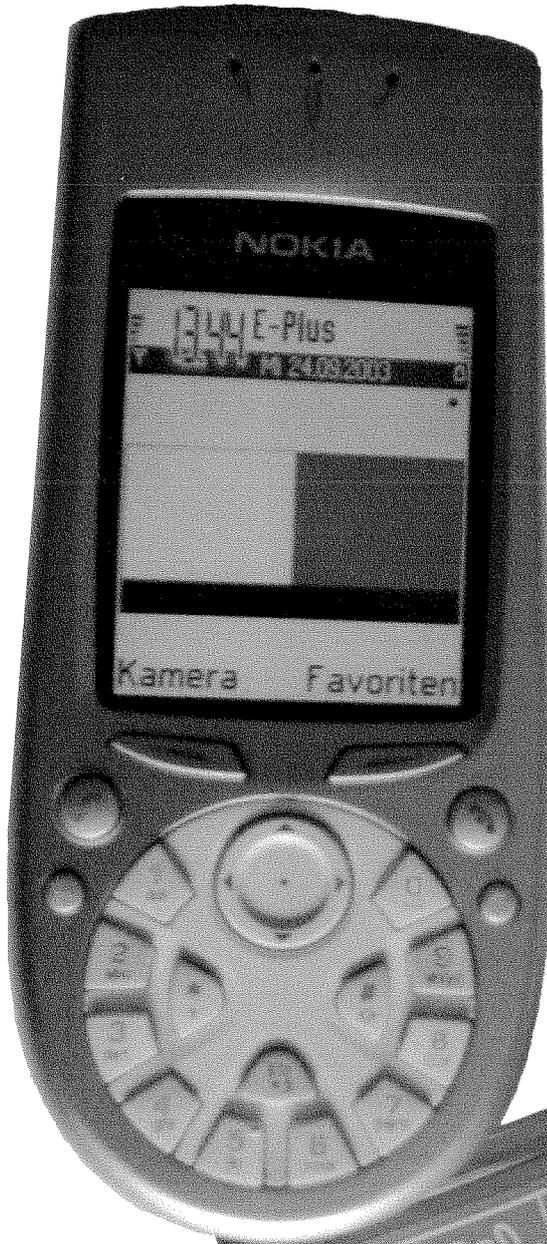


QL Today

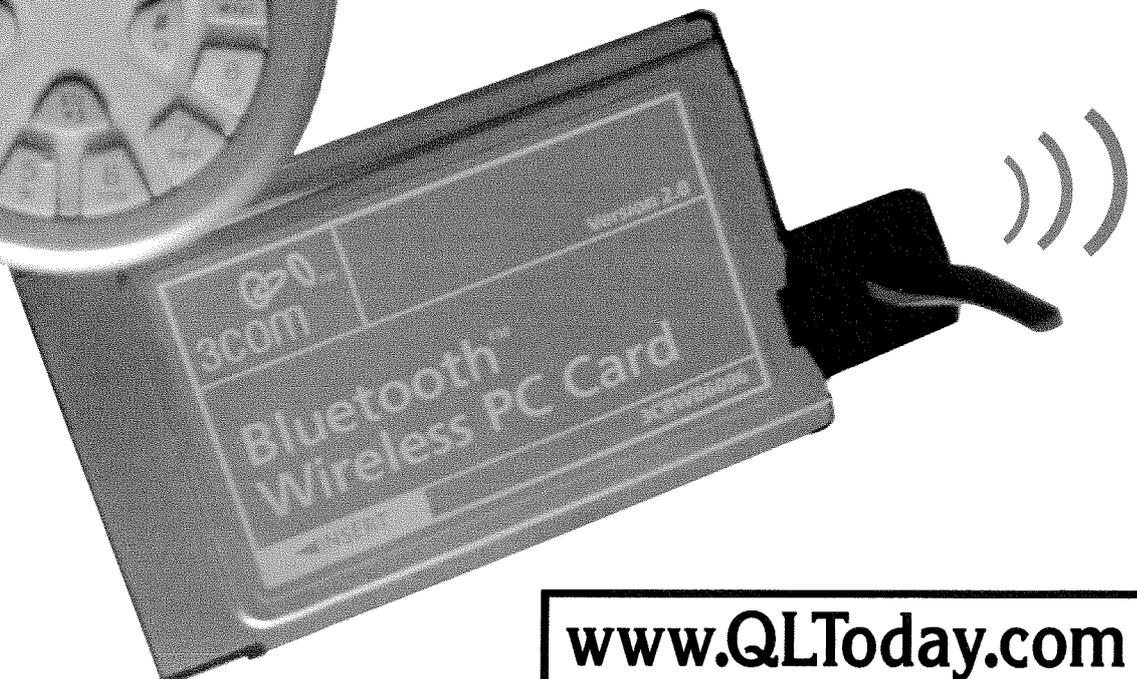
Volume 8
Issue 3
Sept./October
2003

ISSN 1432-5454

The Magazine about QL, QDOS,
Sinclair Computers, SMSQ...



**SMSQ/
QDOS
and
mobile/
wireless
Devices**



www.QLToday.com

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QL Today

ISSN 1432-5454

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QL Today is published bi-monthly, our volume begins on beginning of June. Subscriptions begin with the current issue at the time of sign up. Please contact the German or English office for current subscription rates.

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Article and Advertising deadlines are as follows:

- Issue 1: 30 April
- Issue 2: 30 June
- Issue 3: 30 August
- Issue 4: 30 October
- Issue 5: 30 December
- Issue 6: 28 February

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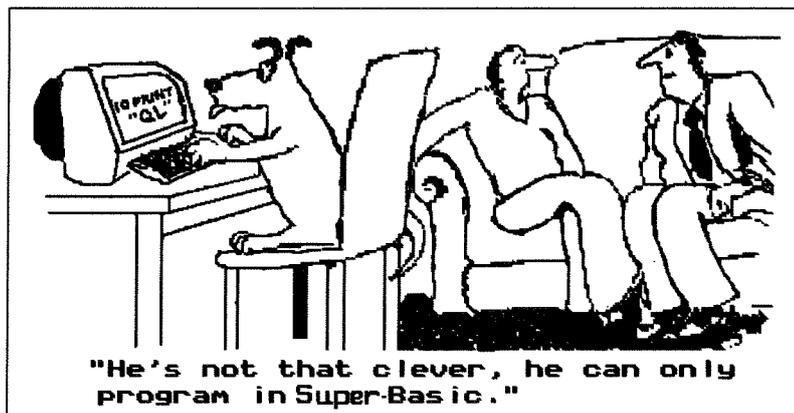
Well, summer's over and those evenings are drawing out and getting darker. Time to start reaching for those QL keyboards again!

It's been a pretty quiet period for the QL over this summer – most summers seem to be pretty quiet for home computing, I guess the ideal career is probably computers over winter and selling ice cream in the summer!

What have we got to look forward to over the coming months? Quite a lot! The new GUIs (Graphical User Interfaces) are coming to fruition Launchpad should have a demo version downloadable from my website by the time you read this, QL internet access is getting ever closer to being full reality (soql is already out with several users and the PPP protocol is working too with application software being designed, and for a surprise announcement from Peter Graf regarding a QLwIP system he's developed, see the news pages), emulator development continuing apace (e.g. Windows and Mac versions of uQLx and a significant advance in development of Windows QemuLator), a busy show scene over the coming year, plus talk of a lot of interesting new software – although I'm being careful what I say here because such talk doesn't always bear fruit. I'm always pleasantly surprised with how much material we receive for the news pages for each issue!

We were very sad to hear of the resignation of Bruce Nicholls as Quanta newsletter editor and hope that Quanta will be able to appoint a new editor soon. At the time of writing this I did not know who the new editor would be. Bruce had taken on quite a lot of work, as he was also doing the proof reading for QL Today as well for example, so it's probably not too much of a surprise, and I'm glad to say he will continue with his work for QL Today.

From time to time I receive mail from people who have stumbled across my QL website. Sometimes, these are from ex-QLers from the 1980s, or from people into retro-computing in general, or those who had heard about QLs or bought an old one at a sale and did not know there was a "QL Scene" as such. From speaking to other traders, I know this tends to happen a bit more often than I thought. I tend to refer such people to my website, to Quanta, to QL Today, QL show dates and to the other traders, but wouldn't it be nice to have a common approach to this – some form of information pack we could send in response to such enquiries. It doesn't have to be much, a page or two of well written information which could be sent by email or as hardcopy with up to date relevant information to try to attract such people into the active QL community. Any ideas on this subject? Write and let us know!



Cartoon

NEWS

RWAP News

We are starting to release a series of the QL adventures as shareware for the PC. At the moment, we are converting the adventures which we already sell for the QL and packaging them with the QL2K emulator written by Jimmy Montesinos in France and based on the original QLAY emulator. This results in a seamless operation for Windows users, who will not need to know how to use the QL in order to play these adventures. More details appear on our website at:

<http://hometown.aol.co.uk/RWAPSoftware/PCadventures.html>

The new high-colour graphics game, QWord is at last now nearing completion, following various improvements to the Turbo compiler (thanks to George Gwilt). This word game will be the largest ever game constructed for the QL (over 5Mb for the 16 bit colour versions) and will make the most of not only the colour drivers, but also the sound drivers available. We are currently testing versions using 32 bit colour for QPC2/QXL, Q40/Q60 and Aurora. More versions will be released at a later stage. A demonstration picture of the program can be seen at:

<http://hometown.aol.co.uk/RWAPSoftware/games.html>

Q-emuLator For Mac

Daniele Terdina

Not having been able to update Q-emuLator for Mac OS for a long time, I decided to make one of the latest versions freely available at:

<http://users.infoconex.com/daniele/macql.html>

Q-emuLator 2.3 for Windows

Daniele Terdina

Q-emuLator 2.3 for Windows is now available at <http://users.infoconex.com/daniele/winql.html>

This update is free for all registered users and it includes a number of new features (many features available only with the "Expanded QL" registration):

- + Compatible with recent versions of SMSQ/E for the Gold Card.
- + Read/write access to QXLWIN disk images (used to be read-only).
- + If you download the additional debug_68k.dll, a QL machine code debugger is always available by pressing F11.

- + TCP/IP: partial implementation of QDOS sock_ and tcp_ device drivers. There is enough functionality to run the QDOS port of the Lynx Internet browser.
- + CTL1 joystick emulation.
- + Even better compatibility with buggy QL software accessing wrong memory addresses.

QLAY2 and QL2K emulator news

Jimmy Montesinos has taken the decision to stop the original distribution of QL2K, in view of interpretation of the licensing situation. So he has decided that there will be 2 different distributions, the freely distributable QLAY2 (a development of the original QLAY emulator) and a new QL2K emulator:

1. QLAY2 v.1.0 (Formerly QL2K v. 0.95 without DirectX and Setup features)

QLAY2 is a port of QLAY to the Windows platform capable on running on newest Windows OSes. QLAY2 is distributed under the GPL

<http://www.fsf.org/>

so you CAN distribute/modify/commercialize freely. I will supply it on my website, but I don't support it neither do I plan anything for it in the future. Maybe some modifications will be made on it but only if we decide to release some features under the GPL licence.

2. QL2K v.0.01 alpha:

QL2K is a brand new QL emulator which will be completely re-written from scratch. QL2K's licensing and distribution scheme has not yet been decided. It's proprietary software and you CAN NOT distribute/modify/commercialize it without my explicit permission.

For those already a registered QL2K user, you stay as is. You're now included by default in the alpha/beta team (as always in fact).

If you want, feel free to send me an email to be unregistered.

Now, I need in hurry to finish QLAY2 v.1.0 and to do this I need:

* Any bug that has to be reported using your current version (but not concerning Registration and Licence checking, DirectX, or Setup procedure issues as they will be removed), has to be reported from now and quickly in order to correct the code to release QLAY2 v.1.0. That is the last time I will do it for QLAY2 v.1.0.

In that way I can release QLAY2 v.1.0 soon.

For all QL2K REGISTERED USERS we will release soon a great program to increase the print screen under QL2K. This feature will NOT be AVAILABLE for QLAY2 v.1.0!

Here is the link for downloading QLAY2:

Stand alone executable without source:

<http://www.jadium.org/QL/QLAY2/QLAY2.ZIP>

Complete archive with full sources:

<http://www.jadium.org/QL/QLAY2/QLAY2-Full.ZIP>

The webpage for QLAY2 will be hosted at:

<http://www.jadium.org/QL/QLAY2/>

ED Drives and Diskettes

Phoebus R. Dokos writes:

RWAP Services and Quantum Leap Software will commence selling brand new Mitsubishi/IBM ED drives (with a 6 month replacement –or– money back warranty – double the usual warranty of the industry) as well as ED disks with a Lifetime warranty in VERY VERY competitive prices.

The drives do NOT require FLP_JIGGLE to format 720K but have a switch (optional) instead to deal with that.

Find more about the ED drives at:

<http://hometown.aol.co.uk/RWAPSoftware/EDDisk.html>

Please note that Qx0 compatibility is being investigated (The link above states that they are compatible however until I get a positive result on the ED format issue consider compatibility limited to 1.44 Mb only)

Q-Word Demo

After a long wait, several enhancements to the Turbo Compiler and a host of last minute changes with contributions from: Phoebus Dokos, Marcel Kilgus, George Gwilt and others, Rich Mellor and Geoff Wicks present Q-WORD!

A trial version is available now for Windows users (one installer file that includes QPC2 Demo edition). That version will work on a QXL equipped with Colour drivers (SMSQ/e v2.98 and above) provided you only use the QXLWIN file enclosed instead of the QPC/QXL WIN file combination.

For more information on Q-Word and a pointer to the trial download please visit:

<http://hometown.aol.co.uk/RWAPSoftware/QWord.html>

Websites

Phoebus Dokos is now maintaining the QL-FAQ (Frequently Asked Questions) list. Visit the QL-FAQ at:

<http://www.dokos-gr.net/ql/faq/>

Phoebus has also set up a website for the Windows version of the uQLx emulator. Originally ported by Peter Graf, this is the Windows version of the well known and highly respected original uQLx emulator for Linux systems, by Richard Zidlicky. Visit the uQLX-win32 homepage at:

<http://www.dokos-gr.net/ql/uqlx.html>

A uQLx port for Mac OS-X (with Apple's X11) has been added thanks to the work of James Weatherley. Now it is also available online! Follow the link on the bottom to get it!

Note that this version DOES support TCP (unlike the Windows version)

Visit the uQLX-mac home page at:

<http://www.dokos-gr.net/ql/uqlxmac.html>

Just Words News

I have posted new versions of the two programs on the Just Words! web page.

SOLVIT-PLUS: Version 3 now displays the correct house colours in high colour mode. (This was particularly ugly in the old version.) Version 2 (non-pointer version) now loads in QPC2 running on an XP machine.

SPELLING-CRIB: Also displays the correct house colours in high colour mode. Now comes with a larger and improved dictionary of 82,000 UK English words. A slightly smaller USA English dictionary is at an advanced stage of preparation.

<http://members.lycos.co.uk/geoffwicks/justwords.htm>

QLwIP

Peter Graf writes:

I have developed QLwIP, a native TCP/IP stack for QDOS, which supports Ethernet on Q40 and Q60. Jonathan Hudson's QPOP3 email client is already integrated there, as well as a Webserver from myself, which also allows file upload by the PUT method, an interesting alternative to FTP. Since QPOP3 doesn't support sending mails, I'm currently working on a little bit more comprehensive QLwIP mail client with GUI.

QL Rogues Page

On the lighter side of this issue's news, I have set up what I call a QL Rogues Page – pictures of some well known QL scene personalities. Quite simply, it's there to "put a face to the name". Most of the traders and Quanta officials are there, many of the software authors and hard designers and some "ordinary users" (well, nothing ordinary about this lot!)

To see the "Rogues Gallery" point your browsers at:

<http://homepages.tesco.net/dilwyn.jones/qlrogues/qlrogues.html>

It's all meant in good fun – some of the pictures are old, some are not very flattering, some aren't even in colour!

Further contributions welcome – please send me the pictures as GIF/JPG/PNG/PCX graphics about 100 pixels high (this will mean they are small enough to download clearly but of a reasonably clear size to view on the page), or send me original photos to scan, I will endeavour to return the pictures of course.

Oh, and you'll be relieved to know there's no picture of me there, although there is a link to one

if you really must see who's to blame for all this! The next step will be to set up a page with some basic graphics for people wishing to set up a QL website - pictures of our favourite computers and add-ons and some general symbols and small animations.

Dilwyn Jones

Launchpad

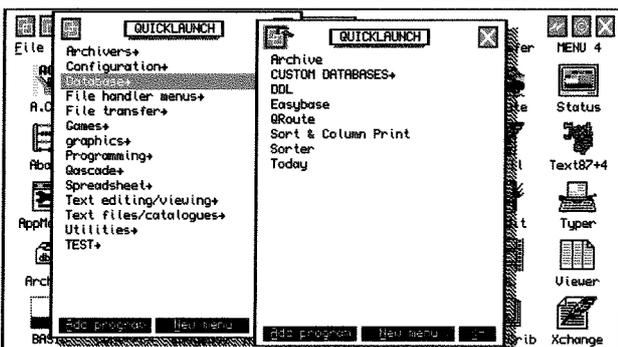
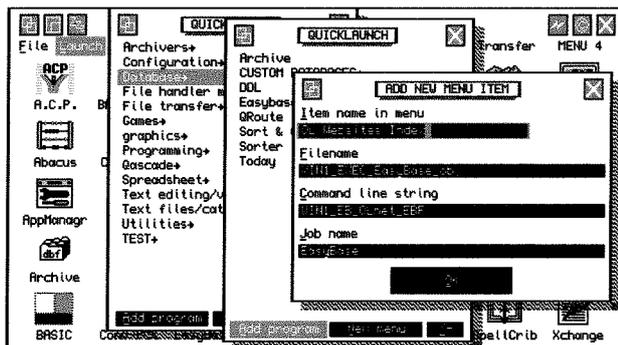
Following the preview in the last issue, I have taken many of the comments to heart and added several new features to the beta-release of Launchpad.

In particular, it now has a 'Quicklaunch' menu, a list of programs you can set up menu-style, same sort of principle as a Windows Start menu for example. The extra time this has taken has allowed more time to fix bugs in the version reviewed and to incorporate feedback from the early testers to make it even more comprehensive and easy to use. Some of the menus have been reorganised to make them easier to navigate, for example.

By the time you read this, a limited demo version will be available for download from the Launchpad website:

<http://homepages.tesco.net/dilwyn.jones/launchpad/launchpad.html>

At the time of writing, the Launchpad program itself and its manuals are completed. Work is ongoing on three of the little Accessories programs. Launchpad may be used without these Accessories program, and equally, most of the Accessories programs may be used independently of Launchpad, indeed they may be downloaded separately if required.



Website Down

Jean-Yves Rouffiac wrote to tell us that his QL website will be down for a while:

Just a quick note to let you know that my sadly-neglected little QL site

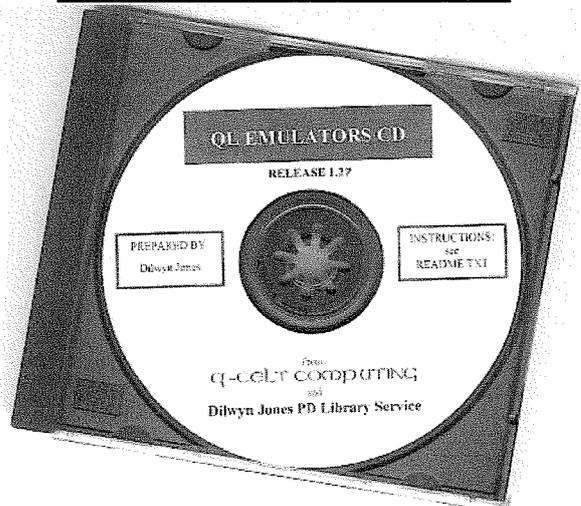
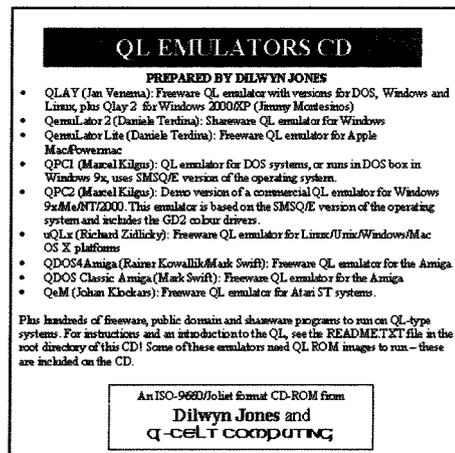
<http://www.westhaven.uklinux.net/qwertyb/>

has gone off-air for a while whilst I relocate it to another server. It will have a new look and feel when it reappears as the new server does not provide server-side scripting - I will need to redo the pages anyway, so I thought that I'd make them cleaner and simpler."

QL Emulators CD v1.27

Just out is the latest version of the QL Emulators CD from Q-Celt Computing and Dilwyn Jones. The latest version now includes the latest releases of the QemuLator emulators for Windows and Apple Macs, as announced by Daniele Terdina. The previous release of this CD brought it up to date with the new releases of uQLx emulators for Mac and Windows, as well as the QLAY 2 emulator.

There has also been some minor reorganisation of the free programs supplied in the "zips" directory on the CD, and the trial inclusion of an "autorun.inf" file for Windows users to automatically load the introductory DOC file on the CD.

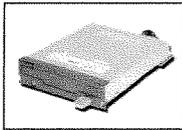


Your ONLY North American QL Source!

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Quantum Leap ED

The megabytes are back!



Once again, ED drives are available for SGC/GC equipped QLs!

Quantum Leap ED Drives are high quality units manufactured by Mitsubishi for IBM (these units were used on the RS6000 workstations).

They work great with all disk sizes (720K requires a capacity switch, included with the cable)

- Very reliable. No FLP_JIGGLE required.
- 100% new (no 'remanufactured' units or pulls)
- Individually tested on real QL hardware.
- 6 months unconditional warranty.
- Available in boxed and bare units

Contact us for details! - Shipping worldwide except the UK.
For UK Customers, contact RWAP Services.



Quantum Leap has partnered with SINTECH in Germany to bring you quality QL Membranes.

Now you have no excuses for keeping your QL in storage!

Made of high quality material with extra long leads these are guaranteed to last you a long-long time.

QL Membrane	US\$30.00
<i>Does not include Shipping & Handling.</i>	
<i>Shipping Costs:</i>	
USA	US\$ 3.85
Canada	US\$ 4.50
Europe	US\$ 5.00
Rest of the World	US\$ 8.00
<i>(Pennsylvania Residents add 6.0% Tax)</i>	



Since many Qx0 users do not have the broadband connection required to download the latest version of Q40Linux, Quantum Leap offers now pre-burned versions with small printed documentation (installation instructions). These CDs are offered as a service to the community and the small cost you have to pay is to cover the time needed, cost of media, trays etc.

Q40 Linux	US\$10.00
<i>Does not include Shipping & Handling.</i>	
<i>Shipping Costs:</i>	
USA	US\$ 2.00
Canada	US\$ 4.00
Europe	US\$ 4.50
Rest of the World	US\$ 7.50
<i>(Pennsylvania Residents add 6.0% Tax)</i>	

ED & DD Diskettes

We have located a massive source of diskettes both ED and DD.

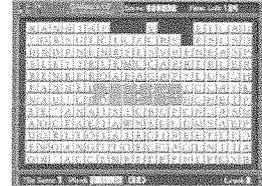
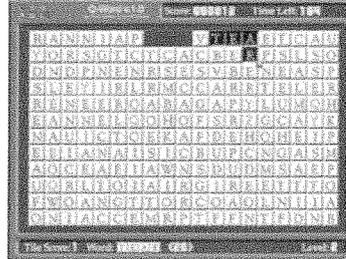
DD Diskettes (50 pack)	US\$30.00
10 pack	US\$ 8.00
ED Diskettes (50 pack)	US\$40.00
10 pack	US\$10.00
<i>Does not include Shipping & Handling.</i>	
<i>Shipping Costs:</i>	
USA	US\$ 3.85
Europe and Rest of the World	US\$ call
<i>(Pennsylvania Residents add 6.0% Tax)</i>	

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RWAP Software Q/WORLD 1.0

Images are stronger than words, so we'll let them do the talking!



(Actual Screenshots! No bloatware! QXL Version)

We also now represent the complete line of RWAP Software's products both for QL machines and Windows.

Contact us for prices and details!

SMSQ/€ 3.01

The new version is finally out! Numerous enhancements like the ability to move window outlines in the PE, extra commands, rock solid floppy disk support, stable support for ProWesS and many more!

Available with or without printed manual for the Q40/Q60, QXL/QXL II, Gold/Super Gold Card, Atari ST). Aurora GD2 available separately.

SMSQ/E v3.01 (with Standard Printed Manual)	US\$ 49.95
SMSQ/E v3.01 (with Enhanced Printed Manual)	US\$ 69.95
SMSQ/E v3.01 (without Manual)	US\$ 29.95
SMSQ/E v3.01 GD2 for the Aurora	US\$ call
<i>Does not include Shipping & Handling.</i>	
<i>Shipping Costs:</i>	
USA	US\$ 3.85
Canada	US\$ 4.50
Europe	US\$ 5.00
Rest of the World	US\$ 8.00
<i>(Add \$1.00 for ED Disk - Pennsylvania Residents add 6.0% Tax)</i>	

Q60

Quantum Leap can now provide expansion hardware for Q40 and Q60 machines.

ISA Slot Expander	US\$ call
ISA NE2000 Compatible (not always available)	US\$ call
Memory Expansion	US\$ call
2 IDE channel Multi I/O	US\$ call



A few Challenges to the QL Community

Geoff Wicks

1. Sod the Punters?

Many, many years ago I was what today is called a spin doctor. I was not, I hasten to add, a highly paid official in 10 Downing Street, although I frequently visited parliament, but a probation officer working a busy East London patch. Public relations were part of my specific duties as a National Executive member of my trades union/professional association. I was more a back room boy working to create an efficient public relations operation than a high profile public spokesman, but I learnt a lot of tricks and met several politicians and journalists, some of whom were or have become well known names. However my public relations work as a national executive member was not my greatest achievement. More important was that during my two years of office I increased union membership in my region by 20% to 30%.

What has this to do with the QL? Few would argue that the QL is in serious decline, but I am confident it could remain viable for many years to come. However to do this it means that the "leaders" in the QL Community – the traders, hardware designers and programmers – have to become more proactive.

I doubt if we could increase the number of QL users by 20% to 30%, but consider a few facts. Quanta has over 300 members. Most of us know about 50 to 100 of these, largely because they are the people whom we see at shows. This means there are 200 – 250 Quanta

members about whom we know little. They remain loyal to their QLs and this puzzles me because PCs are now dirt cheap, and you can do many things with them that you cannot do with a QL. They also continue to subscribe to Quanta, which, in my opinion, is a waste of money if you are not an active member.

The survival of the QL means we have to learn more about people on the periphery of the QL community and bring them more of them into the main stream. Yet what is there to attract them? The UK has the highest number of QL users in the world, but it is at least three years since there was a talk or a demonstration at a QL show. Are we really saying that we have done nothing in the UK for over three years that is worth talking about? UK traders now say a show programme is not necessary and that all you need to run a show is a room with tea and coffee. Imagine you are a person on the periphery of the QL community. Would you travel 10, 20, 30, or whatever, miles to a QL show just to drink a cup of tea? No! You will go to a show to buy something from a trader. You might still go if there was something to interest you. There is still a place for a show program of activities, talks and demonstrations to get people reacting as a group. People act differently in a group than in one to one contacts. Ideas breed ideas and ideas generate enthusiasm.

Readers who subscribe to the email user group will know I

have recently initiated a discussion on QL shows. I have been deliberately provocative, perhaps too provocative for some, but the response has been disappointing. It has ranged from the "Waiting for Godot" school of QL development ("We'll have a talk or demonstration when something happens") to the "Good old days" view of shows ("Remember the visit to the Gay Bar?").

Surely the UK should still be able to run at least one "old style" show a year. And what better opportunity than the Quanta AGM? Local groups have lost the skill to organise a programme of activities, but they are good at finding suitable accommodation and providing a high standard of catering. Let the local groups continue doing what they are good at, but let Quanta be responsible for the programme for their AGM. Why don't they set up a think tank to brainstorm about the QL in general, its developments and its future?

What would happen during the rest of the year would be up to local groups to decide and it would not have to be a formal show. Ireland has provided one possible model in its idiosyncratic late summer QL activity.

2. A Lesson in Unreliability

As a QL trader you soon discover many of the people with whom you have to do business are unreliable. This is not just my opinion. In volume 7 issue 3 of QL Today Jochen wrote of his difficulty in getting replies to emails from some QL traders. He gave as an example cases where he had placed orders by third parties on behalf of customers. If the third party did not reply to his emails or failed to send the ordered goods promptly, then his (i.e. Jochen's) reputation was at stake. Should

he then tell the client he cannot get the goods because "the company is too unreliable"?

Jochen wrote that Tony Firshman has had similar problems. About 3 years ago Tony invested hours of his time building up an electronic database of QL members for the benefit of every QL trader. It saves the expense and effort of sending fliers by snail mail, and is free advertising for any trader who cannot make it to a show. Some traders never reply to his first request for copy, and he usually has to send out two more emails. His anger and frustration are clear from the text of his second and third attempts to get copy.

A few months ago a QL trader lost an order from me worth about £600 because he did not reply to an email.

Just Words! makes a loss of about £100 a year. This is chicken-feed compared with the losses of some other traders, but it is a loss of £100 after some skilful creative accounting. (If we charged the full costs of going to shows, then practically all QL businesses would be bankrupt.) The most annoying thing about the £100 loss is that I could probably halve it if the QL world was more efficient. Unreliability and inefficiency cost money.

In the last issue of QL Today I wrote that QL experts and traders are sometimes unsympathetic to clients with problems. A trader once said he had gone out of his way to help a client, but it had been an impossible task as the man was 80 years old and gaga. In fact the client's problems were practical. He was using an old version of a program in which there was a bug affecting his files. For some reason he had missed out on the free upgrade that corrected this. Another

problem was that he was using a Trump Card to format HD disks and these were unreadable on other systems.

Dealing with a case like this takes a lot of patience. If the client's disks need checking or new disks sent, it costs money. Just Words! software is not expensive and any profit can soon disappear when there is a serious after-sales problem. In that case the client expressed his gratitude by sending me a Christmas present, but in other cases I have not been so fortunate. What do you do if a client has had a bad experience with another trader and you incur costs in solving his problem? Do you charge him? Or do you waive costs for the greater good of the QL community? Other QL traders face similar dilemmas.

When clients phone me after a bad experience with someone else, they are humble, apologetic and self-derogatory. I could be forgiven for thinking they feel they have to approach me as if I were some god-like figure before whom they have to bow in awe. Many are surprised to hear that there is nothing wrong in not being a computer expert or that if they have bought a product they have a right to a good after-sales service.

3. Quaint old QUANTA

I have always had a love-hate relationship with Quanta. It is a strange organisation, often riddled with internal conflicts, but I have always said that if Quanta did not exist then we would have to invent it. Few people are aware of the importance of Quanta to the QL community. It co-ordinates, finances and provides the insurance for UK shows. Without the financial backing of Quanta the Q60 would not have become a reality.

For all that Quanta has been one of my greatest nightmares. I have lost count of the number of times I have sent software to Quanta for review and it has disappeared without trace. The Quanta Magazine was constantly short of copy, but they rarely reviewed my programs or made an appeal for reviewers.

Once a review did appear. It was a brilliant and thorough review, but of the wrong program. I had sent a new pointer version for review, but Quanta reviewed the old non-pointer version. When I queried this I was told the reviewer did not have the pointer environment and asked why it was such an important point.

There were times I ordered and paid for adverts that never appeared, and other times that adverts I had not ordered and paid for mysteriously appeared. I gave up on that one, because it was working in my favour, but it did mean I could never do a concerted advertising campaign over several consecutive issues.

Quanta once approached me for help in sending the magazine copy to the printer electronically. I wrote, free of charge, a customised version of QL-2-PC Transfer to cater for the specific needs of the editor. It was never used because the editor discovered that electronic transmission would mean the printer making final decisions on design and paging and he was frightened of losing control.

I was once asked, at about a week's notice, to write the Christmas competition and provide the prize. I did it and also negotiated an alternative prize from another trader. As a condition I made agreements over the presentation of the competition to give it maximum im-

pact, but each of these agreements was broken. The competition then became impossibly difficult, the fun element was lost and there was only one, inaccurate, entry.

Many people will be critical of me for writing about the failings of the Quanta Magazine because the former editor is no longer able to defend himself. It is a fair criticism that I accept. I have written about it because it illustrates something about "goodies" and "baddies".

This man was no baddie. He was one of the most honourable, trustworthy and gentlemanly people I have met in life. I still remember him with respect and affection. It was his over-zealous determination to do a good job, a job he had agreed to do only temporarily, that got him into some terrible muddles. If he had been a baddie, it would have been much easier to tackle the problems.

If the finger of blame has to be pointed, then it is at the Quanta committee, who abused this man by failing to see the strain he was under. For much of the time he was editor there was a strict policy that each newsletter should have exactly 32 pages, no more and no less. Eventually the only way to fill these pages was by reprinting much of the discussion that had already appeared in the email users group. The Quanta committee failed to take the decision that has now been made, and that I had suggested many years ago of going over to bi-monthly publication.

In a situation where resources are limited it is better to do one thing well than two things half well. There is a lesson here for everyone who is a leader in the QL community.

During the discussion about shows on the QL email users group, the silence from Quanta

was deafening. The discussion started because of possible clashes between shows in Norwich, Hove, London and the Quanta AGM in the first half of 2004. Quanta remained silent about its AGM plans.

In the discussion there was much enthusiasm for a possible "QL2004" show, but Quanta remained silent about their attitude and gave no indication if they would be prepared to organise or financially back it. I will spare you the grimy details of the machiavellian way I forced the issue, but as I wrote at the beginning I learnt a lot of tricks when I was a spin doctor.

4: Another Way

One Monday night over seven years ago I received an unexpected telephone call from Jochen. If there was ever a crisis that could bring a premature end to the QL, this was it. IQLR had collapsed just after every trader had paid for a years advertising. We had been promised our money would be protected in an escrow account, but instead it had disappeared. About a year earlier QReview had collapsed and about a year earlier than that QL World.

Jochen asked me to send him my IQLR advert and any articles I had for a new magazine he was starting with Stuart Honeyball and Dilwyn Jones. I did just that, but the post let us down. The following Friday I faxed the advert to him and then I spent much of the evening trying to send the article electronically. It was in the pre-internet days and we had difficulty in getting the right protocol. I later realised our difficulty had been no complex technical matter, but something much simpler. I pronounced ZMODEM as "zedmodem" and Jochen as "zeemodem".

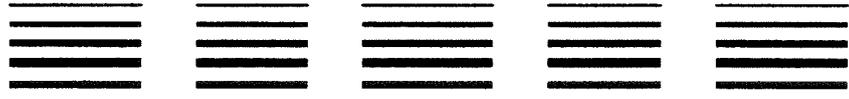
The first edition of QL Today, largely written by QL Traders, was soon on its way to the former subscribers to IQLR. Seven years on the magazine is still going strong. For the first time we have a QL magazine written and produced by dedicated QL-ers. Out of weakness came strength.

Over a year ago, I received another unexpected telephone call, when Rich Mellor asked for help with a program. I was busy at the time and rushed the code so Rich had a huge debugging job to do. When the program was almost ready for release, I suggested to Rich we needed a person skilled in graphics and sound to add excitement and interest. Phoebus Dokos came into the team and this put the release back by months, because we were now writing a program unlike anything previously written for the QL. We were in uncharted territories producing one of the first QL programs to exploit new QL colour and sound technology.

There were many difficulties. The first versions of the program did not compile so George Gwilt rewrote sections of the Turbo compiler. (Remember Turbo? That was the compiler that was supposed to lie down and die because it could not compile pointer programs. Well, thanks to George, it can now!) There were problems with QPC, but Marcel helped to solve these. And as Phoebus has just reminded me he could not have done his work without facilities written and provided by Simon Goodwin, Mark Swift and Peter Graf.

Not one of us could have written QWord individually, but as a team pooling our specialist skills we have achieved a QL first. And let us remember email has made it so much easier for

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software developers living miles apart to work as a team. There can be another way for the QL and it can survive for many years yet. But it means not looking backwards, but looking forwards.

Looking forwards from a Just Words! perspective is not easy at the moment. I am in the middle of a ruthless reorganisation that may leave some people feeling bruised, but without these changes Just Words! would surely die. So far I have withdrawn permission for other traders to sell my software directly, although the

trader's discount remains for traders who order on behalf of a client. I shall no longer attend shows as a trader, and for this reason no longer participate in show emailings. When my present contract expires I shall break all contacts with Quanta. On the positive side you can expect changes in the balance of freeware and commercial programs and different priorities in updating software. The first signs of this are the new versions of Solvit-Plus and Spelling-Crib. Another is the near completion of a series of QTYP dictionaries. In the new

year there will probably be a restructuring of my web page. There is even a good chance of a new product I have half promised to someone I owe a couple of favours.

Meanwhile a final challenge to UK-QLers. The UK may have been the birthplace of the QL and it may still have the world's largest QL community, but it is no longer the centre of the QL world. Another country publishes the main QL magazine, has developed the Q60 and is the birthplace of QPC. Not only that, they also usually beat the English at football.

Gee Graphics! (on the QL ?) - part 35

H. L. Schaaf

"Hunting" for a Torricelli 3 point solution

Let's add another option to the program from GG#34 by merging in the listing "HunTor3_bas". This will let the QL "hunt" for the Torricelli point. After the 'exact' closed form solution is obtained, the QL begins a repetitive search for the answer. A rectangular box encloses the search area, and a comparison is made of the sum of distances to the 3 points of the triangle from each of nine points, (the center of the box and eight 'Moore' points.)

If the center point yields the minimum sum of 3 distances, then we shrink the box by a factor based on the golden ratio squared. If any of the "Moore" points on the box boundary yields the minimum sum, then we re-center the box over that "Moore" point and keep the box the same size.

We assume a smooth continuous function and keep 'hunting' for a minimum value. The search soon settles down to a single pixel. By knowing the graphic dimensions of a pixel, we can figure when it has homed in on a single pixel. It is possible that we could still have some dithering if the answer lies on the boundary of a pixel. After a few more iterations it arrives at a solution as

good as (or better than) the 'exact' closed form solution, expressed to 7 digit precision. Interestingly enough, the x and y positions only agree to about 4 digits, but the length agrees to 7 digits. Eventually it reaches a solution at or beyond the 9 digit limit of the QL's floating point. We also select a 'tolerance' for the size of the search box small enough to suit us.

To force an EXIT we set a limit of 42 for the number of iterations.

So how close an agreement do we get, or need, when trying to work with computer graphics? I get lost in the concepts of accuracy, precision, error, etc., but you may want to explore them on your own. And then tell us!

Here's an appropriate 'gruk':

**The road to wisdom?
Well, it's plain
and simple to express:
Err and err and err again,
but less and less and less.**

– Piet Hein, poet and scientist (1905–1996)

Piet Hein is also known for his work with the 'super-ellipse'. How would we get the QL to show them? Maybe next time?

```

100 REMark HunTor3_bas
101 REMark Torricelli3_bas + Hunt_for_Tor
102 REMark for QLToday GG#35
103 REMark H L Schaaf September 1, 2003
104 REMark using iteration to hunt for Torricelli point
105 REMark to be combined with the following:
222 phi = (SQRT(5) / 2) - .5 : REMark small golden ratio
223 cut = 1 - phi : REMark shrinkage factor
224 tol = 1E-6 : REMark what tolerance will we accept ?
265 INK 4 : Hunt_for_Tor
267 PRINT #0,, 'touch [spacebar] to continue'
268 PAUSE
269 FOR i = 0 TO 2 : CLS #i : END FOR i
735 V_rpp = win_scale/(Wp_hi%-2*Wp_bo%)
737 H_rpp = V_rpp * graspix
1195 tors(0,1)=t3(t3(0,2),1):tors(0,2)=t3(t3(0,2),2)
1260 CLS#0
1455 min_len = shortsides
3030 :
3040 DEFine PROCedure Hunt_for_Tor
3050 REMark based on min_len and 9 digit QL math
3060 lim9 = min_len*1E-9 : lim9_at = 0 : REMark 9 digits
3070 min_lenH = 1E600 : iters = 0 : stop_iters = 42
3080 n = 3 : stex = 0 : to_tol = 0 : one_pixel = 0
3090 INK #0,7
3100 REMark width and height of frame
3110 wi = gr_wi : hi = win_scale
3120 DIM box_pt(8,2) : REMark Moore neighborhood points
3130 REMark 0 ctr, 1 ne, 2 se, 3 sw, 4 nw
3140 REMark 5 n, 6 e, 7 s, 8 w
3150 REMark start in middle of field
3160 box_pt(0,1) = x_off + gr_wi/2
3170 box_pt(0,2) = y_off + win_scale/2
3180 REMark begin hunting
3190 REPEAT hunt
3200 iters = iters + 1
3210 box_pt(1,1) = box_pt(0,1) + wi*cut
3220 box_pt(2,1) = box_pt(0,1) + wi*cut
3230 box_pt(3,1) = box_pt(0,1) - wi*cut
3240 box_pt(4,1) = box_pt(0,1) - wi*cut
3250 box_pt(5,1) = box_pt(0,1)
3260 box_pt(6,1) = box_pt(0,1) + wi*cut
3270 box_pt(7,1) = box_pt(0,1)
3280 box_pt(8,1) = box_pt(0,1) - wi*cut
3290 box_pt(1,2) = box_pt(0,2) + hi*cut
3300 box_pt(2,2) = box_pt(0,2) - hi*cut
3310 box_pt(3,2) = box_pt(0,2) - hi*cut
3320 box_pt(4,2) = box_pt(0,2) + hi*cut
3330 box_pt(5,2) = box_pt(0,2) + hi*cut
3340 box_pt(6,2) = box_pt(0,2)
3350 box_pt(7,2) = box_pt(0,2) - hi*cut
3360 box_pt(8,2) = box_pt(0,2)
3370 REMark show outlines of successive boxes
3380 IF NOT one_pixel THEN
3390 POINT box_pt(4,1), box_pt(4,2)
3400 FOR i = 1 TO 4
3410 LINE TO box_pt(i,1), box_pt(i,2)
3420 END FOR i
3430 END IF
3440 min_loc = 0 : REMark minimum location
3450 FOR i = 0 TO 8

```

```

3460 box_pt(i,0) = 0
3470 FOR j = 1 TO n
3480 d_b = dist_btwn(box_pt(i,1),box_pt(i,2),t3(j,1),t3(j,2))
3490 box_pt(i,0)=box_pt(i,0) + d_b
3500 END FOR j
3510 IF box_pt(i,0) < min_lenH : min_loc = i : min_lenH = box_pt(i,0)
3520 END FOR i
3530 REMark now relocate center and tighten
3540 box_pt(0,1)=(box_pt(min_loc,1))
3550 box_pt(0,2)=(box_pt(min_loc,2))
3560 REMark if not on border of box, then shrink the box
3570 IF NOT(min_loc) : wi = wi*cut : hi = hi*cut
3580 REMark test for being at pixel of solution
3590 IF wi < H_rpp/2 AND hi < V_rpp/2 : one_pixel = one_pixel + 1
3600 IF one_pixel = 1 : tell$=" at pixel in " : tell
3610 REMark test for shorter than or equal to 'exact' solution
3620 IF min_lenH <= min_len : stex = stex + 1
3630 IF stex = 1 : tell$ = " <= 'exact' in " : tell
3640 REMark test for being within desired tolerance
3650 IF wi < tol AND hi < tol THEN to_tol = to_tol + 1
3660 IF to_tol=1 : tell$ = ' within '&tol&' in ' : tell
3670 REMark test for 9 digit limit
3680 IF wi < lim9 : lim9_at = lim9_at + 1
3690 IF lim9_at = 1 : tell$ = " ( 9 digit ) " : tell
3700 REMark tests for EXIT condition
3710 IF one_pixel AND stex AND to_tol AND lim9_at : EXIT hunt
3720 IF iters >= stop_iters : tell$ = ' stopped at ' : tell : EXIT hunt
3730 END REPEAT hunt
3740 INK #0,4
3750 END DEFINE Hunt_for_Tor
3760 :
3770 DEFINE PROCEDURE tell
3780 PRINT #0\'x = ';box_pt(0,1);', y = ';box_pt(0,2);
3790 PRINT #0;', length = ';min_lenH;tell$;iters;' iterations'
3800 END DEFINE tell
3810 REMark end of listing HunTor3_bas

```

Words, Words and more Words

David Denham looks at language utilities for the QL.

Review of Vocabulary Database from Just Words

This is a somewhat unusual package from the Just Words stable. Geoff Wicks has released what amounts to a word translation database, consisting of 5,000 words with equivalents in English, German, French, Dutch and Japanese (Japanese represented by kunreisiki romanisation format, using standard ascii characters).

The database is supplied in

Archive database or _dbf format. Vocab_dbf comes as a single database of some 314 kilobytes in length. Which means, of course, that an expanded memory system is needed in order to use this monster of a word list.

Geoff also supplies the database in export file format, which means you should be able to import the file into just about anything that understands Archive export file format and able to load files of this size (the export file is about 330 kilobytes in length). The

instructions, a simple two page A5 manual, imply that the database could be transferred to a PC database as well, using Geoff's QL-2-PC program.

The database contains six fields, listing the words in the five languages described above, and one field describing the grammatical type of the word, i.e. is it a verb, a noun or whatever.

The manual points out that "it is important to realise it is not an online dictionary, and is better used just to jog the memory." This is fair comment - it is perfectly possible to use this database when translating written work from English to one of the other languages, but because the exact translation of

words from one language to another may depend on context and differences in concepts and structures in some languages, a simple word list of this type may not be a be-all and end-all of translation work. The list of 5,000 words sounds a little bit of a limitation, after all, we are accustomed to spell-checker dictionaries and word lists such as those which Geoff himself supplies offering 50,000 or more words. However, such word lists often contain every tense and person of a verb, plurals and so on, so the number of words is not actually as limiting as you might think. There is a good collection of common words here which will help you far more than you may think.

What may prove to be more of a limitation is the need to know how to drive Archive. While hardly the most difficult of programs to use, the need to program it and remember the commands is a bit of a deterrent to some people. All you need is use display command to start it off, then next or back commands to browse through it, or a find command to locate the word you require.

So I set about writing the simplest of front ends for it. The listing is shown in figure 1. To enter it into Archive, start Archive, type in the word EDIT (in lower case) and follow the editing instructions at the top of the Archive screen to type in the lines. I copied the vocab_dbf file to ramdisk for greater speed, hence the third line opens the file from ram1_vocab_dbf, change this to flp1_vocab_dbf to use it from floppy disc.

To start the routine, just enter the command START (again in lower case). It will ask you to enter the word to search for,

Figure 1 - Vocabulary Database program for Archive

```

proc start
rem Vocabulary Database front end, by David Denham
cls : print "Opening vocab_dbf, please wait."
look "ram1_vocab_dbf": display : first
let s$="x"
while s$<>""
print at 10,0;rept(" ",60); at 12,0;rept(" ",40)
input at 10,0;"Search for (blank entry to quit) ";s$
if s$<>""
print at 10,0;"Current search : "; ink 4;s$;rept(" ",40)
find s$
if found()
sprint
let c$="y"
while c$="y"
print at 12,0;"Continue (y/n) ";;: let c$=lower(getkey())
print at 12,0;rept(" ",40)
if c$="y": continue : endif
if found()
sprint
else
let c$="n":rem force end of search
endif
endwhile
else
print at 12,0;"Sorry, not found."
endif
endif
endwhile
close
endproc

```

attempt to find it, and ask if you'd like to continue the search if the first instance found was not suitable. Once it has reached the end of the database it will ask you to enter another search word, just enter nothing (a blank entry) to quit from the program. Searches are through all fields, so you can look in any of the languages.

Most of the original English entries are single words, but there are some short phrases as well, such as Air Force or "admission charge". Obviously, for some words some languages may not have single word equivalents, and the program does offer some phrases as nearest equivalents in some cases. A program of this type cannot be exact in these cases and some care is often needed to avoid hilarity or embarrassment from unintentional mis-translations. We have all heard

about hilarious situations where a document is translated from language A to language B, then back again, and its meaning has completely changed! Indeed, Geoff gives one or two such examples in the short but perfectly adequate manual.

The database revolves around the English field. It is intended to assist with the translation of words from English to the other languages inevitably it will get used for translating from one of the other languages as well, although it all revolves around the original English words.

Figure 2 (please see next page) shows a screen dump of the database displayed in Archive.

At the lowly cost of just 5 pounds or 7.5 euros, this is a rather specialist package but excellent value for those who require such a word translation package. The lack of a "front end" may deter some people,

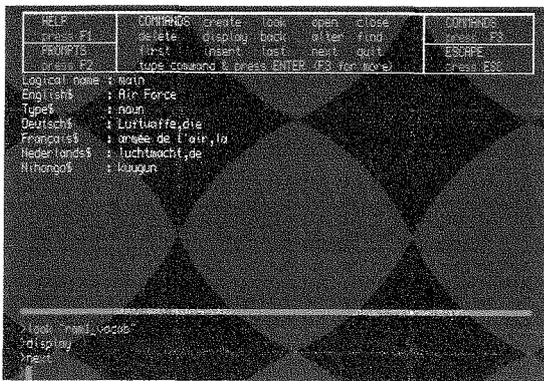


Figure 2 - Vocabulary Database in Archive

but hopefully the listing above will get around that for Archive users (Geoff is welcome to supply the listing with the package!)

Dictionary

This package is an English dictionary of several thousand words and their meanings. The dictionary itself consists of five plain text files, split into groups of letters of the alphabet, each of between 100 and 150 kilobytes in length. The left hand column consists of the words, while the right hand column consists of the grammatical type (i.e. noun, verb, adjective etc).

As this is a plain text file, just about any editor can be used to view the file and perform the usual text searches on it. Memory permitting, and if the editor concerned allowed it, all five files could conceivably be merged into one large dictionary file of over 600 kilobytes in length.

In this package, the files are

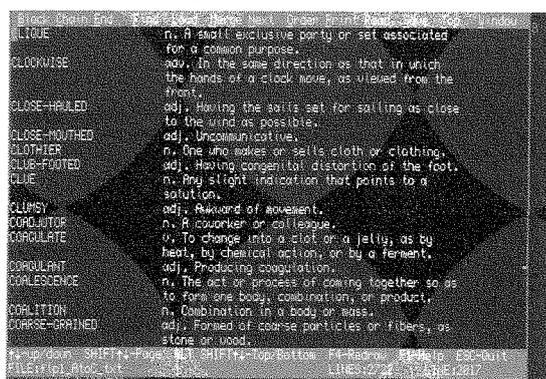


Figure 3 - The dictionary viewer running.

supplied with the Dilwyn Jones text file viewer which is quite adequate for the task. Figure 3 shows a screen dump from the viewer displaying the dictionary file.

There is little that I can say about this dictionary except that it is a useful little dictionary

of a reasonable size which works well enough. The fact that the dictionary is a plain text file means you could also write your own programs to manipulate it, or use your favourite editor to browse through it.

This dictionary should be available from most PD libraries. As it's freeware, get a copy, you can't go wrong with this!

German English Dictionary

This is a German/English word list, with a front end program to allow for searches. Figure 4 shows a screen dump. The



Figure 4

front end program was originally written by Alan Pemberton and has recently been slightly updated for more recent QL systems.

The program can be configured to load a word list of your choice. The word list is a simple plain text file with the word in

one language, followed by an asterisk, followed by the equivalent word in the second language.

The word lists supplied are English to German and German to English. The program can load a dictionary of your choice and offers facilities for searching for a translation, and browsing through the dictionary line by line. Press a letter key and the program jumps to words which begin with that letter. Simple and effective.

I can't think of much to say about this package other than it works well enough and it's a shame that only German/English word lists are supplied. Perhaps Geoff Wicks could be persuaded to adapt the Vocabulary Database to this format for use with this handy little program.

The package is freeware and again available from most PD libraries.

Translation Program

Another program using the same German/English word lists mentioned above, this one can also use dictionaries you have compiled yourself. It loads a plain text file and does a "word for word" translation of the words in that text file, substituting equi-

valent words from the other language.

Of course, this can hardly hope to produce perfect results. Far from it. In fact, the manual describes it as a "quick and dirty" method. It's not even quick for large files, but that doesn't really matter for most purposes, as you'll only use it to get a quick idea of what's in a text if you don't understand the language. I applied it to some

German PD programs obtained from a QL PD library and although the translation was far from ideal, it did give me a vaguely readable idea of what the text was about.

There's a sample text below. As you'll see, it needs a lot of correction by hand, and the order of words may well be different between languages.

First, the original German, taken from Jochen Merz's website. Perhaps a slightly less than fair test because it contains some technical language, some computing terminology which the program's words database isn't really well suited to handling:

**Jochen Merz Software
Deutsch**

Lieber deutschsprachiger Leser, da ein Großteil der QL/QDOS/SMSQ-Anwender englisch spricht ist auch das Hauptangebot der Seiten hier in Englisch verfasst. Soll heißen, mit Ausnahme dieser Seite hier sind alle anderen Seiten in Englisch verfasst. Dies ist jedoch kein Grund zu verzweifeln - natürlich werden auch Anfragen in deutsch auf deutsch beantwortet. Schreibt mir hier:

smsq@j-m-s.com

Wer unbedingt mehr Infos in deutsch haben möchte findet viele deutsche auch in den JMS-Mailboxen, natürlich auch mit deutscher Menüführung. Dann sei noch das deutsche QL-Today erwähnt! Die letzte Ausgabe in Deutsch erschien mit Jahrgang 6, Ausgabe 6 (März 2002). Alle deutschen Ausgaben sind noch erhältlich! ...und wer Englisch versteht oder zumindest lesen kann, dem wünsche ich viel Spaß mit den englischen Seiten...

Here is the English translation produced:

Jochen Merz Software

german

rather deutschsprachiger Leser, there one Großteil elder QL/QDOS/SMSQAnwender

english spricht is too the Hauptangebot elder side here in english verfasst. debit/target heißen, join exception this angle here where every other/different side in english verfasst. Dies is however no ground assure despair - natural become too Anfragen in german at german beantwortet. Schreibt me here:

smsq@jms.com

Wer unbedingt more Infos in german have möchte findet many deutsche too in the JMSMailboxen, natural too join german Menüführung. then sei nor the deutsche QLToday erwähnt! the letzte expense in german erschien join vintage 6, expense 6 (march 2002). every deutschen outgoing where nor available! ...and wer english versteht or zumindest read may, that/it wünsche self much fun join the englischen side...

One very useful feature of this program is that you get the source files with it, so someone adept at BASIC programming could modify the program to his/her own requirements. The package is freeware and

available from most QL PD libraries.

You can see that to cope with this particular text, the vocabulary needs some additional information, but you can get the basic idea that a word for word translation can produce some meaningful output. Sadly, the database does not include much by way of verb tenses, plurals and so on which rather impedes a better translation, but given the ease with which the database could be modified, for someone with a working knowledge of the languages concerned this should be a fairly straight forward task

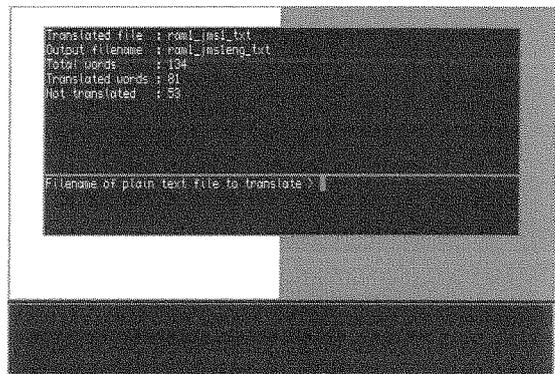


Figure 5 - Translation program.

and would greatly enhance the program. You will notice that the program puts the original word into the translation where it can't translate, meaning you can go to a dictionary for help if need be.

In summary, a neat program let down by a poor vocabulary, if someone improved the dictionary this program could be really useful.

Again, a freeware program available from most PD libraries.

By using the J-M-S website as an example in this article, I became aware (again) that the website is fairly out of date. Time problems, due to many other problems, I sadly have to say. "Mailboxes" have become mailbox, and we're already at Jahrgang (Volume) 8. Ouch!

Which reminds me: I very rarely look at the BBS - I know, I should do it much more often. The plans were to update everything when the colour updates are ready - and it all has taken much, much longer than expected.

My apologies - Jochen Merz

Letter-Box

Arthur Park wrote (by email):

I have just stumbled across your website for the good old Sinclair QL computers. I used to have a QL with a floppy disk system and a memory expansion which I think was either 128 or 256 kilobytes, many years ago (1980-something). For nostalgia's sake, I did an internet search for "QL" and happened upon your website, which kept me amused for quite a while once I realised just how much information was on it!

After not even seeing a QL for about 15 years it has brought back many happy memories. Whereas I used to think that disk drives and a bit of extra memory on the QL were the business in those days, and I have very fond memories of writing programs in basic on it (the joys of typing in something from a magazine, finding it didn't work then spending many a happy hour trying to sort out my typing mistakes).

What fascinated me was:

- * there are clearly many people still using a QL.
- * there's still a magazine and user group, even shows from time to time
- * many people have websites about this computer (if your QLnet page is anything to go by!)
- * QL-style computer still being produced (Q40)
- * you can run QL programs on many computers (emulators)
- * there are still people writing new programs for it, and even a new operating system
- * talk seems to be of how many megabytes of memory, not how many KB or 100KB as it was in my day

As you can imagine, all this brought back fond memories. I gave my old QL system away many years ago and now have the inevitable PC at home. It set me thinking, and would like to ask a few questions:

Looking in the attic, I found that I still have a few microtapes and disks, would a modern QL system still be able to use those? How would an emulator work with these or how would I copy the programs to an emulator disk?

Microdrive cartridges can only be read on an original QL, there is no way to attach microdrives to another computer. Even the Q40 or Q60 cannot use microdrives. Most emulators will read QL floppy disks in the host computer's disk drive, some may need you to use special software to copy the content of the floppy disk to the PC's hard disk. If the disks have been standing for

many years unused, there is a good risk that they would no longer be readable, however. - Editor

How good are the emulators you mention on your website - am I likely to be able to write or use my own basic programs on them? How likely are they to fail to run even basic programs (I have bad experience of this with an emulator for another old computer I had)

Good news for you: the SuperBASIC interpreter on emulators is almost 100% compatible with the original QL, because most QL emulators use a ROM image, which means it runs an original Sinclair BASIC. Occasional hardware dependent programs may fail, some screen savers for example might fail because they made use of a hardware register which literally blanked the screen, and this could not be emulated - in other words, the programs most likely to fail are those which make obscure PEEK and POKEs and take advantage of specific hardware features. The other problem programs are the very old copy-protected programs, although since most of these were on microdrive cartridges which cannot be used on modern systems, using protected programs is a non-starter - Editor

Your website implies I might need a copy of a QL ROM, where do I stand with this as I no longer have a QL?

For those living in Europe (including UK) copyright restrictions on QL ROMs have been relaxed, you can safely download copies of the ROM from my website or get them on disk from my PD library for use with an emulator. North Americans may need permission from copyright holders Paul Holmgren or Frank Davies to download and use the ROM images. You can also download the QL manual in the same way - Editor

I am tempted to get the QL Emulators CD to try my hand on a QL once more, to see if my fond memories are worth turning into hands-on experience to while away the winter evenings! At this price I can afford to throw it away if it doesn't work out. Having seen the shows list for the coming months on your website I may even visit one of these shows if there's one near enough for me.

Once again, many thanks for the effort you have clearly put into this website. I have learned a lot and look like being on my way to starting a new or rediscovered hobby thanks to you! - Arthur Park.

Editor's note: this (edited for length) email is fairly typical of a small but growing number of those received from people who've found the QL still exists thanks to our presence on the internet, and I have supplied many copies of the Emulators CD to people who've contacted me in this way - I just hope they do return to and stay with the QL in the same way as Mr Park is implying he intends to do!

Bruno Coativy writes:

This is just to point out something which may be of interest to QDOS/SMS programmers in general, and to Jochen in particular.

Indeed, I have found an undocumented feature of TRAP #3, D0 = \$09 (SDEXTOP or IOWXTOP for SMSQ/E users): the TRAP returns with the ERR.BP error code in D0 whenever the channel ID passed in A0 as a parameter does not correspond to a scr_ or con_ channel. For instance, you can try with a par_ channel ID. This error return is independant of the operation routine.

It is obviously too late to update the old manuals. But, perhaps, the excellent QDOS/SMS Reference Manual could benefit. Do you think so, Jochen? By the way, all my wishes for a speedy recovery.

P.S.: may I add - on a totally different subject - that I am fully satisfied with the QMAKE copy I ordered last year. Thank you very much, Jochen.

Thank you very much for pointing this out - and for the good wishes.

Updating the manual is something whcih is really overdue (I still have some corrections from George Gwilt on the to-do list - yes, that's not forgotten) but the problem is - as usual: time!

I do not want to go into detail, but I wasted about 30 percent of my total working time this year (roughly estimated) with problems other people forced onto me. Not only did these problems cost an enormous amount of my time, they did not earn me any money and it took the people who created these problems months and months to get them sorted out.

Various hardware issues (this is how one names "major problems" nowadays), server issues, server changes, virus attacks and so on did not help at all. Whenever something was sorted out, two new problems arrived.

That's not the main reason why the new software versions are still not out - this does not just depend on me. At the time I write this, the GoldCard/Qubide problem still exists.

But we're working hard. And by the time you read this, the updates may be out - at least partially.

However, lack of time is the reason why I don't regularly look at the BBS. I need to apologise again - when Bruno sent me the message, today (about 2 months later) I managed to reply. However - when you email me - you will find that I reply within 24 hours, so I suggest for urgent matters (or mail in general) - to use EMail.

Jochen



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David Bunbury writes:

I was interested in your note in QL-Today about contact problems with the Aurora board, as, although I have no experience with this particular board or any of its special components, I have frequently had similar problems with other boards, as a result of which I have come to the pretty firm conclusion that the blame in almost all cases lies with the socket rather than with the chip. While it is true that removing the chip and cleaning the pins usually cures the problem, at least temporarily, removing and replacing the chip without any cleaning seems to be equally effective as does simply rocking the chip slightly in its socket without removing it at all. If, however, the chip is exchanged with the corresponding one on another similar board the problem tends to recur on the original board rather than following the chip. I was at first reluctant to believe that the use of more expensive sockets could be the solution, on the grounds that mass-produced boards always seemed to use the cheapest sockets but seldom showed any ill effects. The explanation for this only dawned on me when I noticed that boards soldered by students were particularly prone to such problems while one student who had far more trouble than anyone else had been using self-fluxing wire. (Beginners always keep the soldering iron on the joint for too long while self-fluxing wire requires a higher than normal soldering temperature.) If you watch carefully while heating the solder end of a tin-plated terminal with an iron, you can quite clearly see the liquid/solid boundary travelling up it towards the contact end. (A wire-wrap pin is good for this demonstration.) After cooling, the tin layer is often no longer uniform, as the liquid tends to form blobs which will presumably leave other areas inadequately protected against corrosion. The reason that mass-produced boards do not suffer from this must be they are invariably dip- or wave-soldered and that the conditions under which the process

is carried out (careful cleaning, pre-heating of boards, large contact area between solder and terminal) require only a brief contact with the solder bath which can be followed by rapid cooling, while the temperature of the solder itself can be kept quite low, typically a maximum of 260C which is only 28C higher than the melting point of pure tin. The tin on the contact area should not then have time to reach its melting point at all. Such good temperature control is impossible with hand soldering. Since I switched to exclusive use of gold-plated sockets, I have had no more trouble, even when I use old (and dirty) chips, and I am convinced that the quite small extra cost has been a good investment. All this may seem rather irrelevant to your immediate problem, as it is quite clear from your photograph that the Aurora board was not hand-soldered. Nevertheless, it does seem significant that this board is the only one which you mention as being prone to this effect and I am wondering if it is possible that the temperature control of the solder bath was defective during all or part of a production run. It would be interesting to know whether or not all the boards so affected could be traced back to a single batch. Unfortunately, the only really satisfactory permanent cure is a new board. Other solutions such as removing the socket from the board and replacing it with a new one or soldering the chip directly into the old socket, while not absolutely impossible, are strictly for the very patient and very reckless, (not a particularly common combination). Yours sincerely, David Bunbury.

Peter Tillier writes:

Regarding the helpline article on page 4 of the last issue:

- 1) Upgrades of QUBIDE ROMS are available from Roy Wood at QBranch - he'll even do the necessary hardware work for you if you wish.
- 2) SuperHermes/Hermes Lite from Tony Firshman also supports a PC mouse.

SMSQ/E v3.xx and PE

George Gwilt

Exciting changes in SMSQ/E v3.xx are the new WMAN and the new sprite definitions. It is clear that TurboPTR and CPTR must be upgraded to allow their use. I shall try to indicate here what might be done and what snags there appear to be. I will deal first with WMAN and then with Sprites.

The new facilities in SMSQ/E are well described by Wolfgang Lernerz in two articles in QL Today,

Vol 7 issue 6 and the following one, Vol 8 issue 2 and I will assume that anyone reading this will have those at hand. I'll refer to these as "Article 1" and "Article 2".

WMAN and the Window Definition

The basis of the main change in WMAN is the fact that throughout, in both the window definition and the working definition springing from that, the space for recording colour is one word. The basic QL 4/8 mode colour with stipple needs only one byte to define all the 256 possible colour permu-

tations. This allows the other byte, the MSB, to be used to indicate six other colour formats as described in Article 2 page 47. Since every bit in the colour word can be meaningfully used it follows that there are 65536 different possibilities. This is really too great a choice to be made in each individual case by a programmer trying to set the colours for paper, ink and border for all main windows, information windows and application windows as well as for the presentation of menu items and loose items.

The first and second of the new formats are called palette and system palette. This might appear confusing. There is in the SMSQ/E system a palette of 256 colours which can be accessed from S*BASIC by the use of COLOUR_PAL. It is this palette which is called, simply, palette.

The second of the two palette formats, the system palette, refers to a set of up to 256 entries in a special table operated by WMAN. There are four of these tables but, in addition, a program can

have its own table specially set up. And this table can have more entries than the current maximum for the standard system palettes.

It is clear from the description of the system palette content in Article 2 page 50, that the expectation is that a programmer will fill each colour word in the window definition with a system palette number. If followed, this again reduces the choice of colour in each case to a maximum of 256, though currently the default system palettes contain only 57 entries (rather like the old Heinz varieties).

The big difference between the palette and the system palette is, of course, that the former contains a set of differing colours whereas the second contains a set of colours, not necessarily different, but each designed for a different purpose. The table below sets out the 57 different entries for each of the four default system palettes. As you can see there are only twelve different colours in each set.

Table Showing System Palette Contents

;	System palette entries for numbers -	0	1	2	3
;					
Window border		7	0	7	0
Window background		0	7	0	7
Window foreground		7	0	7	0
Window middleground		2	4	4	2
Title background	100	106	82	92	
Title text background		0	7	0	7
Title foreground		7	0	7	0
Loose item highlight		7	0	7	0
Loose item available background		0	7	0	7
Loose item available foreground		7	0	7	0
Loose item selected background		4	2	2	4
Loose item selected foreground		7	0	7	0
Loose item unavailable background		0	7	0	7
Loose item unavailable foreground		4	2	2	4
Information window border		4	2	2	4
Information window background		0	7	0	7
Information window foreground		7	0	7	0
Information window middleground		2	4	4	2
Subsidiary information window border		0	7	0	7
Subsidiary information window background		4	2	2	4
Subsidiary information window foreground		7	0	7	0
Subsidiary information window middleground		0	7	0	7
Application window border		4	2	2	4
Application window background		0	7	0	7
Application window foreground		7	0	7	0
Application window middleground		2	4	4	2
Application window item highlight		7	0	7	0
Application window item available background		0	7	0	7
Application window item available foreground		7	0	7	0
Application window item selected background		4	2	2	4
Application window item selected foreground		7	0	7	0
Application window item unavailable background		0	7	0	7
Application window item unavailable foreground		4	2	2	4
Pan/scroll bar		0	7	0	7
Pan/scroll bar section		7	0	7	0
Pan/scroll bar arrow		4	2	2	4
Button highlight		7	0	7	0
Button border		4	2	2	4

Button background	0	7	0	7
Button foreground	7	0	7	0
Hint border	0	7	0	7
Hint background	4	2	2	4
Hint foreground	0	7	0	7
Hint middleground	2	4	4	2
Error message background	2	4	4	2
Error message foreground	0	7	0	7
Error message middleground	4	2	2	4
Shaded area	32	47	16	31
Dark 3D border shade	2	4	4	2
Light 3D border shade	0	7	0	7
Vertical area fill	160	175	144	159
Subtitle background	100	106	82	92
Subtitle text background	0	7	0	7
Subtitle foreground	7	0	7	0
Menu index background	2	7	0	7
Menu index foreground	4	2	2	0
Separator lines etc.	4	2	2	4

Note that these colours are all the ordinary QL mode 4 colours, some with stipple as shown below:

Number	Colour
0	Black
2	Red
4	Green
7	White
82	Red, Black, 1
92	Green, White, 1
100	Green, Black, 1
106	Red, White, 1
160	Black, Green, 2
144	Black, Red, 2
159	White, Green, 2
175	White, Red, 2

Setf (for TurboPTR) and Setz (for CPTR)

The two programs setf and setz enable programmers easily to set up window definitions for S*BASIC and C68 programs. Each program asks for a colour to be chosen whenever that is needed. I found that it became very tedious to answer all these questions for loose items and for menu items in an application window. As a result I set a default which can be chosen simply by pressing ENTER at the appropriate time. The system palette goes further along this path. What new versions of setf and setz will do is to set, as default, all the various colours using entries from a system palette. Thus the main window border colour would be set as sp.windbd (\$0200) and its paper colour as sp.winbg (\$0201).

The actual colours appearing in the completed window will of course depend on the entries in the system palette used. The programmer thus has control over the colours by being able to manipulate the system palette.

What Are the Snags?

Snag 1

The main obvious snag is that programs written to use the new WMAN colour system will not work with old WMAN. The good news is that old programs written for the old WMAN will work on the new system. This means that, at present, programs written for the new system will only run under SMSQ/E v3xx. If the free standing WMAN is updated, then the new system will be potentially available to many more people.

Snag 2

Another snag is that, although a programmer can set the system palette to suit his requirements when designing the window he still has to arrange that the same palette will be used when the program is run. One way to ensure this is to have the palette contents inside the program and arrange to set them as the program's private palette at run time. Actually, this may seem foolproof but it is difficult to guard against another palette being set while the program is running!

I know that this is possible because I used this method to see the effect of the new WMAN on old programs. Having started one of the Examples from TurboPTR I looked at the contents of register A4, which points to the window working definition whose second long word points in turn to the window definition. I changed the word in the window definition containing the colour of the main window to a value such as \$200. I then set one of the system palettes to the program. Finally, after resizing the window in the program, because this requires a resetting of the working definition from the window definition, I saw the colour of the main window change to the colour chosen from the system palette.

The only way I can see of making a program proof against changes in palettes is to set all the colours to either the grey scale or the 15 bit RGB and to avoid instructions in the program referring to a palette. What a pity!

It is perhaps of interest that in order to set a palette to the program I used a new extension keyword `BSPAL`, which will appear in a new version of `tpr_ext`, to set the palette. I produced this new keyword before I realised that the new `SMSQ/E` also had Basic extensions using the new `WMAN` facilities. The manual pages for the new `WMAN` are found in the booklet issued with `QPC2`, which I now have along with `SMSQ/E v3.01+`. (The + is there because the version is perhaps halfway to `v3.02` since it contains a correction to the "twice `MT_RECHP`" bug in `v3.01` but still calls itself "3.01".) But these manual pages don't mention the new Basic keywords. They are described in Article 2.

As soon as I discovered the existence of these new keywords I thought of deleting `BSPAL`. I decided not to, however, after I had had a closer look.

I had set one keyword to do two things, either set system palette number 0 to 3 to a job, or set a private palette to that job. The syntax is:

```
BSPAL pal [,job ,tag]
```

"pal" is taken as a palette number if it is too small to be an address, otherwise it is taken as the address of the private palette. If no job ID is given the current job is assumed.

Two official keywords are needed to do the same thing as `BSPAL`. They are:

```
SP_JOBPAL [#ch,] JobID/Job_name, number  
and
```

```
SP_JOBOWNPAL [#ch,] JobID/Job_name, pal_pointer
```

I prefer to leave `BSPAL` as an addition to `SP_JOBPAL` and `SP_JOBOWNPAL` for two reasons. First there is only one keyword instead of two. Second, and rather more important, there is no need and so no allowance for a channel to be given. The reason for the channel in the official keywords is to give the software something to use for `iop.pinf` which finds the `WMAN` vector needed for the operation. If no channel is given the software uses #1. On the other hand `BSPAL` uses a call to the new `pv_pinf` which also sets the `WMAN` vector, but without needing a channel ID. For some reason, neither Article 1 nor Article 2 describes `pv_pinf`, though, in compensation for omitting reference to the new Basic keywords, it is described in the `QPC2` booklet.

Sprites

Article 2 describes the new sprite format. As with the new colour additions, the new sprite format cannot be used without the new `WMAN`, but old sprite formats will be accepted by the new `WMAN`.

Alpha Block

I found the new alpha block facility to be the most interesting item in the extended format. I couldn't resist having a go at this to see what it actually looked like. To achieve this I amended the `tpr_bas`'s code for producing sprites to allow production of an alpha block. As explained in Article 2, the alpha block contains exactly one byte for each pixel of the sprite determining how much transparency that pixel will have. To allow a user to set each pixel requires him to indicate for each pixel what the transparency value must be. I thought that would be too complicated for a user and so I decided to let the user simply indicate, by using one integer, how much transparency the whole sprite would have. The resultant sprite therefore has an alpha block whose contents are either zero, for each pixel not in the sprite itself, or `x`, where `x` is the transparency number.

The results are indeed interesting. It can be useful to have a sprite which does not obscure text it happens to be covering. Also, a sprite which has an alpha block can easily be altered so that the transparency values are different. This is especially useful for mode 4/8 sprites. To produce an alpha block for such a sprite which does not have one is a little bit tiresome to say the least.

Just for fun I produced a new sprite from the first transparent one. This new sprite is a dynamic one of linked sprites with varying transparencies. It is amusing to see it slowly fading away to nothing and then slowly reappearing. It did not do this always as smoothly as I had hoped. There were occasional flickers.

System Sprites

A system sprite can be evoked with only one word. This word contains just the sprite number, which must be from 0 to 63. Not all of these have been implemented. The system sprites are:

Number	Name	
0	arrow	
1	padlock	
2	empty window	
3	wrong mode	
4	keyboard entry	
5	no entry sign	
6	window move	see NOTE 2
7	window resize	"
8	window move	"

9	window resize	"
10	sleep	
11	wake	
12	f1	
13	f2	
14	f3	
15	f4	
16	f5	
17	f6	
18	f7	
19	f8	
20	f9	
21	f10	
22	f11	
23	f12	
24	cf1	
25	cf2	
26	cf3	
27	cf4	
28	cf5	
29	cf6	
30	cf7	
31	cf8	
32	cf9	
33	cf10	
34	cf11	
35	cf12	
36	cursor	
37	winking cursor	

NOTES

1. Sprites 8 to 37 are new system sprites.
2. sprites 6 and 7 are "mouse pointers" and sprites 8 and 9 are "window sprites".

Concluding Puzzle

1. A colour value in a working definition is \$0220.
2. The 33rd entry in the system palette linked to the program is \$0220.
3. What happens?

A PS - the Twice MT_RECHP Bug

The 3.xx versions of SMSQ/E do not adhere to the original QL memory layout. Free memory used to be found between SV_FREE and SV_BASIC. In the new versions of SMSQ/E the space between SV_FREE and SV_BASIC is limited to about 840K, the real free memory being elsewhere.

However, in v3.01, if MT_RECHP is called twice with the same address, the memory seems to revert to the old SV_FREE to SV_BASIC area. A large amount of memory will then seem to have disappeared!

Programming QPTR in SBasic - next part

Wolfgang Lenerz

Obviously not.

(And if you're wondering what this means, look at the end of the last instalment!)

II - Altering Windows

Several commands exist to change or alter either a primary or secondary window entirely or only in part (i.e. a sub-window or item).

A - Removing the window

First of all, a command to take the window away entirely, which surely must be the most drastic alteration...

DR_UNST workdef

where workdef is the working definition of the window, as obtained by *MK_WDEF*. The command will remove the window entirely, including all of the subwindows (but not the secondary windows, which should, however, have been removed before) and will also remove the window from the screen. If the window was opened via the *DR_PULD* call (i.e. it is a secondary window), then the implicit and inaccessible screen channel open by that command is also closed automati-

cally - actually, this is the only legitimate way of closing this channel (unless it is done by some "external" operation, such as QPAC2's "channels" menu). If the window was opened with *DR_PPOS*, then the corresponding channel is NOT closed, and should be closed later on if need be. If you try to remove the primary window when secondary windows are still open, bizarre things will happen, so try not to do that - always close secondary windows first and the primary window last.

B - Changing the window

The size, position, content and certain attributes of windows (and sometimes sub-windows) may be changed.

1 - Changing the size or position of a window

With the *CH_WIN* ("CHange WINdow") command you can change the size or position of the window. This command can only be used with secondary or primary windows but not with any sub-window and is used as follows:

CH_WIN workdef [,xsize%,ysize%]

When you use this command without the two optional parameters, the window will change position, i.e. move about the screen. Under QDOS, the pointer changes to the "move window" sprite, you move it around and hit Space/Enter to signify to where you want the window to be moved. Under more recent versions of SMSQ/E, it is also possible to move the window itself, or its outline,

around the screen. The movement of the pointer sprite/window content/outline is automatically handled by the Pointer Environment, the programmer doesn't have to do anything in particular. Using this command with parameters will result in a change size operation. The parameters are:

- * *workdef* is the working definition
- * *xsize%* and *ysize%* are optional return parameters. As mentioned above, when omitted they signify that the window should only be moved and the programmer doesn't have to concern himself with this (other than calling the command), all is handled by the Pointer Environment. However, a few things should be considered when using this command, even in "move" mode.

If you move a (primary or secondary) window, all sub-windows are automatically moved with it. Since sub-windows are defined relative to the main window, this is as should be.

However, if you move a primary window, the secondary windows are not moved at the same time. And this can result in quite some unforeseen consequences. Hence, never allow the user to move a primary window when secondary windows are still open. Look, for example, at the QPAC2 "Files" menu – when the F3 commands menu is opened (this is a secondary window), you cannot use the items in the primary window, and thus cannot move the window about the screen. To do that, you first must close the secondary window.

Moreover, if you have opened a channel over a subwindow or an item (more about which later in this series), the channels ARE NOT moved with the window – thus, after each move operation, you should re-open them again over the sub-window or item.

When *xsize%* and *ysize%* are not omitted, this means a change size operation. The pointer will change to the usual change size sprite which you can move about the screen to click and signify how much you want the window to change size. At the click, command will pass back to the program. Remember that *xsize%* and *ysize%* are RETURN parameters. These variables then contain, upon return from this command, the displacement (+ or -) of the pointer, in pixels, from the moment the command was invoked until the user's click. For example, if the

pointer was at (100,100) at the time the command was invoked and if the pointer is then brought to (210,100) and then the user clicks, *xsize%* will contain 110 and *ysize%* contains 0. If the pointer was brought to 50,110, *xsize%* will contain -50 and *ysize%* 10. And so on.

It is then the programmer's responsibility to re-draw the window entirely, taking into account the changed size as expressed by the user. It is not obvious how to achieve this – in fact, the best way is to remove the window entirely, make a new working definition and put the new window up on the screen. In my opinion, this is one of the most feeble aspects of the Pointer Environment, other operating systems (even Windoze) do it better than that, sometimes even clipping the window automatically.

2) – Changing the pointer

At some time, it might be interesting to change the pointer of a primary or secondary window. One can even change the pointer for an application sub-window (but not for any other sub-window). This change is achieved with the *CH_PTR* (**CH**ange **PoinT**e**R**) command:

CH_PTR workdef,win_nbr%,new_ptr

→ * *workdef* is the working definition of the window.

→ * *win_nbr%* shows the number of the window or application sub-window to be changed: 0 for the first application subwindow, 1 for the second etc... If you want to change the pointer for the entire window and not only an application sub-window, use -1.

→ * *new_ptr* is the address of the new pointer to be used, as returned by *SPRSP*. If this parameter is 0, then the default pointer is used. For a primary or secondary window, the default pointer is a small arrow. For an application sub-window, the default pointer is the pointer used by the primary (or secondary) window enclosing it.

3 – Changing the content of a sub-window, object or item

The following command allows us to change an object in a subwindow, whether it is an information subwindow or an application subwindow. One can also change the content of a loose menu item with this command: *CH_ITEM* (**CH**ange **ITEM**).

CH_ITEM workdef, win_nbr%, obj_nbr%, type%, key\$, value

- * *workdef* is the working definition, as usual.
- * *win_nbr%* is the number of the sub-window to be changed. Here, the following rules must be observed:
 - If *win_nbr%* is -1, it signifies a change in the main window, i.e. a change in a loose menu item only.
 - If it is a negative value *n* other than -1, it means an information sub-window, calculated as follows: ABS (*n*) - 2. Thus -2 means information subwindow 2-2 = 0. -3 means information subwindow 3-2=1, and so on...
 - If it is a non negative value *n*, it means the application sub-window *n*+1: 0 is the first application sub-window, 1 the second etc...
- * *obj_nbr%* contains the number of the object (or loose item) to be changed. The list starts at 0, as usual.
- * *type%* is the NEW type of the object (text, sprite, blob or pattern, using the usual values).
- * *key\$* contains the NEW selection key for the item or object (obviously, this is not used for objects in an information sub-window which have no selection key). Use an empty string ("") if you want to keep the old selection key, or a nul value string (CHR\$(0)) if you do not want the object to have a selection key.
- * *value* contains the new value. The type of that depends on the type of the new object (as indicated by *type%*) - this will be a string for text items, or a pointer to a sprite, blob or pattern for those objects that need one.

C - Redrawing part of a window

Once the content of an item, object or sub-window was changed, that (sub-) window containing it must be re-drawn. For loose menu items or menu application subwindow objects this can be done automatically, without using any special command, but there are also commands to do it explicitly.

The implicit way (which does not exist for information sub-windows and their objects and thus only exists for loose menu items or the objects of an application sub-window) is to set the "flag" of that item to a certain value, which shows that

one wishes this object to be redrawn.

Indeed, we saw earlier that the *DR_PPOS* and *DR_PULD* commands use "flag" arrays for the loose menu items and for the objects of menu application sub-windows. I even explained how these flag arrays are used to set and show the status of the items when they are drawn initially. These two types of flag arrays are also used by the *RD_PTR* command, which is the main way of reading the pointer, and which was explained in an earlier instalment of this series.

If, before using this command, the value of an element of the array is set to the value of the status wished plus one, then the corresponding loose menu item or menu application sub-window object is automatically redrawn when the *RD_PTR* command is next called. As we saw earlier, a value 0 in an array element means that the item is available, 16 means it is unavailable and 128 means the item is selected.

Thus, if I want an item that was unavailable to become available, I just have to place 0 + 1 in the corresponding flag array element. The item will then be redrawn with the new status at the next call upon *RD_PTR*. And, if the content of that item had changed in between (using *CH_ITEM*), it will be redrawn with the new content. You don't even need to change status: an available item (value 0) will be redrawn as available if the value is set to 1. Now, let's look at the explicit redraw commands:

1) Loose menu items

The command *DR_LDRW* (**DRaw: Loose items DRaW**) is used to redraw one, several or all loose items. It takes the following parameters:

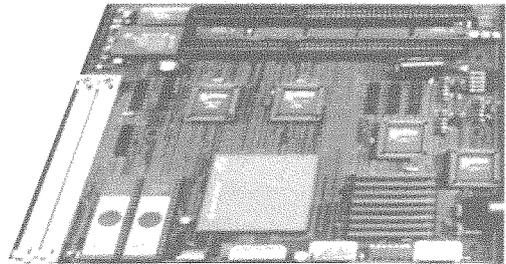
DR_LDRW workdef, lllflag%

- * *workdef* is, as usual, the working definitions of the window concerned (which contains the loose menu).
- * *lllflag%* is the same integer status array as for *DR_PULD*.

Of course, before using this command, you should place suitable values into the array, corresponding to the status of the items wished. Then you add 1 to the items statuses - only the items that have this change flag set will be redrawn - with one exception, however:

If **NO** element of the status array has the change flag set, then **ALL** of the items are redrawn. The logic of this is hard to fault - after all, you are only going to invoke this command when **SOMETHING** at least has changed - if nothing is then pointed out via the change flag, then all of them must be redrawn.

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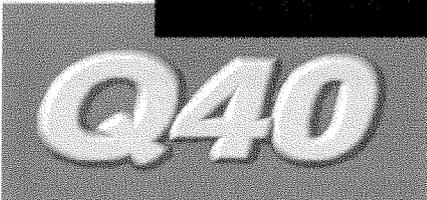
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Most of the effects of this command can easily be obtained by just setting the change flag in the status array (adding 1 to each status) and calling *RD_PTR*

2) Application sub-windows

To redraw an application sub-window, use the command *DR_ADRW* (*DRaw Application sub-window re-DRaW*), as follows:

```
DR_ADRW workdef, win_nbr%, appflag%  
[,ctrldefx%, ctrldefy%]
```

Here, all parameters are the same as for the *DR_PULD/DR_PPOS* commands (except for the *win_nbr%* parameter): working definition, flag array and the control definition arrays. The *win_nbr%* parameter contains the number of the application sub-window concerned (starting at 0 as usual).

This is a more practical command than that concerning the loose menu items, because you can also change the control definitions. In that case, you should not forget to set element (0,1) of the changed control definition to 1, to signal that it has, indeed, changed.

3 - Information sub-windows

Nothing can change status in information sub-windows - there are no items. But an information subwindow can be redrawn entirely and thus a changed content be put on the screen. This is done with the command *DR_IDRW* (*DRaw Information sub-window re-DRaW*).

```
DR_IDRW workdef, info_nbr
```

-> * *workdef* is of course the working definition.

-> * *info_nbr* is a bitmap which indicates the window to be redrawn: for each information sub-window, there is one bit. If this bit is 0, then the information sub-window must be redrawn, else it will not be redrawn. *Info_nbr* is a long word (32 bits) and this command can thus "only" be used for the 32 first information sub-windows (that SHOULD be enough!). Bit 0 is for the first information sub-window, bit 1 for the second and so on. Thus, if *info_nbr* = HEX\$('FFFFFFE') this means that information sub-window *nbr* 0 should be redrawn.

III - How to set a Channel over a Sub-Window

The main problem with sub-windows is ... that they don't exist! At least not for the normal programmer. As was already mentioned, these win-

dows are not windows in the normal QL sense of the word. They have no channel attached to them, they are internal Pointer Environment subdivisions (not even inaccessible channel as the one opened by *DR_PULD* for secondary windows).

Actually, this makes sense. A typical Pointer Environment window has many loose menu items, several information sub-windows and often one or several application sub-windows. It would not be reasonable to give each of them its own channel and channel ID - not only would we risk running out of place in the channel table, but also, each channel takes its own slice of memory. So, there are no channels associated with the sub-windows. However, sometimes it is necessary to have a channel that "covers" a sub-window or an item. This is useful, for example, when one is supposed to type something "into" a loose menu item.

The solution consists in opening a normal "CON" channel and setting it over the item or sub-window. Once the operation is finished, the channel can be closed again, if need be.

There are three commands to place channels over each of the two types of sub-windows (information sub-windows and application sub-windows) as well as loose menu items. I have already pointed out that, when the window is moved, these channels do not move with it, and thus, after each change in the window's position (or, indeed size), you should re-set the channels over the sub-window or item concerned.

Of course, the channel to be set over the sub-window or item should be a "CON" channel, opened beforehand.

A - Setting a channel over an application sub-window

This is done with the *DR_AWDF* command:

```
DR_AWDF #channel, workdef, app_wdw%
```

sets a channel over the application sub-window the number of which is given by *app_wdw%*. As usual, the count starts from 0. You will, by now, have guessed that *workdef* is the working definition of the window enclosing the application sub-window and "#channel" is the channel to be used.

B - Setting a channel over an information sub-window

```
DR_IDF #channel, workdef, info_wdw%
```

sets a channel over the information sub-window the number of which is given by *info_wdw%*. As usual, the count starts from 0. You will, by now, have guessed that *workdef* is the working defini-

tion of the window enclosing the application sub-window and "#channel" is the channel to be used.

C - Setting a channel over a loose menu item

DR_NWDF #channel, workdef, item%
sets a channel over the loose menu item the number of which is given by app_wdw%. As

How to read QL disks on a PC

Jimmy Montesinos

Before beginning

Disks that have been formatted on a QL cannot be read directly on a PC without some special software, such as a QL emulator. Also, normally disk interfaces on the QL will only format DSDD disks (1440 sectors = 720 Kbytes).

If you use the more common form of HSDD disk of (2880 sectors = 1.44 Mb) for your PC, you can put sticky tape across the hole on the left of the disk (not the hole which is used to make the disk read-only). If you do this, the computer will think that the disk is only a DSDD disk.

Preparation of a disk

With the use of a small utility, you can format a disk on the QL, store data on it and later read that data on the PC.

This utility is: QLTOOLS 2.7 and was written by: Giuseppe Zanetti, Valenti Omar, Richard Zidlicky and Jonathan Hudson.

It is possible to download it from:

<ftp://ftp.nvg.unit.no/pub/sinclair/mirrors/ql/demon/>

Qltools27.nt.zip is for use under Windows 2000 or Windows XP. You might also want to read the following web-page of Richard Zidlicky:

<http://www.geocities.com/SiliconValley/Bay/2602/ql.html>

After decompressing the file `qltools.exe` onto your PC's hard disk, place an empty disk in the PC's disk drive and from the RUN command in the Start menu, type:

```
Qltools \\.\a: -fdd QLFloppy  
(\\.\a: is the description of the top disk drive in a PC that uses Windows NT/2000/XP - there is no space between the full stop and the backslash.)
```

Later it is possible to format the disk from the QL. Place the disk in the disk drive of the QL and

usual, the count starts from 0.

It is up to you whether you open and close the channel after each operation, or whether you keep open a general purpose "con" channel which you set to the sub-window/item each time it is necessary.

OK, that's it for now. More next time.

enter the command:

```
FORMAT FLP1_QLFloppy
```

There is a delay and the QL screen shows:

```
1440/1440 sectors
```

This part is needed only if your original QL floppy cannot be read directly by QLTOOLS, which should not happen with most disk interface like Sandy QBoard, GoldCard etc.

To copy files from the QL to this disk

Now is the time to transfer the original files of the QL onto this new disk:

If you have the TK2, you can for example use:

```
WCOPY MDV1_ TO FLP1_
```

After responding **A** ("ALL" Files) all the files on MDV1_ will be copied to FLP1_ (the floppy disk).

In order to copy all the files of a QL disk to this new disk the best thing is to use the Ramdisk.

This can be done with the following instructions:

```
FORMAT RAM1_1440
```

Then insert the original disk and enter:

```
WCOPY FLP1_ TO RAM1_
```

and answer **A**(All files).

Now insert the disk prepared on the PC and enter

```
WCOPY RAM1_ TO FLP1_
```

To read and use the files on a PC under QPC2

The users who have the best QL Emulator in the world (QPC 2) can directly read the files of this disk using the same instructions as on the QL, such as:

```
DIR FLP1_
LRUN FLP1_boot
COPY FLP1_ TO WIN1_
etc...
```

You do not need to prepare a special disk for this and can use the original QL formatted disk. QPC2 will even allow you to read from and save to a PC formatted floppy disk directly (the standard QL can read these disks with a variety of tools). If you copy an executable file to a PC formatted floppy disk, you have to remember two things:

- 1) The filename has to be in standard DOS format 8.3 (8 characters, full stop, then 3 letter filetype). Anything different will report an error (not found).
- 2) If the file is an executable, QPC2 will automatically make the 3 letter filetype **ex?** where ? is a number representing the amount of dataspace for the program. This extension will not appear when you read a directory of the device. Copy the file back to the QL from within QPC2 and the file dataspace is restored.

To read and copy these files onto the PC's hard disk

This is a little more complicated.

If the file is a EXECutable, the datasize needs to be written down so that this will be available when the file is used again. (for example, this QLAYW and QL2K use a file called QLAYDIR to hold this information).

In order to find out this value the following program can be used:

```
100 DIR flp1 _
110 INPUT "drive_filename: ";a$
120 inch=FOP_IN(a$)
130 f_type=FTYP(#inch)
140 IF f_type=1 THEN
150 PRINT"Executable with datasize of:
    "&FDAT(#inch)
160 ELSE
170 PRINT" Not an executable file "
180 END IF
190 CLOSE # inch
```

If, when you run the above program, it reports "Not an executable file", you do not need to do anything. The file may be a program in BASIC, binary, a Quill document or a simple text, etc..., but if during the execution of this program, a message appears that says: "Executable with datasize of: 256", we need to note that the file has datasize of 256.

The files which contain a datasize are those which can be run by means of the following instructions:

```
EXEC EXEC_W EX EW ET
```

For example, if we see in a program the instruction:

```
EXEC flp1_MyClock_exe
```

The file "MyClock_exe" will be without a doubt an executable file.

In order to know on the PC which files are on a QL disk, we enter:

```
Qltools \\.a: - d
```

And we will obtain something like:

```
GraphiQL 1233/1440 sectors.
demo 32768 25/01/196 04:38:17 v0
zkul 32768 25/01/196 04:40:57 v0
west 32768 25/01/196 04:44:58 v0
backup 410 25/01/196 04:44:59 v0
```

In order to copy these files into a directory on the PC's hard disk we need to use:

```
Md C:\QLFloppy
Qltools \\.a: - n demo>C:\QLFloppy\demo
Qltools \\.a: - n zkul>C:\QLFloppy\zkul
Qltools \\.a: - n west>C:\QLFloppy\west
Qltools \\.a: - n backup>C:\QLFloppy\backup
```

If you are using QPC2, although you can use:

```
COPY flp1_file TO DOS1_file
```

to copy directly to the PC's hard disk drive, this will not store the amount of dataspace required by an executable program. You will therefore need to make a separate note of this or use QLTools as above.

To place these files in a directory on the PC for use with QLAY/QL2K

You will need to copy the files to the appropriate place. In QL2K we can put the files within the directory WIN1 _ (which in effect is just another directory on the PC's hard disk).

You will find a utility called QLAYT that allows you to add each file so that the emulator recognizes it.

For example enter the command:

```
Qlayt - i demo
```

This adds the file demo to the qlay.dir in the directory where we are.

If you do not have QLAYT in that directory we can use something like:

```
C:\QL2K\QLAYT - i demo
```

Or

```
..\QLAYT - i demo
```

Most importantly you need to ensure that you include in the command prompt, a set of commands to specify where the directory of the WIN file is located to which you want to add the file.

For example:

```
C:\QL2K\WIN Drives\WIN1 _ >..\QLAYT - i demo
```

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Where "C:\QL2K\WIN Drives\WIN1 _)" is the command line prompt required. This will add the file "demo" to the directory stored at "C:\QL2K\WIN Drives\WIN1 _ " (QLAY/QL2K will need to point its WIN1 device at this directory).

In order to add an executable file, it is almost the

same, but parameter - d has to be added, followed by the amount of dataspace required.

For example:

```
..\..\QLAYT - i MyClock_exe - d 256
```

If you use that, everything will then work correctly from inside QLAY/QL2K.

Is Ireland closed?

Tony Firshman

You might remember in my last traveller's report from Ireland that there was a sign on the road to Wexford saying

Welcome to Wexford
and Sunny Ireland

closed

Stuart Honeyball (of Miracle Systems renown) and I were cycling to the Irish 'show' again via GWT and ferry and Iarnród. This time we were both travelling with tents/sleeping bags etc. Stuart suggested an Indian meal on the way in the north part of Bristol. We cycled there by way of a very interesting old railway line. The good thing about railway lines is they are essentially flat. This is a major consideration for someone as old and as unfit as I.

When I realised that the "Indian" was in a Wetherspoons I baulked. The last time I had soggy papadoms, dry cold nans, and the mango chutney (which I hate - give me pickle any time) came in little plastic jam type cartons. The curry this time though was actually quite good - ditto the beer (*The Guinness count doesn't start until Ireland*).

We then set out for Bristol Parkway and the familiar train. The route though was not. After Cardiff we took the scenic coast route, very slowly. It emerged later that there were

'engineering works' - but this is a Thursday!

At this point everyone started chatting - just like the war. "We will miss our connection at Lampeter?" "Will the ferry wait?" "The South East had a power failure"

A reassuring guard announced that our connection would wait.

We travelled to Rosslare by our old familiar work-horse "Princess Beatrice" - a massive hotel style ship from the Harwich-Hook line. It is now called something like "Stena Europe" - nothing like as romantic.

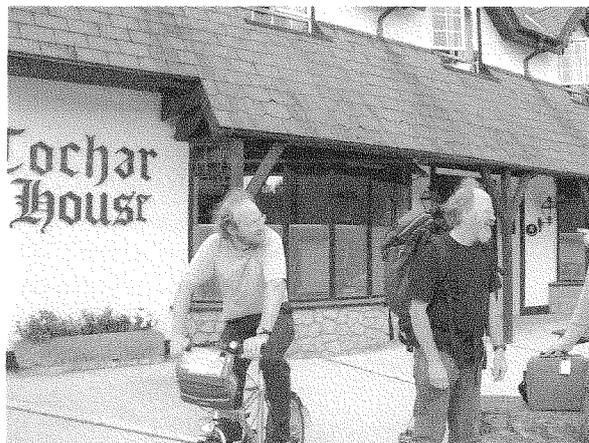
We had decided to catch the rusty train to Dublin this time. "Fold our bikes to avoid the 2 Euro charge". However we knew from past experience that the train does not wait for the boat, despite being the only morning train and catering for a large number of boat passengers. The reason for this is that the line, despite only taking three trains in each direction, is single track.

This time we were so early that the first train was going South to Cork. Now that would have been interesting!

We managed to catch the right train, so missed our favourite sign. Was Ireland closed this year? We even had Muesli in

bowls with milk and real spoons on the train - Stuart had thought ahead! We arrived in Dublin mid-morning. We set out for O'Connell Street. I don't know why really, but Stuart was in charge. We had our first Irish breakfast there.

I had "Paddy Byrne" bar written in my mobile phone - a recommendation from an Irish friend months before. We stopped there (*Guinness count 2*)



We then headed for the T43 and found it despite there being not one road sign, let alone numbers. Great - this leads straight to Enniskerry. We arrive at a junction. The road ahead was under construction, but again no road sign. The main road leads to the left so that must be the T43. A mile further down we began to have doubts. We stop and ask a local where the T43 is? "We don't understand the numbers" He though directed us back the right way - mainly the way we had come! We pass the other end of the road yet to be built! We arrive at the pub we were told about at the junction of the

T43 and stop for refreshment (G3). Still no road signs.

We then head for Enniskerry. At Enniskerry we stop to get money, and find a bar (G4).

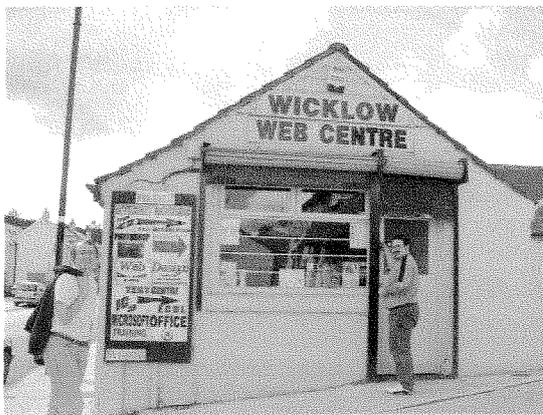
So far it has been flat, but the hills then start. I am nowhere near as fast as Stuart, but I make good steady progress. Stuart is

counting contour lines – that is 500 feet. We are now well and truly on the way to Roundwood and campsite. We have the presence of mind to ring and book – "We shut at 9pm". These hills are getting steeper and the deadline is looming. More contours, and my legs are really feeling tired. Stuart at one point on a seemingly vertical hill loaned me his bike. Wow – how easy it was on his with his low gearing. "My your bike is hard to ride" Stuart moaned. It was the first time I had seen him out of breath on the trip. Mind you he was carrying two rucksacks!

We had reached the plateau almost, when my legs gave out completely with really bad cramp. "You need an orange" – so I had one of the pile Stuart had. It was remarkable – within minutes I was cured, and we arrived at Roundwood. It was sobering to see a sign "The highest village in Ireland" and we had climbed the lot.

I then assembled my tent successfully. "So you should" I hear you cry, but I had never done it before – Ben had never let me. We then set off for Roundwood, and met Darren Branagh (the organiser) and John Hall in car. Guess where we ended up (G5-9). Darren sent me off at about midnight for a round. "Just mention my name".

Back to the campsite and a very good night's sleep.



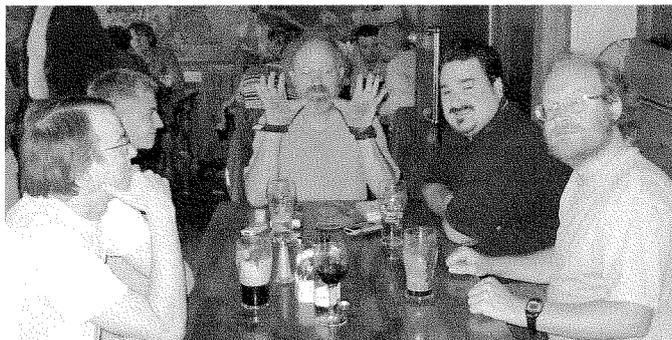
In the morning quite late more Muesli, and off to breakfast at Sally's Bistro for a **real** Irish breakfast. Bizarrely for a mid-town eater, the view out of the window was one of cows and rolling countryside.

Photos of us arriving and at the show

are on <http://www.firshman.co.uk>

I set up my products on the green cloth – for the rush of customers. We were in the quite small web centre, so there would not be much room. There were 6 computers there. I logged into MSN, and got someone in Kuala Lumpur to repair a broken system. I then got my son Ben popping up and saying 'Hello' Phoebus Dokos then came on line in the USA. We collectively spent quite bit of time trying to sort out his quibide problem. We failed, and it turned out later to be a dodgy connector.

We then spent a very jovial few hours working on QPC2, various QL software and general chat.



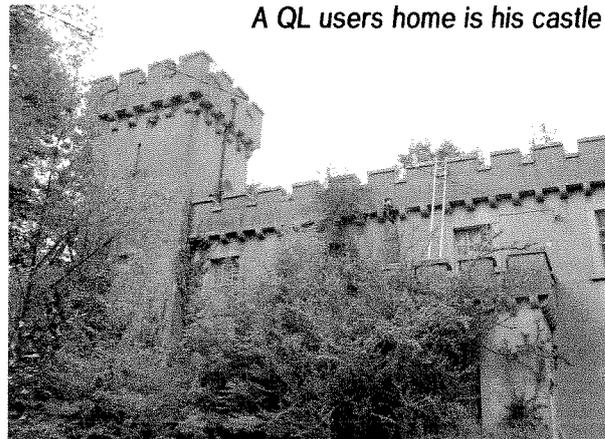
A customer arrived – but for the web centre.

We closed at 4pm I think – and not one customer. ... but we had expected this.

We then adjourned to guess where (G10-13)

Darren arranged a meal in Laragh – in the restaurant we went to last time, and excellent it was too again. (G14). Hilary O'Kelly was there (not as a customer this time) fresh from his nearby castle.

A QL users home is his castle



.. and off to bed.

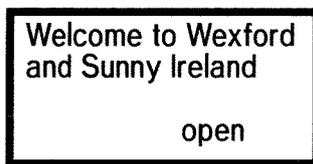
The following morning we finished the Muesli, packed our tents/belongings and cycled off to Sally for another real breakfast. Thence to Laragh to meet the others.

We ended up guess where but zero G for me this time (see picture below – the waving gloves)

We then set off for the train at Rathdrum. We took it to Ross-lare Strand – the stop before the ferry. We then cycled off into the wilderness looking for you know what (G14-15). Out-

side this bar were two rusty bikes beyond redemption. "What are they doing there?" "Ah well, they were in the bar for years but we moved them outside 5 years ago".

Off to the boat and the final bar. We then passed "The Sign"



.....but this was getting on for 9pm, and the said Tourist Office was very closed!!!!

We arrived at the last bar overlooking the ferry – but it had burnt to the ground and was very closed. (GO).

Back on the boat and heading for home. We got on a train for Lampeter at about 03:30.

SMSQ/E v 3.01

George Gwilt

No sooner do I manage to install SMSQ/E v3.01 on my Q40 and Q60 than I learn that this version is already superseded by v3.02!

However, the change from v2.97 (Q40) and v2.98 (Q60) to v3.01 is no doubt far greater than the change from v3.01 to v3.02. Hence my first impressions of v3.01 will no doubt be just as relevant as if I were commenting on the later version.

Q40

I never like to install a new version of SMSQ/E without having the option to return to the earlier one. For this reason my boot programs always include the possibility of pressing a key to change the default load. Thus when I first tried v3.01, I set the default as 2.97. Only by pressing a key at boot up time would the new version be loaded.

The fact that after only an hour or so I altered my boot so that the default was v3.01 should show that I was impressed right away by the new version.

Sprites

The first thing I noticed was the new GD2 sprites. For example, on moving or resizing a program the sprites which appear are quite different from the old versions. Actually these internal sprites also appear on all the

programmed examples in TurboPTR since these use the internal sprites as loose items.

Another difference is that once more PE programs show a shadow, now a transparent grey colour in place of the old inclined hatching.

All this makes for a much more pleasant feel, though of course the programs themselves operate as they used to . .

The Editor

At least that is what I assumed until I chanced to use The Editor. I find this program useful for producing clean ASCII. However, its main failing, as far as I am concerned, is its habit of running out of buffer space. This usually happens after I have spent a long time altering a document. I am trying to move a paragraph from one place to another when, suddenly, the dreaded "out of space" warning comes up. When this happens you are lucky if you can save any of the painstaking alteration you have made. To prevent this I am now in the habit of reserving space every time I load The Editor. I do this with "m 2000" which no doubt sets up a wildly extravagant buffer of 2000K. However, when I tried this with SMSQ/E v3.01 loaded I found that the maximum buffer allowed was around 840K. I immediately checked the amount of free space by using FREE_MEM and found to my relief that it was still at the usual high level.

Luckily I have the source code for The Editor and from this was able to discover that the available space was taken as

`SV_FREE - SV_BASIC`

as recommended in the manual for Turbo TK Code, and as used for the value of FREE_MEMORY.

Obviously the allocation of RAM has changed from the usual in all previous manifestations of Qdos.

I checked that TK2's FREE_MEM just returned the result of calling Trap#1's MT_FREE. This has always, in my experience, given virtually the same answer as FREE_MEMORY. At least up until now.

While it was a simple matter to amend my version of The Editor and recompile it so that the amount of free space was more realistically assessed, it occurs to me that there may be other programs out there with the same problem when run under v3.01.

Actually Turbo is one of these and a new version will once more allow large allocations of buffer for Parsr_task and for the setting of a program's data-space.

Borders

I don't know if anyone else has noticed a problem with the setting of borders. The problem came up when I wanted to make a small window inside the program's main one disappear. I thought that the easiest way of doing this would be to make its

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The Updates are here!

Yes, they were released at the Berchtesgaden QL Show and are now generally available. As mentioned in earlier issues, please send in your master disks for proof of purchase. They will be returned unmodified to you, so that you still have access to the older versions. For every product listed below, you will get a new disk with the current high-colour updated software!

I suggest you order the Colour Utility disk one time if you upgrade to high-colour, as it contains utilities and samples how to change colours, themes and even sprites within a theme (thanks to Roy Wood and Marcel Kilgus).

I am glad to have these last-minutes News for you - NOW the magazine can go to the printer!

Update & Upgrades (für Hi-Colour)

QPC2 Version 3 - Upgrade from QPC2 Version 2	EUR 20,40
QPC2 Version 3 - Upgrade from QPC2 Version 1	EUR 44,90
QPC2 Version 3 - Upgrade from QPC1	EUR 69,90
SMSQ/E Version 3 - Upgrade for (Super)GoldCard with Aurora-Colour Drivers	EUR 34,90
QPC2 Version 3 - Update from QPC2 Version 3 to current Version	EUR 0,80
SMSQ/E Version 3 - Update from ATARI, (Super)GoldCard or QXL	EUR 0,80

We recommend the Colour Utility Disk if you upgrade to SMSQ/E Version 3! **EUR 0,80**

QD2003 - Upgrade from QD98	[VB.01]	EUR 14,90
QD2003 - Upgrade from previous versions	[VB.01]	EUR 29,90
QSpread2003 - Upgrade from QSpread2001	[V4.00]	EUR 14,90
QSpread2003 - Upgrade from V1	[V4.00]	EUR 39,90
FiFi II - Update from V4.xx	[V4.30]	EUR 0,80
FiFi II - Upgrade from FiFi V1, 2 or 3	[V4.30]	EUR 9,90
WINED - Update	[V1.26]	EUR 0,80
EPROM Manager - Update	[V3.02]	EUR 0,80
QPAC I - (Important! New Sysmon for SMSQ/E V3)	[V1.09]	EUR 0,80
QPAC II - Update with some useful improvements	[V1.42]	EUR 0,80
QSUP - Update	[V4.00]	EUR 0,80
QMAKE - Update	[V4.31]	EUR 0,80

Prices include NEW DISK PER PRODUCT AND POSTAGE PER DISK for deliveries to Europe. For delivery to USA, add EUR 0,20 per disk.

Please add one-time packaging charge 2 EUR for Europe, 4 EUR for USA.

border zero and clear the window, which had a paper colour equal to that of the main window. I was using COLOUR_NATIVE. To my surprise I found that whatever size of border was originally set, setting it to zero had absolutely no effect. This is also true of COLOUR_PAL and COLOUR_24. Only by using COLOUR_QL could I succeed in setting a zero border.

I confirmed by writing and using an assembler program that this was a feature of the Trap#3 calls and not something only appearing in BORDER when COLOUR_NATIVE etc were in operation.

I was therefore keen to see whether this had been corrected in v3.01 - for I must say it seems very like a fault rather than a feature. I must report that, alas, there was no change.

Q60

My experience with SMSQ/E v3.01 on the Q60 was identical to that on the Q40 apart from one thing. I suppose I should have paid more attention to the various READMEs in the directo-

ries which were already installed when I received my Q60. Thus it was that only a few days ago did I discover the effect of the nice program, History_Res, by HP Recktenwald which allows you to go through the previous commands issued in Master Basic by using the up and down arrows.

In my boot program, which is a mixture of what I always like in all my boot programs and what was supplied originally in the Q60, I discovered that History_Res was LRESPRd, followed by commands to set screen size to 1024x512 or 512x256 according to a choice by key press, followed again by "HISTORY#0,50".

This clearly enables the effect that I had noticed. However, with SMSQ/E v3.01 and with the large screen the effect had disappeared, though it still worked if I elected the small screen at boot up. Not willing to give up my newly discovered gem, I tried the simple expedient of placing the LRESPR after the setting of screen size. For some reason that worked. But it makes me wonder exact-

ly what has changed between v2.98 and v3.01 to cause this. Is it something to worry about?

Summary

SMSQ/E v3.01 is a fine advance on v2.97 and v2.98, mainly in the changes to wman, which should entice people to write more programs for the QL. Superficially, at a first glance, this is how v3.01 appeared to me.

Advantages are:

- + New good looking sprites
- + Re-appearance of shadows

A change to note is:

That 'SV_FREE - SV_BASIC' is no longer the free space available in RAM.

A missed opportunity:

To allow borders to be reset to zero with the GD2 calls.

To allow intermediate screen sizes on Q40/60.

[Editor's note: we hope to have a reply (and maybe fix) in the next issue of QL Today by the registrar]

QL-Tunes

Stephen Poole

The Duo-music program I sent you to look at can be found in the Quanta Library, but the code, and especially the music-files, are much too voluminous to be printed in QL Today. So I have rewritten a solo music program (or should I strictly say: Beeper), especially for QL Today readers, as there has been precious little written in QL literature on the subject, and as we move on to the Q40 and Q60, it is time to do an article before it is too late. The QL User-Guide says succinctly to experiment, but after having written dozens of routines to give graphic analysis of the sound functions, I must say that there is very little logic in them, and that they are very hard to use predictively. The TURBO documentation, (section 4.11), gives some general advice and briefly sketches out a method for machine-code integration. There is a sound experimenter, but the

parameters are not adequately explained in detail. The various interferences between noise controls, BEEPING, PAUSE and INKEY\$, (due to poor coordination between the 680x0 and the IPC 8049 processors), destroy the regularity of output. As the manual states, PLAY_TUNE works very slowly under the interpreter, mainly because it parses all possible QL sound parameters. Having successfully achieved what I wanted for Duo music, I decided to have another look at solo scores and see if I could produce a simple, stable program which anybody could easily adapt for their own needs.

My first decision was to load music using numbered DATA statements, which are easy to enter and check, both in listings and on music scores. There are 6 tunes, averaging 45 notes per score, entered as note-number, note-type and tone. The tempo is determined before READING the notes, and may be changed whilst inputting them. The TEMPO routine is called to rapidly initialise all the note time-values in one go. An INITIALISE routine is

called once at the start of the program to fix all the tones. Rests are possible as are dotted notes, and here I assume, (as throughout this piece), that readers are familiar with music notation to at least secondary school level. Notes cover octaves from c4 ascending to c0, lengths from semibreve to demisemiquaver, with choice of 10 tempos. A demisemiquaver at a fast tempo is reproduced acceptably, and output can be very fast. Unfortunately, there are no slurs, trills or other such ornamentation, and I have deliberately left out most secondary sound parameters, as all these bells and whistles are mainly gadgetry having little place on a music-sheet.

To avoid legal complications, I have chosen traditional English Folk-songs for this program, as most music has authors rights which must be taken into consideration. The French government

has recently decided to tax new computer floppy-disks to help pay for piracy, although I find it hard to believe that DD disks can contain any significant length of music on them.

The listing should be fairly self-explanatory once you have studied it briefly, and can be easily adapted to encompass loops and suchlike by dabbling around with the calling code. But I must admit that after thrashing around for several hours, I cannot adapt it to run reliably under SMSQ/E. The problem appears to be random, but I am beginning to suspect our power supply may be going haywire. I hope this article will plug a hole which has existed for a long time, and that readers will find this program useful for such purposes as revealing the melody of a song-sheet before the score has been learnt. That helps me a lot to facilitate my recorder-practising!

```

100 ::
110 REMark QL_TUNE_bas, by S.Poole, v2sept2003.
120 REMark Unreliable when EXECed under SMSQ.
130 :
140 CLEAR: OPEN_NEW#1,con_32: WINDOW 512,256,0,0: CLS
150 init: pr=0: main: REMark set pr to 1 to aid debugging.
160 :
170 DEFine PROCedure main
180 REPEAT loop
190 LIST#1,230 TO 340: PRINT\\ 'Which Tune no? (or any key to quit)'
200 i$=INKEY$(#1,-1): tune='0'&i$
210 :
220 SElect ON tune
230 =1: RESTORE 910
240 tp=moderato: play: REMark The Elfin Knight
250 =2: RESTORE 1010
260 tp=moderato: play: REMark The Two Brothers
270 =3: RESTORE 1110
280 tp=moderato: play: REMark The Wife of Ushers Well
290 =4: RESTORE 1220
300 tp=moderato: play: REMark The Cuckoo
310 =5: RESTORE 1300
320 tp=moderato: play: REMark Katie Morey
330 =6: RESTORE 1420
340 tp=moderato: play: REMark The Bridle and Saddle
350 =REMAINDER : CLS: RETurn
360 END SElect : CLS
370 END REPEAT loop
380 END DEFine
390 :
400 DEFine PROCedure play
410 tempo tp: READ notes,name$
420 AT 15,0: CLS 3: PRINT !!name$
430 FOR f=1 TO notes
440 READ nbr: IF pr: AT 1,0: PRINT !nbr,
450 READ dr : IF pr: AT 2,0: PRINT !dr,
460 READ pt : IF pr: AT 3,0: PRINT !pt,
470 IF (pt=ps) THEN
480 PAUSE dr
490 ELSE
500 BEEP 0,pt: PAUSE dr: BEEP: PAUSE 1
510 END IF : IF pr: PAUSE -1
520 END FOR f
530 END DEFine
540 :

```

```

550 DEFine PROCedure init
560 REMark e.g: c0 is highest note, d3 is in lowest octave:
570 REMark e.g: ab2 is A_sharp or B_flat in second octave:
580 c0=0: b1=1: a1=2: ga1=3: g1=4: fg1=5: f1=6: e1=7: de1=8: d1=9: cd1=10
590 c1=11: b2=12: ab2=14: a2=15: ga2=17: g2=18: fg2=20: f2=22: e2=24
600 de2=26: d2=28: cd2=30: c2=32: b3=35: ab3=38: a3=41: ca3=44: g3=47
610 fg3=50: f3=54: e3=57: de3=61: d3=65: gd3=70: c3=75
620 REMark ps is a rest_note, sec is a 50-unit pause for inkey$:
630 ps=-1: sec=50: bd=sec/10
640 REMark These successive tempos are approximate:
650 presto=1: vivace=2: allegro=3: allegretto=4: moderato=5
660 andante=6: andantino=7: grave=8: lento=9: lentissimo=10
670 END DEFine
680 :
690 DEFine PROCedure tempo(temp)
700 tmpo=temp
710 SElect ON tmpo
720 =1 : val=sec-bd*4
730 =2 : val=sec-bd*3
740 =3 : val=sec-bd*2
750 =4 : val=sec-bd
760 =5 : val=sec
770 =6 : val=sec+bd*2
780 =7 : val=sec+bd*4
790 =8 : val=sec+bd*8
800 =9 : val=sec+bd*16
810 =10: val=sec+bd*24
820 END SElect
830 REMark semibreve,minim,crochet,quaver,semiquaver,demisemiquaver:
840 sbv=val: mim=sbv/2: crt=sbv/4
850 qvr=sbv/8: sqv=sbv/16: dsq=sbv/32
860 REMark dotted notes:
870 sbv_=sbv*1.5: mim_=mim*1.5: crt_=crt*1.5
880 qvr_=qvr*1.5: sqv_=sqv*1.5
890 END DEFine
900 :
910 DATA 41,'The Elfin Knight'
920 DATA 1,crt,d2, 2,crt,b2, 3,crt,d1, 4,crt,b2, 5,crt,a2, 6,crt,g2
930 DATA 7,crt,e2, 8,crt,g2, 9,crt,g2, 10,crt,e2, 11,mim_,d2
940 DATA 12,crt,b3, 13,crt,d2, 14,crt,d2, 15,mim,d2, 16,crt,d2
950 DATA 17,crt,e2, 18,crt,g2, 19,crt,g2, 20,mim,a2, 21,crt,g2
960 DATA 22,crt,b2, 23,crt,d1, 24,crt,b2, 25,crt,a2, 26,crt,g2
970 DATA 27,crt,g2, 28,crt,a2, 29,crt,g2, 30,crt,e2, 31,mim,d2
980 DATA 32,crt,d2, 33,mim,e2, 34,crt,g2, 35,crt,a2, 36,crt,b2
990 DATA 37,crt,a2, 38,crt,g2, 39,crt,g2, 40,crt,e2, 41,mim,d2
1000 :
1010 DATA 38,'The Two Brothers'
1020 DATA 1,crt,d2, 2,mim,g2, 3,qvr,a2, 4,qvr,g2, 5,crt,f2, 6,crt,f2
1030 DATA 7,crt,d2, 8,crt,e2, 9,crt,e2, 10,crt,f2, 11,mim,d2, 12,crt,a2
1040 DATA 13,crt,d1, 14,crt,d1, 15,qvr,e1, 16,qvr,d1, 17,qvr,c1
1050 DATA 18,crt_,a2, 19,crt,c1, 20,mim,d1, 21,crt,a2, 22,mim,d1
1060 DATA 23,crt,e1, 24,qvr,c1, 25,crt_,a2, 26,qvr,d1, 27,qvr,d1
1070 DATA 28,mim,a2, 29,crt,d2, 30,mim,f2, 31,crt,d2, 32,mim,a2
1080 DATA 33,qvr,a2, 34,qvr,g2, 35,crt,f2, 36,crt,d2, 37,crt,e2
1090 DATA 38,mim,d2
1100 :
1110 DATA 48,"The Wife of Usher's Well"
1120 DATA 1,qvr,g2, 2,qvr,a2, 3,qvr,b2, 4,qvr,b2, 5,qvr,b2, 6,qvr,a2
1130 DATA 7,mim,b2, 8,qvr,b2, 9,qvr,a2, 10,qvr,g2, 11,qvr,b2, 12,qvr,a2
1140 DATA 13,qvr,g2, 14,crt,d2, 15,mim_,e2, 16,qvr,g2, 17,qvr,a2
1150 DATA 18,crt,b2, 19,mim,e1, 20,crt,e1, 21,crt,b2, 22,crt,d1, 23,crt,b2
1160 DATA 24,crt,a2, 25,mim_,b2, 26,crt,g2, 27,crt,b2, 28,crt,d1
1170 DATA 29,qvr,e1, 30,qvr,e1, 31,mim_,d1, 32,qvr,g2, 33,qvr,b2
1180 DATA 34,crt,d1, 35,crt,b2, 36,crt,g2, 37,mim_,e2, 38,crt,g2
1190 DATA 39,crt,a2, 40,mim,b2, 41,crt,b2, 42,crt,a2, 43,crt,b2
1200 DATA 44,crt,a2, 45,crt,g2, 46,crt,e2, 47,crt,d2, 48,mim_,e2
1210 :

```

1220 DATA 32,"The Cuckoo"
1230 DATA 1,crt,d2, 2,crt,e2, 3,crt_,b2, 4,qvr,c1, 5,qvr,d1, 6,qvr,b2
1240 DATA 7,qvr,a2, 8,qvr,f2, 9,mim,d2, 10,crt,d2, 11,crt,e2, 12,crt_,b2
1250 DATA 13,qvr,a2, 14,crt,c1, 15,crt,b2, 16,mim,a2, 17,crt,a2
1260 DATA 18,crt,b2, 19,crt_,e2, 20,qvr,d2, 21,crt,f2, 22,crt,d2
1270 DATA 23,crt,d2, 24,crt,b3, 25,mim,d2, 26,crt,d2, 27,crt,e2
1280 DATA 28,crt,f2, 29,mim,a2, 30,crt,g2, 31,crt,f2, 32,mim_,e2
1290 :
1300 DATA 48,"Katie Morey"
1310 DATA 1,qvr,d2, 2,qvr,b2, 3,qvr,c1, 4,crt_,d1, 5,qvr,d1, 6,qvr,c1
1320 DATA 7,qvr,b2, 8,crt_,c1, 9,qvr,a2, 10,qvr,b2, 11,qvr,c1
1330 DATA 12,crt_,d1, 13,qvr,b2, 14,qvr,c1, 15,crt_,d1, 16,qvr,ps
1340 DATA 17,qvr,d2, 18,qvr,b2, 19,qvr,c1, 20,crt_,d1, 21,qvr,d1
1350 DATA 22,qvr,c1, 23,qvr,a2, 24,crt_,c1, 25,qvr,d1, 26,qvr,b2
1360 DATA 27,qvr,a2, 28,crt_,b2, 29,qvr,a2, 30,qvr,g2, 31,crt_,b2
1370 DATA 32,qvr,ps, 33,qvr,b2, 34,qvr,g2, 35,qvr,g2, 36,qvr,d2
1380 DATA 37,qvr,d2, 38,crt_,b2, 39,qvr,a2, 40,crt,g2, 41,qvr,b2
1390 DATA 42,qvr,a2, 43,qvr,g2, 44,qvr,f2, 45,qvr,g2, 46,qvr,a2
1400 DATA 47,mim,g2, 48,qvr,ps
1410 :
1420 DATA 62,"The Bridle and Saddle"
1430 DATA 1,crt,c1, 2,crt,d1, 3,qvr,c1, 4,qvr,c1, 5,crt,a2, 6,crt,f2
1440 DATA 7,crt,g2, 8,qvr,f2, 9,qvr,f2, 10,mim,d2, 11,crt,c2, 12,crt,d2
1450 DATA 13,crt_,f2, 14,qvr,g2, 15,mim,a2, 16,mim,f2, 17,mim,a2
1460 DATA 18,mim,f2, 19,qvr,a2, 20,qvr,a2, 21,crt,a2, 22,crt,g2
1470 DATA 23,crt,f2, 24,crt,a2, 25,mim,c1, 26,crt,c1, 27,crt,d1
1480 DATA 28,qvr,c1, 29,qvr,c1, 30,crt,a2, 31,crt,f2, 32,crt,g2
1490 DATA 33,qvr,f2, 34,qvr,f2, 35,mim,d2, 36,crt,c2, 37,crt,f2
1500 DATA 38,mim,f2, 39,crt,g2, 40,crt,a2, 41,mim,f2, 42,mim,a2
1510 DATA 43,mim,f2, 44,qvr,a2, 45,qvr,a2, 46,crt,a2, 47,crt,g2
1520 DATA 48,crt,f2, 49,crt,a2, 50,mim,c1, 51,qvr,c1, 52,qvr,c1
1530 DATA 53,crt,d1, 54,qvr,c1, 55,qvr,c1, 56,crt,a2, 57,qvr,f2
1540 DATA 58,qvr,f2, 59,qvr,g2, 60,qvr,g2, 61,crt,f2, 62,crt,d2
1550 ::

Correction / Notice

Bruno Coativy,
1 Square de Narvik,
35200 Rennes,
France
25th July 2003

Dear Dilwyn,

First I would like to thank you for compiling the first QL Today CD-ROM. Be assured, I enjoyed it very much. It's a must for people that don't have access to the internet and I, for one, am looking forward to the next one.

Next - talking about it - I am quite surprised to see it includes some of my programs which are in no way freeware or whatever. The are contained in the files (directory zips_toolkits_-):

BITS_ZIP	FACT_ZIP
FRACT_ZIP	LWCUCP_zip
MINMAX_zip	PTRRTP_zip
REV_ZIP	SGN_ZIP
SWAP_zip	TRIM_zip
TRIPRODR_zip	TRUFAL_zip

They should not be here. More embarrassing is

that these softwares are very old ones and are both poorly written and bugged.. To my knowledge the only program I have ever written that can be freely copied is "scrparo", which is part of C68.

Please note that I do not blame you here. You have done a very good work.

Regards,
Bruno.

Thank you for your kind words about the cover CD. We very much hope that one day we will be able to produce another one. Thank you also for the article you wrote.

I was not aware of the copyright situation with this software, and have removed it from all other CDs from myself and Q-Celt Computing, with apologies to you for any embarrassment caused. It is obviously too late to do anything about this CD, so I urge readers to take note of what you have said in your letter and not to copy the software you have listed. For reference, they were also in a directory of the same name on the QL Emulators CD.

Dilwyn Jones

SMSQ/QDOS and mobile Devices

Jochen Merz

You probably had some expectations when you saw the cover.

Well, it does not say "on mobile devices" although this would be great.

But there are many things you can already do. The picture on my mobile phone (to which Phoebus referred to in his last article) is just a background of the QL picture, and that's it, unfortunately. Well, the phone is programmable (Java and Symbian) ... and I can't really see why I would want to have SBASIC on the phone (no time to program anyway) but it is useful for other purposes.

SMSQ (and QDOS) can connect to these phones in various ways. In my article, I only refer to Nokia phones because these are the ones I use myself. I am sure you can do similar things with Siemens or Ericsson phones (with some limitations I know of). All features work on Nokia 6210, 6310, 6310i, 7210, 7650 and 3650. I am fairly sure it works on all recent Nokia phones which are able to handle data.

First, the connection: QL users only have one choice: serial data cable. Has anyone tried to connect a serial infrared receiver to one of the serial ports? If so, does it work? This would be an alternative method to connect, much more flexible and cheaper.

QPC-SMSQ/E users, however, have a third option: Bluetooth! Although I had many problems with my first Bluetooth card, I would not want to miss it now. Bluetooth adaptors are quite cheap nowadays. You get a few PCMCIA cards like the one shown on the cover (which has the advantage that you can

turn the antenna down and push it into the card, so it disappears complete in the machine and nothing sticks out of the PCMCIA port), but the cheaper ones are usually USB Dongles. So far, I have seen three different types of Bluetooth software drivers, the best (by far) being the drivers from Widcomm (which only seem to exist together with USB dongles).

As Bluetooth is a up-to-10m wireless connection, it allows you to place the laptop at some comfortable place in a room, and the phone at the window (reason could be, that the network is better at this place). I also use Bluetooth to connect to a dot-matrix printer at home which is on the opposite side of the room, where a parallel cable would be too long. Nice!

Anyway, back to the phone connection: if you have your phone connected via cable to a serial port, then it is quite clear which port you need to use. If you have it connected via infrared, then your system will tell you which "virtual" COM port is used by infrared. It was rather easy on Windows98, more tricky on XP.. but it is possible to get it under most systems (don't know about NT). For Bluetooth, you have various profiles for doing various things with the phone, and every profile defines the usage of the COM port. Most Bluetooth software allows you to define which port is connected to which profile. If your software does not let you create virtual COM ports for specific purposes, then I suggest you install the Bluetooth software before you install other devices

(as every COM port counts up by one, and it is quite easy to get up to COM12 or COM13... and QPC2 "only" supports COM1 ... COM8 which default to SER1 ... SER8).

There are lots of profiles available in the phone, but the interesting three are **SPP** (emulating a serial cable connection) and, the two which I use, **FAX** and **DUN** (fax and dial-up-network). Both fax and dial-up-network behave like a modem (and behave like the serial cable or infrared connection without Bluetooth).

If you dial out on the Fax profile, the phone shows an F to denote fax, or a D for DATA. You get various D's if you use high-speed connections (yes, I can connect to my BBS at rates of 5kByte through my mobile phone - one of the things Siemens and Ericsson can't do!). Dialling out is done like you do with every other "normal" modem using QTPI or QFAX, for example, using the **ATD** command.

If you have infrared or **DUN** connected to, say COM6, you start QTPI and set the serial device to SER6 (provided you are using the QPC2 default settings where every SER port corresponds to the same numbered COM port).

You can see what type of phone you are connected to by issuing **ATI** commands like you do with any normal modem too. Interestingly, the **DUN** profile of my phone echoes the character right from the start, whereas the **FAX** does not echo. Well, **ATE1** and it is turned on, no problem.

If you've used modems before, you know that there are various **ATI1**, **ATI2**, ... commands to get the device to reveal a bit more information about itself.

Type **ATI**, the response in my

RWAP Services NEWS!

New Websites!

We are proud to present our new websites! Starting September, we have separated our business in three separate websites.

You can find them at:

<<http://www.rwapadventures.com/>> (Adventure Games)
<<http://www.rwapadventures.co.uk/>> (General Site) and
<<http://www.rwapsoftware.co.uk/>> (Software)

Our old address: <<http://hometown.aol.co.uk/RWAPSoftware/>> is of course still functioning but will be deprecated in the future.

New Products!

QWORD 1.0

The wait is now over! Q-Word version 1 is finally available!

Platforms:

QPC/QXL, Q40/Q60, Aurora (with SGC)

Prices:

All versions without P-Word £20.00p
All versions with P-Word £30.00p

Notes:

Q-Word **DOES NOT** require SMSQ/E with GD2 support -OR- SMSQ/E at all on the Aurora or Qx0 machines. It works on the highest colour depth everywhere regardless of Operating System.

The Aurora version is available on either HD or ED disk. For the latter add £1.00 to the price. ED version is uncompressed and can be run directly from the floppy. All other Floppy versions are compressed. QPC/QXL version comes on CD. Non CD versions DO NOT support digital sound on QPC2

Quantum Leap ED Drives

After many years of unavailability, here they are again! These are high quality Mitsubishi constructed/IBM badged drives with full warranty.

Unlike previously sold ED drives, these do not require FLP_JIGGLE and have no problems formatting 720K disks. However for the latter a switch is included with the cable.

ED Bare unit (no cable) £ 29.99p
ED Boxed unit (complete with cable/ PSU) £ 98.99p
Single unit Cable (with switch) £ 4.99p
Dual unit Cable (with two switches) £ 5.99p
(More options available, contact us for details. Also available mass quantities of ED and DD disks!)



for Windows

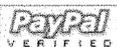
For QLers that run Windows or with incompatible hardware for Talent Games, we now have re-released these adventures so that they can run on your Windows-equipped PC. No Emulator, floppies, microdrive backups etc. required, just a one-click install! Of course the full QL line is still available! (See side column)

Talent Games for Windows ea. £ 10.00p
(Each Game includes a runtime installation of QLAY-2 by Jimmy Montesinos)

RWAP Services

35 Chantry Croft, Kinsley, Pontefract, West Yorkshire, Wf9 5JH, United Kingdom Tel: +44 1977 610509 (From the UK dial: 01977 610509)
Website: <http://www.rwapadventures.co.uk>

We accept:



(For PayPal please add 4% to the total price. Cheques in £ sterling made payable to R. Mellor)

Old Favourites!

Utilities

Sidewriter v1.08	£ 10.00p
<i>Landscape Printing (EPSON printers)</i>	
ImageD v1.03	£ 10.00p
<i>3D object generator</i>	
Q-Help v1.06	£ 10.00p
<i>Superbasic On-Screen help system</i>	
Q-Index v1.05	£ 5.00p
<i>Keyword-to-topic finder</i>	
ProForma ESC/P2 Drivers v1.04 for ProWeSs	£ 8.00p
<i>Printer Driver</i>	

Applications

Flashback SE v2.03 (upgrade only)	£ 5.00p
<i>Database</i>	
QL Cash Trader v3.7	£ 5.00p
<i>Accounting/Finance</i>	
QL Payroll v3.5	£ 5.00p
<i>Accounting/Finance</i>	
QL Genealogist v3.26	£ 20.00p
<i>Genealogy</i>	
Genealogy for Windows	£ 50.00p
QL Genealogist to Windows version upgrade	£ 25.00p
QL Cosmos v2.04	£ 5.00p
<i>Planetarium</i>	
Q-Route v2.00	£ 25.00p
<i>Route Finding</i>	
Upgrade from v1.xx	£ 5.00p
Britain map v1.11	£ 2.00p
BIG Britain map (needs 2Mb) v2.03	£ 5.00p
Various Britain Area maps (ask for details)	ea. £ 2.00p
Ireland map v1.00	£ 5.00p
Belgium map v1.01	£ 2.00p
Catalonia map v1.03	£ 2.00p
P-Word UK English Dictionary (500.000 words!)	£ 15.00p
<i>Dictionary</i>	

Leisure

Return to Eden v3.08	£ 10.00p
<i>Adventure</i>	
Nemesis MkII v2.03	£ 8.00p
<i>Adventure</i>	
The Prawn v2.01	£ 8.00p
<i>Adventure</i>	
Horrorday v3.1	£ 8.00p
<i>Adventure</i>	
West v2.00	£ 5.00p
<i>Adventure</i>	
The Lost Kingdom of Zkul v2.01	£ 5.00p
<i>Adventure</i>	
All 6 games above	£ 25.00p
D-Day MkII v3.04	£ 10.00p
<i>Strategy/War Simulation</i>	
Grey Wolf v1.08	£ 8.00p
<i>Graphical Submarine Simulation</i>	
War in the East MkII v1.24 (upgrade only)	£ 5.00p
<i>Strategy/War Simulation</i>	
Open Golf v5.20	£ 8.00p
<i>Sports Simulation</i>	
QuizMaster II v2.07	£ 5.00p
<i>Quiz</i>	
Stone Raider II v2.00	£ 5.00p
<i>Arcade Game</i>	
Hoverzone v1.2	£ 5.00p
<i>Arcade Game</i>	
Deathstrike v1.5	£ 5.00p
<i>Arcade Game</i>	
Flightdeck v1.0	£ 10.00p
<i>Flight Simulation</i>	
All 8 games above (Open Golf, QuizMaster II, Stone Raider II, Hoverzone, Deathstrike and Flightdeck)	£ 28.00p

Notes on Software requirements

The following programs have a minimum SGC card requirement: P-Word, Qword, Big Britain MAP for Q-Route

case is **Nokia**. Well, not surprising!

ATI1 is probably the IMEI (phone identification) number.

ATI2 returns **V3.16** and the release date of the software version.

ATI3 returns **Nokia 3650** (the detailed model) or **Nokia 6310i** etc.

From here on, everything is the same - you can call BBSes or fax like you do with any other normal modem.

I was mentioning the **SPP** (serial port profile) before, which I also use from SMSQ. Not on the mobile phone, but on a Bluetooth device called "Pico Plug". Extremely versatile item this is, and not expensive! It is a plug with two connectors (9 pin serial and Centronics parallel port). You can use it like a Bluetooth dongle or PCMCIA card if you plug it into the serial port

of your laptop or computer - and this is how you configure it too (this is the serial host functionality of this device). If, however, you plug it into the serial port of a printer or a modem, then you can access it wireless from any computer or laptop with a Bluetooth dongle or card (this the serial client functionality). If you plug it into a parallel port of a printer, then you can print wireless too. It auto-detects and is very flexible. Don't get confused about the naming (Serial Port Profile), it is used to print to the serial port or the parallel port on the client side - you decide which port is used by plugging it into the device of your choice. On the QPC side, you print to a serial port (SER1...SER8) and still print to a printer on the parallel port, if it is connected to a parallel port. It may sound a bit confusing, but it is very useful.

And if you have decent Bluetooth software, you can have

up to 8 (yes, eight!) wireless connections. Your mobile office can become reality, even under SMSQ!

I have too many cables in my office anyway, and when I rearranged the printers it was clear I cannot reach all of them with a parallel port cable. USB cables cannot be THAT long either (5m without boosters is the limit, I heard), my USB-to-SER/PAR hubs don't work properly under XP anyway, and Printerservers... well, look at the prices. Wireless Printerservers - well, don't waste your time searching for them let alone looking at the prices!

The only drawback so far is that Bluetooth devices seem to be limited to 10 or 20 meters, and they don't go through walls. I discovered that ACER is offering new Bluetooth dongles which go up to 100m. I'm sure I'll try one soon. I will keep you informed..

Converting GD2 Graphics

Dilwyn Jones

Recently, I needed to convert some QPC2 mode 32 high colour screens to be useable in a Windows program.

The easiest way was to display the picture on the QPC2 screen and press Print Screen on the PC keyboard and it could then simply be pasted directly into another program on the PC.

However, I needed to write a routine (preferably in SBASIC) to do some general conversion work. Malcolm Lear has already written programs to convert from Windows .BMP (BitMaP) files to GD2 screens for SMSQ/E - his routines are available from my PD library and website.

I decided to do the reverse operation, namely write a routine to convert from QL screens to Windows .BMP files. In theory, it should have been easier than converting from .BMP files as the conversion is from a lower (16-bit) colour scheme up to a scheme where more colours are available (24-bit colour), so I did not need to bother with shading or dithering routines.

At about the time I was thinking of this routine,

Marcel Kilgus had released the latest QPC version, which included the 256-colour Aurora-compatible drivers, so I was also faced with 8-bit colour as well as 16-bit colour. Plus, the 16-bit mode 33 colours on Q40 and Q60 are not the same as the 16-bit mode 32 graphics on QPC and QXL systems.

I obtained information about Windows .BMP files from the internet (along with information on GIF, JPEG, PNG and TIFF files which I can supply from my PD library if anyone wants them). I chose .BMP files as it was the easiest format to handle - no compression is involved for example. The downside was that the files can be huge, 50% bigger than the equivalent QL 16-bit graphics, or three times the size of an 8-bit graphics file. As an example, an uncompressed 512x256 screen requires the following storage space:

Standard QL 4-colour screen:	32,768 bytes
Aurora 256 colour mode 16 screen:	131,072 bytes
QPC or Q40/Q60 16-bit colour screen:	262,144 bytes
Equivalent .BMP 24-bit colour file:	393,216 bytes

We need to be aware of the various graphics formats in these different QL screen modes.

MODE 16 (Aurora) 256 colour

Each pixel is stored in one byte, with the following format, where the colour is made up of red (R), blue (B) and green (G) components. Since the format needs 3 bits per component, but only 8 bits are available per byte, the rightmost red and blue bits have been combined into a 'common' value:

```
bit 7 6 5 4 3 2 1 0
      G R B G R B G W
```

MODE 32 (QPC/QXL) 16-bit or 65,536 colour graphics

```
lowest address byte highest address byte
7 6 5 4 3 2 1 0   7 6 5 4 3 2 1 0
G G G B B B B B   R R R R R G G G
```

MODE 33 (Q40/Q60) 16-bit colour

```
lowest address byte highest address byte
7 6 5 4 3 2 1 0   7 6 5 4 3 2 1 0
G G G G G R R R   R R B B B B B I
```

The 'I' bit is an intensity control, common to red, green and blue. In effect, it doubles the level of colours otherwise available, since the format allows 5-bit components in 15 of the 16 bits used per pixel.

Listing 1 below shows the approach I took to the conversion. The program is written in SBASIC and will only run on SMSQ/E systems (SMSQ/E is essential for using GD2 graphics anyway, so no problem).

Listing 1 - convert MODE 32 screens to 24-bit Windows .BMP files

```
100 REMark convert QL mode 32 screen or _PIC to .BMP
110 CLS : CLS #0
120 INPUT #0,'Source filename > ';ip$
130 INPUT #0,'Output filename > ';op$
140 INPUT #0,'1=Screen, 2=PIC > ';ptype
150 ql_flen = FLEN(\ip$) : REMark length of original QL file
160 IF ptype = 1 THEN
170   INPUT #0,'Pixel width > ';pw%;' height > ';ph%
180   ql_bpl = ql_flen DIV ph%
190 ELSE
200   REMark extract information from PIC file
210   OPEN_IN #3,ip$ : GET #3,v% : REMark $4AFC identifier
220   IF NOT(v% = 19196) THEN
230     CLOSE #3 : PRINT #0,'Not a PIC file!' : STOP
240   END IF
250   GET #3,pw% : REMark pixel width
260   GET #3,ph% : REMark pixel height
270   GET #3,ql_bpl : REMark bytes per line in QL file
280   ql_mode% = CODE(INKEY$(#3)) : REMark look for MODE 32
290   CLOSE #3
300   IF ql_mode% <> 32 THEN PRINT #0,'Not a MODE 32 picture!' : STOP
310 END IF
320 pc_bpl = 3*pw%
330 IF (pc_bpl MOD 4) <> 0 THEN pc_bpl = pc_bpl+4-(pc_bpl MOD 4)
340 pc_flen = 54+(pc_bpl*ph%)
350 base = ALCHP(ql_flen+4+pc_flen)
360 IF base < 0 THEN PRINT #0,'Out of memory.' : STOP
370 LBYTES ip$,base
380 ql_addr = base+(10*(ptype=2)) : REMark skip PIC file header?
390 REMark lines are stored BACKWARDS in .BMP files
400 ql_addr = ql_addr+((ph%-1)*ql_bpl)
410 pc_addr = base+ql_flen+4+54 : pc_addr = pc_addr+(pc_addr MOD 2)
420 FOR y = 0 TO ph%-1
430   AT 0,0 : PRINT y+1;'/' ;ph%
440   qlad = ql_addr
450   pcad = pc_addr
460   FOR x = 0 TO pw%-1
470     blue = PEEK(qlad)&&31 : REMark 0-31 for blue
480     red = (PEEK(qlad+1)&&248)DIV 8 : REMark 0-31 for red
490     green= ((PEEK(qlad)&&224)DIV 4)| |(PEEK(qlad+1)&&7) : REMark 0-63 for green
500     POKE pcad,(8*(blue+1))-1 : POKE pcad+1,(4*(green+1))-1 : POKE pcad+2,(8*(red+1))-1
510     qlad = qlad+2
520     pcad = pcad+3
530   END FOR x
540   ql_addr = ql_addr - ql_bpl
```

```

550 pc_addr = pc_addr + pc_bpl
560 END FOR y
570 REMark build the .BMP 54 byte file header
580 buf = base+ql_flen
590 pc_addr = buf+4
600 :
610 REMark Bitmap File Header information section
620 POKE pc_addr,CODE('B') : POKE pc_addr+1,CODE('M')
630 Intel_POKE_L pc_addr+2,pc_flen,buf : REMark file length
640 Intel_POKE_W pc_addr+6,0,buf : REMark reserved
650 Intel_POKE_W pc_addr+8,0,buf : REMark reserved
660 Intel_POKE_L pc_addr+10,54,buf : REMark offset to start of graphics
670 :
680 REMark Bitmap Info section
690 Intel_POKE_L pc_addr+14,40,buf : REMark length of this section
700 Intel_POKE_L pc_addr+18,pw%,buf : REMark pixel width
710 Intel_POKE_L pc_addr+22,ph%,buf : REMark pixel height
720 Intel_POKE_W pc_addr+26,1,buf : REMark planes
730 Intel_POKE_W pc_addr+28,24,buf : REMark 24 bits per pixel
740 Intel_POKE_L pc_addr+30,0,buf : REMark uncompressed
750 Intel_POKE_L pc_addr+34,pc_flen-54,buf : REMark image size without hea
760 Intel_POKE_L pc_addr+38,5905 : REMark x pels per metre (150dpi)
770 Intel_POKE_L pc_addr+42,5905 : REMark y pels per metre (150dpi)
780 Intel_POKE_L pc_addr+46,0 : REMark use max. colours
790 Intel_POKE_L pc_addr+50,0 : REMark all colours important
800 :
810 PRINT #0,'Saving!op$
820 :
830 pc_base = base+ql_flen+4 : pc_base = pc_base+(pc_base MOD 2)
840 SBYTES op$,pc_base,pc_flen
850 :
860 RECHP base : PRINT #0,'Program finished.'
870 STOP
880 :
890 DEFine PROCedure Intel_POKE_L (addr,value,buffer)
900 LOCAL a
910 POKE_L buffer,value
920 FOR a = 0 TO 3 : POKE addr+a,PEEK(buffer+3-a)
930 END DEFine Intel_POKE_L
940 :
950 DEFine PROCedure Intel_POKE_W (addr,value,buffer)
960 POKE_W buffer,value
970 POKE addr,PEEK(buffer+1)
980 POKE addr+1,PEEK(buffer)
990 END DEFine Intel_POKE_W

```

Some factors I needed to take into account when converting QL screens to 24-bit .BMP files are as follows:

- (1) .BMP files use three bytes per pixel, so care needs to be taken over any even word alignment.
- (2) .BMP files have a 54-byte header before the graphics themselves. Fortunately, I had documentation on this and the format is shown by REM statements in the listing.
- (3) For words and long words, Intel processors store their bytes in the exact opposite order to 680xx processors, hence the INTEL_POKE_L and INTEL_POKE_W routines to multi-poke values in the PC order of doing things!

- (4) .BMP files store the picture upside down. Yes, seriously, it took me ages to figure out why the first version of this program always converted pictures upside down. I was used to thinking of PCs as backward steps, but this was ridiculous. Ah well, upside down it is then – this program has to vertically flip the picture as well as convert!
- (5) If written in SBASIC, the routine should take no more than about 2 minutes maximum to run on a reasonable speed emulator. This basically dictates that the file is loaded into memory and converted in memory for maximum speed.
- (6) The program should handle both QL screen and PIC files. PIC files have an identifier header with details of the file size etc:

1 word : hex 4AFC (identifies as a PIC file)
 1 word : pixel width of picture
 1 word : pixel height of picture
 1 word : bytes per line in the picture
 1 byte : screen mode number
 1 byte : spare (unused)

So in some respects PIC files are easier to handle as all the essential information is contained in the first 10 bytes of the file! For screens, you will need to ask the user to specify the width and height of the file. You can in some cases make some assumptions from the size of the file, but this is dangerous as a 131,072 bytes long file could be an Aurora 256 colour mode 16 screen or a mode 4 1024x512 screen for example!

The filenames and picture size information are gathered in lines 100 to 310, then essential pointers and variables set up in lines 320 to 410 before the file is loaded into memory. Note that I reserve enough space for the QL file, 4 bytes used as workspace or buffer to convert 16 or 32 bit values into byte-reversed order, then enough space for the .BMP file conversion.

The y and x loops step down and along the picture respectively (lines 420 to 560). Line 430 prints a progress indicator showing how many lines have been converted so far. Lines 470 to 490 extract the values of the individual blue, red and green components for each pixel - the && statements bitwise-AND only the wanted bits from each byte, then the DIV and * statements move the bits to the position I want in the bytes to make the values 0-31 for red or blue and 0-63 for green. Mode 32 (QPC and QXL) has an extra GREEN bit which makes manipulation of the GREEN values slightly different to the other two colours. Also, the green bits are stored as half of them in one byte and half in the other byte, hence the need to combine the two green values in line 490 with the || operator to 'merge' the bits.

Line 500 inserts the equivalent graphics values into the .BMP files. Note that as Mode 32 colour values are 0-31 for blue, 0-31 for red and 0-63 for green, we simply multiply the values by 4 or 8 into chunkier steps to get the same colour gradients in 24-bit colours. It's a bit of a crude way of doing things, but seems to work. Note the order of the colour components in the .BMP files. The lower address of the 3 bytes used for each pixel contains the BLUE component value, the next higher address contains GREEN and the highest address contains the RED.

.BMP files have an initial 14 byte Bitmap File Header section, followed by a 40 byte Bitmap Info section. The function of each part is shown in REMark statements. I have used the simpler uncompressed RGB 2.x format, with a simple 3 bytes per pixel. The resolution is set in pixels per metre (pels) in lines 760. 5905 corresponds to 150 dots per inch. If you are used to thinking in terms of dots per inch for printing (most printers in this country seem to specify print pitch in dots per inch), take the dots per inch value and multiply it by 39.366667 (number of inches per metre) to get the pixels per metre value to use here - it affects what size a PC program will print the QL screen. I usually use 150 dots per inch, hence the value used here. If you use 300 dots per inch for example, double the value of 5905 and reduce it correspondingly if using a lower resolution.

Finally, lines 830 and 840 calculate how to save the .BMP version of the file, and do the actual saving with an SBYTES statement.

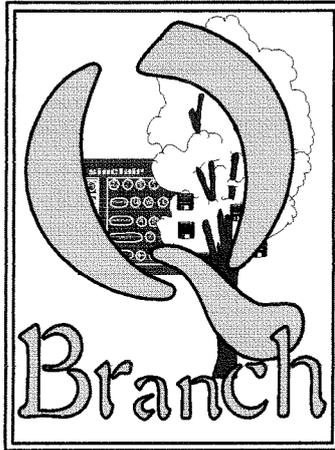
The above listing is for mode 32 users (QPC and QXL). Mode 33 users (Q40 or Q60) need to alter lines 470 to 500 to cater for the different colour format as follows. It should be emphasised I have no Q60 on which to test this, so the information is basically a 'guess' until someone tests it for me (i.e. it might be wrong as I can't test it!)

```
470 blue = (PEEK(qlad+1)&&60) DIV 2
480 red = (4*(PEEK(qlad&&7))) | |
      ((PEEK(qlad+1)&&192) DIV 64)
490 green = (PEEK(qlad)&&248) DIV 8
495 intensity = 1+(PEEK(qlad+1)&&1) : REMark 1
      or 2
500 POKE pcad,(4*intensity*(blue+1))-1
503 POKE pcad+1,(4*intensity*(green+1))-1
506 POKE pcad+2,(4*intensity*(red+1))-1
```

At this point, you could be forgiven for wishing to go lie in a darkened room after trying to understand the above. PC stuff always does my head in trying to understand it.

There's almost as bad to come. I mentioned that Marcel Kilgus has programmed MODE 16, a 256 colour mode, which will be used by the Aurora and QPC.

While playing with this new mode in the latest QPC, I accidentally saved some screen copies in mode 16. As I normally use 16-bit colour mode this proved to be a slight problem.



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Summer Leaves - Autumn Arrives

Autumn is upon us and many of us find that we are spending more time at home on the computer. Q Branch are currently looking at some new accounting software we may be offering soon and, as always, there are upgrades just around the corner.

The problems with v3 of SMSQ/E for the Gold Card continue to hold up its release but we hope these will be resolved soon. SMSQ/E v3 versions for the other platforms are available now and it is only those who have a Qubide installed that will experience problems. Contact us for details.

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Return Master Disk With Order

'Just Words' by Geoff Wicks

Geoff Wicks has announced that he is planning to leave the QL scene during the next year and we are, therefore, no longer able to supply his software.

I believe that he is still supply software himself so anyone who wants a copy of any of his titles should contact him directly. See his advert in this magazine.

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Q Branch

With some advice from Marcel Kilgus, I wrote a short SBASIC program to convert mode 16 256 colour files into equivalent mode 32 screens. My initial approach was to resolve the individual colour components as I did in the program above, but Marcel suggested that as there were only 256 colours to cope with in this case, a look-up table of matching mode 32 colour values might be a better and faster option, indeed it was, the

Marcel version of the routine ran 4 times faster than my own (brain the size of a planet that lad!). Here is the routine which converts mode 16 256 colour screens into equivalent mode 32 16-bit colour ones. I won't even try to suggest changes for Q40/Q60 as I have nothing on which to test it on, and with having to calculate lookup tables it'd almost certainly be wrong without testing!

Listing 32 – convert 256 colour screens to 65,536 colour equivalent

```

100 REMark convert mode 16 picture to mode 32
110 REMark modified to use the Marcel Method (look-up table)
120 :
130 CLS : CLS #0
140 DIM table(255)
150 RESTORE
160 FOR a = 0 TO 255 : READ table(a)
170 :
180 INPUT #0,'Filename of MODE 16 screen      > ';ip$
190 INPUT #0,'Filename of MODE 32 conversion > ';op$
200 fl = FLEN(ip$)
210 IF fl <= 0 THEN STOP
220 base = ALCHP(3*fl) : REMark Mode 32 equivalent is twice as long
230 LBYTES ip$,base
240 :
250 addr32 = base+fl
260 FOR a = base TO base+fl-1
270   REMark byte% = PEEK(a) : REMark pixel from mode 16 screen
280   POKE_W addr32,table(PEEK(a)):REMARK table(byte%)
290   addr32 = addr32+2
300 END FOR a
310 :
320 SBYTES op$,base+fl,2*fl
330 :
340 RECHP base : REMark release heap area used
350 PRINT #0,'Program finished'
360 STOP
370 :
380 DATA 0,32,8193,8225,2304,3328,10497,11521
390 DATA 72,104,8265,8297,2376,3432,10569,11625
400 DATA 16386,16418,24579,24611,18690,19714,26883,27907
410 DATA 16458,16490,24651,24683,18762,19818,26955,28011
420 DATA 4608,5632,12801,13825,6912,7936,15105,16129
430 DATA 4680,5736,12873,13929,6984,8040,15177,16233
440 DATA 20994,22018,29187,30211,23298,24322,31491,32515
450 DATA 21066,22122,29259,30315,23370,24426,31563,32619
460 DATA 144,176,8337,8369,2448,3504,10641,11697
470 DATA 216,248,8409,8441,2520,3576,10713,11769
480 DATA 16530,16562,24723,24755,18834,19890,27027,28083
490 DATA 16602,16634,24795,24827,18906,19962,27099,28155
500 DATA 4752,5808,12945,14001,7056,8112,15249,16305
510 DATA 4824,5880,13017,14073,7128,8184,15321,16377
520 DATA 21138,22194,29331,30387,23442,24498,31635,32691
530 DATA 21210,22266,29403,30459,23514,24570,31707,32763
540 DATA 32772,32804,40965,40997,35076,36100,43269,44293
550 DATA 32844,32876,41037,41069,35148,36204,43341,44397
560 DATA 49158,49190,57351,57383,51462,52486,59655,60679
570 DATA 49230,49262,57423,57455,51534,52590,59727,60783
580 DATA 37380,38404,45573,46597,39684,40708,47877,48901
590 DATA 37452,38508,45645,46701,39756,40812,47949,49005
600 DATA 53766,54790,61959,62983,56070,57094,64263,65287
610 DATA 53838,54894,62031,63087,56142,57198,64335,65391
620 DATA 32916,32948,41109,41141,35220,36276,43413,44469
630 DATA 32988,33020,41181,41213,35292,36348,43485,44541
640 DATA 49302,49334,57495,57527,51606,52662,59799,60855

```

650 DATA 49374,49406,57567,57599,51678,52734,59871,60927
660 DATA 37524,38580,45717,46773,39828,40884,48021,49077
670 DATA 37596,38652,45789,46845,39900,40956,48093,49149
680 DATA 53910,54966,62103,63159,56214,57270,64407,65463
690 DATA 53982,55038,62175,63231,56286,57342,64479,65535

These listings will be available from the QL Today page on my website and from my PD library for anyone who doesn't fancy typing them in!

Convert 24 bit BMP files to QL screens

Malcolm Lear

And here is the opposite to Dilwyn's listing. This is the latest bitmap to screen converter. The new version does not just chop off the lower bits, but stores the error created and reduces it in later pixels as and when possible. There is also the option of scanning the picture using the hilbert curve algorithm.

This improves picture quality to such a level that even mode 8 starts to look OK. You can't do much with mode 4, but I've found a method that replaces blue with white that does look acceptable.

```
1000 REMark This program requires 24 bit BMP files
      and must be 256x256 QL mode8 and 512x256 for QL mode4
1010 REMark INPUT 'Filename ',file_name$
1020 REMark INPUT 'Mode 4,8 or 32? ',mde
1030 QPC_QLSCREMU 8:file_name$='Paradise':mde=8
1040 l=LEN(file_name$)
1050 IF l<4
1060   IF file_name$(1-3 TO)!='.bmp' OR file_name$(1-3 TO)!='_bmp' THEN file_name$=file_name$(1
      TO 1-4)
1070 END IF
1080 OPEN#3,file_name$&&'.bmp'
1090 BGET#3\18,w1,wm,n1,n2,h1,hm
1100 w=wm*256+w1:h=hm*256+h1
1110 BGET#3\28,bits
1120 IF bits<>24 THEN PRINT 'Not 24 Bit Image':STOP
1130 pos=FLEN(#3)-w*3
1140 red_er=0:green_er=0:blue_er=0
1150 l=w*3*h
1160 hilbert=1
1170 REMark -----
1180 SElect ON mde
1190   =4   :mem_res=w/8*h
1200   =8   :mem_res=w/4*h
1210   =32,33:mem_res=w*2*h
1220 END SElect
1230 mem_addr=ALCHP(mem_res)
1240 mem_addr=131072
1250 IF hilbert
1260   FOR n=0 TO 15
1270     IF 2^n>w THEN EXIT n
1280   END FOR n
1290   x=0:y=0
1300   hilbertr
1310 ELSE
1320   FOR y=0 TO h-1
1330     FOR x=0 TO w-1
1340       Convert
1350     END FOR x
1360   END FOR y
1370 END IF
1380 REMark DELETE file_name$&&'.scr'
1390 REMark SBYTES file_name$&&'.scr',mem_addr,mem_res
1400 REMark -----
1410 DEFine PROCedure hilbertr
1420 IF n=0 THEN RETurn
1430 n=n-1:hilbertd:x=x+1:Convert:hilbertr:y=y+1:Convert:hilbertr:x=x-1:Convert:hilbertu:n=n+1
```

```

1440 END DEFine hilbertr
1450 DEFine PROCedure hilbertl
1460 IF n=0 THEN RETURN
1470 n=n-1:hilbertu:x=x-1:Convert:hilbertl:y=y-1:Convert:hilbertl:x=x+1:Convert:hilbertd:n=n+1
1480 END DEFine hilbertl
1490 DEFine PROCedure hilbertu
1500 IF n=0 THEN RETURN
1510 n=n-1:hilbertl:y=y-1:Convert:hilbertu:x=x-1:Convert:hilbertu:y=y+1:Convert:hilbertr:n=n+1
1520 END DEFine hilbertu
1530 DEFine PROCedure hilbertd
1540 IF n=0 THEN RETURN
1550 n=n-1:hilbertr:y=y+1:Convert:hilbertd:x=x+1:Convert:hilbertd:y=y-1:Convert:hilbertl:n=n+1
1560 END DEFine hilbertd
1570 REMark -----
1580 DEFine PROCedure Convert
1590 IF x>=w OR y>=h THEN RETURN
1600 BGET#3\((1-(y+1)*w*3)+(x*3)+51:REMark set position
1610 BGET#3,blue,green,red
1620 REMark PRINT 'X='&x&' Y='&y&' R='&red&' G='&green&' B='&blue:PAUSE -1
1630 SElect ON mde
1640 =0,4:
1650 red=red/3:green=green/3:blue=blue/3
1660 scr_addr=y*w/4+INT(x/8)*2+mem_addr
1670 bit=2^(7-(x MOD 8))
1680 g=PEEK(scr_addr)&&(255-bit):r=PEEK(scr_addr+1)&&(255-bit)
1690 REMark check colour balance to output only red, green or blue
1700 IF red_er>green_er AND red_er>blue_er
1710 IF (red+red_er)>127 THEN red_er =red_er +red -255 :r=r||bit
:ELSE red_er =red_er +red
1720 green_er=green_er+green:blue_er=blue_er+blue:
1730 ELSE
1740 IF green_er>blue_er
1750 IF (green+green_er)>127 THEN green_er=green_er+green-255 :g=g||bit
:ELSE green_er=green_er+green
1760 red_er=red_er+red:blue_er=blue_er+blue
1770 ELSE
1780 REMark substitute white for blue
1790 IF (blue+blue_er)>127 THEN blue_er=blue_er+blue-255 :r=r||bit:g=g||bit
:ELSE blue_er =blue_er +blue
1800 red_er=red_er+red:green_er=green_er+green
1810 END IF
1820 END IF
1830 POKE scr_addr,g:POKE scr_addr+1,r
1840 =8:
1850 scr_addr=y*w/2+INT(x/4)*2+mem_addr
1860 bit=4^(3-(x MOD 4))
1870 g=PEEK(scr_addr)&&(255-(bit+bit*2)):r=PEEK(scr_addr+1)&&(255-(bit+bit*2))
1880 IF (red+red_er)>127 THEN red_er =red_er +red -255:r=r||(bit*2)
:ELSE red_er =red_er +red
1890 IF (green+green_er)>127 THEN green_er=green_er+green-255:g=g||(bit*2)
:ELSE green_er=green_er+green
1900 IF (blue+blue_er)>127 THEN blue_er =blue_er +blue -255:r=r||bit
:ELSE blue_er =blue_er +blue
1910 POKE scr_addr,g:POKE scr_addr+1,r
1920 =32:
1930 scr_addr=y*w*2+x*2+mem_addr
1940 red_out =(red+red_er) &&%11111000
1950 green_out=(green+green_er)&&%11111000
1960 blue_out =(blue+blue_er) &&%11111000
1970 red_er =red_er +red -red_out
1980 green_er=green_er+green-green_out
1990 blue_er =blue_er +blue -blue_out
2000 IF red_out >248 THEN red_out =248
2010 IF green_out>248 THEN green_out=248
2020 IF blue_out >248 THEN blue_out =248
2030 red=red_out:lgreen=green_out&&24:ugreen=green_out&&224:blue=blue_out
2040 POKE scr_addr,(lgreen*8+blue/8):POKE scr_addr+1,(ugreen/32+red)
2050 =33:
2060 PRINT 'Not Implemented'
2070 END SElect
2080 END DEFine Convert

```

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3rd Irish QL Show – Ireland, 30th August 2003.

Come to the Irish Show at the end of August – see the Show info in the magazine.

It has been a hectic time this last two months. To start with I was working to try to get the bug in SMSQ/E v 3.xx for the Gold Card pinned down. This is not an easy thing to work out and I have no pretence here that I have been anything other than the man who runs it on a range of hardware and reports the problems but it has been interesting playing with the files and communicating with Marcel and Jochen on this. The end result, so far, is rather less than satisfactory. Somewhere there is a bug which crashes the GoldCard SMSQ/E when a Qubide hard drive is present. The really odd thing is that it does not crash it when the Qubide is there but no hard drive is connected. I have tested quite a few versions of this now but the real problem is that Marcel does not have a full machine with Qubide & hard drive. To solve this problem I am going to take my MinisQL set up to the Berchtesgarden QL show and lend it to him.

It is worth noting here that this is not really Marcel's problem. His involvement in the Aurora version of SMSQ/E has been mainly in providing the new colour drivers for it. The glitch which stops SMSQ/E v3 running when a Qubide is present is present in both the standard and high colour version of the Aurora SMSQ/E. It is a measure of his commitment to the community that he is willing to take on the task of fixing this for no remuneration. I think we all owe him a vote of thanks.

More Source Please Vicar

One good thing that came out of this was I got the source code for the Qubide from Phil Borman. Phil has now left the QDOS/SMSQ scene but he has graciously given his code to the community. It exists with a GNU licence so anyone can examine and use it. At the moment it is just with Marcel and Nasta but I will be passing it to Thierry Godefroy and Dilwyn Jones for the libraries. This will make the new version of the Qubide that Nasta has planned easier to do.

One other piece of source code related stuff that occurred was a plea from Nasta to Stuart Honeyball for the source code for the Super-Gold Card Ingot chip. Unfortunately it seems that there is no code available for this. The only part of this which is still in existence, apart from the code in the chip itself and the Jedecs which are used to program it is some photocopied sheets that Stuart passed to Keith Mitchell a while ago. No compilable code exists to our knowledge.

Small but Beautifully Coloured

Nasta had an idea about making a 16Mb version of the Super Gold Card if he could get hold of the code. This would be a useful thing to have and would solve some of the problems that I noticed when I ran Marcel's beta versions of the new SMSQ/E for the Gold Card

I did, as I said before, get the new version to run quite well so long as the Qubide is not attached but the problem is that the extra colours do take up more memory. This means that you are limited in screen size when you run in 256 colours. A bigger memory overhead from an improved Super Gold Card would be a real solution to the problem. The only drawback would be that this would take as much work as a new card with a better processor and the question of whether the other components on the Super Gold Card are still available. Mind you I have no idea what Nasta is thinking here so maybe I am being a little disparaging.

Light the Wicks

Geoff Wicks managed to spark off a blazing controversy on the ql-users list just prior to the publication of the last issue of the magazine. He announced his imminent departure from the QL Scene and, when prompted by a few of the list's regular contributors made some interesting observations. One of these concerned QL workshops and the way they were organised. Many of the things he said were very true and he had valid criticisms of some of the traders. Although he named no names I knew that some of the comments were aimed at me and I do accept some of these. One failing that he mentioned was in the area of support for the users but here there are certain things that needed to be taken into account. None of the QL traders who still run their businesses do so as a full time job. Most, like me, run it as a sideline. Something which makes no

money but which we do, first and foremost, because we enjoy it and because we have, over the years, built a relationship with the users. Occasionally one or the other of us have problem customers. One of them was passed around going from trader to trader as each one became incensed with being called at all hours and asked the same questions. In the end each trader lost his temper - and the customer. Another customer bombarded us all with swathes of badly printed and incomprehensible letters in bad English. Luckily these are few and far between but there has to be some sort of pact between the user and the traders with regard to the type of communication and the hours that they are available.

Wot No Talk?

Geoff also mentioned the fact that talks are few and far between at QL shows. This is, in part due to the scarcity of new stuff to demo but it is also down to the departure of some of our more prolific talkers. Most of us will recall that all you had to do was to wind Stuart Honeyball up and he would go on for hours. Better still tell him that Ron Dunnett was about to bring out a new rival to the Super Gold Card. I have enjoyed doing the odd talk at shows myself and I would have gladly stood up to do so again had I been able to find a subject.

The lack of talks and demonstrations is something we discussed at the Irish QL meeting in August and it is a subject which we may well try to raise later in the year at the workshops. Of course these talks and discussions are not all the

province of the traders. In the past users have had a lot to say about their pet projects and hobby horses. Maybe this is something we also need to revive. I am sure that the organisers of the shows would be very happy to have a few volunteers to get some of this going.

The Cold Light of Day

I would be the first to admit that, speaking purely logically, the QL is several miles behind most computer systems in terms of its capabilities and the software available for it. Several people have remarked to me that Geoff had an almost evangelical desire to make the QL more and maybe it is this desire which has burned him out. I believe that we should all be realistic about this. True, the modern, average priced, PC will out perform any QL system available today. It will have more connectivity, a better display and more software available for it but I do not think that is the reason we still have a user base.

I do know of several businesses who still run QL software. Most of this is custom based or home grown software, written by or for the user. I also know that there are several other organisations which still use a QL type system to produce newsletters, handouts and other such things. On the whole these are not the people who are reading this magazine but an underclass of users for whom this magazine is of little interest. They may have grown up with the QL and, for them, it has been their only computing experience.

I would also suggest that the majority of readers of this magazine do so because the

whole computer system is the fun part. There are, as we all know, many things that you can do with the QL and other systems based on a more simple concept than the Windows one. Programming is easier and so is the whole business of tinkering with the system itself. For many of us other, more mainstream, systems do the bulk of our work. This is not something we should be ashamed of - you wouldn't ride a bicycle to get from London to Edinburgh (well maybe Stuart and Tony would) if it was not for pleasure. I must say this though, when my main hard drive died on the big P4 machine I do most of my work on I was very happy that the bulk of my addresses, documents and databases were on the CD with QXLWIN backup on it. The QDOS/SMSQ system remains the repository of all of Q Branch's records and data and I cannot see that changing soon.

Let's have a Demo

One thing suggested on the user list a while back was getting a collection of QL demo software (in a QXLWIN file complete with BOOT) and the demo version of QPC 2 and making them into a self extracting zip file so they could be placed on a cover CD to entice PC users back to the fold. Rich Mellor, Geoff Wick and Phoebus Dokos have got together (I don't know which one of them did the work) and produced a neat little self installing demo of QWord. If you have not seen this and have internet access go to:

<http://hometown.aol.co.uk/RWAPSoftware/QWord.html>

and download the windows

version. When you run this try to remember that this is a QL game running on a QL emulator - you may find that hard to believe. The game itself is quite addictive but the thing that stands out is the quality of the interface and the presentation of it. This is a great way to show just how powerful the new SMSQ/E is. I will definitely be getting a copy of this game when it is released - if they don't send me a free one for this wonderful advert!!! - tee hee.

A Little Indifference

One other thing cited by Geoff was the lack of enthusiasm shown by most of the traders for producing the publicity and mail shots. He mentioned that adverts in the magazines rarely changed. This is certainly true for the most part. It is, in part, understandable because, if you have nothing new to sell you run out of ways to sell it. It is also true, though, that if you put the same ad into each issue then the people will stop looking at it. If you then change the contents but leave the format the same they will continue to ignore it. I have always gone on the premise of keeping a lot of white space in my adverts because text packed too densely puts people off reading it.

One other area where some of the traders fall down (and Q Branch has been a culprit in the past) is getting the copy in for the mail and email shots before the shows. Quite often whoever is doing the mail shot has to pester people for days to get something from them. On the whole these are free for the email shots and cost just a share of the postage and printing costs for those

which go by mail so this should not really be the case. I have not been one of these for the last few mailshots because it has been my job to produce, and mail them (I cannot complain Tony Firshman did it for years with little thanks) but it is rather unbelievable that we turn down a chance to communicate with our public.

Irish Hospitality

Once again we enjoyed the hospitality of QCelt at the Irish show at the end of August. Those of you who maybe do not go to QL shows for the high-tech chatter should really be beating a path to this event next year and Darren Branagh has promised to do a more concentrated and pre-emptive advertising campaign for it.

The nice thing is that we are not there to sell stuff, although Tony Firshman insisted on setting out his stall. Those of us that attended the event mostly sat around and chatted. The talk was not all about QLs although it did seem to keep revolving back to it. The great coherence of the QDOS/SMSQ community was again demonstrated when Phoebus logged on and Tony Firshman started to try to help him repair his Qubide over the internet.

I hung around for another day in Wicklow and spent a bit of time chatting with Darren (and even more time drinking - but that is another story). My son, who had accompanied me on the trip got hooked up with the daughter of a friend of mine in Dublin and so was largely absent.

We went up to see Hilary O'Keefe who was the only

other QL-User apart from Darren in the area and who had not been able to get to the show. During our conversation Darren mentioned that Hilary had written some QL navigational software for boats that was more accurate than most of the Global Positioning System software. This set me thinking and, even though it has only a tenuous link with the QL I present the idea here.

A New Marketing Concept

One item of Hi-Tech equipment which has become a 'must-have toy for the boys' is the Global Positioning System (GPS) reader. These are beginning to appear in cheaper and cheaper small hand held units, in-car displays and even on mobile phones. I suppose you will soon be able to program the phones answering machine to call home for you and say 'He's on the train'.

For those people with a more intellectual bent I have thought up a new way of marketing these devices once the early adopters demand has peaked. We can sell them branded with the imprint of famous philosophers or radical thinkers. Here are a few of my suggestions. Anyone wishing to take out a licence to market these should contact Q Branch.

The Satre GPS - Yes I know where we are - doesn't it make you sick?

The Nietzsche GPS - I don't care where we are

The Descartes GPS - I think I know where we are

The Wilhelm Riech GPS - I know where we are - but lets have sex.

The Freud GPS - so, you came here once with your Father ?

The Rousseau GPS - 'Please turn around and return to the jungle'

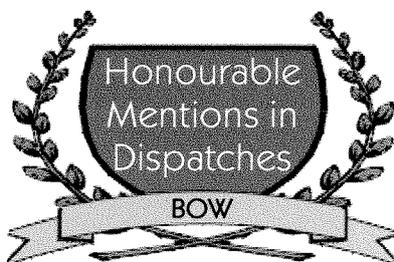
The Aristotle GPS - We are in a state of happiness and to continue on this route would lead to virtue.

The Kant GPS - Since all knowledge begins with experience you should experience your surroundings and work out for yourself where you are.

The Marx GPS - Turn it over and underneath it says 'This GPS is Stolen'

The Hiesenburg GPS - I am not sure where we are

The Schrodinger GPS - I know where I am - where is my cat?



Regular readers to this column (well there must be one at least) know that this space is usually reserved for programmers and developers who have done outstanding work. I have paid tribute to many QL luminaries here in the past seven years.

This issue is different. I recently was contacted by Michael Grunditz, a QL user in Sweden. The contact was because he wanted to buy some software and that in itself is not unusual

but he wanted it because he was going into hospital and he wanted to take it with him. Not only that but he took his Q40 into the hospital too !

Now this is real dedication on a scale that Geoff Wicks must appreciate. When I spent a week or so in hospital a few years back as a result of a nasty Asthma attack I did not have a laptop (and QPC had not then been written) so I was separated from my computer but I would not have considered dragging Tower case in to the hospital with me (even if they had allowed it).

So it is hats off to Michael who deserves the QL dedication prize of the year for this. If you have any similar stories do let us have them.

SINCLAIR COMPUTER OFFERS

Prices in Euro



QL Hardware:

QL complete with PSU, used	79,00
Keyboard membrane, new	21,00
512k Expand Ram	34,99
Dust Cover	9,99
Empty Cartridge	3,50
QL Joystick Adapter	34,99
Quickshot 2 Joystick	24,99

QL Software:

Archiver	Eidersoft	34,99
BJ in 3D Land	Eidersoft	19,99
CAD Pak	Datalink	29,99
Cartridge Doc	Talent	19,99
Citadel	Eidersoft	19,99
Karate	Eidersoft	19,99
QLCash Trader	Sinclair	19,99
Cavern	Sinclair	19,99
Home Finance	Sinclair	19,99
Hyperdrive	English Soft	19,99
Main List	Transform	19,99
Nigth Nurse	ShadowGames	26,00
QL-Chess	Psion	19,99
Scrabble	Leisure Gen	19,99
Steve D. Snook.	CDS	19,99
Tascopy	Tasman	19,99
Tasprint	Tasman	19,99
Taxcalc	Consumer	19,99
Lost kingdom of Zkull		19,99
West	Talent	34,99
Zapper	Eidersoft	19,99

Spectrum Hardware:

Spectrum 48k compl., used	64,00
Spectrum 48k+ compl., used	64,00
Spectrum 128k, compl., used	129,00
Spectrum +2, compl., used	79,00
Spectrum +2A, compl., used	69,00
Spectrum +3, compl., used	99,00
Interface 1, used	69,00
Microdrive, new	25,00
Microdrive Cartrd., used	3,50
3" Disks, pack of 5, used	19,00
AT keyboard Interface	69,00
Melodik AY Soundinterface	21,00
Opus Discovery, used	119,00
Joystick Interface 1-Port	3,00
Joystick Interface 1-Port	11,00
Multiface 128, new	26,00

Spectrum Spares

+3 drive belt	2,00
Keyboard sticker for Emul.	8,00
Keyboard membrane 48k	11,00
Keyboard membr. Plus/128k	21,00
+3 Drive	29,00
4116 Memory IC	2,00
4464 Memory IC	3,00

+ more hardware, books, over 2000 different software titels.

ZX81Hardware

ZX 81, compl., used	69,00
ZX81 Power Supply	19,00
16 K RAM Expansion	10,00
+ various software titles	

Z88 Hardware

Z88 reconditioned	139,00
128k EPROM Pack	59,00
128k RAMPACK	59,00
EPROM Eraser	49,00
QL Transfer Kit	29,00
Serial Printer cable	29,00
Z88-QL Serial cable	25,00

++++
+ many other things +
+ too much to list here +
+ visit our online-shop +
++++

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70794 Filderstadt
Germany

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Fax: ++48 (0) 711-48969466
e-mail: sintech@online.de

www.sintech-shop.de

You know your are living in 2003 when...

1. You talk nostalgically of "QLs" and "512K" expansions as you type on a Q60 or an emulator.
2. PC manufacturers are now enthusiastically making black computers and describing it as wonderfully innovative to build a PC into a keyboard!
3. It is one hell of a job to find an Epson printer you can program with Epson printer control codes.
4. A QL without a mouse is abnormal and seems defective!
5. You accidentally enter your computer password into the microwave.
6. Now that we have soql, you lose touch with friends who do not have an email address!
7. You haven't played cards with a real pack of cards in quite a while.
8. You have fifteen numbers to contact a family of three (two of whom are retired!)
10. You email someone at the desk next to you rather than talk to them.
11. When you make phone calls from home, you accidentally dial "9" to get an outside line.
12. You find it frustrating when you can't buy QL software on a CD-ROM!
13. So you buy the floppy disk version then find your computer has no floppy disk drive!
14. You read this entire list, and kept nodding and smiling.
15. As you read this list, you think about forwarding it to your "friends", by email of course.
15. You get lists like this via e-mail from a friend that never talks to you any more, except to send you jokes from the net.
16. You are too busy to notice there was no No. 9 on this list.
17. You actually looked back up to check that there wasn't a No.9. Bet you all did this one! (less likely if reading it from paper of course)
18. You wish QL Today could be read online at work to take your mind off work.
19. Your mobile phone ringtone sounds like Symon's wailing.

QL 2004 Poll

Thanks to all who have responded to last issue's poll.

The response was not too bad - it shows, there is still some interest in QL shows from all around the world (well, Europe, plus one vote from the USA).

Here is the result:

<u>Sender</u>	<u>UK</u>	<u>NL</u>	<u>both</u>
B		2	
CH	1		1
D		3	3
I			1
NL		1	
S			1
UK	10		4
USA	1		

We also had one vote from the UK saying he just replied so that there can't be a complaint that

nobody is replying, but he won't be able to attend to either show.

Some people asked to connect it with Manchester. As this was not quite the question, I counted them as "pro UK".

Difficult to decide now. Most UKers vote for the UK, not surprising. If we remove the "vote for my country" then we have 5:2 advantage Netherlands, whereas the majority does not seem to care either.

But I don't have to decide it anyway, fortunately. I'll come the show anyway, may it be held in the UK or The Netherlands.

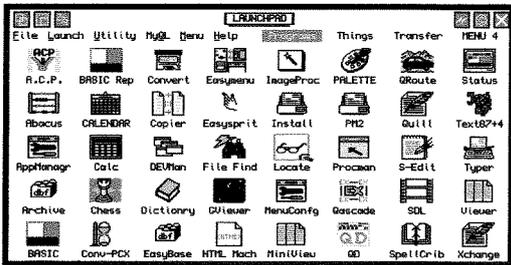
Dealers have not voted - we travel anyway.

I have forwarded the result of the poll to Roy Brereton, who asked me last time (it was a real last-minute decision) to include the sheet.

I hope he will let us have the total response which he got directly so that we can publish it - maybe even together with a decision from Quanta.

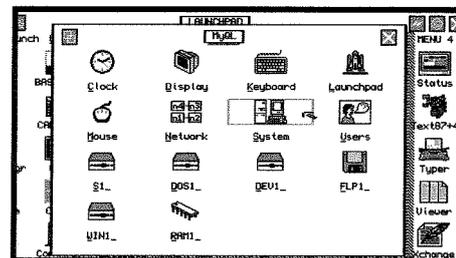
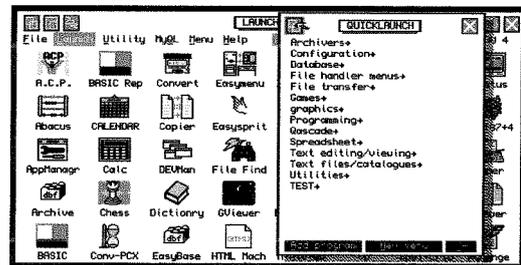
It is good to know there is interest in a QL2004 - may it be as great as QL2000!

THE LAUNCHPAD IS NEARLY READY FOR TAKE-OFF...



An all-new graphical user interface for QDOS or SMSQ/E from Dilwyn Jones. Fed up of typing in EXEC 'filename'? With this pointer driven application, simply set up desktop icons to launch programs, or create menus or "lists" of programs to launch, all in a simple to use no-nonsense graphical "point and click" system – use with mouse or keyboard. Runs on anything from expanded memory QL to QPC2 or Q60, as long as you have pointer environment and Toolkit 2

- Set up icons for launching your programs with a single mouse click from one of four desktop surfaces
- Set up your own program launching menu
- Up to 16 users, all with optional passwords
- MySQL menu to customise and remember your QL settings for each user
- Runs as a simple job, does not prevent you using BASIC or anything else
- Several accessory programs (calculator, calendar, screen saver, file handler, games and so on)
- Program setup definition form for less straightforward programs like Quill
- Revolutionise your QL system – you'll wonder how you managed without it!



Want To Know More?

Visit the Launchpad web page at:

<http://homepages.tesco.net/dilwyn.jones/launchpad/launchpad.html>

from where you can download a free trial version, limited only by the number of programs you set up to run on it – more than enough to try out Launchpad.

Launchpad will soon be available from either the author:

Dilwyn Jones, 41 Bro Emrys, Tal-y-bont, Bangor, Gwynedd, LL57 3YT, U.K.
(email: dilwyn.jones@tesco.net)

or from:

Q-CELT COMPUTING,
The Falconry, Glenmacnass, Glendalough, Co. Wicklow, Ireland
(email: darrenb@esatlink.com)



The QL Show Agenda



QL Meeting - (I) Reggio Emilia

Sunday, 26th of October, 10:00 to 16:00

**Sala Congressi Circoscrizione 2 – Via Fratelli Cervi 97
70 Pieve Modolena, Reggio Emilia, ITALY**

Same venue as the years before!

You can find the map at <http://www.geocities.com/dsantachiara/mappameetingeng.htm>
some roundabouts have been added instead of cross-roads but the way is the same.

Quanta Workshop / QL Meeting - (GB) Byfleet

Sunday, 9th of November, 10:00 to 16:00

Byfleet Village Hall

Same venue as all the years before!

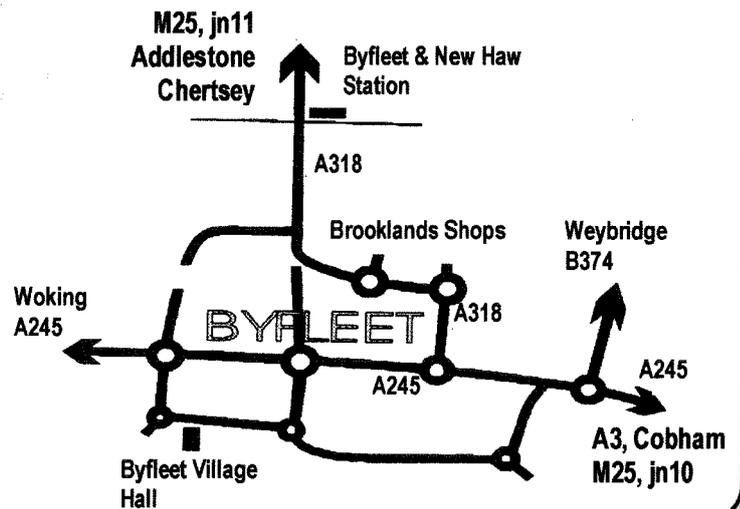
The Byfleet Village Hall is just inside M25, between jns 10 & 11, just South of A245.

From jn11 go towards Weybridge (East) then turn right (South) onto A318 towards Brooklands, then through the old track onto A245. Right, then left at second roundabout. Left at little roundabout and Hall is on right.

From jn 10, A3 towards London, left onto A245 at next junction, towards Woking. After A318 joins, turn left at second roundabout – see above.

Free Parking, and all the usual attractions. If that isn't enough, Brooklands Museum (aircraft and motor racing) is just up the B374: or there's a Bus Collection on the A245 to Cobham: or I'll explain how to drive to the RHS Gardens at Wisley. The station is on the Waterloo – Woking line.

The Continental Crew of J-M-S (Jochen Merz, Bernd Reinhardt and Marcel Kilgus) will be there, and so will be all UK traders - see you!



Quanta Workshop / QL Meeting - (GB) London

Sunday, 11th of January 2004 - 10am to 4pm

Welsh Congregational Chapel

90 Southwark Bridge Road London SE1 England.

Nearest railway: London Bridge / Nearest underground: Borough