Commuter computer

Computer boffin Sir Clive Sinclair returned to the mass computer market yesterday a year after his disastrous C5 electric car project forced him to sell out to computer giant Amstrad. Sinclair's new lap-top portable computer, being demonstrated by the City gent above, is aimed at the itinerant executive market.

SCI wins Sinclair computer contract

By Patrick Hosking
Business Reporter

SIR CLIVE SINCLAIR announced yesterday he had switched manufacture of his lap-held portable computer from Thorn EMI to SCI — an American corporation little known outside the computer industry.

SCI has taken an equity stake, believed to be 15 per cent, in Sir Clive's new company Cambridge Computer Ltd as part of a deal giving it sole manufacturing rights worldwide. Output is expected to reach 2,000 computers a week by late October.

Sir Clive is pinning his hopes of a commercial rebound on the computer, the Z88, after a disastrous last two years. First his novel electric tricycle, the C5, flopped. Then poor sales forced him to sell his computer interests and the Sinclair brand name to Alan Sugar's Amstrad.

SCI will manufacture the Z88 at its plant in Irvine, Strathclyde, which employs 650 people. But production could be transferred overseas, Barry Eames, managing director of SCI UK, said. SCI has plants in the US and Singapore and last year turned over $460m (£287.5m).

Sir Clive said that "non-cancellable contracts" worth "millions of pounds" had been signed with Dixons and Comet, the high street retailers, who started selling the Z88 last Tuesday. But he would not reveal how many Z88s had already been sold by mail order since February when the machine was launched.

Apart from SCI's new stake, CCL is 55 per cent owned by Sir Clive, 20 per cent by its employees and 8.5 per cent by Sinclair Research, of which Sir Clive has a further 60 per cent.

SINCLAIR: Comeback

Sir Clive unveils his baby

FALLEN tycoon Sir Clive Sinclair yesterday made his comeback when he unveiled his electronic Filofax — the Z88 lap-top computer.

His last invention, the Sinclair C5 electric car, failed disastrously and he had to sell his empire.

But already retail chains Comet and Dixons have agreed to stock the Z88 which sells at £287.50p.

Billed as the ultimate Yuppie accessory, it is just an inch wide, but has a memory equivalent to seven novels.

American firm wins Sinclair deal on Z88

By Jack Schofield,
Computer Correspondent

Sir Clive Sinclair has signed a deal with $500 million US-based multinational manufacturer SCI Systems Inc for expanded production of the Z88 portable computer at its European plant in Irvine, Scotland.

The deal gives SCI sole worldwide manufacturing rights for the machine, which may become significant if overseas sales can be built up next year.

SCI has also taken a stake in Sinclair's company, Cambridge Computer Ltd, with Mr Barry Eames, managing director of SCI UK Ltd and a vice-president of SCI Inc, joining the board.

While neither party would put a figure on the size of this participation, Sir Clive's shareholding has been cut from 70 per cent at the time of the Z88's January launch to 55 per cent.

The marketing of the Z88 has also changed. Initially, it was manufactured under contract by Thorn-EMI and sold by Cambridge Computer via mail order. Mail order sales have now ceased and the computer is being sold exclusively by Dixons and Comet.

Mr Eames said yesterday that investing in Cambridge Computer was SCI's idea: " I wanted to be involved in what was going into the marketplace before it got there."

SCI, a subcontractor for major computer firms such as IBM and DEC, is already making changes in " components, board lay-out and manufacturing " to make the Z88 " more manufacturable, more reliable".

Eames said it was planned to change to more advanced SMT (surface mount technology) manufacturing next year.

SCI is devoting one of its five Irvine assembly lines to making Z88s, which has created about 50 extra jobs in a new, 70,000 sq ft factory employing about 650 people. Production is to be ramped up to 400 machines a day by the end of this month.

Sir Clive Sinclair: hopes pinned on a portable.

COMPUTERS

World series on way from Sir Clive

John Coghill

THE portable computer just launched by Sir Clive Sinclair is only the first in a series of products with which he is returning to the market.

He has been quiet for a long time since the home computer business collapsed on his company, together with Acorn, Atari and Commodore.

The biggest project he is now nursing is the revolutionary wafer-scale integration — a large slice of silicon on which there can be hundreds of interconnected chips.
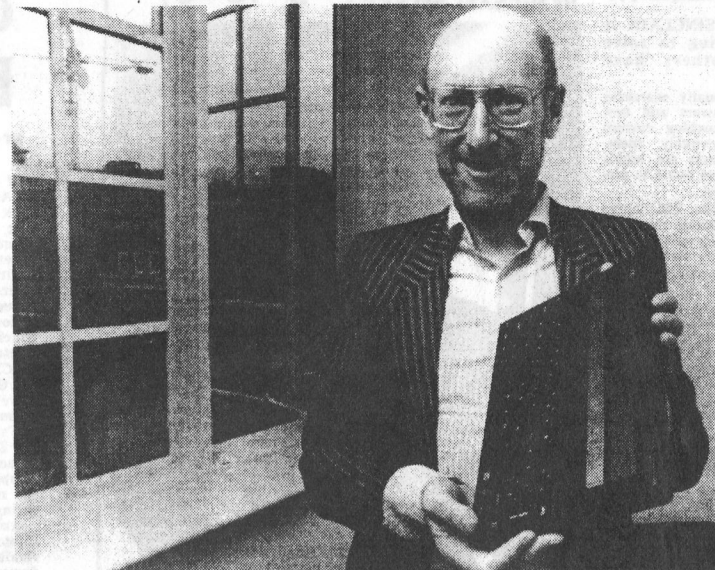
This increases enormously the sheer speed and efficiency of computing through dispensing with the cobweb of wiring, and has been a dream of the chip industry for decades.

It is an obvious development since at the moment, hundreds of chips are manufactured on the silicon wafer, then cut apart and wired up for operation.

IBM, Texas Instruments and Amdahl have spent hundreds of millions of research dollars trying to get the technology to work and, after years of frustration, gave up in disgust. So Sir Clive had to work hard to persuade investors he had found the answer.

But he managed to raise the initial cash from Barclays Bank, and has extracted £4m to cover the next year's costs from the Italian chip maker SGS, the American computer manufacturer Tandem and three venture capital companies. And they may be ready to put up the £40m or so that will be needed for full production next year.

Applications could go wide. Sir Clive got involved when he was trying to develop parallel processing. That is the technique of breaking down a problem or job into a large number of constituents and then processing them simultaneously rather than one at a time, as now.

The transputer from Inmos is a new sort of chip designed for the same task and there may be a way of marrying the two British innovations. That may have to wait until the future of Inmos is resolved — perhaps by a management buy-out — as its current owner, Thorn EMI, is rather keen to get shot of it.

The key company in all this is Sinclair Research, in which Sir Clive has a substantial majority.

All done with mirrors: Sir Clive Sinclair and his new mini-computer

It owns 70 p.c. of Anamartic, the wafer-scale company. But it owns only 10 p.c. of Shaye Communications, the Winchester-based company which is next year due to launch a new sort of telephone.

Fred Olsen and his associated companies own much of the rest of Shaye, and 25 p.c. is held by Mobira, the Scandinavian maker of cellular telephones.

Sir Clive has devised a three ounce telephone that is a cordless phone in the office and at home, and a cellular device everywhere in between.

It will cost hundreds rather than thousands of pounds, as present cellphones do, and Sir Clive says you never need another instrument.

There is an additional small black box with it (one sort for the office and another in your briefcase in transit) but at least it will not be necessary to wire homes and offices.

That too should be available from next year. Further off is a 3D computer display but he will not talk about that until he has filed the patents, except to say: "It is all done with mirrors."

STOP PRESS

Rumours of a Z88 magazine early in the New Year - possibly the first issue could be an insert in QL World or another of the four magazines.

Sinclair Research owns 10 p.c. of Cambridge Computers, which developed the lap-top computer; Sir Clive owns 55 p.c; employees hold 20 p.c. and SCI. which is making the machine, owns the rest.

Sir Clive felt last week's review of the Z88 had been unfair. He says that the 32K memory, described as inadequate, can be supplemented by plug-in cartridges of 128K a time now and 1MB later this year; lack of a disc drive is not a handicap since the machine can communicate via a cable to other computers such as IBM, Apple and BBC; and the Z80 chip makes it as flexible as any of the IBM compatibles available.

He is planning to launch it into the United States and Europe, and already has an office in New York. And he could be getting a public quote for one of the companies in the forseeable future.

You cannot keep a good entrepreneur down for long.

Michael Becket

Sir Clive bounces back with a neat black box

By MICHAEL BECKET

SIR CLIVE SINCLAIR is always striving to solve problems others have overlooked.

He is continually searching for neater answers and new ways of approaching current difficulties. Inevitably, therefore, his products are highly individual and so liable to provoke controversy.

His latest, the Z88 laptop computer, maintains the tradition. It is, as you would expect from Sir Clive, smaller and cheaper than any of its rivals.

At £286.35 it is cheap. Its nearest competitor is the Tandy 102 at £344, but the Z88 comes with a complete suite of programs including word-processor, spreadsheet, diary and database, while the Tandy comes with a far more limited range of software.

At under an inch thick, the size of a sheet of A4 paper and weighing under 2 lb, Sir Clive's latest offering is comfortably the smallest and lightest available. Only the Husky is comparable in size and weight, but that is more a data capture device at nearly four times the Z88 retail cost.

You cannot get that sort of compression and cheap machine without a compromise on something — everything has a price. In this case you sacrifice a full screen, making do with only eight lines on the blue-on-gold liquid crystal display (so incidentally does the Tandy, though that has 40 characters screen width against the Z88 full line of 80).

Some will find convenient the graphic indication at the right of the screen, showing where the eight lines are located in relation to a full page. For people who think displays of 25 lines are not really enough for word-processing, it will be inadequate.

Similarly, Sir Clive decided that disc-drives were unsuitable for portables. They are fragile, slow and use a fair amount of power. He uses plug-in cartridges instead. That means you cannot whip a disc out of your office computer and complete the work on the train home.

But Cambridge Computers (the company which produces the new machine) has written a series of programs which enable IBM, Apple and BBC computers to send information down a cable direct into the Z88, solving the problem of compatibility. If there is a demand for other makes, programs will be added.

On the other hand, you cannot nip into your local computer retailer to buy the latest spreadsheet, word-processor, accounts package or even game and bung it straight into the Z88. Some will no doubt be adapted for it, but most will not.

The keyboard is softish rubber (similar to some calculators in texture) so it is totally silent. That means the computer can be used at meetings, in libraries, and at lectures without disturbing others.

But the rubber provides a soggy disconcerting feel which is not to everyone's taste. Sir Clive has been approached to supply a company which teaches typing as it thinks the Z88 touch ideal for fast touch typing.

Terry Keeler writes: The program that Sir Clive has written for the Z88 to carry out spreadsheet and word-processing activities has been named Pipedream. It is accessed by hitting an Index key and from that point on, all the functions are simple to execute. There is even a Help strip sited between the screen and keypad, making it easy to consult at any time.

Users of portable computers will be confused at first by the keys marked "□" and "<>" until one realises that they perform much the same function as the "Ctrl" and "Alt" keys on a PC for carrying out commands.

Downloading and uploading files from WordStar and Lotus 1-2-3 is relatively easy as well. There is an RS232 lead available and a 5¼in disc for communicating between the two computers and converting the the files to and from Pipedream. It costs £24.95.

The same outlet on the Z88 is the serial port for linking to a serial printer.

As an extension of desktop computing, giving the user the opportunity to work away from the office, the Z88 is a boon. It works on four MN1500 alkaline batteries — the same as a Walkman cassette player.

The Z88 is sold as a basic unit with Pipedream written into it. Extras like leads, an electrical adaptor, and additional memory have to be purchased separately. Even so, with all the periphals, it would still work out less than £500.

It is certainly a machine that will appeal to anyone frustrated by the limitations of the Psion Organiser — the Z88 can fulfil all the same functions of calendar and timed alarms for appointments, and be a full computer at the same time.

Sir Clive Sinclair hold his latest baby, the Z88 portable computer, which can perform all the basic functions of a full-size personal computer

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Sinclair computer built by lap-top to be SCI

BY DAVID THOMAS

SIR CLIVE SINCLAIR, who sold out his computer interests to Amstrad last year, bounced back yesterday with the claim that his new lap-top computer "would be the world's top seller within 18 months."

Sir Clive has shifted assembly of the machine, called the Z88, to the UK factory of SCI, the US company which is the world's biggest electronics subcontractor.

SCI has taken a small stake in Cambridge Computer, Sir Clive's computer company, in a move designed to signal SCI's commitment to making the Z88 a high-quality product. Some of Sir Clive's previous computer products were beset by reports of poor manufacturing quality.

Anlysts said the Z88 was lighter and cheaper than its rivals but pointed out that demand for lap-tops worldwide had failed to take off.

The Z88, which costs £287.50, including VAT, is to be sold through Dixons and Comet, the high street retailers. It weighs less than 2 lb and is 22mm thick.

The machine, which has 20K of memory, contains built-in software covering word processing, spreadsheet, calculator, diary, database, calendar, clock and BBC Basic. It has batteries giving 20 hours of solid computing and one year of stand-by operations.

Among the extras that can be bought are additional memory, mains lead, a modem that connects to the telephone and a link with desktop personal computers.

The assembly work has been shifted from Thorn EMI, the UK electronics group that assembled the initial machines, to SCI's factory in Irvine, Scotland. The factory will soon be

producing 2,000 Z88s a week and will be adding 50 workers to the present workforce of 650.

The size of SCI's stake in Cambridge Computer was not disclosed. Sir Clive holds 55 per cent. Sinclair Research (Sir Clive's holding company) 8.5 per cent and employees 20 per cent. Mr Barry Eames, managing director of SCI UK, who is joining the board of Cambridge Computer, said he wanted to be closely involved in the Z88.

Sir Clive said initial sales would be in the UK, but the Z88 would go on sale in the US, the Continent and the Far East netx year. SCI, which has exclusive manufacturing rights, might make the machines in its other plants for those markets.

Sir Clive added that he hoped sales outside the UK would be more than those in the UK by the end of next year.

Clive Sinclair: "top seller" claim.

Sinclair's US computer deal

Sir Clive Sinclair's company, Cambridge Computer, has contacted the American electronics company, SCI, to mass-produce the Z88, its personal computer launched last February.

Until now, Cambridge Computer has used Thorn EMI to produce the £290 laptop machine, which has so far been available only by mail order. The switch to SCI comes after Dixons and Comet, the high street retailers, signed distribution agreements to sell the Z88

Frill-a-minute stuff from Sinclair

THE triumph of irrepressible optimism over commercial experience has bubbled over again in Sir Clive Sinclair's latest electronic offering to an expectant world. But this time he will need all his famed powers of publicity and persuasion because the market has become more sceptical of Sir Clive's products.

He has launched an ingenious, cheap and compact, but flawed product: his lap-top computer mentioned in this column several months ago. It was then code-named Pandora — from whose box, you remember, escaped all the woes of the world, leaving only hope behind.

Now it is called the Cambridge Z88 (he sold the Sinclair trade mark with the remnants of the company to Amstrad) and as usual with Sir Clive, it is smaller and hundreds of pounds cheaper than any of its rivals.

Under an inch thick, taking up less space than a sheet of A4 paper, weighing under 2lb, and retailing at £286·35, it is a commercial wonder. Despite that low price the machine comes with built-in software.

You get a package called Pipedream which includes word processor, spreadsheet and database. That alone makes it a startling bargain.

There are also marketing frills like calculator, diary, calendar and clock which are more useful off a computer but that is no handicap — you do not have to use them.

There are drawbacks however which raise doubts about its purpose and market. Two stand

Sir Clive Sinclair: A new lap-top computer

out most clearly: memory and display.

The machine comes with just 32K of RAM which is not really enough for even home use. For serious or business users it is a bit like having a lorry which can carry 35lb.

There are promises of upgrade facilities to increase that to 3MB of plug-in RAM next year. When that arrives it will make it a more practicable proposition.

For more permanent memory the Z88 uses uses EPROMs — a sort of memory chip which retains data but can be reprogrammed. The good side is that it is permanently available to the machine and is very rapidly accessed; the bad side is incompatibility with other computers, which use floppy discs.

Not that compatibility seems to have been a high priority. Surprisingly the machine uses the antique technology of the Z80 processing chip, which has long since been abandoned by other makers. It also uses as its own operating system.

Display is 94 characters wide, which is good, but only eight lines deep, which is irritating.

Michael Becket

Computer comeback by Sinclair

SIR CLIVE Sinclair yesterday bounced back into the mass computer market with the launch of a laptop machine which he said would be the world's best-selling personal computer within 18 months.

Describing the Z88 computer as "years ahead of anything else in the world," Sir Clive announced a deal with the American electronics manufacturers, SCI, to make the computer at their British plant in Irvine, Scotland.

Volume production of the lightweight computer, which costs £287, weighs less than 2 lbs and is the size of a sheet of A4 paper, is due to begin later this month.

It will include built-in software in the form of a word processor, spreadsheet and diary, be compatible with other systems, and is powered by four AA batteries providing 20 hours of active computing.

The memory capacity will start at 32k but can be upgraded to four megabytes, capable of storing the equivalent of nine novels.

Sir Clive Sinclair watches as the former "Doctor Who" star Lalla Ward tries out her Z88 computer.