to write the odd program to print various things on the screen.

Back to the vero board and counting circuits with infra red diodes and other such projects. Then there was the ZX81, a great improvement, followed by the Spectrum. I thought that this was the bees knees and I wanted one badly but alas it was not to be. The next machine, the QL was THE machine but at £400 out of the question as far as my finances were concerned. At £200 my self control deserted me and I raced home to try out the new beastie. I had never heard of word processing until then so I didn't bother too much with the Psion programs but preferred to dabble with the new SUPERbasic.

Three months later I bought a Quen Data 1120 daisy wheel printer and nearly drove myself insane trying to get some print from it. Eventually I managed to get it to print what was on the screen and have been very pleased with the consistent results over the last four years.

My next acquisition was the twin disk (5.25) and interface from Silicon express - brilliant. By this time I was glued to the machine every evening and had developed a nervous twich in my left eye, I thought it may be caused by the television I was using as a monitor. I discussed this with the boss man at Silicon Express and he suggested that I try a monitor for a week.

I was so pleased with the little orange monitor that I bought a Microvitec colour monitor on the strength of its performance and haven't looked back since.

I now have a second QL and both of these are fitted with Toolkit 2 and the main machine has a Miracle Systems 512k Expanderam. At the Portishead workshop I bought a bare 3.5 drive and a power supply, which after a little dig round with a multi-meter and a book of chip pinouts now works quite happily on the number two machine. The power supply seemed to have a mind of its own until I put some ballast resistors on the outputs, it seems that it can only regulate the voltage when there is a current flowing.

With two machines up and running I tried out the network which was a total failure until I paid Care Electronics a visit for a couple of Toolkits. One of the advantages is being able to send programs over the network (bell wire really) between machines and raiding the other machine's files courtesy of FSERVE.

After many years of wondering what the output from Easel looked like I managed to find out when I got hold of a Star LC-10 printer. This is a marvellous bit of kit with all sorts of little surprises for those who want to print something different from draft and NLQ.

I don't have much commercial software, the first I bought was Qspell which served a purpose until QTYP arrived. There is no comparison really, if you don't have QTYP... well I was going to insult the Qtyp-less members but I suppose it takes all sorts. I bought Qpac 2 on the strength of QTYP and I've just about got to grips with it. I'm warming to it slowly as each day I seem to discover something new that it can do! Perhaps I ought to read the manual (again).

I've bought various books over the years and the ones that I like best are:
Illustrating SuperBASIC by Donald Alcock
The Working Sinclair QL by David Lawrence
QL Computing by Ian Sinclair
and of course QL SuperBASIC by Jan Jones

The first has disintegrated with use so how about a reprint of this facinating and informative classic. Despite 4 years of dabbling with SuperBasic my programming skills are still not sufficient to understand some of the simpler articles and the machine code type articles are complete gobbledegook so I think there is plenty of scope for improvement!

For those without Toolkit 2 who cannot read the scrolling list of files after a DIR here is something that took me ages to discover!
OPEN #3,ser1 : DIR #3,mdv2_ (If using daisy wheel use ser1c instead of ser1) This sends the listing to your printer!!!
John Middleditch,
Three Fords, Potters Lane, Send, Working, Surrey, GU23 7JT

DESKTOP PUBLISHING - Chapter Five

ODDS AND ENDS

In order to build up sufficient information for this chapter on the areas still outstanding I did a bit of research and finished up with a list of 122 items!

MEMORY
------ The earlier programs could be slotted into a standard QL and even the Page Designer 2 could run on a 128k machine although it came with 5 microdrive cassettes which had to be put in or taken out according to the fonts that were being used. However, the later programs needed an expanded QL for the operation of more sophisticated programs.

SAVING
------ "Front Page" does a regular backup routine automatically whether you want it or not. The other progs require you to take a specific action to SAVE and you are given the opportunity to:

a) Save page sections
b) Save whole pages
c) Save in BYTES format, or
d) Save in COMPRESSED format

MENU-DRIVEN OPTIONS
------------------- Each of the progs start up with a MAIN MENU and, on selection of any one of the options by the use of both the cursors and the ENTER key, a SUB-MENU appears which is operated on the same system as the MAIN MENU.
A considerable number of choices become available in this way, and the selection of choices really couldn't be easier!

TEXT ENTRY
---------- The MAIN MENU gives the options of:

GRAPHICS	TEXT	HIRES TEXT
IMPORT TEXT	FILES	ERASER
PAGE	CUT/PASTE	VIEW
QUIT		

and the selection of:

TEXT

gives a sub-menu:

TYPE TEXT

TYPE TEXT TO PAGE	TEXT SIZE
LOAD FONT	SELECT FONT
COLOURS	PAGE POSITION
OVER	UNDERLINE
COLUMN	SWITCH PAGE
RETURN	

At the foot of the screen is a STATUS REPORT which, among other things, gives the current character size - probably the smallest size 0,0. If a larger character size is required then TEXT SIZE must be selected and yet another box appears:

0,0
1,0
2,0
3,0
1,1
2,1
3,1

The cursors can be used to reach the required size of type and the ENTER key to confirm the selection. The screen returns to the SUB-MENU at "TEXT SIZE" and the cursors can be used to either use the default font by selecting:

"TYPE TEXT TO PAGE"

or a new font can be loaded by selecting:

"LOAD FONT"

The foot of the screen will ask which drive the new font is in and also for a filename. The font will be loaded and the screen will return to the SUB-MENU at "LOAD FONT".
"TYPE TEXT TO PAGE" can then be selected, the screen will clear with a cursor at the top left corner and normal typing procedures will then prevail even to a bell sounding at the end of each line.

Front Page Extra 3-GAP SOFTWARE-£45
Page Designer 2-SECTOR SOFTWARE-£35

REVIEW OF 3D PRECISION

This CAD program by Digital Precision has been available for a couple of years, but has not been reviewed in these columns. At the end of last year, I purchased the program with a view to producing technical illustrations for my forthcoming book 'Practical House Building - a manual for the selfbuilder' (and why not give it a plug?). Earlier I had looked at three CAD programs in the Quanta Library but found that they weren't sophisticated enough. Anyway, after using '3D Precision' quite a lot over the last three months, I thought I'd do a review of it for other readers who are interested in CAD.

I should make clear that my experience of the program is limited to producing constructional illustrations with the menu driven program. The whole suite of programs also includes toolkits for including the facilities of the program into your own BASIC or assembler programs, but I haven't tried that.

'3D Precision' is produced by Digital Precision and comes with one of their clearly presented manuals. As a newcomer to CAD I would have been able to learn faster if examples of the use of the commands were given. This is a common complaint of mine that computer manuals are generally too sparse. CAD does seem to take quite a lot of learning before you become proficient and re-orientate your mind to a new way of thinking.

A disappointment with the program came on the first page of the manual, where it informs the reader that there is no hidden line removal (needless to say, the adverts don't point that out). For example, if you construct a 'brick' with a line for each of the twelve edges, then all twelve lines appear on the screen whatever your viewing angle. Unwanted lines can be made to disappear, but since in my case I'd be making walls of large numbers of bricks, that would be mighty tedious.

I found the clearest way to manage, in fact, was to under-define the brick, and just to use three lines mutually at right angles. Extra lines could then be put in when the wall was constructed, as required.

Objects are of the wire frame type, and are built up from the basic menu elements: point, straight line, box, or circle. There are no surfaces. The program was suitable for my sort of work involving bricks, beams etc, but would not be suitable for lots of curvy objects.

The way that compound objects can be built up is clever. For example, to build a wall I would first make a brick. With this brick, I would then insert it repetitively to make another object, a row of bricks. Likewise, I would take this row of bricks and stack it up repeatedly to make a wall. This is one of the strong points of the program, how easily repetitive shapes can be duplicated.

Once an object is made you can change it in various ways. You can move it or rotate it. You can distort it by moving a vertex (a vertex is an intersection of lines).

You can change the colour of lines or points, or eliminate them. You can change the size of an object along each of the xyz axes. I didn't find the program particularly friendly to use, and the command for changing the size was particularly frustrating. You might think that if you wanted to increase the size along one axis by say two and a half times you could just key in '2.5', but no, the number has to be implemented from a menu in a particularly obscure way. In fact all numbers are input through a menu, though easier than the one just mentioned. For example, to move an object say 558 units, you would have to select successively through the menu '500','50',and '8' - tedious.

In the manner outlined above, you can create a 'world' of different objects all arranged how you want them. What appears on the screen is how this world is viewed through a camera. This camera can be moved about and rotated, almost instantly changing the view, and this is a great strength of the program. But unfortunately, the program comes up against a limitation in the QL screen: the screen definition is just not good enough for real CAD. Horizontal and vertical lines are straight, but slanting lines are usually jagged. Because of this limitation alone, the program could not be used for top quality professional work.

When you are satisfied with your picture on the screen, you will probably want to get it onto paper. From the menu you can plot directly to a plotter, if you have one. I don't. I do have QRAM, and I wanted to use it's window dump facility to print out the screen picture onto my GLP nine pin printer. However, I couldn't get '3D Precision' to multi-task with QRAM. That annoys me, to have such incompatibility between software. It may be that if I were a QL enthusiast, I could find a way to do it, but I'm not and I just use my computer as a tool. It seems to me regrettable that because of the history of the QL there seems to be a lack of disciplined co-operation amongst software producers.

But you can save the screen picture onto disk. Then later, I loaded the picture back onto the screen (lbytes flpi_picture_pic,131072) and dumped it onto the printer with QRAM window dump, using its 'invert' option to change white lines on the black screen into black lines on white paper.
You can save objects onto disk, and in this way build up a library of objects that you can call upon when you want to create a new world. (You too can play at being God!)

The program has a serious bug in it, which I'm suprised was still there two years after the release of the program. A vertex can get displaced from its true position to the bottom left hand corner of the window. Since I usually had four lines going to a vertex this gave four spurious lines across the picture. This was happening with about one in three of my worlds.

For me, the output on paper was in no way good enough to use as a finished product. The way that I did use it, was to trace over it, and so use the CAD output as the skeleton for my illustrations.

There was another bug which would occasionally afflict my worlds (say, one in twenty). An error condition would arise, for reasons unknown, and the program would then lock up - everything lost.

So my overall view of '3D Precision' is mixed. The essence of the program - the ability to construct worlds and view them from any viewpoint - is clever and impressive. However, the program is more cumbersome than need be to use, is limited by the poor definition of a QL screen, and has serious bugs.

I did write to DP about the bugs, and gave some recommendations on how to improve the program, but received no reply.

Bob Matthews, Newbold Way, Kinoulton, Notts, NG12 3RF

3D PRECISION - RESPONSE FROM DIGITAL PRECISION
We have hunted for the reported problem, but cannot find it. Could Mr Matthews send us more details? Please do not mix orders with queries. Re. the point about relative qualities of nine pin printers and plotters: Plotters draw straight lines, dot matrix printers plot dots - and nine pin ones do not plot many dots per square inch. It is beyond the powers of even Digital Precision to increase the dot density of a nine pin printer. 3D Precision produces excellent quality with a plotter and good quality with a 24 pin.
Preddy Vachha, Digital Precision.

. QUILL QUERY FOR QUANTA.

One of the most annoying things about Quill, if you wish to use it seriously, is it's inability to extract the date from the QL and print it out at the desired position. I have tried this little program to print the date on-screen, but lack any ideas of how to get d$ into a Quill document. I use the Archive 'print date(1)' extensively, but Quill is lacking...

```
100 DEFine PROCedure datum
110 LET d$=date$(5 TO 11)&date$(1 TO 4)
120 PRINT d$
130 END DEFine datum
```

The best idea would be to have the date available on a function key which would insert it at the current cursor position! I am afraid my poor brain (?) is not up to anything sophisticated like that. Can anybody help? I am sure other users would be glad of a facility like that.

Graeme M. Young, 35, Haddon Road, Ravenshead, Nottingham NG15 9EZ.
{One solution is below, but it does require Qpac2. SJ}

TIME/DATE TO QUILL (or any other program)

On reading David Steward's letter (June) I began to search for this utility in my Trumpcard/Tk2 manual, I was unable to find anything referring to it. I then listed the extras in my system, again no joy. However, I use Qpac2 and have Clock on a Hot_key, I had noticed that if the clock was called when in Basic and then got rid of by pressing enter, the contents of the clock window were written to #0. I thought this might work in Quill, it did and it also worked with any other program that the clock overlayed, Abacus (but you must first place the cursor in a text mode with ") and Flashback. You will, of course, have to configure your clock to the information you want to include.

I am using the default which is '19:52 Fri 8 Jun 1990', this was actually called in this way. If you only wanted '8 Jun 1990' you would need to configure the clock as %D $M %C%Y. If the clock is configured in this way it will not be of any use to tell the time by, but the normal system clock is still available, or configure the clock program as above and save it as "Date". If you wish to still have the default clock on the button, it must be on an earlier hotkey than "Date", I suggest "c" for clock and "d" for date. I also suggest "k" for calender and "+" for calculator (its easier to remember). Configuration is carried out with the QJump configure program.

Since writing this, I have used the rename_job program by Lester Wareham (May) and it has changed the jobname from clock to date so that it can now go into the button frame as well as clock. P.R.
Peter Rowell, QMAS

TK SCANNER AND PAGE DESIGNER 2

Some users have asked me recently for advice on loading screen pictures generated using the Falkenburg scanner, marketed by TK Computerware, into Page Designer 2. Users of PD2 have difficulty loading some screens. The reason for the problem is that PD2 expects a full size 32k screen so that it can load the picture line by line to allow for the screens being narrower than the pages, and the scanner can save pictures which are not the full height of the screen (i.e. not 256 pixels high or 32k long). The screen must be padded to 32k long to load into PD2 and must not be in a compressed format. Here are four ways of doing this:-
1. If you have Image Processor (Sector Software), load the screen into that program and immediately save it again, with either a new filename or over-writing the old one. Image Processor always saves a full 32k screen even if the one loaded was less than 32k long.

2. If you have SuperToolkit 2, use the following commands to 'pad out' the screen:-

```
s=ALCHP(32768):LBYTES filename,s
SBYTES new_filename,s,32768
RECHP s
```

3. If you have Turbo Toolkit, you could use this routine:-

```
s=ALLOCATION(32768):LBYTES filename,s
SBYTES new_filename,s,32768
DEALLOCATE s
```

4. As a last resort, use this routine. You may have to reset the QL to release the memory claimed by RESPR:-

```
s=RESPR(32768):LBYTES filename,s
SBYTES new_filename,s,32768
```

Dilwyn Jones, 41 Bro Emrys, Tal-y-bont, Bangor, Gwynedd LL57 3YT.

ABC AND GERMAN LAW

I have a slight problem, in that in November 1989, I ordered the Mega Ram from ABC Elektronic of West Germany. And subsequently, in December 1989 Mr Andreas Budde sent me a letter reporting that he had technical and production problems, but the order would be completed at the end of the month. Unfortunately for me, this carried on till Feburary when the cheque for £195 was cashed. When I sent a registered letter to ABC Elektronic, the answer was 'We are having technical problems with the Mega Ram, but the order should be complete at the end of the month'.

This state of affairs carried on till April 1990, when Jochen Merz bought ABC Elektronic's products. After a letter by myself, and a telephone call by Mr Ron Dunnett of the Essex Qaunta sub-group, to Jochen Merz, it appears that Jochen had bought all ABC Eketronic's products and Mr Budde has disappeared to Hamburg. Jochen is sending back with the option to reorder all ABC's old orders and cheques. Unfortuneatley since my cheque was cashed Jochen has no record of the order.

After yet another telephone call to West Germany, number supplied by Phil Borman, General Secretary of Quanta, gave no further results. Other than a German young lady saying 'this line not in use'.

This is a sad state of affairs for the whole QL scene when any supplier of hard or software does not complete the contract and runs off with the money. I for one will not send any more money abroad unless assurances by the supplier are given.

If any other people have lost money due to Mr Budde, maybe they could get in touch and we can formulate a joint action. But since Mr Budde has gone to ground in Hamburg, I fear that I have lost the £195. And any actions may be a waste of time.
D.W. Stewart, 20 Emily Street, Gateshead, Tyne and Wear, NE8 3QH
Tel: 4775472
15.6.90

MICROEMACS RESPONSE and Examples

I was very interested to read the article on MicroEmacs in the latest QUANTA Emacs is also my favourite editor (at least for the QL), so I hope this answers a few of the queries.

1. I don't understand why Ctrl-Z doesn't work, it does on mine.

2. Yes, Ctrl-C will work if you redefine the Qdos job swap key. I'd rather redefine the Emacs keys.

3. You can have up to 40 macros in Emacs, and if you need more macro-type code, you can use named procedures. The example below gives some macros to query for things like fill column and tab size, and set the relevant Emacs variables. The Emacs Ctrl-X keys that are either undefined or unused under Qdos are then defined to invoke these macros. If you program in 'C', the file also includes a useful macro that is automatically invoked when a file is opened, and sets CMODE and the tab size if its a 'C' language source file.

You can execute named procedures using ESC ^E; macros (numbered) that are not bound to a key can be executed by using ESC X, at the ":" prompt type "execute-macro-nn", where nn is the macro number. The quotes are not required. Another way to execute macro type commands would be to put them all in a file, and then either -

i) Use ESC X to execute a named command, at the ":" prompt, type "execute-file", (actually Emacs lets you be lazy when entering named commands, if you type "exe<SPACE>", it will complete "execute-", then type "f<SPACE>", Emacs will then prompt for file to execute. You could then reply "flp2_macros_rc" (for example) to load the example macros supplied.

ii) Use ^X^V or similar to load the file (e.g. macros_rc). If Emacs loads this into a buffer "macros_rc", then we could use the "execute-buffer" command (invoked from ESC X) to execute these commands.

Method (i) has the advantage that it doesn't use memory by loading the file into a permanent buffer. Using these techniques, it is possible to build up files of quite complicated editing commands, and by using named procedures and the "execute-procedure" command, well structured command procedures can be built up that can be executed from disk files as required.

4. OK.

5. Emacs requires work space for linking lines to the previous and next lines, (so you can move them about), and the pointers to do this (inter alia), take up a significant amount of memory relative to the text size, particularly if the file comprises many short or blank lines. Similarly there are pointers to buffers and contents. This is why you need 300k of work space to edit a 130K file, I imagine 'The Editor' exhibits similar behaviour.

EXAMPLE MACROS FOR QL MICROEMACS

```
;; Macro 30 is invoked by Ctrl-X *, and prompts for the fill column.
;; and sets wrap mode. Remove the "set" command if you don't want wrap.

30 store-macro
@"Fill Column ? " set-fill-column
add-mode "WRAP"
!endm

bind-to-key execute-macro-30 ^X*

 ;; Setting tabs depends on whether you want hard or soft tabs in your
 ;; file "3 handle-tab" will put three spaces in whenever you press TAB.
 ;; "set $tabsize 3 will move the cursor 3 spaces when tab is pressed,
 ;; but puts a hard tab (ie Ctrl-I character) in the file.
 ;; Either way we can use the same technique to define a tab set macro.

 ;; define a macro invoked by Ctrl-X # to set 'soft' tabs

 31 store-macro
 @"Tab Size ? " handle-tab
 !endm

 bind-to-key execute-macro-31 ^X#

 ;; define a macro invoked by Ctrl-X $ to set 'hard' tabs

 32 store-macro
 set $tabsize @"Tab Size ? "
 !endm

 bind-to-key execute-macro-32 ^X$

 ;; the following code is invoked by micro-emacs whenever a file is
 ;; opened and checks if its a 'C' code file (the $readhook variable is
 ;; the link into emacs code), and if it is, sets CMODE and tab size to
 ;; 3. The check for 'C' files is done by checking for _c or _h file
 ;; extension. Similar 'hooks' exist for command loops ($cmdhook) and
 ;; line wrap ($wraphook), I suppose this could be useful if you wanted
 ;; to justify text as well as wrap it

33 store-macro
   add-mode "GREEN"
   set %1$_tmp &right $cfname 2
   !if &or &seq %1$_tmp "_c" &seq %1$_tmp "_h"
      add-mode "cmode"
      set $tabsize 3
   !endif
!endm
set $readhook "execute-macro-33"
```

```
;; This demonstrates a 'named procedure'. It prompts for a file and
;; displays it in view mode. As we can't execute the whole thing from a
;; key binding, we define a generic execute procedure key. This is
;; actually a waste of effort, as Emacs defines ESC ^E to do the same
;; thing. Alternatively, press ESC X, then "run", and then Emacs
;; prompts you for the procedure name. Note its case sensitive.

store-procedure Consult
 find-file @"View File ? "
 add-mode "view"
!endm

bind-to-key "execute-procedure" ^X$
```

Jonathan R Hudson
Copse View, Priestlands Close, Woodlands, Southampton, Hants SO4 2GD.
Tel: (0703) 867843
1.7.90

SPECTRUM TO QL

Is there a Spectrum emulator for the QL. What I am thinking of is a software program which will permit Sinclair Spectrum programs to be transferred directly to the QL.
Arthur Cartwright, 90 Harlands Road, Haywards Heath, RH16 1LS
Tel: (0444) 450906

SPECTRUM TO QL SOLUTION

John Butterworth (QUANTA July 1990) asks about using the 8056 printer with a Spectrum computer and also wants to know how to transfer a BASIC program between Spectrum and QL.

Doing either of these things is possible and not difficult but, to make life easy now and in the future, I would first strongly recommend deciding on standard connectors, preferably 25-pin D-connectors, to replace the AMP plug and socket on the 8056 printer lead and short QL lead supplied; you will then have a useful QL serial lead as well as a printer that can be connected to the Spectrum serial port. It appears from the article, however, that you may not have a serial lead for your Spectrum: this was an optional extra and vastly over priced but an essential piece of equipment which terminated in a 25-pin D-plug just right for the 8056 printer.

The connections to the printer plug are shown on the last page of the 8056 handbook and they can be readily matched to the RS-232 connections in the Spectrum and QL handbooks. Remember this printer ONLY works at 1200 baud and it requires the 9v connection from the Spectrum. It is excellent for Spectrum screen dumps and I have found no difficulties at all with it, even when I used it with the QL!

Assuming all 8056 printers had the same sort of cable the connections are shown below for the D-25 SOCKET to go on the end of the printer cable:

colour of wire	D-25 pin	function
red	3	TX DATA (in)
green (loop)	5-6	DTR/DSR held high
white	20	CTS --> DTR
black (both)	7	signal ground

NB. Don't connect the cable screen to anything.

Miracle Systems supply a nice long serial lead for the QL which you should now use for the 8056 and for direct connection to the Spectrum Spectrum Interface-1 port then buy two of these, cut one in half and put a D-9 plug on the half with the D-25 plug. You now have an extra QL lead waiting for a D-25 plug/socket as the need arises.

Now for that BASIC program. First it must be borne in mind that there are some differences in syntax between Spectrum and QL BASIC so the program will certainly need to be edited before use. Loading a Spectrum program into the QL inevitably results in many lines with MISTAKE in them; also every line sent from the Spectrum ends with a carriage return i.e. ASCII character 13, so this must be stripped off each line. Without these inconveniences, having set baud rate the same on both machines and connected the serial port of Interface-1 to the SER2 port of the QL, all you would need to do is LIST the program to the serial channel 't' on the Spectrum and do LOAD ser2 on the QL (and that does actually work). The program has to be LISTed because Spectrum BASIC programs, like those of many other computers, are held in a tokenised form in which the BASIC keywords are each represented by a number. Listing through the Interface-1 translates these to simple ASCII characters, the form in which the QL saves and loads its programs.

The Spectrum requires:

```
10 format "t"; 1200: REM try up to 19200!
20 open#6; "t"
30 list#6
40 close#6
```

The QL requires (something like) the following:

```
10 BAUD 1200: REM must be same as Spectrum
20 OPEN#6, ser2: OPEN#7, MDV1_specprog_lis
30 REPEAT line
40   INPUT#6, a$: LET a$=a$(1 TO LEN(a$)-1): REM cut CR
50   PRINT a$: REM so you can see what's coming in
60   PRINT#7, a$: IF 'ENDOFPROG' INSTR a$ THEN EXIT line
70 END REPEAT line
80 CLOSE#6: CLOSE#7
```

If a line is appended to the Spectrum program with ENDOFPROG in it the QL will know when it's got it all.

Now try LOADing the program to see how many MISTAKEs are there. If there are more than a VERY FEW don't waste time editing in SUPERBASIC, especially since you'll have to delete the word MISTAKE as well from every line in which it occurs! This is a job for EDITOR or EMACS.
Donald Brett
30.6.90

QUILL/ALTKEYS

A couple of months ago (March issue) there was a letter published from Steve Horn. I wrote to Steve in response to it explaining how the FILL$ function could be used to set up an Altkey for a repeated command in Quill, so for other readers here it is, using Steve's example for the Right margin:-

```
ALTKEY "a",CHR$(240)&"m  "&FILL$(CHR$(192),10),""
```

(2 spaces after the 'm' in the quotation marks)

This command in SuperBasic will when used in Quill be equivalent to pressing F3, M (for margins), 2 spaces (to get the right margin) and left arrow key 10 times. Following the comment in June's issue re solutions to questions I thought I should write in about this one.

WHAT I USE IT FOR
People ask me this question often. Well, I tinker with it just to see what can be done with it. I multi-task programs, not because I need to, but because I can. My pal has an Amiga which cost him a lot of money and is quite surprised when he sees what my QL can do. I have a Football Pools prediction program 'wot I wrote myself' in SuperBasic, though I must confess to not having kept faithfully using, but normally my friend & I combine our predictions and put on a coupon. We haven't won much though. I am presently trying to get to grips with QPTR to convert it for using the mouse and pointer, it isn't easy though.

I also use it whenever I have a letter to write, preferring it to pen and ink. I use Quill because I don't feel that I can justify the extra cost for Text 87 at the moment and I use Archive for the standard names and addresses with a program which I wrote.
Brian Coutts, 12 Glen Mark, East Kilbride, Glasgow G74 3UT
Tel (03552) 41750
7.6.90

QL POWER SUPPLY - add a diode

Unless I have missed a reconciliation in the pages of Quanta there seem to be two ideas on the working of the original power supply. Slightly different circuits have been given by Leighton Davies (QUANTA April 1988) and Dennis Briggs (August 1988). Dennis says the triac switches in the additional winding while Leighton says it clips the peaks off the waveform. Dennis's circuit, which he says has the original designer's approval, doesn't show where the AC output comes from.

Everyone seems to agree that the DC supply, nominally 9v, actually gives too high a voltage, so that the 7805 regulator (whether standard or higher[2A] rating) has to lose too much of the power as heat. Why not fit a diode ("forward biased", which simply means in the conducting direction) in the "9v" supply? The triac can be left to switch or clip as it likes; the output voltage will be reduced by the forward drop of the diode which will be between .5v and .8v. I have done this with two of my three power supply units, using 1N5408s which are rated at 1000v p.i.v. and 3A. The p.i.v. value is much higher than needed and anything over 50v should do; these just happened to be to hand. Remove the power supply from its case and the heat sink from the p.c. board. Unsolder the red wire from the board and slip a 3/4" length of sleeving on it. Solder the wire to the cathode (band) end of the diode, lead trimmed to about 3/8", and slide the sleeving over the joint. Snip the other lead of the diode (anode) to about 3/4" and bend it so that it can be soldered to the copper land the red wire came from. It is worth fitting a 1000pF (.001 microFarad) disk ceramic capacitor across the leads of one of the electrolytics, where access is easy, or elsewhere. Check that there is no short, tuck the diode neatly parallel to the board alongside the "big" capacitor and re-assemble. Incidentally the screws need a lot of screwing. Drive them in quite firmly as far as they will go with reasonable pressure or the case will be loose. Try to remember to refit the heat-sink before you put it together again.

The immediate result is that the QL (my #3) runs cooler (top cover behind mdv2) and so far without lock-up. It is true that when heavy current is demanded the QL power supply will have to work a little harder - to supply the power the diode is using - but the overall effect is that some (a watt or so) of the heat previously generated within the QL by the 7805 is now produced in the power supply, where it can do less harm. Anyone still suffering from lock-up problems but not wishing or daring to venture inside the power supply could buy one of the specially designed ones supplied by Dennis (Adman Services) or Tony Firshman or others.

QLs vary, like cars or fridges. My #2 must have been made on a Friday as its lock-ups resisted the usual simple treatments such as removing and refitting the socketed chips, fitting QPower regulator and so on. Then I tried the tantalum extra de-coupling capacitors, 4.7 microfarad, 16v working, as recommended by Dennis in Quanta September 1989. This was a big improvement. I carefully soldered them in but at first with the wrong polarity - revealed after a few days' running by a nasty pattern on the screen and the emission of a few ghostly wisps of SMOKE from one of the serial ports. Luckily nothing was damaged - not even the overheated tantalum capacitors, which have performed quite well since they were reversed. QL #2 still ran warm (not cold as the QPower literature claims) though it crashed less frequently. It now runs cooler (still not cold) and the diode-reduced supply should reduce even further the chance of a lock-up.

John Butterworth,
The Rectory, West Woodburn, Hexham, Northumberland, NE48 2SG

NEW LIBRARY PROGRAMS (mostly for beginners)

PROCs suite
In response to the request for more attention to beginners I have submitted a set of programs that are now available from the library. They are intended to help beginning programmers by supplying a set of useful procedures and functions in SuperBasic for people to use in their own programs.

There is a master program that allows you to browse through the library of routines, read a manual entry for each and/or view the code itself if you wish. You can merge as many of them as you want in with your current program (as long as your line numbers are below 30000.) There's nothing sacrosanct about the code, modify it in any way you like.

Leighton Davies has accepted my offer to edit any additional routines that any one else might like to offer and add them to the collection. The initial dozen or so routines were intended just to set the ball rolling. Contributions should fit the format I have described in the accompanying Procs_doc, include a suggested manual entry, and should be sent to me by air mail, preferably on mdvs or 3.5" disks, I can also read 5.25" disks, but that drive has to be borrowed and may take longer. I'll return the medium as soon as I can, but allow a month or two. The main requirement is that they should be as general as possible and run on an unadorned, extension free 128k JM QL. You can also extend the set and manual yourself, as long as you keep to the format rules. I reserve the right to edit any contributions or even reject them outright if I don't consider them to be suitable - you can always send them in to the library independently if you are miffed.

The Glazier
I have just finished writing a window designer called "The_Glazier" which enables you to design windows on screen using the arrow keys, and then writes a SuperBasic PROCedure for you that will recreate your design in your own programs. This is being sent in at the same time as this letter, and if acceptable should be available shortly from the library.

Graph
I had earlier submitted yet another graph plotting program (curious how several appeared at about the same time), it's a bit easier to crash than I would like - you have to be a bit careful about trying to plot functions in ranges when odd thing happen to them, but I found it suited my purpose, and I haven't time to improve it at present. It's already available I believe.

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
e-mail: hclase@kean.ucs.mun.ca.bitnet
17.4.90

NETMAN

Netman is primarily meant for networked QL's. Netman lets you set the network station number on your QL, share devices like hard disks and floppies of other QL's, send messages on the network, see screens of other QL's and beep other QL's. In addition I have included six musical tunes which I had developed on Nucleon.

To run Netman it is necessary to enable Toolkit 2 on all networked QL's. This is because Netman uses the extra commands provided by Toolkit 2.

Netman works best with the Hotkey System 2. When called it pops up over the current program. You can leave Netman by pressing ESCape. It can be called again at any time by pressing the hotkey.

Netman also works with Taskmaster. Netman will have to be added to your program list. However there are certain problems in a Taskmaster environment which I have not been able to solve. There is a detailed mention of this on the Netman_doc file.

I have included the SuperBasic listing of the program for those who would like to change/improve the program.

Sanjay Marwah,
Marwah Bhavan, 114-A Turner Road, Bandra, Bombay 400 050, India.

LIBRARY CORNER

This will be the last Library Corner I will be writing as the Head Librarian, Roy Brereton will have taken over this post by the time this is published, I wish Roy well in the driving seat.

My departure is prompted by extra duties involved with my work as a Service Engineer, which leaves me very little time to run the Library as I would wish, it needs more time than I can now allocate.

I will not however be leaving the Library all together, I will be staying on as the Overseas Librarian, to handle those members without a sub-librarian in their own Country.

Those overseas members therefore are advised to send their orders to me as they normally would have, Roy has decided to continue copying for his area members, so those of you who send to Roy for your copying may continue to do so.

LIBRARY UP-DATE
The following programs having expired their charged period in the library have therefore been re-allocated to their respective disks, there are now NO charged programs in the library (disk or MDV).

Disk - Specials_2 Cartridge - Lib_97
Program name - Wordlist Author - Timo Salmi Submitted 28-5-89
Bigword (12500 words) and Wordlist

Disk - Specials_2 Cartridge - Lib_94
Program name - Crypter_exe Author - Timo Salmi Submitted 28-5-89
An encryption program to stop un-authorised access to your files.

Disk - Specials_2
Program name - Spellbound Dict Author - David Johnson
Submitted 27-5-89
The official expanded Sector Software Spellbound Dictionary of 50483 words. You need to have the program Spellbound.

Disk - Util_gen_3 Cartridge - Lib_94
Program name - Caser_exe Author - Timo Salmi Submitted 29-5-89
A revision of Timo's earlier version.

Disk - Util_gen_3 Cartridge - Lib_94
Program name - Diffe_exe Author - Timo Salmi Submitted 28-5-89
A file comparison program with fast or slow modes.

Disk - Util_gen_3 Cartridge - Lib_94
Program name - Makexe_exe Author - Timo Salmi Submitted 28-5-89
Changes normal files into EXECutable files, can also be used to alter data space of EXEC files.

Disk - Util_drcpy_1 Cartridge - Lib_96
Program name - Turbocopy_exe Author - Timo Salmi Submitted 28-5-89
A set of copy programs, well documented, Timo's usual quality.

Disk - Comms_xfer_1 Cartridge - Lib_97
Program name - Sendfile Author - Timo Salmi Submitted 28-5-89
A set of programs to send & receive files via RS232.

Disk - Maths_1 Cartridge - Lib_95 (2 x Mdv)
Program name - Statprep Author - Timo Salmi Submitted 27-5-89
Timo's complete revision of his earlier suite.

End of updates

I will be suggesting to Roy that where any revisions or up-dates to programs in the first disks of a particular category are required, to avoid members having to send those disks back for revision as well that a 'REVISIONS' disk is allocated, this disk to contain those programs so members can carry out their own revision of the early disks (Util_gen_1 and 2 for instance).

I have heard from David that he has several more disks of goodies (new and up-dated programs) to go in the library, I look forward now to being able to have a good look at these and other library programs I've wanted to try out, but haven't had the time to before.

My best wishes to all those in the Committee, the membership, the many authors without whom the library would not exist, and many many thanks to David Johnson for his HOURS of hard work sorting out the old style library for me, (all I did was bend his arm! just a bit!) and ultimately, for you the members.

Cheers all, see you at the workshops, If I can get my boss to let me attend, and in different spots in the Magazine I hope.
Leighton. (Head Lib. Retd.)

LATEST FROM THE MEGACORP

We have had a late message from the QView MegaCorp. With the ever increasing demand for Minerva, Stuart McKnight would like to inform members that it may not always be possible to keep to the 7 day delivery period, as originally promised. However they will endeavour to do their best, you have to bear in mind that like most of us, they also have full time occupations. We have also been told that they will not bank your cash/cheque etc. BEFORE the goods are despatched, as has always been the case.

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EPROM Programmer.
Mike Howells, Tel: (0742) 690158 (weekends)

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Ray Fellows, 27 Vale Road, Worcester Park, Surrey KT4 7DZ.
Tel: (081) 330 3523

FOR SALE
180+ cassettes, most with Spectrum games/utilities, vast majority hardly used, about 30 without cases. Utilities include Blast compiler, Picturesque editor/assembler/monitor. Games vary in quality from 1983 rubbish (3D Ant Attack) to 1989 very good (Project Stealth Fighter, Echelon). £20-buyer collects or add postage. Spectrum 16k, new unused membrane fitted, fully socketed for easy expansion to 48k. £20-buyer collects or add postage. NB: almost all the cassettes are for 48k only. Or will swap for QL What-have-you.
Alan Pywell, 24 Fury Avenue, Manby, Lincs
Tel: (0507) 328782

FOR SALE
Tandy CGP-115 printer/plotter unit, with PSU, manual and pens. Good condition (little used). Complete with cable to connect to QL serial port SER2, and details of use with Easel etc. £35 ono near offer.
Two 40-track disk drives with PSU and cables - one full height, one half height, £30 each.
J. Stevens,
Geenholm, Burnt Hill Way, Wrecclesham, Farnham, Surrey, GU10 4RP
Tel: (025125) 3095

WANTED
QPTR Pointer Interface 3.5" disk version if possible.
Jeremy Davis,
Tel: 081-863 1631 after 6pm.

FOR SALE
Metacomco QL C Compiler (Version 3.02 ROM, virtually unused, manual in perfect condition) £40. DP's Solution (FP Emulator) £20. DP Lightning - £10. Sector Software's Page Designer2 £15. Talent's Assembler Workbench £15. Spy Editor £8. QL Home Finance £8. QL Gardener £4. QL Touch 'n 'Go £4. Also various QL books at "giveaway" prices (phone for details).
Andrew Morrison
Tel: 071-720 7076

SWAP
Swap CST disk interface for QIMI interface with RTC. Or will sell CST disk interface for £50. Also Schon standard QL replacement keyboard and debounce chip, for £19.
Alan Wilson, 24 Blenheim Place Larbert, Stirlingshire, FK5 4PP
Tel: (0324) 562722

FOR SALE
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Chris Morgan, St Ives, Cambs.
Tel: (0480) 63563

FOR SALE
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QL computer board including Minerva, PSU, MDV's and Schon PC keyboard and interface £80.
Dave Hinns, 4 Sudeley Way, Grange Park, Swindon, Wilts, SN5 6BA.
Tel: (0980) 622806 evenings.

WANTED
Small memory expansion, RAMdisk, BCPL book and microdrives. All as cheap as possible.
Nick Ward, Seale Cottage, Worth Matravers, Swanage, Dorset, BH19 3LQ

WANTED
Old copies of QL World and QL User. Anything earlier than March 1986.
Les Atkins, 61 Dells Lane, Biggleswade, Beds, SG18 8LH
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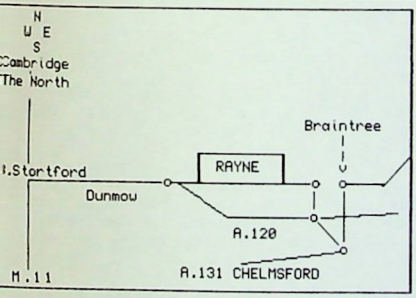

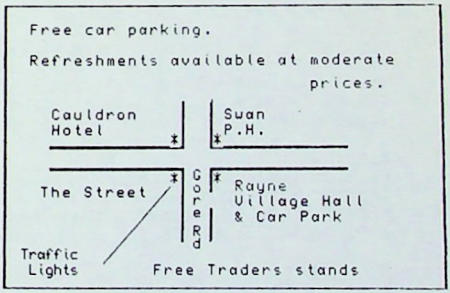

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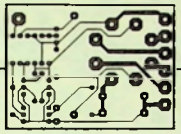

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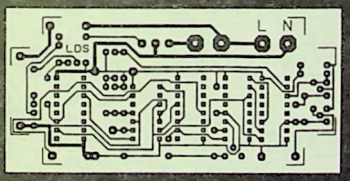

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