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# QReview

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*The reference guide to QDOS and its derivatives*

Volume 1 Issue 4

June 1994

QINDEX

INTERPRET

CONVERT-POX  
FUNCTIONality

OPEN GOLF

HELP DESK



THE LONELY JOKER

Plus Much More ....

## QReview

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Articles submitted for publication should be on a 3.5 DD disk or microdrive, in either Quill, Perfection, Text87 or Editor format and be accompanied by a printed copy of the article. Saved Screen dumps produced with the Sbytes command are also accepted together with screens saved by most QL drawing packages (Please indicate which package you used to produce the graphics).

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# NEWS



## JOCHEN MERZ SOFTWARE - NEW VERSIONS

Jochen Merz Software has released a host of new versions of their software. The following prices do not include Postage and Packaging as this depends on the total value of goods:

Europe: Up to DM 50,- DM 9,-. Up to DM 500,- DM 14,-. Over DM 500,- at cost (about 5% of the total). Overseas: as above but add DM 8,- per additional item.

The *E-INIT* software for the QL-Emulator has been upgraded to allow all the hardware of the Atari TT to be utilised. This includes all four serial ports and true SCSI. This revision is Level E.41 / Rev 8.1. The software costs DM 49,90 or an update with new manual is DM 16,-.

*FiFi* the file finder is now at Version 2.02. It allows you to search a device for files just by giving a word or sentence that may appear in the file. You can look for combinations of strings such as look for string1 OR string2 but NOT string3. The software costs DM 49,90 or an update with new manual is DM 16,-.

*QMENU* an interface which provides ready made menus such as file selector boxes, simple choice menus or select from a list for Superbasic programs or Machine code programs for the Pointer Environment is now at Version 5.04. In this version new menus DO and REPORT have been added and a Character Select option is included to allow the selection of characters via a table. Another new feature is the ability to edit pre-defined entries in the directory select and extension select menus and save them while the system is running. The software costs DM 39,90 or an update with new manual is DM 16,-.

*QSpread* the only spreadsheet for the Pointer Environment is now at Version 1.25. This new version comes with a completely re-written manual and includes IF and DATE functions. The software costs DM 169,- or an update with new manual costs DM 16,-.

*The Lonely Joker* patience game is now at Version 2. It now includes three new patience games. These are Spine, Crapaud and 4 in a Hand. Two of them even use two stacks of cards. The software costs DM 59,- or an upgrade from version 1 costs DM 29,-.

For more information contact Jochen Merz Software (Germany 0203 501274), Im stillen Winkel 12, 47169 Duisburg, Germany.

## ERGON DEVELOPMENT SOFTWARE UPDATED

Ergon developments range of software has now been updated to be QVME, QXL and Super Gold Card compatible. This includes the ability to run on higher resolutions than that allowed on a normal QL. The manuals have also been updated. They are now laser printed and include step-by-step examples.

For further information on upgrades contact Ergon Development (Davide Santachiara) (Italy 0522 70409), Via Emilio De Marchi 2, 42100 Reggio Emilia, Italy.

## DJC RELEASE DESKJET-A5

This new, pointer driven, program written by Dilwyn Jones allows the printing of plain text or Quill \_lis pages in landscape format on the HP Deskjet 500 (and compatible) printers. It allows 2 pages of text to be printed side by side in book or leaflet formats using the printer's landscape fonts. The program even emulates underlining, a feature not supported by the HP Deskjet 500 hardware. The program requires expanded memory and costs £12.00 (add £1 for non UK), and is available on disk only.

For more information contact Dilwyn Jones Computing (0248) 354023, 41 Bro Emrys, Tal-y-Bont, Bangor, Gwynedd, LL57 3YT.

## PROGS RELEASE NEW VERSIONS OF LINEDESIGN & PROFORMA

PROGS have released new Versions of *LINEdesign* and *PROforma*. [Prices given are for EEC orders].

*LINEdesign* is now at version 2.01. This version now uses *PROforma* V1.01 and corrects many paragraph bugs. It also has a lot of cosmetic changes.

*PROforma* is now at version 1.01 and has introduced proper hinting, introduced external drivers and has improved the DrawCache routines which work at twice the speed.

A *LINEdesign* update costs 500 BEF (Belgian Francs), upgrading from version 1 costs 2500 BEF. A *PROForma* update costs 200 BEF.

For more information contact PROGS (Belguim 016 488952), Haachtstraat 92, B-3020 VELTEM, Belgium.

## ERGON DEVELOPMENT NOW FAXABLE

Davide Santachiara of Ergon Development can now receive fax calls on the usual telephone number (Italy 522 70409) between 10am-8pm local time (GMT +1hr), seven days a week.



# NEWS



## PROGS RELEASE PFLIST, PFDATA & PFB2PFF

PROGS have released three new products all related to their *PROforma* software (PROGS Font & Raster Manager).

The first is *PFlist* which is a program to create file listings on any printer, although it is particularly useful for inkjets and laser printers. *PFlist* can create listings in two columns, landscape or both in a variety of fonts and sizes. This is due to its use of *PROforma*. Eight fonts are included but you can use any font suitable for *PROforma*, this includes those that come with *LINEdesign*. A footer can also be included giving the filename and filedate. *PFlist* is menu driven, to print a given file all you have to do is to indicate the file from a menu of files displayed. *PFlist* costs 2000 BEF.

*Pfdata* is a program which creates printouts in a predetermined format, consisting of a background *LINEdesign* picture (optional), and text. *Pfdata* can be used as a report generator for *DATAdesign* files or other sources of information. To use *Pfdata* you have to generate a specially formatted file describing the positions, fields, fonts and justification to be used for the imported data. It is possible to work with offsets allowing the printing of several records on one page. Landscape printing is also a possibility. *Pfdata* uses *PROforma* for printing and eighteen fonts are included with the package although any fonts suitable for *PROforma* can be used. *Pfdata* costs 2000 BEF.

*Pfb2pff* is a combination of programs to allow you to convert an Adobe Type 1 *\_pfb* file into a *PROforma* *\_pff* font file, add kerning information and printout fonts. *PROforma* is needed to be able to use the program as it is not supplied. *Pfb2pff* costs 3000 BEF.

For more information contact PROGS (Belgium 016 488952), Haachtstraat 92, B-3020 VELTEM, Belgium.

## JOCHEN MERZ SOFTWARE RELEASE DOUBLEBLOCK

Jochen Merz Software has re-released the game *DoubleBlock*. *DoubleBlock* is a Tetris clone for the QL and has now been modified to behave within the Pointer Environment.

Tetris is a game where a block, of varying sizes and shapes such as an L or Box shape, descends from the top of the screen and you have to 'fit' the block into spaces on the bottom of the screen. The idea is to fill a whole horizontal row with blocks without any gaps, this then removes the horizontal row from the screen. If you do not remove horizontal rows from the screen you have less and less time to position the blocks and consequently less points are scored. You can move the blocks left, right and rotate them so awkward shaped blocks can be 'fitted' in.

This version includes various levels of difficulty and different block sets. It can also be played simultaneously by two people using Joysticks or the keyboard. *DoubleBlock* costs DM 42,90 [See news item on page 3 for P&P details].

For more information contact Jochen Merz Software (Germany 0203 501274), Im stillen Winkel 12, 47169 Duisburg, Germany.

## MATHS STACK BUG

A 'bug' crept into one of the listings in the MATHS STACK article part 2.

On page 26, the line MOVEQ #102,D1 should read MOVEQ #102-4,D1. The paragraph at the top of the second column on page 26 should now read:

I have shown in the above example, the original parameter being tidied off of the maths stack by the instruction ADDQ.L #4,A1. It does not matter whether you do this or not, provided that you take it into account when subtracting the space required from A1.L after the call to BV\_CHRIX. QDOS and BV\_CHRIX can handle it either way. etc...

## JOCHEN MERZ SOFTWARE RELEASE QBASIC

*QBASIC* is the interface and the parser between *QD* (Jochen Merz Pointer Interface editor) and *QLiberator* (Liberation Software's Superbasic compiler). With *QBASIC* you can write your basic program in *QD* then press F10 which starts *QLiberator* automatically and if the compilation is successful your program will start to run. If the parser finds a syntax error during parsing it tries to position the cursor in *QD* over or near the error. The only disadvantage is that the parser does not know about the WHEN command. To use *QBASIC* *QD* needs to be version 5 or 6. *QBASIC* costs DM 49,90. Special deals are given if you buy *QD* or *QLiberator* with *QBASIC*. These are DM 166,66 for *QD* & *QBASIC*, DM 199,99 for *QLiberator* & *QBASIC* and DM 299,99 for *QD* & *QLiberator* & *QBASIC* [See news on page 3 for P&P details]. Contact Jochen Merz Software for information (Germany 0203 501274), Im stillen Winkel 12, 47169 Duisburg, Germany.



# NEWS



## SCANDINAVIAN QL WORKSHOP

The Swedish QL Group, "Svenska QL-Gruppen", are arranging a Scandinavian meeting and workshop in Gothenburg. The date will either be the 24th of September or the 1st of October depending on demand (see below).

Gothenburg has been chosen as there are direct boats from the UK (Harwich), Germany (Kiel), Denmark (Copenhagen & Fredrikshavn), Norway (Oslo) and Holland.

To make sure the meeting has enough visitors the Swedish QL group is asking anyone who is interested in attending to contact them with their preferred date of the meeting. If there are too few replies the meeting may have to be postponed or cancelled.

Anyone interested should write to :-

Svenska QL-Gruppen  
Toftaasgatan 73  
S - 421 74 Vastra Frolunda  
Sweden

## QL WORLD FINALLY CLOSES

QL World the only professional magazine for the QL has finally closed down. The last issue being the May 94 issue.

The reason is that the subscriptions have reached break-even point and are only expected to fall as time goes on. The magazine is therefore losing money and has to close.

Arcwind are going to enquire whether any other QL interest wants to take on the title and subscriptions, or even the mailing list.

## SPECTRUM EMULATOR CHANGES

Ergon Development now only support and sell the ZM/128 and the ZM/hT systems. The ZM/128 comes with a 102 page manual and conversion programs. The ZM/hT is a compiler which runs Spectrum programs at normal Spectrum speed on a Gold Card.

## TELETEXT FOR THE I<sup>2</sup>C

Currently in the design stage is an I<sup>2</sup>C interface that provides teletext on the QL. The I<sup>2</sup>C teletext chip will work with Minerva RTC (MK II) and be usable in all countries with PAL compatible teletext.

Initially it will handle video input (from a VCR or TV with a video connector eg. scart socket) and output the data to the QL via the I<sup>2</sup>C bus. Each frame and sub-pages will be stored on the QL (in RAM preferably) and after they are collected will be instantly available. The pages can then be user selected and be either viewed on screen, printed or stored in a file.

SuperBasic tools will be provided to allow complex search and save tasks such as looking for share prices for historical data or the printing out of TV program guides. Further ideas for the software are welcomed as the authors are actively looking for feedback.

Later developments may include teletext output including VCR recording with subtitles and mixed text. The price for the I<sup>2</sup>C interface is expected to be under £100 although a Minerva RTC (MKII) is needed.

For more information contact TF Services (0344) 890986, Holly Corner, Priory Road, Ascot, Berks, SL5 8RL.

## [EEC]W.N.RICHARDSON & CO. ON THE MOVE

[EEC]W.N.Richardson & Co. have now moved to a new address. Their new address is 6 Ravensmead, Chalfont-St-Peter, Buckinghamshire, SL9 0NB. They can be contacted on their new telephone/fax number (0494) 871319 or on a mobile phone number (0850) 597650.

## SPEM DIGITISER SOFTWARE UPDATED

Davide Santachiara (Ergon Development) has modified the Look & Show software that comes with the SPEM digitiser to work with the Gold or Super Gold Card. If you send him 4 IRCs (see Help Desk) he will send you a 3.5" disk containing the new software.

Ergon Development  
(Davide Santachiara) (Italy)  
0522 70409, Via Emilio De Marchi 2, 42100 Reggio Emilia, Italy.

## SOFTWARE UPGRADES FROM DJC

DJC have produced a software upgrade list giving details of the latest release numbers of their software. The list is four pages in length and includes the upgrade price and who to contact if DJC are unable to supply upgrades. This is because some third party software vendors do not supply upgrade material to DJC and therefore the upgrade has to be sought direct from the publisher.

If you would like a copy send DJC a Stamped Addressed Envelope or an IRC marking it Software Upgrades From DJC. Dilwyn Jones Computing (0248) 354023, 41 Bro Emrys, Tal-Y-Bont, Bangor, Gwynedd, LL57 3YT.



# NEWS



## DIY TOOLKIT FINISHES

Following the closure of Sinclair QL World the long-running DIY Toolkit series, started by Marcus Jeffrey in 1987 and subsequently developed into some 70 articles and 24 software-packed volumes by Simon Goodwin and Phil 'Taskforce' Spink, has come to an end. The authors would like to thank readers and disk purchasers for their support over the last seven years.

The volumes will remain available from Dr. Bill Fuggle, DIY Toolkit, 86 Lordswood Road, Harborne, Birmingham, B17 9BY, UK until the end of September 1994. Each toolkit volume costs £3 and orders for two or more volumes will be accompanied by laser-printed documentation, at no extra charge (please make cheques payable to DIY Toolkit).

They have been updated to take account of the latest improvements in QDOS. The most recent updates include a revised pointer driver for 'noisy' or erratic two button mice (with added ESC key emulation), PACKBITS file compression routines, HD and ED disk renamers and a fix for rouge MSEARCH patterns.

## QUANTA DORSET WORKSHOP

A Quanta Workshop is being held at Merley Community Centre, Harrier Drive, Merley near Wimborne in Dorset on Saturday 2nd July 1994. The Workshop will be open from 10am to 5pm.

Merley is situated off the A31, Wimborne bypass & just behind Poole and Bournemouth. The nearest railway station being Bournemouth.

For more information contact John Mason on (0425) 275894 or Derek Pope on (0202) 889070.

## JURGEN FALKENBERG ON THE MOVE

Jurgen Falkenberg, also known as Computer Technik, has moved to a new address. Jurgen Falkenberg provides a range of hardware products for the QL ranging from the Keyboard 90 Interface to a Hard Disk system distributed in the UK via [IEEC]W.N.Richardson & Co.

Their new address is Computer Technik (Germany 07233 81515), Parkstrasse 25, D-75223, Oschelbronn, Germany.

## SCREEN DAZZLER UPDATED

Screen Dazzler the screen saver that allows you to activate animations or other screen effects to save screen burn-in when nothing has been typed for a given number of minutes, like screen savers on the PC, has been upgraded to be Super Gold Card compatible.

The upgrade (V1.03) no longer slows down the Super Gold Card a significant amount unlike previous versions. It is also compatible with Minerva, more compatible with the Pointer Interface and no longer interferes with the Serial Mouse software from Albin Hessler.

The latest version also includes a second disk of screen display routines.

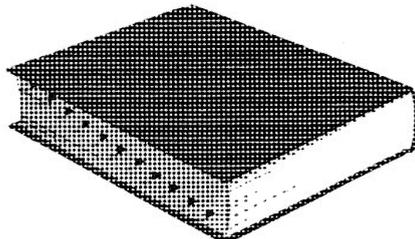
Screen Dazzler upgrades cost £3.00 (UK) or £4.00 (Other) from Dilwyn Jones Computing (0248) 354023, 41 Bro Emrys, Tal-y-Bont, Bangor, Gwynedd, LL57 3YT.

## MIRACLE SYSTEMS RUN DRY

Owing to the larger than expected demand for the Super Gold Card Miracle Systems ran dry of their Super Gold Card following its launch. The long production period of the PCB for the Super Gold Card was to blame for the delays. Miracle Systems now have a new batch of Super Gold Cards and don't expect the situation to occur again.

## QReview COMES OF AGE

QReview celebrates its first anniversary with this issue. We wish to thank all the people who have contributed and given their support and encouragement that has made this possible.

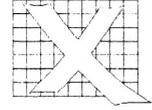


*DIGITAL PRECISIONS*  
**NEW ARRIVAL**

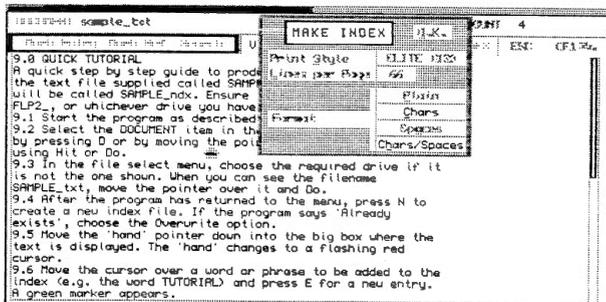
Congratulations are in order for Freddy and Julie Vachha for the arrival of their baby daughter named Michelle.



# QINDEX



- 1.0 QINDEX is a utility for sectionalised indexing of "text" or Quill files, and as such should prove invaluable in the preparation of manuals, and indeed any documents which require to be referenced.
- 1.1 The program, which is Gold Card and Minerva compatible, includes the pointer environment files necessary for its operation, but requires TK2 to be active along with additional memory expansion.
- 2.0 To start the program, which is compiled with QLiberator, a boot file which can be modified as necessary is supplied. Two files for direct execution are provided - the choice of use being dependent on whether or not you have loaded the QLIB runtimes



- on your system.
- 2.1 The program can be configured to designate the drives, specify the initial number of lines and set the document extensions. As supplied, data is assigned to flp2\_, 1024 input lines are allocated, and "\_txt" is the extension for a sample file which acts as a brief tutorial.
- 2.2 If necessary however, the number of input lines to be processed can be adjusted from within the program while the index entries are being marked.
- 3.0 Having made a working copy and initiated the program, the first step is to load in the text to be used.
- 3.1 This, as with other operations, is simply a

matter of navigating to the appropriate button either using a mouse or arrow keys, then "hitting" or "doing" in the usual pointer environment fashion.

- 3.2 Alternatively, for old-fashioned mortals like myself, it is every bit as quick and easy to press the underscored letter of the relevant box, then <SPACE> or <ENTER> as required.
- 3.3 File selection uses the standard Jochen Merz menu. If you are not familiar with this, there are comprehensive notes on it in a Quill file included on the QINDEX disc.
- 3.4 It is then necessary to "SET FILES" either by "ADDING" to entries from a previous session or commencing a "NEW" index.

- 4.0 The pointer is now moved to the text area where, after being transformed to a normal cursor, it is moved using either a mouse, arrow keys, or <SHIFT> and <TABULATE> combinations.

- 4.1 Pressing <E> changes program mode from "VIEW" to "EDIT" and text being marked for indexing up to a maximum of 20 characters is highlighted. Pressing <ENTER> removes the highlight, stores the marked text and returns the program to "VIEW" mode.

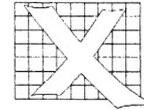
- 4.2 Pressing <R> allows up to a maximum of 20 entries to be attached to any one reference. Pressing <H> will then permit a search of the current batch of entries enabling any unreferenced entries to be checked.

- 5.0 Once you are satisfied that all items for indexing have been included, pressing <M> or selecting "MAKE INDEX" starts the last stage of the process. A choice of print-out styles is offered and, after acceptance, the final index file is created. In either single or two column format, the intermediate work file closed, and the input file removed.

- 5.1 By pressing <S> or selecting "SHOW



# QINDEX



INDEX" the session's work can be viewed on screen prior to print-out.

which Barry Ansell's neat little program can be applied.

6.0 At first sight the manual appears rather complicated, but things become clearer as you work through the program with it. Editing is a little bit fiddly at times, but taken overall, operations are a lot less tedious than making a copious index using pencil and paper.

6.1 The accompanying index based on this review should give an idea of the way in

Jim Buik

*QINDEX costs £20 (+£1 for non UK countries) and is available from Dilwyn Jones Computing (0248) 354023, 41 Bro Emrys, Tal-Y-Bont, Bangor, Gwynedd, LL57 3YT.*

## Sample Index

Adding	3.4	Input	2.1	Sample	2.1, 2.2
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		Items	5.0	Session	3.4, 5.1
Batch	4.2				
Button	3.1	Jochen Merz	3.3	Text	1.0, 3.0, 4.0, 4.1
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Column	5.0	Manual	6.0	Underscored	3.2
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Data	2.1	Minerva	1.1	View	4.1
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Drives	2.1	Navigating	3.1		
Edit	4.1	Operation	1.1, 6.0		
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Environment	1.1, 3.1	Preparation	1.0		
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Extension	2.1	Program	1.1, 2.0, 2.1, 2.2, 3.0, 4.1		
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Flp2_	2.1	Quill	1.0		
Format	5.0				
Gold Card	1.1	Review	6.1		
Highlight	4.1	Runtimes	2.0		
Hitting	3.1				

**NEW** Telephone/Fax  
0494 871319

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**SINCLAIR QL PRICE LIST**  
**APRIL '94**

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S.A.E. for further information of hard disk, floppy disks,  
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**Accessories**



NOTE: EXTERNAL (SER2) 3 BUTTON MOUSE AND SOFTWARE



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TV or Network leads £ 3.00 QL Top & Bottom Case £ 5.00  
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**MOBILE:**  
**0850 597650**





# INTERRUPT



## GETTING STARTED WITH ASSEMBLER

This article will not teach you how to write assembly language programs, what it will do is explain all the bits and bobs that you will probably need to do so.

### WHAT IS ASSEMBLY LANGUAGE ANYWAY ?

Assembly language is an 'easy' way for humans to understand the 'natural' language of your computer, in our case, the QL. Briefly, the QL works on electrical signals, we 'see' these signals as binary numbers but it would be very difficult to write a program using just binary. What we do, is take the numbers and turn each of them into a word that makes more sense, such as **MOVE** or **ADD**.

Assembly language, then, is a couple of steps up from the lowest level which is the QL's own language. It is in a form which is readable to a human, but hopeless for a QL to understand - before the program can be run, it must be converted from human readable form to QL readable form.

As an example of a program written in number form, take a look in the CONCEPTS section of your QL manual, in the section titled MULTITASKING. My one is on page 42 of the Concepts section. There you should see a small SuperBasic program containing 7 lines of DATA statements, each of which is just a line of numbers.

Each of these numbers corresponds to a specific instruction in the QL's own language, and when the program shown is run, it creates a file on a microdrive containing a clock program. This new program can be EXEC'd to show a multitasking clock in your QL.

All done by numbers !

### EDITORS

In order to write any sizeable program, you will need to have an editor of some sort. When you type in a SuperBasic program, you are using the QL's built in editor. When you wish to type in or write an assembly program, you need to use a text editor. This is a program that allows you to type in your program, save it, print it and correct it etc.

There are a number of editors on the QL market, ranging

from the very good to the very adequate, some old ones and some more recent. You can, at a pinch, use *Quill* as a text editor.

*Quill* is normally a word processor, and word processors are not much good at saving text files. Word processed documents usually have a number of special characters embedded in them to tell the word processor how the text is to look on screen or on the printed page etc. These special codes will cause havoc with the assembler in most cases. *Quill* can, however, be configured so that no control codes are used. All you have to do is set up a printer driver file (printer\_dat) than has no translations, no bold on/off, underline etc and use this file to 'print' the text to a disc file instead of the printer.

I have a number of text editors in my collection, some are good for some things and others for others, I tend to use *Digital Precision's EDITOR Special Edition* most of the time as it has a full set of features such as a built in command language of its own. This is very handy at times.

Another one that I use from time to time is *QED*. This is a small (8Kbytes) editor with a large number of features and it is free ! I got my copy with C68 but it is available from most of the QL public domain libraries including *QUBBESoft P/D* and *S.J.P.D.*

Once you have chosen your editor, you can use it to enter the program you wish to work on.

Assembly programs are normally written to a simple standard for each line of code. This requires that the program be written in up to 4 'columns', a **LABEL**, the **OPERATION** field, the **OPERAND** field and finally, a **COMMENT** field. For example :

LABEL	OPERATION	OPERAND	COMMENT
start	moveq	#0,d0	Clear D0 for some reason
rts			Done

As you can see from the above example, some fields are used and others are not. In many cases, the LABEL is optional and some instructions do not have an OPERAND. COMMENTS are always optional, but are considered mandatory in some cases - you will NOT remember what you were trying to do when you try to amend the program



# INTERRUPT



in 6 months time. Comments are useful if you need to use a monitor - see below.

So now you have used your editor and typed in the program as you think it should be, what happens next ?

Well, first of all, save the program code so that the assembler can find it and so that you can get it back at a later date to fix it if (when) things don't work properly. Now fire up your **ASSEMBLER**.

## ASSEMBLERS

There is not really a lot you can say to explain what an assembler does. An assembler is a program that scans through the human readable form of the program, the **SOURCE CODE**, and writes out a machine readable form of the program, the **OBJECT CODE**.

In some cases, this is all there is to it, but larger programs may need to be **LINKED** before they can be used. This will be dealt with later.

There are a few assemblers available for the QL, I have owned and used *Metacomco's Assembly Development Kit* which contains an editor, an assembler and a linker, and the *GST Macro Assembler, QMAC*, which I obtained from *Quanta*. This package contains an editor, (*QED* as mentioned above), an assembler and a linker as well as a few other things such as a macro library.

I find that I use the *QMAC* assembler more than any other these days - it is quicker and better, I think, than the others. I have not used the *Devpac assembler kit* which used to be available from *Hi-Soft*.

So, you have written your source code and assembled it to turn it into object code, what next ? It depends on what type of code you were writing in the first place.

If you were writing a SuperBasic extension or toolkit, then you need to get back to Basic and load the toolkit's object code into the QL's memory. This is normally done using **RESPR**, then **LBYTES** and finally **CALL** the code start address, but users of Tony Tebby's Toolkit 2 can perform all 3 operations in one go and use **LRESPR** to reserve space, load the code and call it.

If the program was a multitasking program or job, you can

**EXEC** or **EXEC\_W** it to load it and execute it.

Sometimes, especially in larger programs where there might be more than one source file, you cannot directly run the object code produced by the assembler. This is because, the code in each object file can make calls and jumps to routines in other object files, but when each one is being assembled, there is no way that the assembler can calculate exactly where the jump or call is to. This is a job for the **LINKER**.

## THE LINKER

As mentioned above, some programs are so large, that they are made up of several source files. This serves a couple of purposes, one being the amount of memory required to hold the editor and the source file is reduced if the source is broken up into a number of smaller files. Loading & saving will be quicker, as will searches etc.

Another advantage is that the various source files (modules) can be assembled much quicker than the whole program could be as one very large source file. In the event that something happens in your system, and a file gets corrupt, what is easier - retyping the whole program or just part of it ?

The outcome of this modular programming is that you have to assemble a number of source files, producing a number of object files in a special format. This format is known to the masses as **SROFF** or Sinclair Relocatable Object File Format. This is simply a file layout devised by Sinclair Research a long time ago and all QL assemblers produce this type of object file under certain conditions.

If the module that you are assembling contains a call to a routine, address or even to a variable that has been defined outside of the module file (ie in another source file) or if there are sub-routines, addresses or variables in this source file that have been defined as being accessible from other modules, then the assembler will produce **SROFF** object files.

You cannot **EXEC** or **CALL** a **SROFF** code file directly, well not without causing problems for your QL you can't !

What you have to do is load up a linker and tell it which files are to be linked together to create the final program. The linker reads each of the **SROFF** files in turn and builds



# INTERRUPT



up a table of routines that have no known address in the individual object files. As it progresses through each file, new routines will be found, and if required, previous calls to each one can be 'filled in' thus providing a complete program ready to EXEC.

For example, imagine a program made up of two separate modules, called FILE1 and FILE2. There is a part of FILE1 that calls a sub-routine in FILE2 to do some processing. In addition, there is a variable in FILE1 that part of the code in FILE2 requires.

The assembler will produce two output files, say FILE1\_REL and FILE2\_REL, both of which are in SROFF format and must be linked. The linker then reads in FILE1\_REL and scans it for any calls or accesses to 'external' routines or variables. It will find the call to some code in FILE2, but currently doesn't know where that routine is.

When it reads FILE2\_REL, it will find the 'missing' routine and correctly set up the code in FILE1\_REL to call it. The same will be true for the reference in FILE2 to the variable in FILE1.

At the end of all this, one single program will be produced and it will have all the 'external' references correctly resolved and the program will be usable.

You may be wondering what 'external' is all about, put simply, it means that there is a reference to a routine or variable that does not appear in the current object file. In other words, the required routine or variable is external to the current file.

If all your programs are small, then it is probable that you will never need the linker. If, however, you tend to write large programs then you will probably need the linker. Most, if not all, assembler packages come with a linker anyway, so there is no added expense in obtaining one.

Linkers can also be used to join up programs where some of the code is written in different languages. You could do most of your programming in C, for example, but need to have a part of the program written in assembler for speed. In this case you would have to use the linker to join up the SROFF file produced by the C compiler and the one produced by the assembler.

## MAKE

With all this talk of modular programming, there is a need for some way of knowing exactly which source files have been changed and therefore need to be recompiled or reassembled and linked to produce the final masterpiece.

MAKE is just such a utility.

MAKE is a program that does all the hard work for you. All you need to do is set up a file, that make can read, containing a set of instructions which can be as simple or as complex as required.

Let us assume that you are writing a program called MYPROG\_EXE. You are doing it in a modular fashion, so you have say two modules, MYPROG1\_ASM and MYPROG2\_ASM.

Doing everything manually, you would edit, then assemble then link the various files to produce the final program, MYPROG\_EXE. Make can do this for you.

Using make, you tell it that MYPROG\_EXE is made up of MYPROG1\_REL and MYPROG2\_REL and that these programs need to be linked together to produce the final file.

You also tell make that MYPROG1\_REL is dependant on the source file MYPROG1\_ASM and you assemble the source file to get the SROFF file. The same is true for MYPROG2\_REL and MYPROG2\_ASM.

Now all you do is edit one or other or even both of the \_ASM files and when done, run MAKE. MAKE will check the date of MYPROG\_EXE to find if it is older than either of the \_REL files and if so, relink them to produce the \_EXE file. Before doing that, however, make checks to see if either or both of the \_ASM files are more recent than the corresponding \_REL files. If so, the assembler will be run to bring the \_REL files up to date. Either way, MAKE will create the required program, MYPROG\_EXE without you having to worry about remembering which source files were changed. All you have to worry about is making sure that the QL clock is always set to the correct time !

This is not too much of a problem with only 2 source files, but if you have many source files or a mixture of languages, MAKE will quite happily cope with that as well calling the required compiler and/or assembler and linker



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to do the business.

There are a few of versions of MAKE that I know of, one seems to be only for the QMAC assembler and is available from *Jochen Merz*, the other is free and available with C68 - this version handles all compilers etc. The last is in the *Quanta* library.

## MONITORS

What is a monitor? A monitor is a large lizard that lives in tropical places, or someone who looks after the milk in schools (do you still get milk in schools?) or a high quality 'TV' for your QL!

The kind of monitor that has anything to do with assembly language programming is a special kind of program that allows you to find out why your program doesn't work.

When you have written your program, typed it in via the editor, assembled and linked it and then EXECed or CALLED it, the chances are that it will not do everything that it is supposed to, or it might simply crash the QL. If you have no monitor to help you, all you can do is print off the source code and spend many hours trying to figure out what is going wrong.

If you have a monitor, you can load it up and have it take control of your masterpiece. When your program is running under control of a monitor, you can do all sorts of things with it, things like setting breakpoints, single stepping, tracing, letting the program run until some condition that you have specified happens etc etc.

Some monitors are better than others, the first one I ever used was a freebie from *QL World's Microdrive Exchange* and I still have it. It was small and had a restricted set of commands. Nowadays, there is *Tony Tebbie's QMON 2* available from *Digital Precision* or *Jochen Merz*, which has just been upgraded to take account of the new processors that are available on various emulators, QXLs etc.

*QMON 2* is the monitor that I use all the time. It has a large command set and many variations of individual commands. For example, the TRACE command has five variations; trace one instruction, trace a number of instructions, trace until a user specified condition occurs, trace until a certain address is reached or trace until return. All of these have a 'quick' version as well giving ten

different ways to trace the execution of your program.

Using *QMON 2*, you can follow your program's execution until you see something that is not quite right, or in most cases, you can see where the problem occurs that causes the crash. If you are tracing a routine and the QL crashes, you know exactly where the crash occurs, now you can investigate the listing and find out why.

Any good monitor should allow you to alter register values, memory contents, set breakpoints in your code, display register and memory dumps and most useful, perform calculations in hex or decimal. *QMON* does all of this and more - this is one program that I cannot recommend highly enough. If you do buy it, take some time with the manual and example programs to get to know it and then use it. The more you use something the better you will get.

## DISASSEMBLERS

A disassembler is the exact opposite of an assembler. While an assembler takes source code and turns it into object code, a disassembler takes object code and turns it into source code. Some of them do it better than others.

The simplest disassembler reads through a file, or memory, and attempts to convert everything it finds into code. This is fine until it comes across some data, the output will get a bit strange and in some cases, the disassembler may stop disassembling.

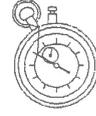
Next up, we have something like *Digital Precision's IDIS* (Intelligent Disassembler) which can follow program flow and disassemble all the branches and calls made by a program. When it finds a data section, it tries to treat it as code, but if this fails it asks you if it is data and lets you see what it looks like. Once you tell it what the data really is, it carries on with the rest of the program.

The next step up is a disassembler that knows all about the QL and its operating system, QDOS, and the Pointer Environment etc. This is called *DEA* and is available from *Dilwyn Jones Computing*. *DEA* is a very versatile tool for the more serious user. In simple use, throw a file or memory at it and it will be able to figure out what is code, what is not and treat it accordingly.

*DEA's* manual states that it can disassemble 99% of the



# INTERRUPT



entire Turbo Runtime Toolkit without any user intervention. When it is done, it asks about two areas of the file that it cannot figure out and then finishes the disassembly. A very useful program to have. The manual could be a bit better though.

## FINALLY

All this talk of programs conjures up the thought of lots of money changing hands, and why not ?

There are assemblers, monitors, disassemblers etc available for free in the *Quanta* library. Better ones are available, but you pay for those. Quanta also do the *GST Macro assembler kit* at a very reasonable cost. This is being upgraded as time goes by as Quanta also have the source code.

*Digital Precision* sell monitors, disassemblers and editors, *Dilwyn Jones* does disassemblers & editors. Contact *Ron Dunnet* of *QUBBESoft P/D* and *SJPD* for a catalogue and see if they do any. Get the *Quanta* library guide as well for details of what is available there.

Finally, get a hold of C68 as this development kit contains an editor, assembler, make and it is free if you are a *Quanta* member or very cheap from one of the above PD libraries if not. (Why not ?) - you may not be a C programmer, but you still have the chance to learn. The assembler is not all that well documented as it is really intended to assemble code produced by the C compiler but it can be used on its own.

Norman Dunbar

**DIGITAL PRECISION**, 222 The Avenue, London, E4 9SE, UK. Tel: (081) 5275493.

**Editor Special Edition** £49.95 (min 256k)

**Editor** £29.95

**IDIS Intelligent Disassembler** £24.95

**IDIS Special Edition** £39.95 (min 256k)

**QMON Machine Code Monitor** £39.95

**DILWYN JONES COMPUTING**, 41 Bro Emrys, Tal-y-Bont, Bangor, Gwynedd, LL57 3YT, UK. Tel: (0248) 354023. (UK software post free, overseas add £1.00 per

program up to a maximum of £3.00).

**DEA Disassembler** £26.00

**DISA 2 Disassembler** £40.00

**S\_EDIT Editor** £20.00

**S.J.P.D.**, 36 Eldwick Street, Burnley, Lancashire, BB10 3DZ, UK. Tel: (0282) 451854.

For a catalogue disk which includes details of all PD and Shareware programs, send a formatted QL disk and return postage or 4 1st Class Stamps.

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**QUANTA**, Roy Brereton, 94 Teignmouth Road, Clevedon, Avon, BS12 6DR. Tel: (0275) 871917.

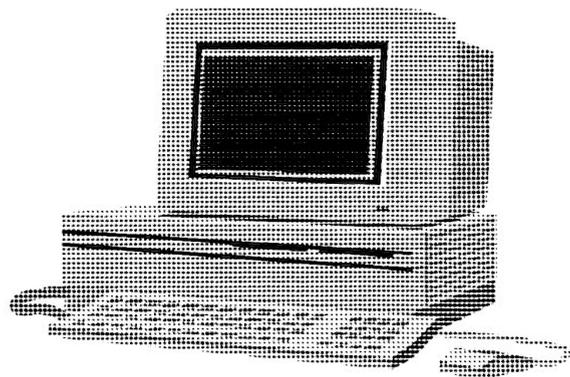
**QMAC GST Macro Assembler and Linker** £15 (UK), £17 Overseas.

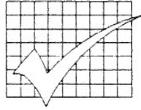
**JOCHEN MERZ SOFTWARE**, Im stillen Winkel 12, 47169 Duisburg, Germany. Tel: (0203) 501274. Postage and Packaging, Europe, DM 14,- (if total of goods is up to DM 50,- then only DM 9,-). Overseas as per Europe but add DM 8,- per additional item.

**QD Editor Version 6** DM 125,-

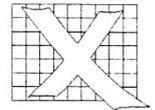
**QMON/JMON Monitor** DM 67,-

**QMAKE Version 2** DM 44,90





# CRICKET SECRETARY



It is said that on first hearing the voluptuous sound of bat against ball coming from a next-door garden, C.B. Fry was seduced into a lifelong love affair with cricket. He went on to become one of the finest stroke players of his time. At Lord's in September 1901 Fry scored 105 for the Rest of England against Yorkshire and thus entered cricket history as the first of only three men to make centuries in six consecutive first class innings. Altogether that season the Sussex batsman compiled 3,147 runs at an average of 78.67.

Each April since, that 'voluptuous sound' of willow on leather has captured anew the heart of every cricket devotee, though sadly its sweet and sinewy parameters defy the SuperBASIC BEEP command. Thumbing through old QL mags I've come across a couple of one-day cricket simulations that didn't quite make it in the QDOS marketplace. In my opinion the subtle complexities of our national summer game defy simulation.

Statistics are quite another matter...

The microcomputer would seem to be a godsend to those of us who are fascinated almost as much by the mathematics as by the playing of the game. Cricket is a number cruncher's dream. Indeed, with each passing broadcast, Bill Frindall, *doyen*

of scorers and statisticians, introduces the *Test Match Special* listener to ever more convoluted numerical analysis of team results and individual performances.

Eager and intrigued I booted up C.B. Storey's *Cricket Secretary*, a suite of programs designed to keep track of players' batting and bowling averages and to print out club records in tabular form as required. The software was said to run from disk or microdrive on any system from a basic 128k QL to a fully expanded machine boasting a Minerva ROM, using either TV or monitor for screen display. Should suit everyone then...

I have to say I was extremely disappointed.

The program scores few marks for presentation. Apart from two crudely drawn cricket balls flanking the main menu, *Cricket Secretary* is graphically uninteresting and for text relies throughout on the standard QL font CSIZE 0,0 on a black background.

There is no way of configuring *Cricket Secretary's* default program and data devices. Instead the user is forced to type these in *every time the software is run*. It was clearly not written with multitasking in mind and some tinkering is necessary to make the three programs behave properly alongside other software. If you use the Pointer

Environment, try the following changes to *Cricket Secretary's* BOOT\_MENU file...

```
1110 =1:pointer 8:EXEP prog$ &
"cricket_sec_obj",G:next men_loop
1120 =2:pointer 10:EXEP prog$ &
"printa_obj",G:next men_loop
1160 EXEP prog$ &
"toolkit_obj",G:next men_loop
```

Once the package is up and running its shortcomings are quickly apparent. This software is neither friendly nor intuitive to use and there are basic difficulties with data entry and correction of mistakes. Let me give you an example: I decide to enter my batting scores so far this season. That shouldn't be too difficult...

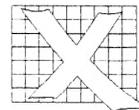
Selecting item 1 from the 'suite' menu (or should that be the *suite trolley*) runs the main *Cricket Secretary* program and offers me a further seven choices. I press '1' for *Input Batting* and am prompted for *Player's ID?* I type my name in the required format and get the message *New entry: 1 Berry CC*. So far so good. What happens next?

*Batsman's score? 54*  
*How was batsman dismissed?*  
*(ENTER as aside) n*

If you're confused (as I was), '*ENTER as aside*' means type an initial from the onscreen list ('b' for bowled, 'c' for caught, 'n' for not out... ). Done that. Now what? Up pops *Player's ID?* again. This



# CRICKET SECRETARY



is where the trouble starts. I type my name and get *New entry: 2 Berry CC*. The program hasn't checked to see if I already exist but assumes I'm someone different and duplicates my entry. Realising this I press <ESC>ape and the program crashes. Silly me, I should have pressed 'm' to return to the *menu* to select *Input Batting* again to get back to where I was in the first place, en route being *forced* to save the current session to disk. And all I wanted to do was delete what I just typed!

If I want to record subsequent innings I have to enter my ID *number* which searches for my *name* then asks me for my next score and how I was out. This is okay at the moment because I'm the only batsman in the database and I know my number is 1. How am I supposed to remember everyone's ID number when I've input the entire club membership? The manual suggests *'it would be a good idea to jot them down for now.'* Jot them down! What's the point of having a computer then?

But it's more complicated than that. If you also turn your arm over you get a *different* ID number for your entry in the bowling averages! Last Sunday I played against a club that every weekend fields three Saturday sides (league games) and three Sunday XI's (friendlies). Separate sets of statistics are maintained for

each team. It may be unlikely for a club member to bat and bowl for every team during the season but using *Cricket Secretary* it would in theory be possible for such a player to have *twelve* different identification numbers. Quite a headache for the club scorer! Surely it would make far more sense for a membership file to be maintained on disk/cartridge, with each player having a ID number which could be used both for batting and bowling for any team put out by the club.

But quite apart from the convoluted process of data entry<sup>1</sup> the statistical information produced by the program is scant and rudimentary. Output can be displayed on screen or sent to a printer as required. But the figures are limited to four tables: *Batting Averages*, *Dismissal Analysis*, *Bowling Averages* and *Best Bowling*. What about team results and statistics? Highest partnerships for each wicket? Fielding and wicket-keeping records? Fastest 50's? And so on and so forth. Every week our club scorer hands out updated copies of players' averages produced on a PC spreadsheet. His printout incorporates all these additional stats and more.

My criteria for judging the merits of *Cricket Secretary* (£12.00) were whether I could record and present the performances of my own team

with less effort and in greater detail than if I were using a spreadsheet. The answer is that QL Abacus (free) is easier to use, more flexible and less prone to error. Devoted to the QL though I am, and to much of the software available for it, I will not be recommending to George that he abandon his current system and switch over to *Cricket Secretary*.

And if your appetite for cricketing facts and figures extends to the feats and fortunes of your favourite players in the first-class game you can always borrow *Wisden* from your local library and pore over that wondrous tome to your heart's content.

Chris Berry

<sup>1</sup> Data *correction* is another weakness of the software. Amendments require the execution of a second program called *toolkit\_obj* which is not properly error trapped and can easily create inaccuracies.

*Cricket Secretary* is available from Dilwyn Jones Computing (0248) 354023, 41 Bro Emrys, Tal-y-Bont, Bangor, Gwynedd, LL57 3YT, UK. The program costs £12 (+£1 for non UK countries).

# QUBBESoft P/D

38, Brunwin Road, Rayne, Braintree,  
Essex. CM7 5BU. Tel/Fax: 0376 347852  
24hr - 7 Day Week Service.

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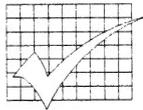
**QUBIDE:** IDE Hard Disk I/Face, allows connection of 16 bit IDE Hard Drive, upto 120mb, to the QL. Plugs into ROM slot. Software built in.

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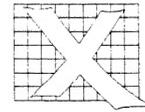
Cheques (in UK pounds drawn on UK Bank), Postal Orders, International Postal Orders & EuroCheques (in UK pounds) payable to:- QUBBESoft P/D  
Cash in UK pounds is also acceptable.

## P&P Guide for PD & Shareware

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4-6	0.75	1.50	2.00	2.25	16-18	1.75	3.50	4.00	4.25
7-9	1.00	2.00	2.50	2.75	19-21	2.00	4.00	4.50	4.75
10-12	1.25	2.50	3.00	3.25	22-24	2.25	4.50	5.00	5.25



# OPEN GOLF



Let me first say that I do not play golf, although I have played a PC Open Golf game for many a bored lunch break.

The game is written by Oliver Neef and Rich Mellor. Since its initial release it has been much improved and will now run on a Gold card without being too quick to play. The package consists of one 3.5" disk and four A5 printed pages of instructions. Please do not do as I did and start to play without reading the instructions. Although it is easy to play I did not realise about the toggle keys used in the game until I had played two or three games. I then sat down to read the manual.

Upon loading the game you are presented with two options. The first being a demonstration of the opening drive off the tee, while the second is to play the game itself.

If the latter is chosen you can then load previous scores you have saved to compare your round with.

You are also given a choice of fifty courses. My criticism at this point is that it would be nice if the courses were named as if they were related to real courses, but as I do not know any real courses, I could not tell if they are real or not.

The screen is split into four parts. The largest being the left half of the screen and showing an aerial view of the hole. The right half of the screen is divided into three. The top third is of a pseudo perspective view, with cartoon like drawing of the golfer. ( He has speech bubbles that exclaim 'Okay', 'Great', 'Good' or '\*!\*?' depending on how well you hit the ball. ). The middle third of the right hand side contains all the

you can find the ball on the aerial view.

The LEFT and RIGHT arrow keys moves a small dark blue cross on the aerial view. This cross represents the direction of the golfer. However the cross only moves in jumps of 45 degrees. To aim the ball more accurately you use the correction scale but more of that later.

The pseudo perspective view



statistical information relating to the hole. Such as distance, wind, shots etc.,. This is very useful in playing the game.

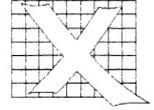
By pressing the UP and DOWN arrow keys you can choose different clubs; each of which has a different maximum range.

The 'R' key toggles a ruler down the side of the aerial view while the 'F' key toggles a bright yellow crosshair so

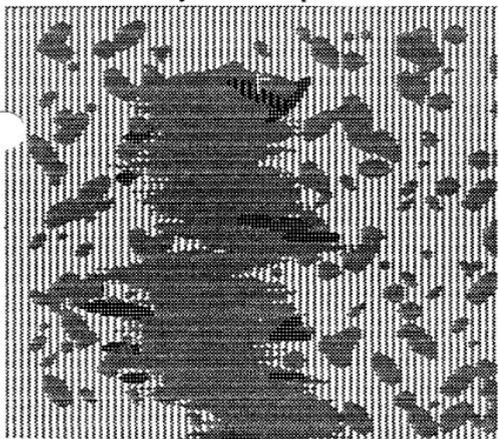
is only a rough representation and should not be used to line up the shot except when on the green. Once you are happy with the club selection and general direction you press the space bar and two sliding scales appear in the bottom third of the right hand side. By pressing the LEFT and RIGHT arrow keys the first scale starts to move. This represents how powerfully you hit the ball. Pressing the space bar chooses that level.



# OPEN GOLF



For example if the club has a maximum range of two hundred feet and the hole is only one hundred feet, you move the scale to 50%. The second scale is for the correction of angle and again is controlled by the LEFT and RIGHT arrow keys and chosen by the space bar.



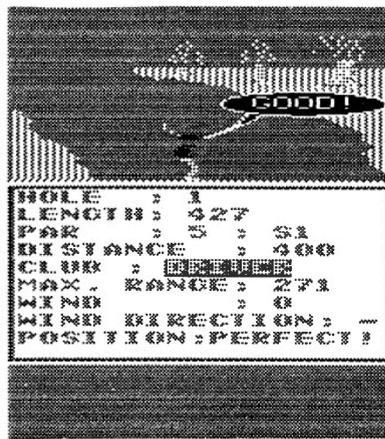
Once this is chosen, the shot is taken and the resulting position is marked on the aerial view.

Due to my initial bad playing I found out that if there is a lake or river and you land in it, the QL is capable of making a wet squelch of a sound. In fact once I found this out I spent quite some time aiming for lakes...

The screens are drawn in mode 8 which gives plenty of colours but at the expense of resolution. However I did find the graphics more than adequate and for a QL that is good. The program is Minerva / JS / JM / AH

ROM compatible and fast for a golf game.

Once on the green you are restricted to only using the putter. At this point the perspective view is more important as a post shows the slope of the green by means of a shadow.



Once holed you are presented with the score card and how you did with that shot such as 'Eagle ! Wow' or 'Bogey 27 ! Oh No !' This is much better when you have loaded previous scores as then you have something to play against.

I initially thought that a Golf game would be the most boring thing on earth and that one on the QL would be terrible. This thought was soon banished when I realised just how long I had been quietly playing and that I wanted to play just one more hole.

For those of you who may

have played the PC version you may be in for a pleasant surprise. The manner in which you power the shot and angle it are much more playable. Graphics are good and overall it is very enjoyable. The sound is limited but adequate.

Do I have any criticisms? Well, when the shot is taken and the pseudo perspective view shows the ball moving I would have liked to see it move on the aerial view. On the green after a shot the program appears to pause ( pressing space carries on ) where as on the fairway or rough the program continues and asks you to press Enter. The latter seems to be better as you do not get the feeling that the game has crashed or paused. As I found the game enjoyable I would also like other modules of courses to be available or possible a design your own course program.

I would recommend buying this game now that I have played it.

John Southern

*Open Golf requires 384K and costs £12.50 (+£1 for non UK). Dilwyn Jones Computing (0248) 354023 , 41 Bro Emrys, Tal-Y-Bont, Bangor, Gwynedd, LL57 3YT.*



# HELP DESK



**Q: Why do fonts used in some basic programs get scrambled up when the Pointer Environment is in use ?**

Because the program generally makes assumptions about the layout of memory and PEEKs or POKEs addresses from or to the channel definition block. This goes wrong because of the slightly different layout in memory when pointer environment is in use. Unless you have a knowledge of programming, it is difficult to sort this out. Read some of Simon Goodwin's DIY Toolkit articles in back issues of QL World to help to learn about channels, tables, etc.

**Q: When I try to use italics on my printer, it switches to draft quality text. Why ?**

This often happens on older printers (an example is a Centronics GLPII) which cannot support NLQ fonts in italics. I'm afraid you can't do much about this.

**Q: How do I check my QL version number?**

Presumably you mean superbasic rom version, since there is no basic command on the standard QL to check the operating system version number. QL rom version numbers consist of two, three or four letters such as JM, JS, MG, JSU and JSL1. The command PRINT VER\$ will display this version on the screen. JSL1 means the rom is a Minerva, while AH, JM, JS and MG are all original Sinclair roms. Sometimes you get a 'country' identifier after the version - e.g. JSU means an American QL.

**Q: Why do so many screen**

**dumps produce squashed or stretched circles?**

A. This is a surprisingly common problem. Screen dumps have to be written in a very general way to ensure they work on as many printers as possible and if special software tricks are used to produce true circles, the dump often fails to work on many types of printer. Where a printer supports the 'CRT2' graphics mode (see printer manual) and the screen dump concerned can be set up to use any printer graphics mode, this generally produces the best results, printing at 90 dots per inch across. But of course many printers don't support this graphics mode!

**Q: Why does my copy of Quill fail to print the last line of text on the last page printed?**

The line is being held in the printer's buffer memory and needs something to flush it out. Add a carriage return code (CR, or 13) to the POSTAMBLE part of your Quill printer driver (use the INSTALL\_bas program to alter the PRINTER\_dat file).

**Q: All printing is double spaced! Help!**

Your printer is set up for automatic linefeed. Read the printer manual to see how to turn this off, usually by means of a little 'DIP' switch inside the printer. What this means is that every time Quill sends a carriage return, the printer generates a carriage return and a linefeed out of this. Then Quill sends another linefeed, so the paper is moved up twice.

**Q: I use a parallel port for**

**my printer, rather than the QL serial ports. After I print, the page is ejected from the printer. This is frustrating, as I'd like one printout to follow immediately after the other without a gap between.**

The parallel printer ports on some machines (e.g. Thors) use the technique of sending a formfeed character when a printer channel is closed to instruct the printer to move to the end of the current sheet of paper. But there is usually an option to disable this. On a Thor, you would normally print to the device name 'PAR', but by changing this to 'PARf' the form feed character is suppressed.

**Q: Some traders in other countries ask for an 'IRC' instead of return postage. What does this mean?**

The abbreviation IRC stands for International Reply Coupon. It is a small coupon which you can buy at most post offices throughout the world which can be exchanged for stamps to the value of the minimum (often 10 gramme) international airmail postage rate from the country of exchange in most countries. As this is quite a low weight and value, you are often asked for more than one such coupon if a heavier packet (e.g. a padded bag containing a floppy disk) is to be sent.

*[If you are in need of help, either software or hardware related, then send in the details to HELP DESK at the same address as Quo Vadis Design. All the questions we print in the magazine will have the answer or solution in the same issue.]*

# TF SERVICES

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The I<sup>2</sup>C bus was designed by Philips to simplify interfacing. Minerva MKII clock is driven by an I<sup>2</sup>C chip, & a connector allows connection of other circuits. Our external circuits will interconnect without leads. Up to 5 interfaces can be powered off the QL.

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Data sheets. (analogue/parallel I<sup>2</sup>C chips).....£2  
Control software/manual (Superbasic extns).....£2  
(First interface purchase includes free 15D/9D lead)

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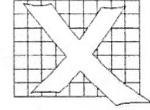
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# QUICK MANDELBROT III



Quick Mandelbrot III, hereafter called QM III, is by Rich Mellor and Kenneth Murray and is available from Dilwyn Jones Computing.

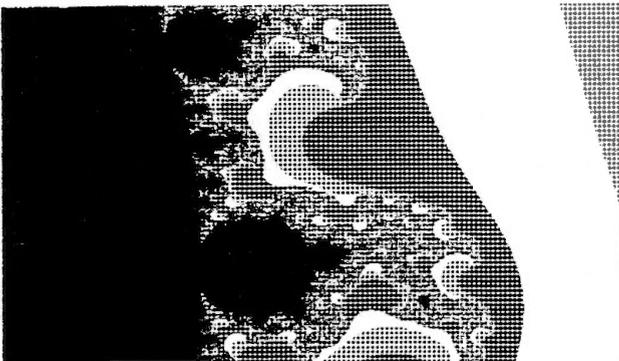
My first impression of this program was that it was not particularly fast in comparison to other Mandelbrot programs that I have tried, (there are quite a few in the QUANTA and PD libraries, from various sources, as well as Qractal and the fractal bits of DPs Qmaths package in the commercial side) but to do it justice I must say that it is probably the most comprehensive on the QL that I have seen. It is a menu driven program with several options controlling the type of screen presentation that you can get.

The menu options are:-

1) Accuracy. This determines the number of times that the function that produces the mandelbrot set is repeated for each point plotted.

2) File. The usual load, save, directory, format, delete and print options.

3) Function. This toggles between Mandelbrot and Julia sets

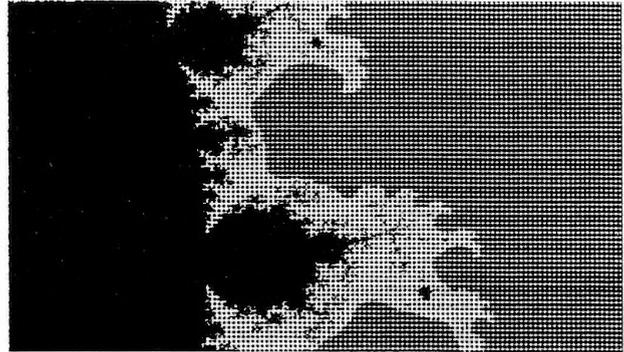


SAMPLE - NORMAL PRINTOUT

4) Magnify. Allows zooming in to look at interesting areas of the pattern in more detail.

5) Move Menu. Allows repositioning of the menu so it doesn't obstruct the view.

6) Display menu. Allows change of screen mode, plotting mode and other effects



SAMPLE - BDM PRINTOUT

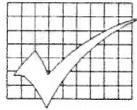
7) Restart. Return to full pattern.

The main menu can be reached at any time by pressing F5 while a pattern is being calculated, and an extra option is then added allowing background calculation of the display. The program will only multitask if this option is set to MEM rather than SCR.

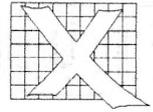
Most of the Mandelbrot set programs that I have seen produce multi-coloured 'contour maps' of the set, and these can get rather confused in the more detailed regions. QM III has the virtue of producing very clear and detailed images if you set the display parameters correctly and this feature can be used to produce images that should be much easier to dump to a printer.

One of these options is called the binary decomposition method (BDM), which as the manual says, tends to merge areas away from the M-set itself but does create 'astonishing effects' when used close to the set.

Magnifying areas is much simpler than I thought when I first used the program - as usual I jumped straight in without reading the manual which is



# QUICK MANDELNBROT III



very concise and easy to follow.

There are several different classes of 'object' found in the set, which I have nicknamed 'trees', 'stars', 'galaxies' and 'blobs' - the last being like miniature versions of the complete set. These all show as clear black (or white) areas in the BDM version of the set and one of the most mind-boggling things about the set is that all these 'blobs' are connected together in one single horribly complicated unit that all arises from a very simple mathematical equation. The best thing I can say about QM III is that it the program in its BDM mode gives a glimpse of just how complex the M-set is without cluttering the screen with colour contour maps. Anyone who buys this program should be prepared for many hours of exploration.

hardware side from Miracle. ( A Hyper Gold Card with SVGA type resolution and colour range would be nice - wouldn't it?)

In conclusion, if you're interested in exploring the Mandelbrot set, this is a reasonably quick program that's easy and fun to use. You can also get to higher magnifications than some of the other programs that are around.

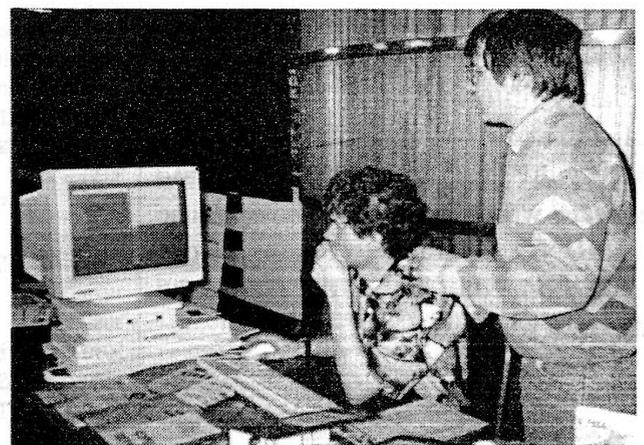
Iain Robertson

*Quick Mandelbrot III is available from Dilwyn Jones Computing (0248) 354023, 41 Bro Emrys, Tal-y-Bont, Bangor, Gwynedd, LL57 3YT. It is priced at £15 for UK addresses (+£1 for other countries) and is suitable for use on a 128K QL.*

To improve on the graphics side of the program will have to await further developments on the



## PICTURES AT A WORKSHOP



Freddy Vachha of Digital Precision Ltd.

Jochen Merz of Jochen Merz Software with Bernd Reinhardt

PHOTOGRAPHS COURTESY OF JIM BUIK

# FUNCTIONALITY

This listing is part of a set of useful procedures and functions which you can use in your library. They are suitable for use with the Procedure Manager program [listing supplied in QReview Volume 1 Issue 2]. Simply extract the routines you want to use in your programs and renumber as you want them. All are in structured BASIC, so there should be no problem with line numbers in GO TO statements etc.

The following notes give brief details of what each routine does. They are supplemented by REMark statements in the routines themselves.

## CR

Sends a carriage return to the printer, usually enough to force a stubborn last line of print out of the printer when word processors refuse to print the last line, for example.

## WRAP

A handy little routine to word wrap a string in a given channel. It searches for spaces in the string, splits it into separate words and shows how to use the PRINT! separator to ensure a word is not chopped in half at the right hand edge of a window.

## NON\_REPETITIVE

Shows how to generate and manipulate a set of random numbers in such a way that elements of a list of random

```

2640 :
2650 REMark if your printer refuses to print the last line of a
2660 REMark document printed, try this to 'force' out the last line
2670 DEFine PROCedure CR
2680 OPEN #3,ser1
2690 PRINT #3,CHR$(13);
2700 CLOSE #3
2710 END DEFine CR
2720 :
2730 REMark word wrap in a window
2740 DEFine PROCedure WRAP (channel,txt$)
2750 LOCAL loop,st,nd
2760 st = 1 : nd = 1
2770 IF txt$ = '' : RETURN
2780 REPEAT loop
2790 nd = ' ' INSTR txt$(st TO LEN(txt$))
2800 IF nd = 0 THEN
2810 PRINT #channel,!txt$(st TO LEN(txt$)); : EXIT loop
2820 ELSE
2830 nd = st + nd - 1
2840 PRINT #channel,!txt$(st TO nd-1);
2850 END IF
2860 st = nd + 1
2870 IF st > LEN(txt$) THEN EXIT loop
2880 END REPEAT loop
2890 PRINT #channel,
2900 END DEFine WRAP
2910 :
2920 REMark a demonstration of using arrays to control random numbers
2930 REMark such that they do not repeat until the end of a list
2940 DEFine PROCedure NON_REPETITIVE
2950 max% = 9
2960 DIM r$(max%)
2970 FOR a = 0 TO max% : r$ = r$ & CHR$(a)
2980 REPEAT program
2990 random_element = RND(1 TO LEN(r$))
3000 random_number = CODE(r$(random_element))
3010 PRINT random_number
3020 REMark remove this element
3030 IF random_element = 1 THEN
3040 IF LEN(r$) > 1 THEN
3050 r$ = r$(2 TO LEN(r$))
3060 ELSE
3070 r$ = ''
3080 EXIT program
3090 END IF
3100 ELSE
3110 IF random_element = LEN(r$) THEN
3120 r$ = r$(1 TO LEN(r$)-1) : REMark at the end
3130 ELSE
3140 REMark somewhere in middle
3150 r$ = r$(1 TO random_element-1)&r$(random_element+1 TO
LEN(r$))
3160 END IF

```

# FUNCTIONALITY

numbers can be chosen and used, but not used again until all of the other numbers have been used. The routine stores integers as characters in a string and chooses a random number by choosing one of the characters, taking its code and removing it from the string. String slicing makes this easy. It is not a complete routine in itself, merely a demonstration which you can adapt to your requirements.

## BACKUP

A simple little disk and microdrive backup routine. Works by sending the output of the DIR command to a channel to a file and reading back the list of filenames and copying those with the COPY command. It asks for the name of the drives to copy to and from. It does not work with directories.

## CDIR

Two column list of files. Asks for the drive name, then lists the output of the DIR command to a file and reads them back one by one. Does not work with directories.

## CHOP

A string array searching function. If the string array is initially sorted, it becomes a simple matter to start searching halfway through the array, deciding if we have gone too far into the array or not far enough and halving the distance between where we searched and the start or end of the

```

3170     END IF
3180     END REPEAT program
3190 END DEFINE NON_REPETITIVE
3200 :
3210 REMARK simple backup utility
3220 DEFINE PROCEDURE BACKUP
3230 LOCAL cf$,ct$,t$,loop
3240 INPUT #0,'Copy from:':cf$
3250 INPUT #0,'Copy to :':ct$
3260 OPEN_NEW#3,ct$&'TMP_dir' : DIR #3,cf$ : CLOSE #3
3270 OPEN_IN #3,ct$&'TMP_dir'
3280 INPUT #3,t$ : INPUT #3,t$
3290 REPEAT loop
3300     IF EOF(#3):EXIT loop
3310     INPUT #3,t$
3320     COPY cf$&t$ TO ct$&t$
3330     END REPEAT loop
3340     CLOSE #3 : DELETE ct$ & 'TMP_dir'
3350 END DEFINE BACKUP
3360 :
3370 REMARK 2 column directory listing
3380 DEFINE PROCEDURE CDIR
3390 LOCAL df$,x,y,loop,t$
3400 INPUT #0,'Drive name:':df$
3410 OPEN_NEW #3,df$&'TMP_dir'
3420 DIR #3,df$ : CLOSE #3
3430 OPEN_IN #3,df$ & 'TMP_dir'
3440 x = 0 : y = 2
3450 OPEN #4,scr_448x202a30x15 : REMARK like TV window
3460 INK #4,7 : PAPER #4,0 : CLS #4 : BORDER #4,1,255
3470 INPUT #3,t$ : PRINT #4,t$ : REMARK medium name
3480 INPUT #3,t$ : PRINT #4,t$ : REMARK capacity
3490 REPEAT loop
3500     IF EOF (#3) : EXIT loop
3510     INPUT #3,t$
3520     IF NOT(t$ == 'TMP_dir') THEN
3530         AT #4,y,37*x : PRINT #4,t$
3540         x = x + 1
3550         IF x = 2 : x = 0 : y = y + 1
3560         IF y > 18 THEN
3570             AT #4,19,0
3580             PRINT #4,'PRESS ANY KEY TO CONTINUE.';
3590             PAUSE
3600             x = 0 : y = 0 : CLS #4
3610         END IF
3620     END IF
3630     END REPEAT loop
3640     CLOSE #3 : CLOSE #4
3650     DELETE df$ & 'TMP_dir'
3660 END DEFINE CDIR
3670 :
3680 REMARK search ordered string array for a given string
3690 REMARK returns -1 if not found in array
3700 REMARK or subscript where found in array

```

# FUNCTIONALITY

array as appropriate, then continuing to do this either until we conclude there is no entry starting with that string or we have found the element we are looking for. Obviously this is much faster in most cases than looking linearly through the array from start to end, but only works where we know we need to find an entry starting with a given string, for example, looking for names in surname fields in databases.

## DAY\_OF\_WEEK

A function which returns the number of the day of the week on which a given date fell. Sunday is 0 and so on, up to Saturday, which is day 6. The dates are specified as three parameters after the name of the function, day, month, year. The year is specified as a four digit number, so 1st February 1993 is specified as DAY\_OF\_WEEK(1,2,1993). You can use this routine to calculate on which day you were born, or on which day Christmas day falls, and so on.

Dilwyn Jones



```

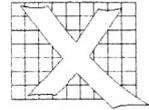
3710 DEFine FuNction CHOP(array,find)
3720  LOcAl loop,lo%,mid%,hi%,extent%
3730  IF find = '' : RETurn -1
3740  extent% = DIMN(array)
3750  hi% = extent% : lo% = 0
3760  IF extent% = 0 THEN
3770    mid% = 0
3780  ELSE
3790    mid% = extent% DIV 2
3800  END IF
3810  REPeat loop
3820    mid% = (lo% + hi%) DIV 2
3830    IF array(mid%) == find THEN
3840      EXIT loop : REMark found at "mid%" in array
3850    ELSE
3860      IF array(mid%) > find THEN
3870        hi% = mid% - 1
3880      ELSE
3890        lo% = mid% + 1
3900      END IF
3910      IF lo% > hi% : mid% = -1 : EXIT loop : REMark not in array
3920    END IF
3930  END REPeat loop
3940  RETurn mid%
3950 END DEFine CHOP
3960 :
3970 REMark function to return number of day of week of given date
3980 REMark Saturday = 0, Friday = 6
3990 DEFine FuNction DAY_OF_WEEK (dy%,mth%,yr%)
4000  date% = dy%
4010  month% = mth%
4020  year% = yr%
4030  IF year% < 0 THEN year% = year% + 1
4040  REMark Zeller year starts March
4050  IF month% < 3
4060    REMark Jan+Feb treated as months 11/12 of last year
4070    year% = year% - 1
4080    month% = month% + 12
4090  END IF
4100  cent% = INT(year%/100) : REMark first two digits
4110  year% = year% MOD 100 : REMark last two digits
4120  zeller% = INT(date% + INT(((month%+1)*26)/10)+year%+(year%/4))
4130  zeller% = INT(zeller% + (cent%/4)+5*cent%)
4140  dayofweek = zeller% MOD 7
4150  RETurn dayofweek
4160 END DEFine DAY_OF_WEEK

```





# CONVERT-PCX



This program from Dilwyn Jones Computing consists of a 3.5" disk and seven A5 printed pages of instructions. The program is used to convert PC PCX graphics pictures, a very popular PC graphics format, to QL pictures.

The PC pictures must first be transferred to a QL format by using a file transfer program such as Discover or QL-PC Fileserver. When this is done It is then time to use Convert PCX.

The program can be LRUN from its own boot program supplied or EXECed. Dilwyn has also included a faster shorter version that requires you to have the Lightning extensions loaded.

The program initially allows you to define devices such as read from FLP1\_ and printer attached to SER1. After confirming these choices the program then offers you a choice of what options you wish to use such as read the disk and save in Image Processor page format. After choosing the options you want it then reads the disk containing your PCX files. You are then asked if you want to work on that particular file. If you type N it moves onto the next file. Typing Q quits the routine. Typing Y allows the QL to read in the file and convert to

the format that you choose. For large PC screens I was amazed at the speed.

The results from the program in converting PCX pictures

The only minor criticisms I have is that one option views the PCX file full size and saves the top left hand portion in to a QL sized screen. I would have preferred it if I

```
CONVERT PCX GRAPHICS
written by Dilwyn Jones, 1992

1 - Convert large PCX files to Page Designer 1 pages
2 - Convert large PCX files to Page Designer 2 pages
3 - Convert large PCX files to Page Designer 3 pages
4 - Convert large PCX files to multiple QL screens
5 - Convert large PCX files to QL screen by shrinking
6 - Convert large PCX file, extract single screen
7 - View only (manual scroll/pan)
8 - View only (automatic scan)
9 - View only (shrunk)
ESC-Quit
SELECT OPTION 1 - 9 (SPACE) OR "ESC" TO QUIT
```

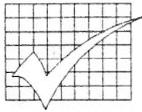
really have to be seen to be believed. No matter how good I say it is I could not give it justice. I know I am slightly pro QL and Anti PC ( well okay a very lot ) but I am sure that the famous HalfDome.PCX picture of the Halfdome mountain in America is better on the QL than the original on the PC.

Of the options available I found the view full size with manual PAN and SCROLL was the most useful. The options that involved reducing the size of the PCX file I found reduced it too far as to make them unusable.

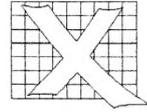
could control which part of the PCX file was to be saved.

The program is configurable by the QJUMP config program, which is supplied, so you can change the program to come up with the most common used options.

The program also comes with a few basic programs which show the use of two basic extensions provided with the program. These are EXPAND% and SQUASH% which are functions to allow you to compress and expand a QL screen file.



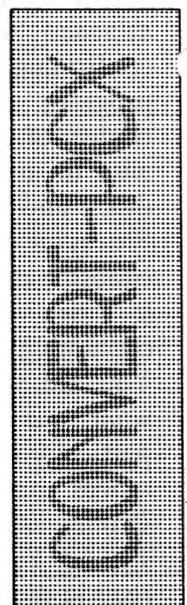
# CONVERT-PCX



The program is easy to use and the results are wonderful. I am glad I have bought it and certainly recommend it if you have access to PC pictures and a file conversion program.

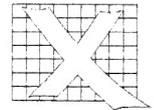
*CONVERT-PCX costs £10 (+£1 for non UK orders) and needs a minimum of 512K memory. It is available from Dilwyn Jones Computing (0248) 354023, 41 Bro Emrys, Tal-Y-Bont, Bangor, Gwynedd, LL57 3YT.*

John Southern





# FIFI



Have you ever come across a situation where you have forgotten the name of a document and someone has requested you send them a copy? Have you then enjoyed the pleasure of loading in your documents one by one, from your ten document disks, looking for the document and eventually finding it on the last disk (why is it always the last disk?) wasting a few hours?

If you have ever had to endure the above situation then this small program from Jochen Merz Software is a life saver. FiFi is a program which allows the searching of files for a certain string, or combinations of strings, on a particular device.

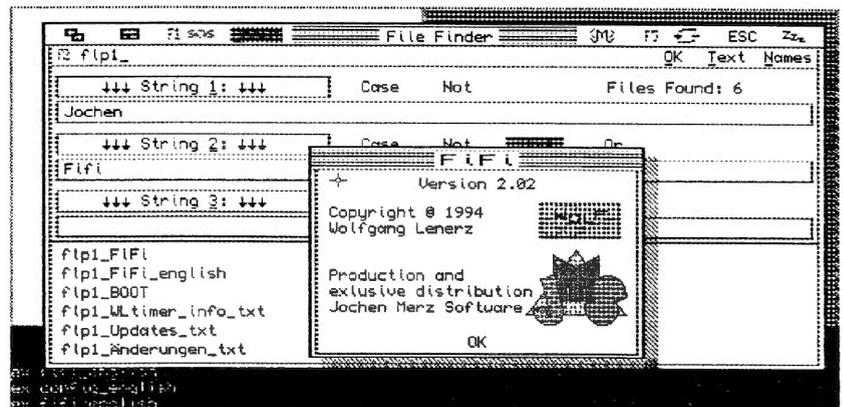
The program is supplied on one 3.5" disk (DoubleDensity) and comes with a concise A5 manual, of eleven pages. The manual is written by the programs author W.Lernerz and contains all the options, with written examples, that the program is capable of.

The program can either be run from the supplied boot file on the master disk (after making a backup copy of course) or by using the exec command e.g. EXEC flp1\_FiFi\_English. The one proviso being the Pointer Environment has already been loaded (See also the Help Section below). Yes this is another Pointer Environment program. FiFi can also be made into an

executable thing by loading it as a resident extension for those well versed in the Pointer Environment.

When the program is loaded it gives the main selection window as shown in the screen dump on this page. The first decision to be made is the device you want to search. Pressing F2 allows you to type in the device name you wish to search. Pressing enter twice on this selection to type brings up the Menu Extension from

can then type in the string you want to look for in the files. The string can be up to seventy five characters in length and can be Case dependent if you wish. All that is left to be done is press O for Ok and then the program looks at all the files on the device you specified for your search string. The time taken to examine a full Double Density disk is just under a minute, no time at all compared to the time it would take us mortals. Once the



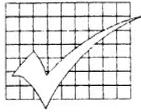
Jochen Merz Software. This menu extension shows all the available device names you can have on your system and by simply moving the cursor you can choose the device name you want. The menu selection is especially useful if you have a hard disk as you may wish to just search a particular subdirectory and all you have to do is point to the name of the subdirectory thus eliminating those annoying typing mistakes.

Once you have chosen the device you want to search you

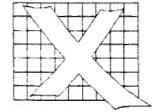
search is complete FiFi displays a list of the files that your selection was found in.

The section of the file that contained your search string can then be examined simply by pressing enter on the filename. This brings up the window shown on the next page. You can then quickly look through the files by pressing the < or > keys to move on to display the next or previous file.

FiFi allows up to three strings to be searched for and various



# FIFI

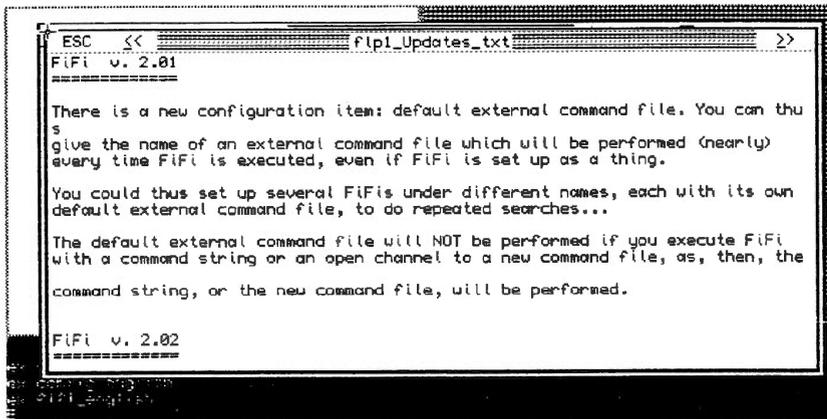


conditions can be set for each string. Each string could be case dependent or case independent and you can specify that a file must NOT contain a given string. If you give more than one search string you have to specify whether string 1 AND string 2 have to be present or you can specify string 1 OR string 2 has to be present. This

help window appears with the help details for the particular option. The time delay can be set from almost instantaneously to over a minute. To be able to use the help system a file must be loaded using LRESPR, automatically loaded in the supplied boot file, which provides the timer and the key F1 (SOS) must be pressed.

The command string can contain all the selections available from the programs menu plus a few special options. The coding of the command string is given fully in the manual.

The extra commands available are: an option to start FiFi as a button, run FiFi automatically as soon as it is executed, do not display any windows, save the result of a search to a file and execute an external file.



The option to execute an external file is similar to the macro option given in the program menu except you can specify the run FiFi automatically option with the save results to a file option and the no window option to provide a way for FiFi to work in the background. Ideal if you have a large hard disk system.

combining of strings has some special rules, detailed in the manual, and can become quite complex such as searching for string 1 in case dependent and string 2 in case independent and not string 3.

If you intend to do the same search over a period of time a new facility has been added in V2.02 to allow the saving and loading of the search strings together with its selection to a file called a macro or external file. The file can then be loaded back in your next session without you having to type, or remember, the selection back in.

The searches can also be limited to only text files or filenames.

Overall the package delivers what it sets out to do in a very friendly and intuitive way. I wish I had come across this program earlier.

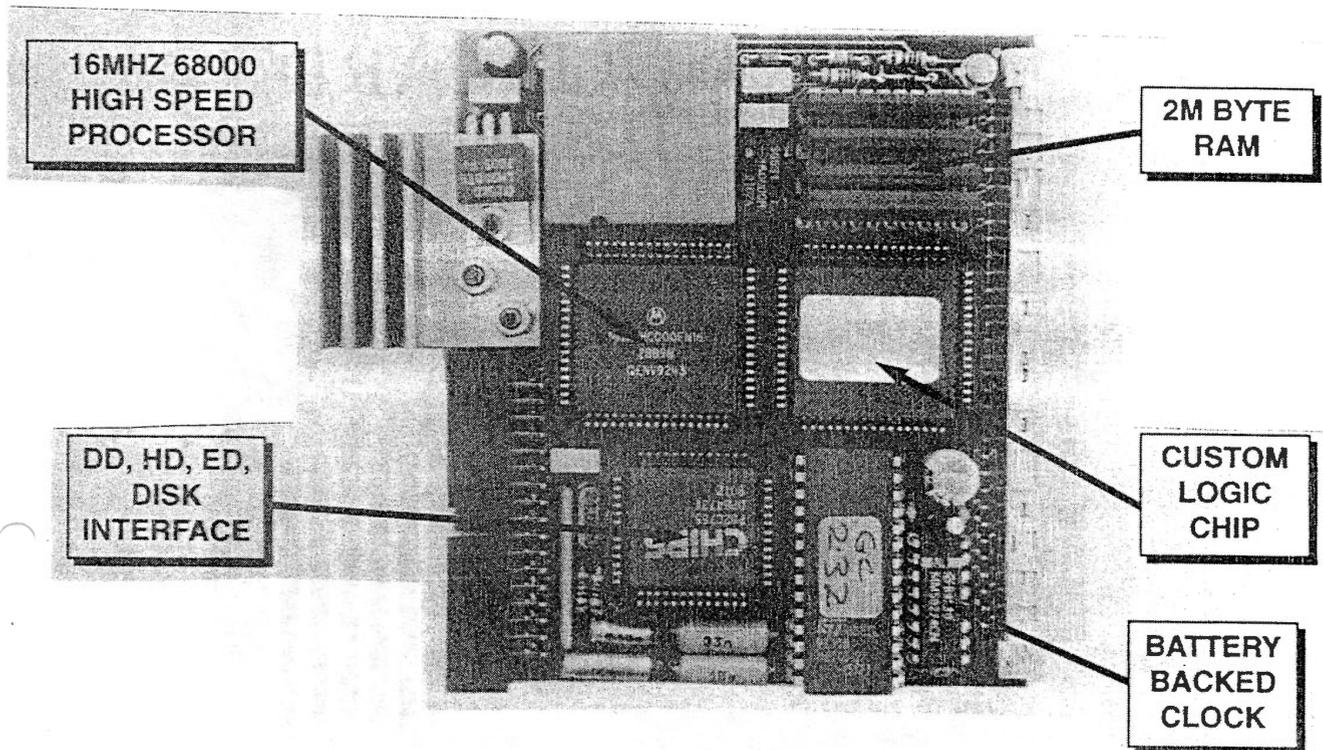
A help system is incorporated into FiFi and it is the first Pointer Environment program I have come across which has a time dependent help system. This help system works by determining how long the Pointer has been on a specific area of the program screen. If the length is greater than that as specified by the user then a

To add extra flexibility to FiFi it is possible to run it directly from the command line and not use the menu at all. This is achieved in two ways you can either give FiFi a command line when you EXEC it or give a name of a file to be used as an external file when you EXEC it.

Derek Fish

*FiFi is available from Jochen Merz Software (Germany 0203 501274), Im stillen Winkel 12, 47169 Duisburg, Germany. The program costs DM 49,90 or an upgrade with a new manual is DM 16,- (see page 3 for P&P)*

# MIRACLE SYSTEMS



## QL GOLD CARD

£225 inc. (£200 outside EC)

This is the expansion that has been revolutionising the QL. It is very easy to fit, it simply plugs into the expansion port at the left hand of the QL, and once fitted it will instantly increase the execution speed of the QL by about 4 times due to the presence of a 16MHz 68000 on board. There is 2M of fast 16 bit RAM of which QDOS sees a contiguous 1920K. The remainder is used for shadowing the QL's ROM and display memory and for the GOLD CARD's own code.

There is a disk interface which can access 3 mechanisms (4 with the DISK ADAPTER) of three different densities, DD (double density, 720K), HD (high density, 1.44M) and ED (extra high density, 3.2M) in any mix. The disk interface connector is the same type that was fitted to the Trump Card so most QL compatible disk drives can be used.

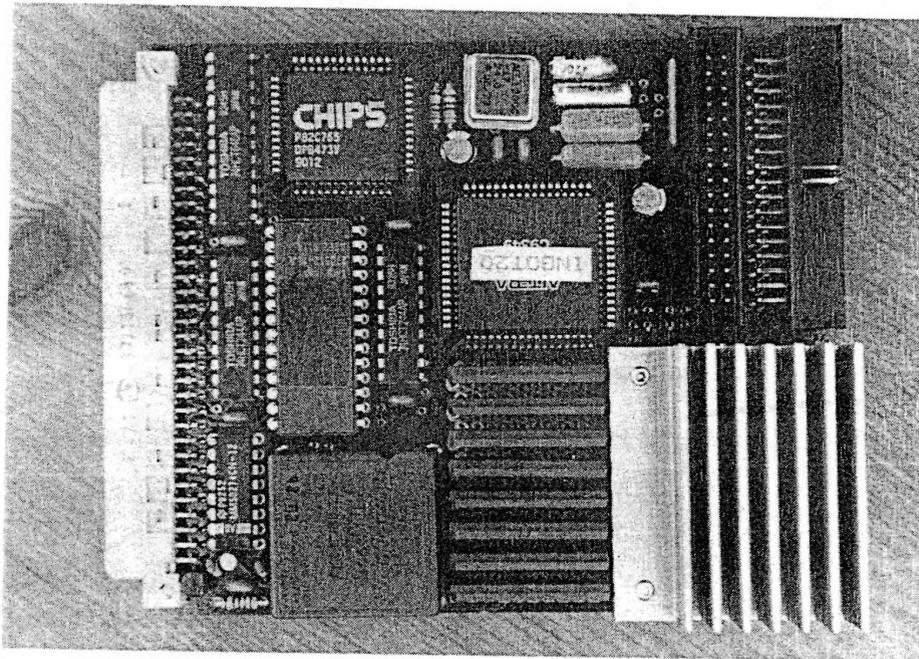
Please note: that DD drives still give a capacity of 720K per diskette.  
Our DUAL ED DISK DRIVE allows the GOLD CARD to access DD, HD and ED diskettes.

Another feature is the battery backed clock. When the QL is switched on the contents of the clock are copied into the QL's clock so that the time and date are correct. The firmware in the ROM gives the GOLD CARD all the functionality of the Trump Card like TOOLKIT II and there is a sub-directory system for floppy and RAM disks.

Physically the GOLD CARD is about half the size of the TRUMP CARD and so fits almost all within the QL. Its current consumption is well under allowable maximum so no special power supply is required. The GOLD CARD comes with a 14 day money back guarantee and a 2 year warranty.

# MIRACLE SYSTEMS

## SUPER GOLD CARD



### Briefly...

- \* 3 Times Faster
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- \* 2 Disk drive ports
- \* 2 Year warranty
- \* £ 375 (£ 325)

### What is it?

This is the first major revision of our highly successful Gold Card. We have replaced the 68000 with a 68020 so programs run about 3 times faster and have expanded the memory to 4M bytes.

Other improvements include a fast CENTRONICS printer port, 2 double disk drive ports, virtually crash-proof clock and a socket to optionally connect 5V. We also are providing a Centronics printer cable at no additional cost.

### The deal...

The price is £ 375 inc. VAT (£ 325 outside EU) which covers postage, 2 year warranty and 14 day money back guarantee. We can upgrade your Gold Card for £ 225 (£ 200 outside EU), or trade in your Trump Card (£ 50), Super Q Board (£ 40), or other memory expansion (£ 25) against the purchase price.

Additionally, you can trade in your QL Centronics (£ 15) or Disk Adapter (£ 10) or both.

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Please make cheques payable to MIRACLE SYSTEMS LTD in Pounds Sterling (£) or quote your credit card number and expiry date and post To :

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Tel: (0904) 423986



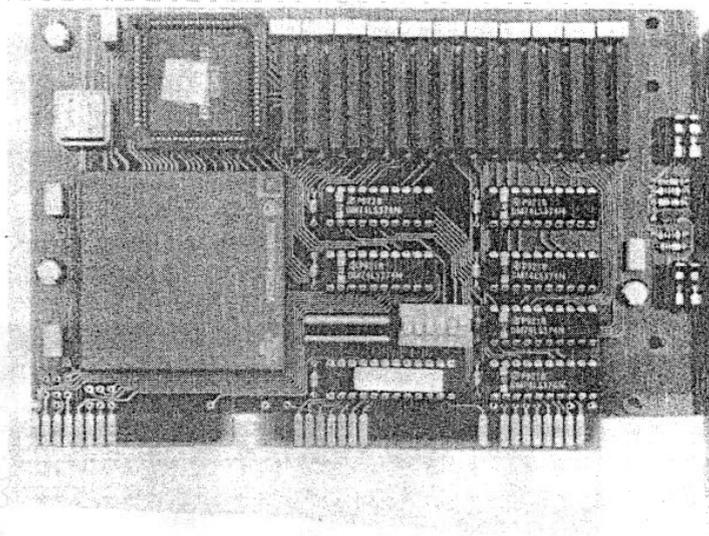
### Recycled items

GOLD CARD £ 150  
QL CENTRONICS £ 15  
DISK ADAPTER £ 10

Recycled items carry a 1 year warranty.

# MIRACLE SYSTEMS

## THE QXL



The QXL turns the common PC into a QL compatible. The package comprises a half card that plugs into an 8 or 16 bit standard ISA slot and a diskette loaded with a QDOS compatible operating system and a SuperBasic compatible interpreter. After installation simply type QXL and the PC will appear to be a QL allowing QL programs to be run from QL format diskettes.

The card itself has a 32 bit 68EC040 processor running at 20MHz which gives a good turn of speed. This processor has access to its own RAM and so performance is virtually independent of the host PC whether it has an 8088 or a Pentium. In fact the PC is used purely as an I/O system giving QL programs access to the PC's floppy disk, hard disk, keyboard, display, serial and parallel ports. The card has QL style network ports to allow connection to a QL network. The minimum PC specification required is an XT with EGA display and a spare standard slot.

Varying RAM sizes from 1M up to 8M can be supplied. The smaller capacities can be upgraded to the larger ones and the cost is simply the price difference. Not all the RAM is available to the user programs; the 1M equates roughly with a Trump Card QL memory size and the 2M with a Gold Card QL.

During the lifetime of the QXL we intend to enhance the software to make use of the new hardware facilities of the PC such as SVGA graphics. As has been our policy in the past we intend to provide software upgrades free of charge.

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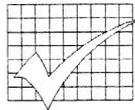
To place an order by phone, please have your credit card ready. For customers outside the EU we charge the prices shown in brackets.

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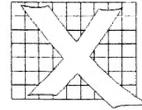
### QXL prices

1M	£295	(£255)
2M	£325	(£280)
5M	£410	(£355)
8M	£495	(£430)





# THE LONELY JOKER



In the days when TV was monochrome and showed cigarette commercials, a stranger walked down a deserted sidestreet late at night. Footsteps echoed off blank brick walls, buildings cast their shadows across cobbles glistening with rain, a man emerged from the darkness. He wore a hat that hid his eyes and an overcoat with the collar up. Pausing in the glow of a streetlamp, he put a cigarette to his lips and cupped his hands to light it. He inhaled deeply and pocketed his lighter. Satisfied he walked on into the night.

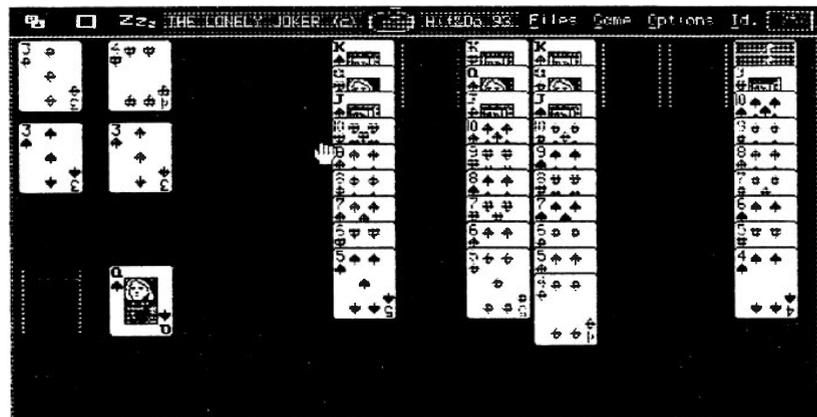
*You're never alone with a Strand...*

That punchline was a major *faux pas* in advertising history and effectively strangled the product at birth. People associated the brand with loneliness and were put off buying. I trust **THE LONELY JOKER 2** will not suffer a similar fate. This is a truly excellent product but the name stinks. The title says it's a game for social outcasts unsuited to more gregarious pursuits. On the contrary! Patience is fun! Nor is it necessarily a solitary pastime. *Crazy Joker, Jolly Jester, Cards on the Table* - any of these would be preferable and they're just three that popped into my head with barely a moment's thought.

But enough of the downside. Let's look at the good points...

QLiberated and running under the Pointer Environment, multitasking easily and unobtrusively with other software, LJ2 is professionally produced, graphically pleasing, slick in execution and easy to use. Buying mail order software is a notoriously hit and miss affair. No such worries with

instructions on its use in the booklet provided. Actually it's not so much a booklet, more a sheaf of twelve A5 pages stapled in the top left hand corner. However, this is but a minor quibble; the layout, content and print quality are very good, rules and explanations are easy to follow and liberally illustrated



this offering from *Hit&Do*. The Portuguese team of António Lopes and Jorge Duro have done a splendid job in designing and developing this suite of card games. Post production is by Jochen Merz Software who distribute the product. I hadn't previously used any programs from this source but am impressed by the quality of this one and am tempted to buy more.

To run the program you'll need a QL (or derivative) with at least 512 kilobytes of RAM. If you haven't got QJump's Pointer Environment don't panic. It's included with the package and there are straightforward

with screen dumps of the various games in play.

In its original release this program gave you three patiences: *Napoleon, Cascade* and *Echelon* (European for *Klondike*). This upgrade adds three more: *Spine, Four-in-Hand* and *Crapaud* (the translation is *toad*, in case you're wondering). All six are enjoyable and challenging and more than fulfil *Hit&Do's* aim of making LJ2 '*addictive, varied and easy to play*'.

Screen presentation is a knockout. There's a slim strip across the top of the display showing available commands which can be selected with the on-screen pointer or by initial

# THE LONELY JOKER X

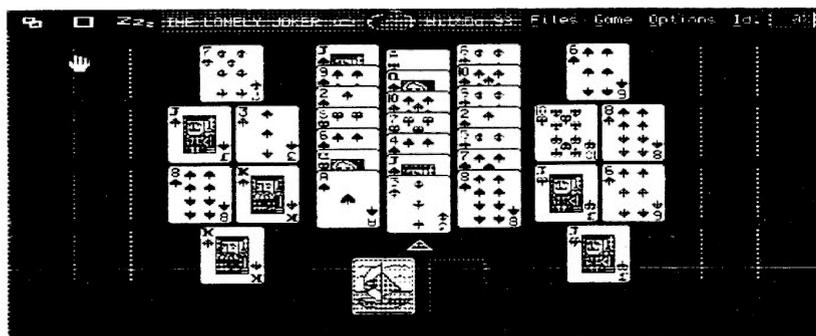
letter keypress. Some of these give you pop-up menus offering further selections. A nice touch is the box in the top right corner which is continually updated to show the percentage completed of the current game.

Below the control line is the card table itself occupying most of the screen. You can select green (light or dark) or black for the background and

well as lesser known variants well worth the effort of learning. Two (*Napoleon and Four-in-Hand*) are purely strategic with all cards being visible throughout. They feature a *restore* option which redeals the same hand and gives you another chance to solve the problem if you fail on your first attempt.

Though card games for one provide you with the worthiest

Unlike its US competitor *Solitaire*, LJ2 can be played with a mouse which is much preferable to the clumsy alternative of operation by dedicated keypress (I've yet to purchase such a rodent but the little white glove fizzes nicely round my screen at the touch of the cursor keys). Hit a heart or diamond and a red rectangle appears in the miniature hand; a black rectangle indicates a club or spade has been selected. This way cards may be picked up and shifted around for sequence building or transfer to the foundation pile(s). Nothing could be simpler!



choose from five different packs of cards. In fact many aspects of the program can be tailored to your requirements using the supplied configuration utility. On my *Minerva/Gold Card* system with *Lightning* installed, shuffling and dealing is virtually instantaneous even with complicated two-pack layouts that fill the display area. Playing card icons are bold and clear and picture cards actually have pictures!

I won't bore you with individual game descriptions. You should buy the program and try them out for yourself! Usual patterns and principles of patience apply and there are familiar old favourites as

of opponents, opportunities for competition are catered for in this package with the introduction of high-score tables for each game (except for *Cascade*, which is deceptively easy to play and infuriatingly hard to complete). It would be more accurate to call these scoring-aids *timetables* since your inclusion in the top five (together with a rather fetching crown of laurel leaves) depends upon completion speed rather than points allocation. The tables are automatically archived for future sessions and if removed the LJ2 disk can be re-inserted for manual saving (more importantly, the prog won't crash if the drive is empty).

The six patiences can of course be played on a kitchen tabletop with a regular pack or two, but this software takes care of all the tedious bits (shuffling, dealing etc) as well as assessing your performance and preventing you cheating! It looks good, feels good and makes your brain hurt. All in all excellent value at DM59 (half price if upgrading from version 1).

But guys... **change the goddam name!**

Chris Berry

*The Lonely Joker is available from Jochen Merz Software (Germany 0203 501274), Im stillen Winkel 12, 47169 Duisburg, Germany. It costs DM 59,- & P&P (See page 3), an upgrade from version 1 costs DM 29,- & P&P.*

# S.J.P.D.

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AMATEUR RADIO DISK.  
FOUNTS FOR TEXT 87.  
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4 X First Class Stamps.





# PUBLIC DOMAIN



Greeting fellow PD Users,

Just a brief note to inform you of some of the latest additions and updates to S.J.P.D. SOFTWARE library.

QeM [SJS 44] The communications package by Jonathan Hudson has now been updated to version 4.23. Major updates have been carried out to the Phone Book format and to the XPR libraries. Other minor bug fixes have also been carried out.

QFax [SJS 74] This disk is the latest version [Version 1.53.] of Jonathan Hudson's fax program for the QL. This is of special interest to QL users that own a FaxModem. (The OFF LINE READER formerly on this disk has been moved to SJPD 41.)

LineDesign Demo. [SJS 76] Is now a demo version of the new release 2 of LineDesign. This is a FULLY WORKING version of LineDesign, the only difference between this and the full commercial release, is that; this demo release always shows a PROGS logo on every printout. The disk also contains a special Shareware release of the pointer environment.

O.T.P.L [SJS 77] The pointer driven communications package also by Jonathan, has also been upgraded to version 1.34. This as QeM has had major updates to the phone book format and is compatible with the phone book from QeM There has also been upgrades to the VT100 emulation. Other minor bug fixes have also been carried out.

Mini Clips [SJS 86] This is a collection of 100's of small clipart pictures covering a wide range of themes. The pictures are in a compressed format but the disk also contains a suite of programs for un-compressing the pictures This disk is the work of Dilwyn Jones.

Compu-Clips [SJS 87] This package like the above package is a collection of clip-art but with a computer related bias. This is also the work of Dilwyn Jones.

QDOS Escher Graphics Demo [SJS 88] This disk is a slideshow of the works of the German artist M. C. Escher. It has been converted from Amiga Public Domain by Simon N. Goodwin.

DBas Management System [SJS 89.]

This is a menu driven database management system for ARCHIVE. It offers an almost painless way to access and manipulate any ARCHIVE data file.

Steve Pepper Demo Disk. [SJS 90.] This a sampler of Steve's clip-art & text files collection.

Clip Art Collection [SJS 91.] Yet another collection of assorted clip art. This time 150+ pictures in compressed format. The disk also contains the P.D. release of Dilwyn Jones's screen compress utility.

LineDesign Clip Art [SJS 92.] This 3 disk package is a collection of small pictures in ADOBE ILLUSTRATOR format and will load into both the demo version and the full commercial version 2 of LineDesign.

QL Screen Collection. [SJS 93.] Another collection of clip art, this is the work of Urs Konig. There are 3 disks to this package and all the files are in zip format but there is a program to un-zip them all.

Crossword Designer. [SJS 94.] A disk to help crossword compilers. With this disk you can concoct and amend the pattern of blocked light crosswords.

I have added a futher disk to my collection of assorted QL Public Domain / Shareware. The disk [SJPD41] contains:-

- A Utility To Print To A File.
- The 1992 Election Results In Archive DBF Format.
- Speedscreen Demo,
- Off Line Reader For Communications Users
- A Font-End For QFax. [SJS 74]
- Plus numerous other utilities.

I have also added some 20 disk to the CLASSIC LITERATURE Collection of disk, these include titles by Arthur Conan Doyle, Jane Austin, H. G. Wells, Jules Verne, Walter Scott & Charles Darwin.

Till next time,  
Good Luck  
Steve Johnson.  
S.J.P.D. SOFTWARE.

# DJC

## Dilwyn Jones Computing

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### POINTER ENVIRONMENT

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