

News from the world of  
Sinclair QL computing.

# QL NEWS

## The communications explosion takes shape!

Communications are now  
the most exciting, essential part of any computer.

In the past six months alone, over 150,000  
modems have been sold in the UK.

Now, the QL's own communications explosion is  
taking shape... and it has the potential to make  
more of communications than any other micro!

Read on and discover exciting new ways to use  
your QL... with the QL modem... telephony  
unit... and powerful interface options.

N°2

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# DAVID KARLIN

## Why Q COM is everything you could wish for in communications.

The QL is now communicating – via Q COM! This exciting three-part peripheral presents QL users with a multitude of ways to exploit the world of communications.

Once connected to the QL, Q COM allows you to access the considerable number of phone-in databases, such as Prestel and QNet.

Q COM enables you to communicate with other computer users. Its facilities include electronic mail, data transfer from Microdrives and bulletin boards,

Through it you can link your QL to larger minicomputers. Q COM has full capability in this area, and allows the QL to talk to powerful mainframes.

Q COM's automatic dialling

and call acceptance facilities, together with the storage of messages from other modems, will revolutionise the way you use your telephone.

The next few pages of QL News tell you much more.

It's enough for me to say here that with the QL and Q COM,

you'll be exploring new openings in communications for some time to come!

David Karlin,  
Chief Design Engineer.



## The Q COM package

### Three special parts to stack!

#### Q CON interface

This multi-speed interface contains the sophisticated software used to set up QL communications – and to control the Q CALL and Q MOD units.

Q CON also comes complete with Microdrive-based software. This enables the QL to link to larger computers using VT100 and viewdata protocols.

The software will also run any standard modem – connected via Q CON's built-in RS-232-C port.

Most importantly, Q CON allows the QL to transmit and

receive at rates switchable from 75 to 9600 baud (encompassing the widely-used 75/1200 Prestel rates, and 1200/1200 half duplex rates for user-to-user exchange).

Q CON is specially styled to suit your QL – with similar fluting and ribs – and forms the base module of a vertical-stacking system.

It's supplied with full instructions, software on Microdrive cartridge, and connecting leads.

#### Q CALL QL auto dial/answer unit

Q CALL gives every QL user something out of the ordinary.

It's a module which links directly to your telephone, and allows auto-dialling at the push of a single key. In the same way, it will permit incoming calls to be

accepted automatically ... and even trigger pre-programmed activity from the QL!

Q CALL is the central unit of the package. It plugs directly into Q CON – so there are no connecting cables to worry about.

#### Q MOD QL modem

Q MOD has all the powerful facilities expected of a modem, in a neat and simple unit.

It uses either V23 75/1200 or 1200/1200 baud rates, for Prestel, Micronet 800 and all the

viewdata services described alongside.

It also incorporates a telephone extension socket for manual dialling.

Q MOD is the top unit of

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## Exploring the world of QNet, Prestel, Micronet and more!

Thousands of QL users already enjoy the excitement of linking to a nationwide mainframe.

Q COM turns your QL into an intelligent terminal, allowing you to access many thousands of pages of information, software and communications facilities.

The services brought to you through Prestel can include Micronet 800, Viewfax 258 and QNet, the new QL database.

Membership of QNet will bring you free software, QL news and features, and all the wide-ranging services of viewdata.

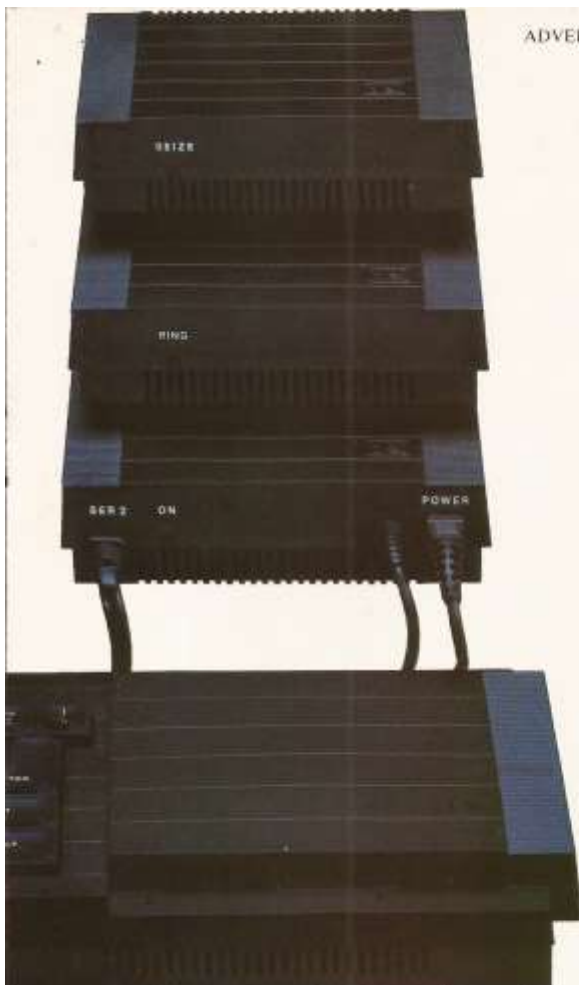
If armchair shopping is more

your style, that's easy too. It's often possible to place a direct order using your QL! For dedicated QL owners, there's a daily selection of software reviews, chart toppers... and all the facts and figures you need to make buying peripherals simple.

With Q COM you can also 'download' software from the system directly into your QL and either use it immediately, or store it on Microdrive cartridge.

In fact the only problem you'll face with a viewdata service is finding enough time to explore its many features!

You can find out how to join QNet by phoning 01-278 3143.



Q COM, and comes with a 9' built-in telephone cable.

All three units are available from Sinclair on (0276) 685311 and from selected Sinclair stockists.

### The QL hooked on voice and data

The QL can now act as your personal address book and telephone operator!

Q COM allows you to store hundreds of personal or business numbers.

You can store lengthy passwords and account numbers - and recall them - at the touch of a single key.

And any information that's sent to you from other modems can be gathered and stored on Microdrive cartridge, or incorporated into your QL Quill documents!



News... information... banking services and QNet. And only a fraction of the QL's new viewdata capability.

## QL meets the mainframes!

The Q COM unit of Q COM turns your QL into a VT100 terminal, providing instant access to in-house computing services, both mainframe and mini.

Whether you are using your QL at home or at work, Q COM gives you access to electronic bulletin boards which provide help and advice 24 hours a day. You can leave messages or notices for friends or business contacts and even hold live discussions with them.

Additional benefits for the QL business user include easy access of in-house company software, and the interrogation of other data bases around the country.

There's also the opportunity of linking to British Telecom Gold - the widely-publicised and popular messaging service.



# QL Hardware

## Microdrive cartridge

### price cut to only £1.99!



Sinclair Microdrive cartridges – up to 100K of programs and data on a medium so compact you can pop it into your pocket.

On February 1, the cost of Microdrive cartridges came down from £4.95 to £1.99 each.

Microdrive cartridges are the QL's own unique storage medium. Each stores up to 100K of information (that's 40 pages of A4 text), on a cartridge no bigger than a book of matches!

Over 500,000 cartridges are now being used throughout Britain.

You can store up to 50 different data files per cartridge, identified by titles of your own choice.

And QL Microdrives themselves are standard equipment on the new ICL One Per Desk micro, and British Telecom's new Merlin Tonto.

## IEEE-488... the instrument connection

IEEE-488 is the interface standard set by the Institute of Electronic and Electrical Engineers for instrumentation control.

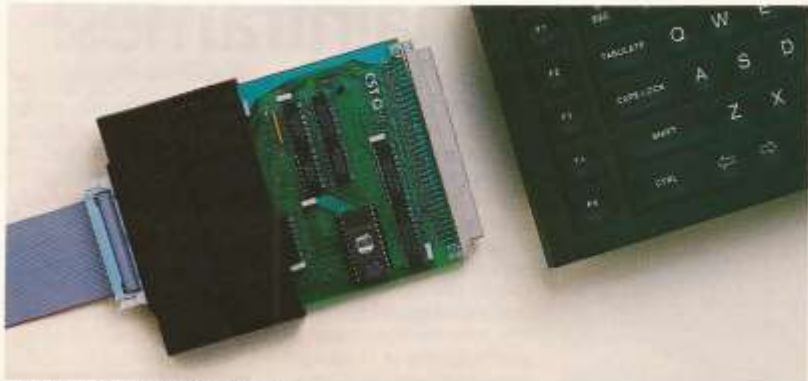
IEEE-488 – or General Purpose Instrumentation Bus – is a parallel interface specifically designed for high speed data transfer between a number of

different types of device.

It is commonly used for controlling instrumentation via a computer, allowing the creation of laboratory data acquisition systems, industrial control schemes, etc.

The QL now has a fully-fledged IEEE-488 interface from CST it plugs neatly into the QL's RAM expansion port, and can control up to 16 instruments simultaneously.

It's available from CST on (0223) 323302.



An IEEE-488 interface slips discreetly into place.

## New inter 3 1/2" or 5 1/4"

With new Q-Disk, you can transform the QL into a powerful small business system – comprising QL, monitor, disk interface, twin disk drives and printer.

Q-Disk upgrades the QL to disk storage. Fitting easily into the QL's left hand RAM expansion port, without the need for a special expansion box, it contains a Western Digital disk controller chip. Software is held in an on-board EPROM (so little of the QL's RAM is used).

Plug in Q-Disk, and the QL accepts one or two disk drives, sized 3 in, 3 1/2 in, 5 1/4 in, either 40 or 80 track, single or double-sided. Even when two drives are used, they can be different types!

Q-Disk offers up to 1.6 Mbytes of quick, reliable storage with a compatible disk drive.

It's made by Computamate, who also offer a full range of



## QL to link students

Strathclyde University, in Glasgow, plans to have a campus network of 2000 QLs linked to a central VAX minicomputer.

That's one QL for every student... a major investment project in a university which is now a leading centre for artificial intelligence work.

Sinclair is giving support worth £250,000 to the project. And it's likely that QL users

everywhere will benefit - the students plan to develop AI programs to run on the QL!

The QL has impressed Prof. James Alty of the University's Computer Science Department, who says *'only the QL could offer the computing power, range of applications, and above all the portability, at a realistic price.'*

## face to connect 3" disk drives

complimentary QL disk drives.  
To contact Computamate,  
phone (0782) 811711.



Single disk unit fitted with 5 1/4 inch drives and (inset) the Q-Disk controller.

# The QL's high-tech spec

### Dimensions

138 x 46 x 472mm  
(5 3/8" x 1 7/8" x 18 1/2")

### Weight

1388 gms (3.055 lbs)

### RAM

Massive 128K standard RAM, externally expandable to 640K. Extra RAM is available in 64K, 128K, 256K and 512K units, from third-party suppliers.

### ROM

48K, containing Sinclair SuperBASIC and the Sinclair Qdos operating system.

### CPU

Motorola 68008 (running at 7.5 MHz) for all principal functions. (Architecturally, the 68008 is a 32-bit processor with an eight-bit data bus. One megabyte of non-segmented address space is available.)

In addition, an Intel 8049 controls the keyboard, generates the sound, and acts as an RS-232-C receiver.

### Operating system

Qdos (developed by Sinclair Research) is a single-user multi-tasking, time-sliced system using Sinclair SuperBASIC as a command language with display handling for multiple screen windows; and device-independent input-output.

### Language

Sinclair SuperBASIC, with the advantages of procedure structuring; extendability (including syntax); interpretation speed independent of program size; clean machine code interface; operating system facilities accessible from SuperBASIC; equal capability for strings and arrays; and full error-handling facilities.

### Microdrives

The QL incorporates twin QL Microdrives, each with a minimum 100K capacity, 3.5 seconds average access time. Typical loading rate of machine code programs is 2-3K per second.

### Video

High resolution graphics capability with colour or monochrome monitor (or TV) in two modes - 512 x 256 pixels (four

colours available) and 256 x 256 pixels (eight colours available). Normal character display format of up to 85 x 25 with choice of character sets available (TV format of up to 40 to 60 columns depending on the software).

### Keyboard

Full-size, 65-key QWERTY keyboard featuring a space bar, left- and right-hand shift keys, five function keys and four cursor control keys. The keyboard can be angled by means of detachable feet.

### Expansion

Excluding RGB monitor, power socket and TV port, eight peripheral/expansion ports are provided - one internal expansion, one Microdrive expansion, one ROM cartridge, two serial and two control channels, and the local area network.

### Serial

Two standard RS-232-C communications interfaces for printers, modems, etc. Transmission at rates from 75 - 19200 baud or full duplex transmit/receive at seven rates up to 9600 baud.

### LAN

For up to 64 QL computers. Data transmission over the net can be achieved at 100K baud.

### Power supply

9V DC at 1.8A, 15.6V AC at 0.2A.

### Joysticks

Provision for one or two devices for games or cursor control.

### Applications Software

QL Quill - word processor  
QL Abacus - spreadsheet  
QL Easel - graphics  
QL Archive - database  
All four packages supplied with the QL.

### Price

£399 including VAT, QL programs, full A4 manual, power supply, 4 blank cartridges and free Helpline service.

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# QL Software

## Updated versions of Psion software now available!

QL Abacus, Archive, Easel and Quill are the four Psion programs supplied with every QL. They're now converted to 100% machine code, and as a result they load from Microdrive cartridge much faster.

The overlays present in Version One software have been removed, resulting in noticeably quicker on-screen performance.

With the compactness of machine code, there's a big saving in QL memory too – all four programs now cope with larger, more professional applications!

Version Two software is now supplied with every new QL. Existing QLUB members – see back page.

### QL-Quill

QL Quill makes it easy to type in, correct and store your letters, memos and reports.

No training is needed – a beginner can be using QL Quill for word-processing within minutes!

QL Quill has the facilities of professional word processing packages: including word wrap, search and replace, justification, page headers and footers.



### QL-Abacus

QL Abacus is a powerful, yet easy-to-use spreadsheet.

The program allows you to manipulate the contents of whole rows and columns by the names you assign them. There's no need to depend on confusing letters and numbers.

QL Abacus also incorporates a range of functions which let you carry out rapid 'what if' analyses on your data.



### QL-Easel

QL Easel allows you to create graphs, bar charts and pie charts – at the touch of a key.

The program handles anything from lines and shaded curves to overlapping or stacked bars.

QL Easel designs and scales automatically or under your control. Text can be added and altered as simply as data.



### QL-Archive

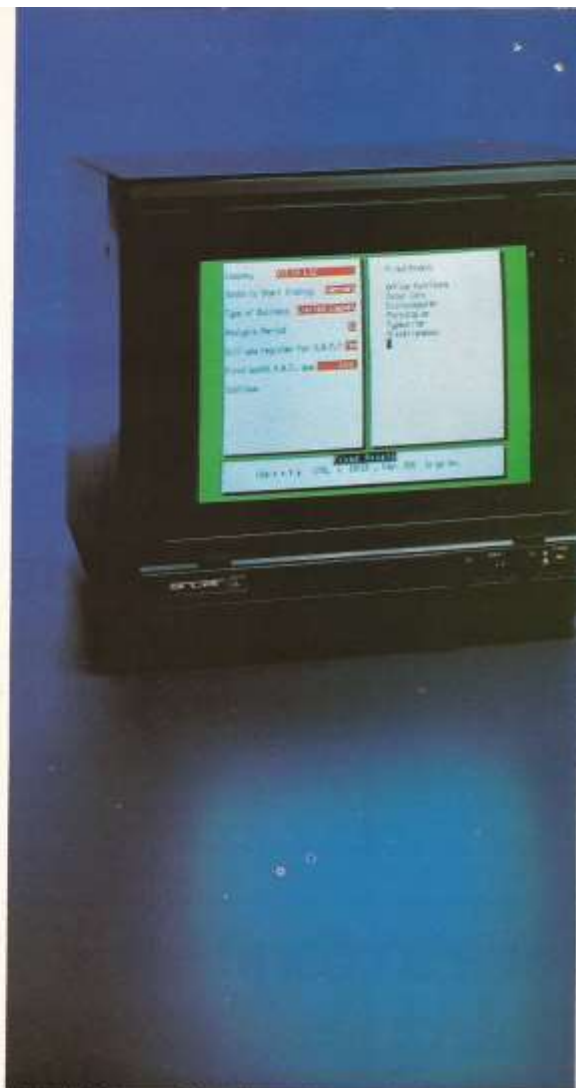
QL Archive is a sophisticated, powerful database program.

It includes a screen editor which allows you to design your own screen and format your reports, and a procedure editor which lets you tailor QL Archive to your own requirements.

QL Archive is ideal for all database uses, yet it's powerful enough to be used by many software houses to generate specific database applications.



Non-members of QLUB can purchase new versions of the above software for £15 per title, or £50 for all four programs. Phone (0276) 686100 for details.



(Left to right) QL Entrepreneur, QL Project Planner and QL Decision Maker from Sinclair.

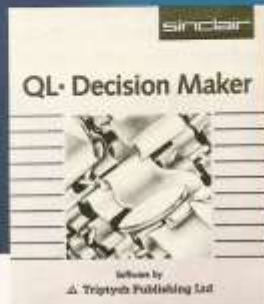
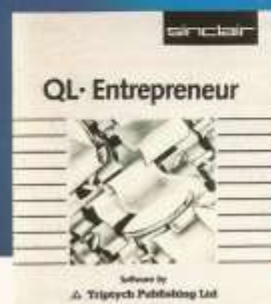
## Coming soon- QL-Entrepreneur, QL-Project Planner, QL-Decision Maker!

Three new QL business programs – with a difference!

QL Entrepreneur, QL Project Planner and QL Decision Maker train you to apply new and exciting management skills – through original and powerful means!

An interactive teaching program gives you a thorough and enjoyable understanding of each subject – backed by a text-book and 'self-test' facilities – and an applications program helps you to use your new expertise for specific problems and projects.

All three titles will increase your understanding and extend your control – making involved subjects easy, stimulating and useful!



### QL-Entrepreneur

QL Entrepreneur is an essential program for anyone preparing to start a new business – whatever it may be!

It uses a 'question and answer' format to help you build a workable business plan.

With the input you give, it works out the break-even point of the business; the first 18 months' cash flow, the type of finance needed; the year end Balance Sheet and Profit and Loss accounts... and more!

QL Entrepreneur builds your skills and techniques.

It's flexible too, so that you can ask complex 'what if' questions at any stage!

The program comes with a third, blank Microdrive cart-

ridge and a comprehensive A5 manual.

### QL-Project Planner

QL Project Planner will produce plans you can understand, monitor and more easily achieve.

First, you break the project down into its individual activities, telling QL Project Planner how long each takes and which are inter-dependent.

When you decide on a starting time/date QL Project Planner will tell you when each activity must start and finish and when the project will be completed.

Each activity is divided into its critically important stages – those which can safely be moved around without altering

the time taken by the project and those where movement will affect the completion deadline.

Whether or not you've used project planning systems before, you'll be amazed at the difference QL Project Planner can make.

The program comes with a third, blank Microdrive cartridge and a comprehensive A5 manual.

### QL-Decision Maker

Whether you're thinking of buying a house, or taking on a new business contract, QL Decision Maker makes the choices clearer!

It lets you look at the possibilities – and their implications – through a decision tree.

Once you've set out the decisions and their probable costs or results, QL Decision Maker shows the outcomes which would occur from each particular route.

You can see how much money a decision could make for you... or cost you. Complex 'what if' questions are dealt with swiftly and graphically.

You can depend on the QL to highlight the best possible route!

QL Decision Maker comes with a third, blank Microdrive cartridge and a comprehensive A5 manual.

All three programs are available from Sinclair stockists, price £39.95 each, or Sinclair Research. Tel: (0276) 686100.

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# Now, buy a QL and you're a member of the QLUB-free!

QLUB is the special Users Bureau for Sinclair QL owners.

Already, there are well over 10,000 QLUB members... enjoying a whole range of information and advisory services.

Until now, joining QLUB cost £35 per year. From March 4, every new QL

owner can become a member - free of charge!

With your new QL, you'll find a post-paid form. Complete and mail it, and you'll soon be a member of the fastest growing computer club in the country.

And you'll enjoy all the helpful services listed here!

## What QLUB membership offers you

### Regular newsletters delivered to your door

One of the most important QLUB benefits is the special news magazine, appearing six

times a year. The magazine provides a forum for QL owners to exchange views and keep in

touch with all the latest developments.

Each issue is packed with updates on QL hardware and software, tips on applying the four QL programs, and news of how other people are using the QL.



### Special discounts

QLUB members also receive a range of special discounts, with savings of at least 20% on selected software products.

There are also special subscription rates for Personal Computer News and QL User.

### Free Helpline service from Psion

All QLUB members are entitled to 12 months special assistance from Psion.

They're at the end of the telephone to answer any questions on using the QL Abacus, Archive, Easel and Quill programs supplied with the computer.

Help is also available on any aspect of using Sinclair SuperBASIC, Qdos, or linking your QL with major peripherals.

Psion will normally answer any queries within 48 hours.

*QL program updates are no longer available free to QLUB members. They will be sold separately.*

### Good news for existing QLUB members too!

As one of the first members of QLUB, you should already have received one free update of each of the four QL programs - and a letter with your new membership details.

If for any reason you haven't, you should ring (0276) 686100.

### You're a QL owner, but not a QLUB member?

Then joining QLUB is easy and free! Ring (0276) 685311 for full details. You can be a full QLUB member within a few days.

## Where to find the QL

The Sinclair QL is available at selected branches of Dixons, WH Smith, John Lewis Partnership, Currys, Greens in Debenhams and Ultimate, and larger branches of Boots, John Menzies and specialist computer stores nationwide.

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