

Money matters

by Sid Martin and Timothy Green

Sid and Tim check out capitalist accessories this month, with a review of Michael Slatford's Investment Monitor for the QL

INVESTMENT Monitor is a program that helps you keep track of Stock Market holdings. It handles unit trusts, investment bonds, equities, gilts and regular savings and insurance schemes. You can compare the performance of your investments with that of funds on deposit, say, in a building society, and transfer figures back and forth between the two accounts.

The program runs on the Spectrum, from cassette or microdrive, or on the QL, with special versions for disk users and those with expanded memory. In this review we'll look at the latest all-singing, all-dancing QL disk version 3.08 — most of the features are shared between them all, and we'll draw attention to those documented as machine-specific.

The program works with 'cards' for each investment, clearly displayed one at a time on the screen. Besides ordinary shares and gilts, it can handle regular periodic investments, like insurance and saving schemes; you can also enter investment bonds, with or without withdrawals, and three kinds of unit

Dates are validated, so you can't enter nonsense like February 29th 1989, or anything before 1950 or after 2050. You type the year, then the month and day number, presumably to keep comparisons simple by putting the most significant number first.

Once you've entered this information the program fills in the other boxes on the card, showing the latest realisation, percentage change, tax credit and net dividend. Later you can review the data and change any entry on any card. If you want the portfolio to appear in a different order the program lets you re-number the cards.

Up and running

Investment Monitor keeps running totals for each financial year. Menu options let you sell all or part of a holding, and updates prices to check the new size of your stash. If you change your portfolio, *Investment Monitor* can distinguish old and new money, so you can tell profits from extra funds pumped in.

The Analysis menu shows the highest and lowest points you



Investing made simple — a menu from QL *Investment Monitor*

other time.

Investment Monitor factors-in the cost of dealing, allowing 1.5 per cent for shares, or 1 per cent for gilts, with a minimum fee of £20 or £12 respectively. You can type in the quoted price of Gilts as a fraction, as it is printed in newspapers, by putting a plus sign between the amount in pence and the fraction — for instance 95+9/16 means the same thing as 96.5625.

Capacity

The program copes with a maximum of 50 investment cards in one file, or 99 on expanded QLs. If you buy the same shares on several occasions you may wish to enter each as a separate investment, for a precise breakdown of earnings. The snag is that this uses up cards and makes updating a chore.

The publisher recommends that you stick to one card per investment, and adjust the starting price to reflect the average price paid per share. Scrip issues should always be handled by editing the corresponding card, as a price of £0.00 baffles the program, quite understandably.

You can save files of cards on microdrive, RAM disk, floppies or hard disks. The supplied 'clone' utility will make back-ups of the program onto any QL device. The Spectrum version will save to tape or microdrive — it should also save and run from Opus Discovery, Disciple and

Plus D, as they use microdrive BASIC file-handling commands.

A conversion program lets you load data files from earlier versions of *Investment Monitor*, and Michael Slatford supplies a demo file so neophytes can make their mistakes on un-important data.

Annual reports

Investment Monitor can print out neat investment reports, for all or part of your portfolio. The report shows the amount you bought, the old and new value, income and percentage growth.

Performance figures are calculated and shown on an 'offer to bid' basis. It also predicts the amount Gilts will earn and realise, and shows your capital gain or loss. Losses are preceded by a minus sign rather than shown in brackets, accountant-style.

The amount invested, capital gain and income are totalled at the bottom of the report. The adding up seemed correct, but we can't vouch for the computation, as we're microholics rather than stockbroking types. The User Guide contains the usual 'Every effort but no responsibility' disclaimer, but Michael Slatford has been selling this package at Microfairs for long enough to prove that people find the program useful.

The program prints an income summary for tax purposes, showing Gross and Net dividends and

Investment Monitor

9 TREAS. INDEX LINKED 2% 1996			
High	Low	Nom. Value	
£148.19	£118.69	£1000.00	
Bought	Price	Investment	
1986/7 /9	£120.87	£1223.70	
Updated	Middle	Est. Value	
1986/12/2	£148.19	£1370.53	
Change %	Tax Cred.	Net Div.	
23.3%	£10.25	£38.75	
Annual % Gain	Tot. Net Inc		
8.93%	£285.14	£138.31	
GILT EDGED STOCK			
Last Card	TOTAL	Files: demo	

Investment Monitor handles unit trusts, investment bonds, equities, gilts and regular savings and insurance schemes

trust — accumulation, income and re-investment units.

Getting started

To get started you must enter the name of the investment, the date of the contract, quantity, old price, and today's price and date; curiously the program does not read the system clock for you.

have recorded, how long you've held an investment, the value, percentage growth, total and annual profit or loss. The menus are controlled by pressing digit keys, but other information is input into windows in the normal way. You can get back to the main menu by choosing a menu option, or entering 'mm' at any

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Tax Credits for each investment so far in the year, with totals for your accountant.

The Spectrum and standard QL versions require a printer with an Epson-style 'condensed mode' capable of 137 printed columns. Most full-width dot-matrix printers will fit the bill. There's a special QL version for people with A4-width daisywheel printers, teletypes, and other devices that can't manage more than 80 columns.

QL *Investment Monitor* writes to SER1, with line-feeds. You can configure the character code used for pound signs, but it must be a single character; escape sequences are not allowed.

QL variations

The QL version includes a 'stop-loss' indicator, which prints prices in red for emphasis if your investment value has fallen by more than a certain percentage – the default is 10 per cent, but you can set any value – even 104 per cent, if you're determined to be silly. Automated warnings can be a good idea – but if everybody uses one, the bottom may drop out of the market rather suddenly if everyone's computer hoots and they all try to sell at once.

US automated trading programs got a lot of the blame for causing the most recent Stock Market crash, by off-loading stock at distress prices when things started to look shaky. The QL *Investment Monitor* is a bit less de-stabilising, as it lets you pick the point at which it gets worried, and only displays a warning if prices drop below the chosen threshold. It's up to you to decide what to do with the information. Sell! Sell! Jump!

The new QL version 3.08 lets you offset past losses against Capital Gains Tax, factors in your allowance, and can set past gains and losses against changes in the Retail Price Index.

An extra slip of paper summarises monthly index values since March 1982; it's up to you to enter these into the program as required. This usually means waiting a while after trading, because the index is published a few weeks in arrears. Luckily, tax inspectors move even more slowly, so the delay doesn't matter as long as you remember to do it before you die.

Another feature unique to the expanded QL version lets you turn off the normal Sterling currency display, so you're not forced to read displays and print-outs in pounds and pence as you shuffle through your notional stash of dollars or Altairian ninges. You are still not allowed to mix different types of currency in one file.

The QL disk includes several tasks with differing drive

defaults. You can save, load, delete or replace files on any device, format a drive or read a scrolling directory, all from inside the program, but you can't save your preferences. You can set the serial port speed to suit your printer, but not the printer device name – so you can't print to a file, for later transfer to another program or computer.

The QL program runs as a task, compiled with *Q-Liberator*, but the menus are controlled by entering single digits, with no need to press Enter and no cursor

The verdict

Investment Monitor is not designed to make decisions for you, but to ease recording and analysing the performance of your investments. It is intended to give you extra time and information, when you need to make decisions. It's useless unless you take the trouble to type things into it regularly, and check your work, but it makes the job relatively painless and interesting.

Investment Monitor does a useful and consistent job for the

graphics demonstrations and utilities. It also has 20 disks of Public Domain adventures for the IBM PC.

Two new QL adventure games are in the works: *Dreamlands*, a compiled text adventure for users with at least 384K of memory, and *MacSporran's Lament*, a graphic adventure for any QL, written using ACT, the Adventure Creation Tool.

CGH has picked up the UK rights to Oliver Neef's games, previously only available in Germany. *The Final Conflict*, *The Open Golf*, *Grey Wolf* and *Return to Eden* will be released later this year, when translation and testing is complete. The next game from Alan Pemberton will be called *Beano*, but there's no date for release yet.

The latest QLAF pricing scheme is so Byzantine in its complexity that we shall not attempt to explain it here; please write directly to CGH for price information. Most of the titles mentioned here cost a tenner or less, depending on where you live, how you pay, the drives you use and whether you send media.

Incidentally, there's an even newer version of *D-Day*, CGH's souped-up variant of the Games Workshop wargame. Earlier versions had a bug which make it incompatible with some QL set-ups, although they worked fine on others. A free upgrade is available to anyone who bought *D-Day* from CGH Services and got a version before number 1.33. Send the master disk or cartridge 1, with a 14p stamp, to get your upgrade.

Multi-DiscOver

The QL can do lots of wonderful things, but sometimes it needs to talk to less capable computers. PDQL's *Multi-DiscOver* is an efficient way to transfer data to other machines, with none of the speed or functional penalties associated with PC or CP/M emulation. If you've noticed an improvement in the typesetting of Sinclair Scene since the first issue of *Shopper*, *Multi-DiscOver* may have something to do with it.

Our first columns were written on a variety of computers and submitted on paper, to be re-typed by some poor wretch each month. Now all the mistakes are our own – plus a few bounced characters from Schoen's replacement QL keyboard, which gives us a choice between serial port bugs and bouncing keys, at least until Schoen comes up with a modified second processor.

Sinclair Scene is written on the QL and Thor, using Psion's *Quill* and *Xchange*; then the text is sent to *Shopper's* offices on a 720K MsDos disk, formatted on an Amstrad PPC. We use a spe-



on the screen. This is convenient if you're only running one task, but it stops you multi-tasking consistently unless you've got a front-end program like *QRAM* or QL World's tiny *Taskforce* freebie. The displays are clear, even on a colour TV.

The User Guide is paperback-sized and consists of 15 clearly-printed but packed pages, plus a document file on the disk, explaining recent improvements. The most important points are printed in little boxes in the text, for emphasis. The layout is neat, with proportionally-spaced text, but looks dull because all the lettering is one size, and one weight.

This appearance belies the style of the manual, which is informal but clear, with only the occasional attempt to re-classify bugs as features. It's a lot easier to understand than most accounting guides, but there's quite a lot to read.

Michael Stafford has strong views about automated trading. In the introduction to the User Guide he writes, "my firm belief is that buying or selling decisions can only be made by people, and that past performance is not necessarily a guide to the future... no computer can possibly take into account all the factors that lead to market fluctuations."

small investor. It can take some of the guesswork out of investing, which may make things more or less fun depending on your own attitude.

Most people will appreciate the way it helps with tax planning, reducing stress and hopefully saving money into the bargain. You'd still be wise to consult a professional accountant before submitting your accounts – unless you're in touch with the latest tax-gathering fashions – but even then *Investment Monitor* may save you money by reducing the amount of boring, non-creative work your accountant needs to perform.

The QL *Investment Monitor* costs £20 on microdrive cartridge, or £22 for a range of different versions on 3.5" 1440 sector disk. The Spectrum version costs £12 on cassette, or £14 on cartridge. It's fast, tolerant and easy to use; recommended if you've got a portfolio, or want to know how much you might earn if you had some money to start with.

New releases

QL Adventurer's Forum has expanded its library of Public Domain QL software on disk and microdrive cartridge. The range now includes simple arcade games, adventure-writing tools,

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Multi-DiscOver
Copy Files

88996	MULTI	Dir	RU	1989	Jan	17	13:00:15
0	DOCUMENTATION	Dir	RU	1989	Jan	17	13:00:15
54054	DISCOVER.DOC	Dir	RU	1989	Jan	17	13:00:16
2357	NOTES.DOC	Dir	RU	1989	Jan	17	13:00:16
8	IBM DEFINITION FILES	Dir	RU	1989	Jan	17	13:00:16
384	APRICOT_315K_DEF	Dir	RU	1989	Jan	17	13:00:16
302	APRICOT_430K_DEF	Dir	RU	1989	Jan	17	13:00:16
302	APRICOT_720K_DEF	Dir	RU	1989	Jan	17	13:00:16
300	IBL_160K_DEF	Dir	RU	1989	Jan	17	13:00:16
302	IBL_320K_DEF	Dir	RU	1989	Jan	17	13:00:16
8	CPM DEFINITION FILES	Dir	RU	1989	Jan	17	13:00:16
405	EPSON_8070.CPM	Dir	RU	1989	Jan	17	13:00:16
405	ICL_08520.CPM	Dir	RU	1989	Jan	17	13:00:16
403	ICL_08520.CPM	Dir	RU	1989	Jan	17	13:00:16
404	ICL_FCI.CPM	Dir	RU	1989	Jan	17	13:00:16
404	ICL_FCI.CPM	Dir	RU	1989	Jan	17	13:00:16

F1 F2 F3 F4 F5 ENTER
 ESC (CTRL)+4 SHIFT+key INB F1 F2 F3 F4 F5 ENTER
 (page) Disable ----- Select ----- Home New Dir Utra Action
 Quit Scroll File Directory Disk Node Level File Selects

Copying is automatic once you've selected the files and the destination drive and directory

cial print driver to send the text to a file, with bold and italic type marked with words rather than control codes, then copy the file from RAMdisk to PC format with *Multi-DiscOver*.

Shopper's production person reads the PC disk onto an Apple Mac II for editing, typesetting and direct page layout using *Quark Xpress*. This is much simpler, faster and more reliable than

messing around with modems or serial leads. The only thing we have to ensure is a steady supply of empty PPC disks, as *DiscOver* won't format disks for us.

DiscOver can read and write lots of different disk formats: Atari STs, PCs, Apricots, BBCs, Unix machines and many CP/M formats, including Amstrad PCW and Plus Three disks. The most annoying omission is the lack of an Amiga option; Amiga disks use a weird single-sector track format that gives 880K on a normal MFM 80 track disk.

QL disk controllers can read FM (single density) or MFM (double density) disks, but not the newer high-density formats, like 1.2 Mb 5.25" disks or 1.44 Mb 3.5" ones. *DiscOver* does not have a printed manual, but it comes with a 30 page *Quill* document file that tells you how to format MFM disks on a high-density MsDos drive. You don't

miss the manual for long, as *DiscOver* is quite easy to use.

Voyage of DiscOver

DiscOver is menu-driven; you select options with the arrowkeys or by pressing the first letter from a menu line. It works with two drives at a time, termed 'Source' and 'Target'. These can be QL or other formats, but you can't go from one CP/M format to another, or put more than one format in a single drive.

There's no option for single-drive users to swap back and forth, but it's invariably quicker to go via RAMdisk in any case. If you've got one disk drive, and no RAM disk software, it may be time to dust off those micro-drives...

The main menu lets you set the format of Source and Target, swap them, read a disk directory, copy or erase files. The directory display lets you hop up and down through sub-directories, view the

contents of files, and select individual files or groups to be erased or copied.

Copying is automatic once you've selected the files and the destination drive and directory. A neat bar graph shows you how much of each file has been copied as transfer takes place, but it's a tolerably fast process.

File translation

Files can be 'translated' automatically as they're copied. *DiscOver* lets you build files of translation information with any editor (even *Quill*). These list character codes to be changed - you can replace one character with none, one or several, but you can't replace a group of characters with one or none.

The translation takes account of the direction of transfer - source to target, or vice versa. The most common use is to change CHR\$(10), the QL and Unix line-end character, into CHR\$(13) or both, for other machines.

DiscOver was written in MetaComCo C, which has a bugged QL library that makes screen output appear blank if you use a screen speed-up utility. Everything works fine if you turn off the screen accelerator before running the *DiscOver* task; you can turn it on again as soon as the task is running.

Another documented incompatibility involves Ultrasoft's enterprisingly-named *Toolkit III*, which stops *DiscOver* being able to read directories and prevents access to BBC disks. All is well if you avoid this toolkit.

DiscOvered

String translation and a few more formats would be nice, along with an option to format disks, but in general *Multi-DiscOver* does a good job of transferring files to other computers. It's fast and quite easy to use, with clear displays.

Multi-DiscOver costs £39, on 5.25" or 3.5" floppy disk. The MsDos-only version, *DiscOver*, costs £29.50, and works with PCs, PC compatibles, Apricot and ST disks.

Easy to C

After *DiscOver*, written with - or rather, despite - MetaComCo C, and Chas Dillon's SuperBASIC to C translator *BASIC-C-Port*, it's no surprise to hear that a new QL C compiler waits in the wings. PDQL has negotiated the rights to convert the latest version of *Lattice C* from the Atari ST to the QL.

The compiler itself is written in C, and therefore quite portable, but the library must be re-written and rigorously tested before the package will run on the QL. PDQL intends to sell its 'port' of

Lattice C for £59.95 - a more reasonable price than the £99.95 Metacomco charged for its bugged and dangled QL C.

The other two QL C compilers are both based on the Public Domain Small C compiler, originally written by JE Hendrix, available from many PD libraries and documented in the book *Dr Dobbs' Toolbook of C* (Prentice Hall). Small C is integer only, like its descendants.

GST C is good value for the assembler and linker included with it, but no good if you want to compile existing programs that use floating point maths.

Shopper reader DA Elgee has written in to enquire about DP's Digital C. This compiler started life in the Quanta library and was enhanced by Digital Precision before being launched onto the market at almost £40. The price is now down to a reasonable £29.95.

Digital C is a neat system which compiles and links much faster than GST's package. Rather than generate assembly code it has a specially-written linker and code-generator, driven by numeric intermediate code, like the *Turbo* and *Supercharge* code-generators from the same programmer, Gerry Jackson. The compiled code is limited, but useable and quite fast - the entire package compiled itself!

Digital C is more suitable for new programs than for compiling existing source. Floating-point maths and QL extensions are in a library rather than built into the language. This makes them rather hard to use, particularly as the *#define* pre-processor is limited and built into the compiler.

You must dimension each floating-point variable as an array of three integers, and perform operations a line at a time, so $X=Y^*X$ becomes:

```
*X=FNEG(X) *X= FMULT(X,Y)
```

You can't even nest the function calls, as that stops it working. We'll return to the subject of QL C in a future issue.

Contact

Investment Monitor:
Michael Stratford Software.

Games:
CGH Services.

DiscOver and *Multi-DiscOver*:
PDQL.

Digital C:
Digital Decision