

Four off-beat entrepreneurs in Surbiton are enjoying themselves picking up old computers and making them work. And, what is more, they're making money at it. We visit Galdor Computing to find the secret of their success.



# ELECTRONIC GRAVEYARD

THE ENTRANCE to Galdor Computing Ltd, at 52 Brighton Road, Surbiton, is a narrow doorway sandwiched between a men's boutique and an insurance broker. Through it, you enter a dark passage where there is just room to squeeze past a tired-looking disc drive, two huge air-conditioning units and several dusty boxes of components. The passage leads to what was once the back garden of No. 52, now the Galdor computer room.

It is no ordinary computer room; at first sight it is more like an electronic elephant's graveyard. Some 40 ft. square by 9 ft. high, it is packed full of machinery—so full that there is barely room to move between the grey cabinets.

Almost every known peripheral seems to be represented. An old ICT card interpreter stands in a corner; a multiplexer nudges a graph plotter. Some cabinets stand open to reveal half-empowelled innards, and every flat surface is stacked with boxes of cards, discs and tapes, chunks of abandoned core store, manuals, and PCBs by the hundred.

Somewhere in the midst of all this you should find one or more directors of Galdor, perhaps mending a disc drive, testing a highly-modified version of an ICL operating system, playing Star Trek, or running a job for a customer. For while Galdor is a properly-constituted limited company offering conventional bureau services, it is not run in the same way or with the same aims as an ordinary computer bureau.

## Natural

Perhaps the easiest way to understand Galdor is to go back to its beginnings. Around 1968, half-a-dozen students of electrical engineering at Kingston Polytechnic decided they needed more computing facilities than the Poly could offer them. It seemed the natural thing to buy their own, so they did. London University was dispensing with an ICT 1301, and they obtained it for £300, buyer to collect.

Finding somewhere to put it was no problem; there was plenty of room in the

back garden. It was a matter of getting planning permission, knocking down the existing shed, building a computer room from the foundations, dismantling the computer, transporting it to Surbiton, and putting it together again. Nothing to it.

Flippancy aside, the nonchalance with which Galdor "staff" tackle the most daunting projects is one of the things which most impresses the visitor. Another is their equal familiarity with hardware and software. Commercial computing tends to divide people into hardware or software specialists, so that real all-round knowledge has until recently been a rarity. At Galdor it is taken for granted.

## Then there were two

Of the original half-dozen, only Andrew Keen and Stuart Fife remain. They have been joined by Pete Singleton, who paid a visit two years ago, decided to stay the night, and has been there ever since.

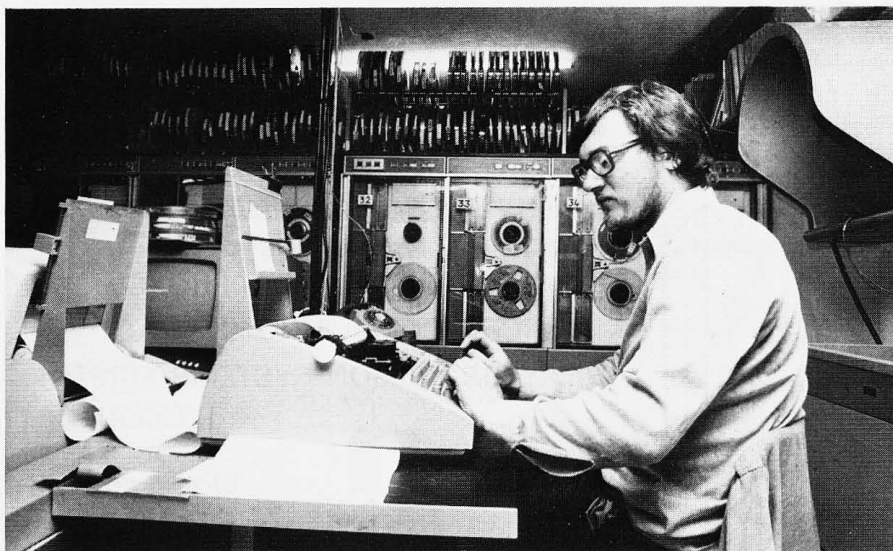
The three form the full-time staff of Galdor. Another director, John Sheane, has a job with ICL, and there are part-time helpers who drop in whenever possible.

After serving long and well, the ICT 1301 was replaced a little over a year ago and is now being re-commissioned by another enthusiast. Since then, hardware development has been extremely rapid. The first replacement was an ICL 1901, which quickly showed itself to be very short of processing power. It was soon replaced by an ICL 1903.

That is the machine which Galdor is now running, equipped with 32K words of core store, six EDS8 disc drives, eight 7-track tape drives, paper tape reader and punch, card reader and punch, and two line printers of 600 and 1,250 lines per minute.

That, however, is by no means the end of the story. One main reason for the congestion in the computer room is the vast bulk of a 1905E which stretches almost the length of the room. It has a 128K

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store and will be equipped with the same eight tape drives, but no fewer than 14 disc drives, three printers, a graph plotter, a local video controller initially with three VDUs, and a multiplexer to handle up to 10 telephone channels.

All the hardware is already there and the process of getting it running is already well under way. "We seem to have bitten off a bit more than we can cope with this time," says Keen, peering over the clutter. All the same, he is already planning the acquisition of a second 1905 to provide back-up, as soon as room can be found for it.

Acquiring all that equipment has made the members of Galdor experts at the Steptoe game. First, they look through the *Computer Users' Year Book* to see which firms are still running the kind of machines in which they are interested. Those firms are then contacted to see if they have anything they wish to dispose of.

## High hit rate

The method produces quite a high hit rate. "The trick then," says Keen, "is to offer fractionally more than the scrap merchant," though often they find that firms are sympathetic and generous once they learn about Galdor.

The result is that much of the equipment goes to them at near-giveaway prices. One of the line printers, for example, cost £30, and disc packs are in plentiful supply at around 50p each.

The 1905E cost £2,000, a massive sum by Galdor standards. Keen points out that for around the same sum they could have bought a modern micro with about the same processing power, but that of course, would have nothing like the same capacity for handling peripherals.

Naturally enough, not all the equipment acquired in this way is in perfect working order. One or two of the tape decks, for example, have a nasty habit of

**Andrew Keen at the console.**

**Stuart Fife assists young visitors to play Lunar Lander.**



splitting tapes, and disc drives are often a source of trouble. That is a problem which Galdor members take in their stride and there is very little with which they are not capable of dealing, though there are times when it proves simpler to replace the faulty unit rather than track down and cure the fault.

Financially, Galdor has always been self-supporting. Almost from the start, it sold machine time on the 1301. The first customer was a friendly society which took one and a half hours a day and the volume has grown steadily ever since.

Today, the work includes such projects as mailing lists for clubs and societies and a back-up service for firms running 1900 series machines of their own.

Predictably, Galdor rates are among the lowest in the land—at £12 an hour. Even that may be modified and payment in kind accepted from particularly hard-up customers. It is characteristic that Fife sees this as an advantage, allowing Galdor to offer a service to organisations which would otherwise not be able to afford it.

The unconventional approach to computing seems to affect some customers. Users perhaps unaccustomed to the idea that computing can be fun are liable to offer thanks for a pleasant evening by "accidentally" leaving behind a couple of boxes of stationery. Singleton is doing some programming for a firm which is test-marketing beefburgers. The "spin-off" from this project has considerable effect on the diet of the resident members.

All this adds up to a method of running a computer bureau which is unlikely to make anyone a fortune. Turnover in 1977

was regarded as healthy at £180 a week showing a trading profit of £40-60 a week; not the kind of figures to set a bank manager's heart aglow.

Making a fortune, however, is clearly not one of the Galdor aims. What those aims are is less easy to define and seems to depend largely on which of the directors or helpers you choose to ask.

In general, the sheer pleasure of building and running a large computer system without the normal pressures and restrictions of commercial life seems paramount. The profit motive is conspicuous by its absence.

## Playing hard

Galdor finances, while they must be a taxman's nightmare, are extremely simple by normal standards. Since all workers are either directors or paid voluntary helpers, the firm has no employees, a fact which eliminates effectively nearly all the bureaucracy involved in running a business. While Galdor customers expect and receive professional service, its members are relatively free to decide whether or not to accept a particular job.

It was perhaps Singleton, who admits to being unemployed more times than he cares to tell, who put it best. "I decided long ago," he said, "that work was a dead loss. So nowadays I don't work—I just play hard."

Galdor positively welcomes visitors, whether just to look round, to make use of the machine, or to help. Most professional users, and possibly even more equipment, are also welcome.

*Galdor is at 52 Brighton Road, Surbiton, Surrey. Tel: 01-399 1300.*