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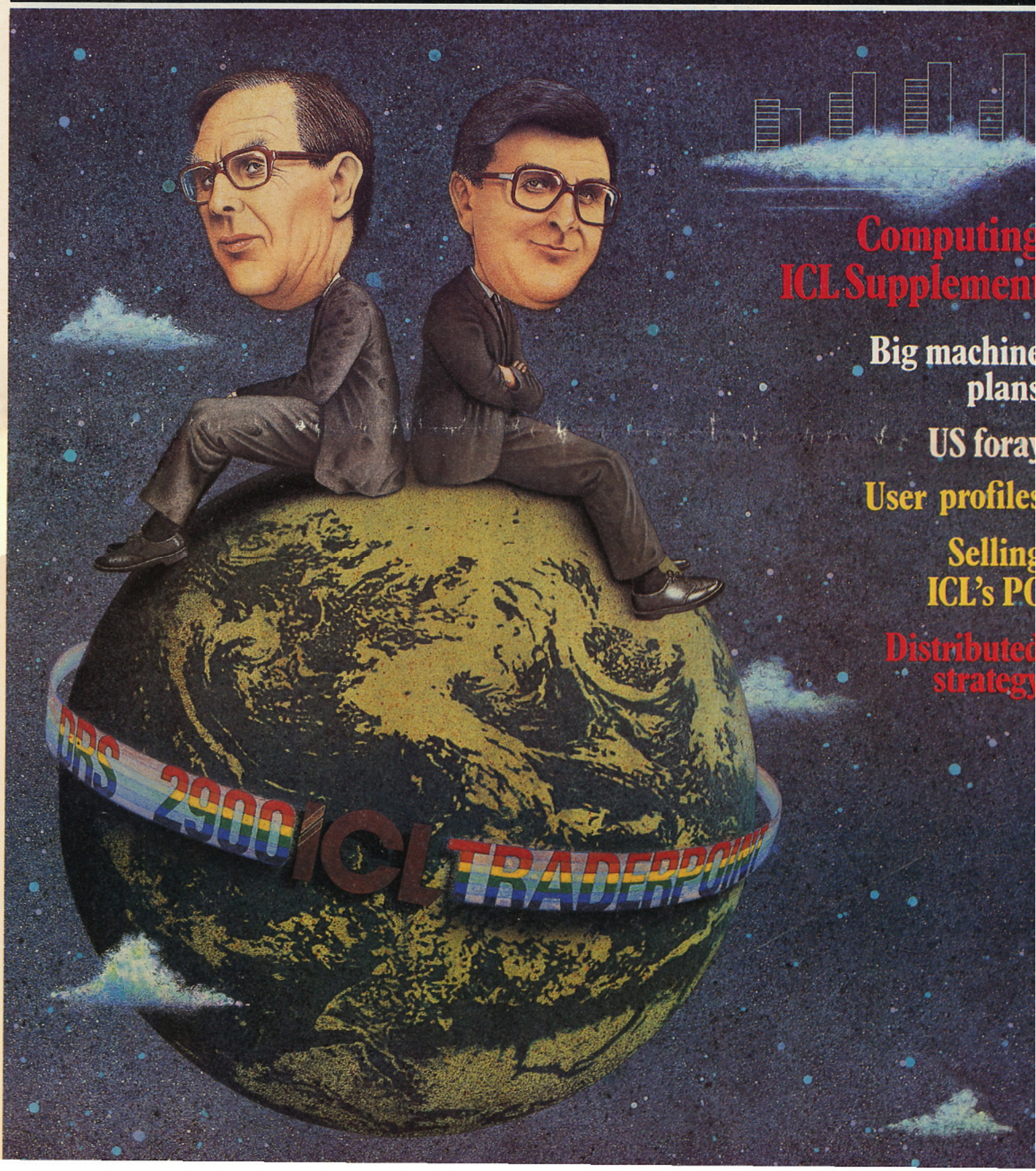

Computing
ICL Supplement

Big machine
plans

US foray

User profiles

Selling
ICL's PC

Distributed
strategy

omputing

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Eamonn Black

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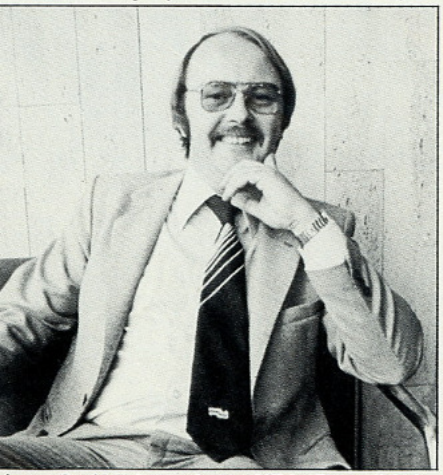


airman David Kelson welcomes ICL's 'firm policies'

Simon Lewis

Porsche's Smith: aware of System 25's uncertain future

Chris Bell

Sir Christophor Laidlaw: personally winning industry respect

Straining towards a securer future

Richard Sharpe outlines the most pressing issues facing ICL in its bid to consolidate its position as a world-class IT system vendor

With the recovery of ICL complete, the picture emerges of a company with many growing strains. The special circumstances of recovery which meant ICL had to be judged by unique criteria are over. ICL must now be judged as if it were a full member of the club of the world's information technology system vendors.

This is a small club given that the size of the opportunities as full system vendors are few and far between. Remaining a member of the club is a strain which has forced even IBM to seek the help of others to close gaps in product lines and technologies.

Robb Wilmot, ICL's managing director, claims that the only gaps in ICL's product lines are the ones he has chosen. The major elements of the strategy to take ICL through to the 1990s are therefore complete and in the open.

The personal performance of Wilmot and his chairman, Sir Christophor Laidlaw, continues to win the admiration of the international industry. ICL's products and elements of its strategy are not getting the same respect as these two leading individuals.

The first criticism of the company is that, despite the strength of the distributed products line, an awful lot of the future still rests on mainframe lines. One in particular, the 2966, is providing much of the cash to keep the expansion plans going.

According to the BIS-Pedder census of the UK installed base at the end of 1982 the value of 2966s shipped last year was £99 million. The next biggest shipment level from ICL during 1982 was the 2946/55, where shipments reached a value of £24.75 million.

In contrast, IBM UK had five machines that had a shipment value during the year bigger than the 2946/55, in a spread of power from the 3081 mainframe to the aged System 34.

As if the problems over ICL's existing mainframe range were not enough, trouble is brewing over the next editions of mainframes. Users are very concerned that they are not getting enough information in time to plan their moves on the Distributed Mainframe/1 and Estriel machines.

The bold strategy of intercepting Fujitsu's strategy for the Estriel technology will work but will bear fruit only as long as the existing user base takes to the machine in big numbers.

Even worse than having to wait for information on new products is the prospect of having customers lined up for a product only to watch them go elsewhere because the product is late. Such is the case with the Mitel exchange which, Wilmot said, would be most vulnerable to delay because of the design of complex chips. The delay is, in fact, because of software, much to Wilmot's surprise. Chip delays would be worrying but software delays are of much greater concern.

Those customers who do have the products they need are also not satisfied enough to be a good advert for ICL as an information systems vendor.

The most recent survey of user attitudes to ICL support reveals a poor picture which shows, among other things, that 28% believe that service has deteriorated despite efforts by ICL to improve it. Only 24% thought the service had got better. With a record like this, how many big customers are going to come into the ICL fold for crucial big orders of information technology equipment?

Wilmot's comment on the survey was that the problems it highlights are those that ICL is aware of and is addressing — a comment not much different from last year's.

The spotlight could be moved away from these genuine user concerns by an acquisition. One reason for lessening the debt burden was to be in a position to take advantage of any attractive acquisition, Laidlaw said. 'A marketing presence in the right area might be attractive,' Wilmot commented, steering attention away from any acquisition to get hold of market presence instead of product or technology.

Good results would provide the basis for such an acquisition, generate the funds for the development effort still to be done on the new mainframe products, allow further investment in better support services and fund the expansion of the distributed computing products.

The results for the coming few years should be good, but they are unlikely to be on the basis of the concerted international breakout that Wilmot and Laidlaw would love to see. Instead, they will probably be generated from new products in a relatively buoyant UK market supplied from a company that has cut into its fixed costs.

That will not, however, guarantee ICL its future, as it has repeatedly emerged from a crisis to enjoy a short period of prosperity.

Employees, competitors and users will be peering into the future trying to see how long this period will last.

Richard Sharpe is editor of Computing.

Lambeth's enviably large complement of dp staff has IDMS and teleprocessing expertise 'next to none', according to the head of computing services, Jack Webb

LOGICL moves in Lambeth's dp room

Lambeth Council claims a good relationship with ICL and seems prepared to go on choosing its systems, reports Kevin Townsend

Lambeth is not a small council. With a highly concentrated population in excess of 250,000 inhabitants, and some 55,000 council-owned properties, Lambeth requires and has an extensive computer department.

Hardware currently centres on two ICL 2966s with a combined total of 16 megabytes of main memory. There are over 200 terminals mainly comprising remote vdus and printers, all of which are used solely for local government functions.

Unlike provincial district councils, Lambeth does not have any responsibility for education. Headed by Jack Webb, the council's assistant director, and therefore effectively head of computing services for Lambeth, the department has a staff complement that many a large company dp manager would envy: a total of 90 staff with about 50 in systems development. There is also a mass of ancillary equipment, including three DRS model 50s, four DRS model 33s and a number of Apples (with MP/M), Pets and Torches.

Even so, Webb is already wondering how long he can last with his current hardware.

Webb is currently trying to rationalise this computer equipment. Apples are used for some stand alone applications. Of DRS he believes that 'ICL has got a pretty good product here. The company has been prudent enough to recruit outside expertise for marketing through Traderpoint, and for software development through software houses.

'This was really ICL's first successful venture into micros, although the model 730 that replaced the 7502 was fairly successful. The DRS model 40 was late in arriving, and the model 50, claimed to be able to support up to 16 terminals, could really only manage about 7. Still, most of the problems now seem to be overcome — they're about 75% ready, and ICL need really only enhance the product now.'

Word processing is another area that may perhaps need rationalising. Surprisingly, considering the strong predominance of ICL equipment, Lambeth's word processing hardware is currently based on Wang kit scattered throughout the borough.

> The staff found Wordskil too slow

'When the ICL 7700 word processor was first released,' explained Webb, 'we took our secretaries and typists along to demonstrations. They didn't like the 7700 and Wordskil — it was too slow for one thing. People who knew ICL also knew that the 7502 was finished: so why put a new word processor on to hardware on its way out, while at the same time developing the DRS that can also do word processing?'

Word processing is too important simply to be ignored and allowed to continue of its own volition. At the moment its use is primarily the traditional typing function, but with such a large local population, this is in itself a fairly extensive task.

Webb is also looking towards word processing committee minutes and making more imaginative use of standard letters. To do this he would like to see the word processors integrated with the mainframes. This leaves him two options: to change to word processing on the DRS machines or to try to integrate the Wangs. Webb, however, has doubts about the feasibility of the latter course.

Lambeth takes its computing seriously. It is a member of the NCC, and concentrates on major applications developments, usually in conjunction with other councils and/or ICL.

The Local Government Financial Information System (Lafis), was developed by Lambeth in association with Oxford County Council, Doncaster, the Department of the Environment and ICL. Lafis is a sophisticated general ledger that includes facilities for analysis, budgeting and control, and provides a mixed set of financial and statistical functions. ICL undertakes the marketing side of Lafis in what is known as a LOGICL (Local Government and ICL) development. Verson 2 was implemented in April 1982, and version 3 just one year later. Interestingly, Lambeth receives royalties for this and several other similar developments.

Other LOGICL developments include LBJRS, the London Boroughs Joint Rating System, which was implemented in April 1983, and, currently being marketed, a Stores system that was developed in conjunction with the Borough of Islington. Proceeds from this latter go to both Lambeth and Islington, and the system interfaces with both Lafis and the Housing Management Information System (HMIS). HMIS is another LOGICL development currently in progress for which Lambeth will receive royalties.

All of these systems are IDMS databases, and Webb claims his department has 'IDMS and teleprocessing expertise next to none. We already have five databases up and running, another planned and an enormous variety in the work available. We can always offer development and not simply systems maintenance.'

> Lambeth's main problem is staff recruitment

If this sounds like an advertisement, it is. Like many London organisations, Lambeth's main problem is in staff recruitment. 'There is,' says Webb, 'a drastic shortage of systems analysts prepared to move into a permanent position. Most analysts are looking for contract positions, leaving us with a major problem.

'One of the difficulties is that we cannot really compete with private industry of the restrictions we can't offer comp or lunches for exan do what we can with and subsidised cante perhaps because of have a very low staff once we've got the pe getting them in the remains the problem

Lambeth's other are largely those t pected — 'the usual ICL, but all in all w fairly good commu channel,' Webb clai main problem is alw Some 40% of all loc ment systems are financial; and this m they are either finished or changed This year alone saw new requirements i fied Housing Ben SSP schemes, both were implemented April.

The acid test wit government instal this: 'Would you, manager in private entrusted with the installing a new system, choose IC typical answer go thing like this: 'A ago, when local go had to choose ICL, would have been "n with Wilmot's new- pany and at a time are no longer forced ICL, the answer is n to be "yes".'

Webb's answer 'A few years ago, I k know what I wo done. Today I hav experience and exp up in ICL and ID think the answer "yes".'

Kevin Townsend is journalist.

ief Ray Piggott has been 'refining' Wilmot's idea

Traderpoint opens its doors far wider

Traderpoint has a new head determined to build on changes in mood and attitude towards the marketing scheme, reports Paul Walton

The ICL Traderpoint scheme to sell more hardware through systems and software houses *will* work, according to the new man who is running it, because managing director Robb Wilmot thought it up, and *he* says that it will work.

Ray Piggott, who spent several years as a senior manager with Data General before moving to replace Traderpoint's first head at the end of last year, admits to being in the thick of it just now: 'We've won the hearts and minds — we're now trying to make it all work. But there is still room for improvement.'

He has spent the last six months or so 'refining' Wilmot's original idea: to increase third party 'added value' sales of ICL hardware, competing first of all with the minicomputer suppliers, and more recently with the microcomputer firms which sell enviable volumes of kit this way.

While he freely admits to problems — notably in selling the idea of an alternative marketing scheme to the ICL sales force — Piggott is just coming to the end of a major review of organisation and policy. The results could take ICL where few mainframe vendors have previously feared to tread.

Traderpoint is a group of four third party marketing deals. As Piggott describes it: 'First of all you have the distributorship, or a traditional original equipment manufacturer (oem) deal. Then commission, where software houses get a cut for enabling us to sell the hardware. Finally, there are two types of collaboration: migrating software — or a particular user — across to ICL; or ICL going out to buy up packages or software skills to fill a gap.'

While a great change in what Piggott calls 'mood and attitude' followed Traderpoint's introduction nearly two years ago, few people signed up and there were few sales. ICL now claims 400 dealers worldwide, with over half in the UK.

Piggott has been given the target of producing 15% of ICL's turnover — a figure of around £150 million — by 1986. He has lobbied to widen Traderpoint's remit to achieve this.

The first major change to Traderpoint came with the launch of a distinct Business 29 annexe, to specifically push sales of the flagging ME29. With ICL on record as singing the praises of the Distributed Mainframe/1 (DM/1), due next year, over a dozen of the most established ME29 software houses were offered incentives to prevent sagging sales in the meantime.

But this was just the start of something even bigger: 'Many software houses which I talked to wouldn't become Traderpoint dealers because it only included the bottom half of our range,' Piggott said.

Now ICL is on the verge of becoming the first mainframe vendor to offer its entire range third party. Traderpoint dealers might have access to 'everything from the ICL Personal Computer (PC) to the Atlas range (of IBM plug compatible mainframes)', according to Piggott.

ICL has dipped its big toe in the water by extending Traderpoint to cover any of its 2900 mainframes, for an initial 10 big software houses. With plans for a 4-5 millions of instructions processed per second dual 2988 mainframe, ICL is now selling the largest oem machines.

But Piggott warns 'overzealous software or systems houses' that the 2900s are being sold under 'controlled conditions'. The strict business plans which Traderpoint dealers sign get even tougher for 2900 and whatever else may follow. ICL is actively considering third party sale of the Atlas 10, something which will give IBM plug compatible manufacturers even more stiff competition. And the Mitel digital private automated branch exchange, which is still delayed, could eventually go third party.

Piggott said: 'I don't think that every Traderpoint dealer would want to handle every piece of hardware — but it would allow the big boys to bid for very large orders, which they can't really do now.'

Piggott's second innovation for Traderpoint will be the scaling up of software available, particularly at the top end.

Traderpoint was originally set out to push small systems

> Software at the top end will be scaled up

— from the ICL PC, the DRS microcomputer range and the Perq scientific minicomputer, to the System 25 and the ME29 low end mainframes. The ICL software house names, like Systemsolve or Telecomputing, joined up. But despite an impressive ICL Software Catalogue, few of the massive IBM-based software houses such as Management Sciences America or Westinghouse, even sniffed at ICL.

ICL could benefit from Unix or CP/M packages for Perq, DRS or the PC — but very little new software was written for the rest.

Piggott has just been to see several (unnamed) US software giants, to talk about converting both applications

and some systems software to ICL's 'single VME operating system'. He adds that ICL must realise that in the future, it will be producing the hardware and the executive software, but little else.

However, Piggott does not see ICL totally divesting its software authorship to the outside world: 'Not wholly so, since a good deal of work on packages for our prime vertical markets will be done in-house.'

These vertical markets are health, finance, central and local government, manufacturing and retail, where ICL will 'invest a good deal of its own time and money to satisfy the existing appetites of ICL users', Piggott adds.

The problems for Traderpoint began when the first ICL salesman bumped into an ICL systems house (back in the days when ICL called its collaborative deal Systems House Trading). Who should make the sale? It is a problem which Piggott is trying to come to terms with.

Piggott is preparing a sales force 'rule book'

And the problems will increase when ICL starts selling more of its range through Traderpoint, with the US software giants also hot in pursuit of a sale.

Wilmot has gone on record in *Computing* as saying that any ICL salesperson who is found to be trying to make a sale over the head of a Traderpoint dealer will be fired. Piggott confirmed that this is still the case.

Moreover, Piggott is in the process of putting together a 'rule book' for the ICL sales force, to 'fundamentally reduce the number of disputes, and to remove as much subjective feeling from the argument as possible. I would hope that Traderpoint disputes would be settled locally.'

But ICL is still running the Traderpoint 'surgeries' for aggrieved dealers, and he adds that 'the relationships are still being refined'. Some Traderpoint dealers still look to Wilmot to resolve every dispute. The problem is perennial.

In any event, Piggott claims that 'the user must come first'. He has worked with other parts of ICL to devise a new incentive plan which is aimed at steering the sales force away from possible confrontations. The new Traderpoint discount structure is aimed at making it far more attractive for dealers to bid certain — smaller — sites, than for ICL to do so. These revised discounts also prevent the drop in Traderpoint dealers' income, which could have resulted from the way the scheme was launched.

ICL doubled every dealer's discount — up to a 40% ceiling — for the first year of operation. But since sales were low during 1982, and this year's discounts depend on the level of last year's sales, ICL has upped its basic discount for 1983. But not all the way up to last year's high levels — so dealers will have to work that little bit harder this year.

And Piggott claims that ICL Traderpoint dealers have a significantly easier time of it than do oems for other suppliers: 'There's no bill back, for instance, where an oem has to refund part of the price of any unsold hardware which he has to return.'

He also thinks that ICL is now in a position to begin taking systems and software houses away from the competition — something which will be done in stages. One of ICL's first tactical moves in this campaign will be to woo the well known consultancies, which provide so much advice to the larger users.

'Robb Wilmot and Peter Bonfield (marketing director) are going to visit the big names — Price Waterhouse, Peat Marwick Mitchell, Deloitte Haskin Sells, Pactel, Arthur Andersen, and so on — to try and get ICL closer to them.

'They have a very big part to play in the industry, but most don't know that we are here. It's all part of a conscious decision to go out to meet the world,' Piggott said.

Arthur Andersen was the consultancy which suggested that Sainsbury take an IBM 4341, rather than add to the large ICL site at Blackfriars in London. ICL might keep a few big users, like Sainsbury, if it were better known to the consultants.

There is a plan to work with consultants through Traderpoint, using them as a fourth arm in marketing, and advising both systems and software houses as well as the ICL sales force. But it is early days yet.

ICL is going out to meet the world in the literal, as well as the metaphorical sense. Traderpoint is being pushed 'equally' across the UK, and in ICL's other major markets of Australia, South Africa, Scandinavia and France. It is a big hit in Italy 'where the style was right', said Piggott. And a major marketing effort to win Traderpoint dealers has just begun in West Germany, with a second lined up for North America.

Traderpoint is currently thought to contribute about a fifth of the total revenue which ICL wants from it. ICL's PC is beginning to sell in volume, despite some early delivery problems, Piggott claims. But the rest is moving slowly.

Piggott thinks that the DRS range of microcomputers is yet to come into its own. Traderpoint dealers are kept informed of product development plans where possible, 'although we can't pre-announce products to them — it's a fine line to tread, and we think we know just how fine'.

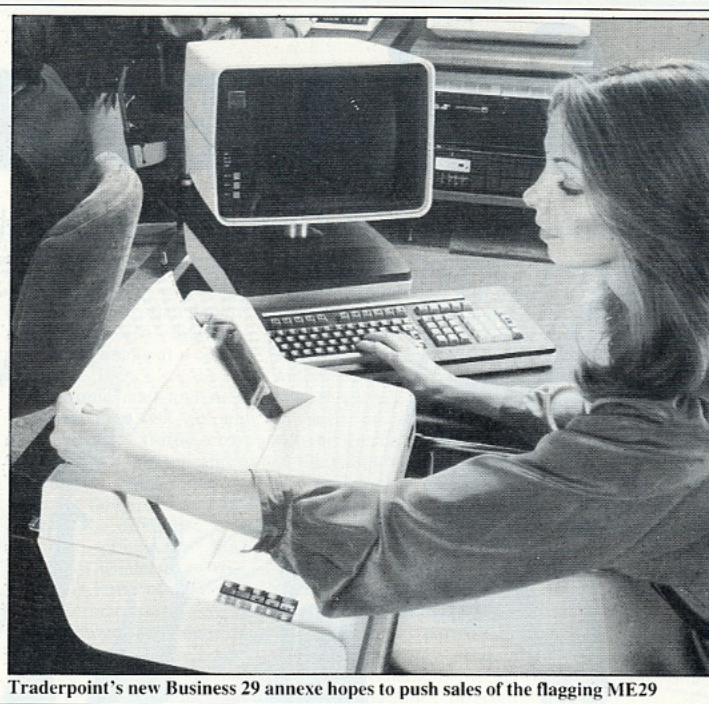
He thinks that ICL's end users will benefit from the more vigorous market which Traderpoint promises. But ICL will not 'carry the can' if a Traderpoint deal goes wrong. Piggott said that ICL would 'make all efforts to draft in a replacement firm to finish the job. But at the end of the day, we're not liable'.

Traderpoint *must* work, Piggott said. He has tuned the organisation, ironed out inconsistencies, added new features, orchestrated a new 'mood and attitude' even.

But over the next couple of years, Traderpoint will stand or fall on just one thing: the sale of more ICL hardware. Adding more machines to the deal, tempting in new software, even taming the ICL sales force will only count if the systems and software houses play ball. And that depends on a great many other things out of Piggott's control, not least the response of other suppliers equally sharpened up by the recession.

ICL has now tackled a lot of Traderpoint's 'inside' problems, which just leaves the 'outside' ones, like Digital Equipment or IBM.

Paul Walton is a freelance journalist.



Traderpoint's new Business 29 annexe hopes to push sales of the flagging ME29

Defining an integrated

ear ago ICL reviewed its office products and began to rationalise them into a coherent range.

Chris Bell

Hill: promoting the DRX networked management operating system as the key ingredient of ICL's office systems

For any organisation to invest in a sector of technology as ill-defined as office automation is a major decision. Vendors' brochures illustrate an array of systems ranging in sophistication from electronic typewriters to networks integrating data, text, graphics and speech.

Direct comparisons by the prospective purchaser are difficult: unlike the word processor market-place, there are no convenient check-lists of functionality for office systems. At the level of the dedicated word processing system, there are few major differences between products. Size of screen, speed of output, and the keyboard 'touch' provide perhaps the only discrimination.

In the case of office automation systems, the selection is between principles rather than features. Is a central data processing facility to provide word processing and electronic mail functions, for example, or will a network of intelligent work stations draw on common data storage and printing resources?

The track record of manufacturers in providing specific components of an office system — dp hardware, word processing, data communications — will inevitably influence their product strategy.

For ICL, the problem has been to co-ordinate all of those product areas into a coherent policy, then find a way of implementing this structure in the market-place. The company's current thrust into the office system market stems from an assessment of their product range and position one year ago.

> ICL had a random mix of office products

Seen in functional terms, ICL had what amounted to a random assortment of office-related products. There was the ME29 providing 'super-mini' capabilities at one extreme, while the DRS 20 series was evolving in the distributed processing environment — two systems, each with its own merits, but effectively incompatible.

ICL's 7700 information

office systems approach

David Casey talks to small systems business manager Roger Hill about ICL's objectives in this

processing system was no longer being sold as the mainstream text product. Its place had been taken by the Nexos 2200 word processor, by then resplendent in ICL livery as the DRS 8801. In the desktop micro division, the ICL implementation of the Rair Black Box was about to enter the personal computing ring.

Roger Hill, small systems business manager, outlined the task that faced the company. 'The objective was to define the upper and lower limits of office systems so that we could identify the components to be supplied directly by ICL. Standards were given the highest priority, with communications at level 7 of the ISO model as the goal.'

The preoccupation with open systems interfacing marked a radical change in policy for ICL: the company had previously concentrated on products which communicated only with each other. The 7700 information processor was the classic example. As a dedicated word processor, it provided the full range of facilities to be found in the market-place at the time. But as an intelligent work station accessing 2900 series mainframes, it integrated text with extensive sources of stored data. It had a weakness as an office system in that it isolated users in a closed environment, unable to communicate with other types of office system.

Underlying the new ICL strategy for the office systems market is the concept of 'transport facilities' — electronic mail, messaging, filing and general communications — with degrees of functionality superimposed upon them.

Within this framework, the idea of 'personal' computing is not related to the 8-bit or 16-bit desktop microcomputer, but to the facilities required by the target user of any office product.

The ICL logic which defines categories of user in this way is based on a conventional view of office roles. It assumes that the text processing demands of the executive, for example, are radically different from those of the secretary. Hill explained the company's thinking. 'We have come to realise that the richness of the person-machine interface of the word processor at the secretarial level far exceeds both the capability and the keyboard dexterity of the average manager. He does not want it, and we could never get him to use it.'

As a result, the text handling facilities provided on the DRS 20 range form only a sub-set of those on the DRS 8801. An increasing percentage of executive and professional staff are learning to use a keyboard during dp training, however. They are prepared to create text documents straight on to the machine, and require the same degree of functionality as the secretary.

There would be a case for making the DRS 8801 software available on the distributed systems and ME29 machines — a path to integration already taken by Wang. That company's word processing package for the 2200 series of mini-computers emulates the full range of facilities to be found on the Wang OIS range of office information systems.

Hill identifies one broad category of user as demanding only basic text editing features. 'It ranges from the person running the bought ledger down to the sales order processing clerk — line activities whose primary role is to process data.' Accepting Hill's analysis, their word processing requirements could perhaps be met more effectively by functions incorporated in applications programs. It is a question of economics, however: not until work station sales for senior executives outnumber those to administrative users will fully comprehensive word processing appear on DRS 20.

ICL is promoting the DRX networked management operating system as the key ingredient of its office systems. Hill's view is that it is a unique approach to managing individual functions. 'It delivers functionality today, to which we add the man-machine interface on any piece of hardware.'

> Open systems networking is a declared objective

With DRX, there is already a high degree of 'transparent' functionality. Documents can be created on a DRS 8801 word processor, then stored on a DRS 8850 file server. The same material can be picked up from the storage device by an operator at a DRS 20 terminal.

System transparency on the scale envisaged by ICL is the result of designing document architecture based on the ISO 'model'.

This move is essential if the company is to achieve its declared objective of open systems networking. The proprietory ICL Microlan local area network is currently the primary vehicle for communications between ICL work stations and file servers. The principle of switching documents between ICL systems and other types of hardware can be extended, however, through 'standard' local area networks.

Office systems making use of the high-speed Ethernet architecture are due for a stimulus when dedicated Ethernet chips bring down the cost of node processors. There will be an immediate demand to transfer documents between an ICL mass storage device and another supplier's hardware hooked onto an Ethernet node.

ICL identifies five levels at which information may have to be handled in an electronic office system. The most basic data-flow is between users in the same office. The relationships become progressively more complex as the communications extend to other offices, to other departments, between establishments and finally at a corporate level.

Electronic mail and message switching will account for much of the traffic across these communications 'boundaries'. Roger Hill divides the flow into two categories. 'The difference is in size and spontaneity. Mail requires a whole set of constraints in terms of input and output format, but messaging is what now gets sent round on scraps of paper.'

In the ICL office systems strategy, the mail/message distinction is more than academic. Messages, but not the longer mail documents, could be transmitted effectively through a user's private automatic telephone exchange (pabx). The viability of such an approach will depend on the projected use of the telephone network for conventional voice-only messages.

It is already possible to integrate high resolution graphics into an ICL office system: the company has adopted the GKS ECMA/ISO standard as part of the strategy. The only product currently available is the 32-bit Perq machine, directed primarily at the scienti ket. It would have applications at a gener agement level if the e cost could be reduced

Roger Hill expects 1985, the volume of g system production w brought the price to an able level.

But this is 1983, a cost graphics are just s tion. Companies sett out the selection of a system must judge a s on its past performan current product range ever its prospects, IC not fail the credibility

David Casey is a fr journalist.

David Kelson of ICL CUA's executive committee: 'Users do not change the policy of a supplier, but they can influence it'

Hard work on both sides of the table

The ICL CUA has proposed a revamp of its operations to improve communication between users and supplier, reports Hedley Voysey

The history of relationships between suppliers and users of complex systems is a short one. None of the industries involved in such a relationship — power stations, aircraft, processing plants, telecommunications systems and computer systems — has had an easy ride. All of these industries have grappled with complex systems for about 20 to 30 years, and both buyers and sellers are still learning about how to establish their relations.

In computing systems the problem is compounded by the rate of change of the underlying technology. A short while ago a user might have bought into the System 10 to 25 line from ICL without envisaging any further complexities, apart from using these machines on a stand alone basis. Suddenly there is an opportunity to exploit local area networking and to disperse information technology into office functions. The jump into complexity can be very swift and can easily take both supplier and user somewhat unawares.

The crucial point at issue is the greater dependency on computing that exists with the more ramified, dispersed and networked systems.

The operations of these systems keep the business ticking. The management in charge is faced with problems less hideous than those facing the management of the Three Mile Island power plant, but the tension between any supplier and user will not be much less if failure and confusion strike at the heart of the business because of defects in the operation of a 'business-life-support' system based on computers.

Business life itself forms a very wide spectrum, ranging from corporations which can adapt to new technology successfully drawing on inner resources, to small units which can do an effective job if a new product fits and is instantly comfortable to use.

Graham Purse, ICL's manager of relations for the Computer Users' Association (CUA) worldwide, says: 'The completeness that we need in order to bring a product into our now very diversified market is very great indeed. We are much more conscious of the need to have well presented knowledge available on all aspects of the product available.

'It tends to constrain us from making announcements about products until everything is available that suits a large variety of users.'

User groups are important as channels of communication about a product and where it fits and what it needs from users to enable them to benefit from it. Purse outlines the set up as 'a prime contact point between the product user groups, on a product-by-product basis, so that they get to know one another. There is an authoritative statement available as a product develops.

'All these contact points are being overhauled, partly because of the wider ranging product offerings and partly because the user groups declare a change of interest sphere.'

Purse's department has the responsibility to make the contact points work. Should problems with contacts between ICL and its users reach a point of strain, then Purse's department is a kind of court of last resort.

> Purse's department is a court of last resort

Queries apart, however, the changing pattern of information technology is bearing down on both ICL and the CUA to make the most of each other and to constantly align policies, expectations and priorities to match what is best for both sides. An identity of interests naturally exists, but it must be re-established at regular and frequent intervals.

David Kelson is chairman of ICL CUA (UK)'s executive committee and is effectively sitting in the hot seat when trouble happens.

He says: 'We have made proposals to re-structure the CUA. The idea is to do what we are doing now, but to do it better. The change in the organisation seems likely to be accepted at the end of June.

'Users do not change the policy of a supplier, but they can influence it and they can make better use of the policy if they understand it properly and fully.'

The proposed groupings do not undermine the activists who work very hard on all manner of detailed points. What is intended is that there should be a more summarised level of grouping so that there is a channel for all applications interests, all large systems interests, public sector interests and so on. The likely result will be six divisions which reflect pools of interests. The aim is to be more cost-effective on both sides of the fence in communicating positions, priorities and plans.

David Gayler of W H Smith & Son sits on the CUA group specially formed to provide a confidential channel of communication. He thinks that 'on the whole, communications are more relevant and more comprehensive than they were'.

Gayler views ICL's thrusts as being a bit obvious — 'to build on the best of the operating systems, to raise the level of resilience in systems as actually used, and to extend the distribution of functions'.

He makes the point that supplying general purpose machines is a far cry from supplying general purpose systems and, in any event, particular users need to evolve their system at a pace which does not always match the flow of functions from the supplier. This degree of mismatch is natural and inevitable, but it is important for the supplier to be aware of the reasons for users stepping outside of a particular source of supply.

> Performance evaluation is an endless user concern

Making the most of good things already within ICL is a recurrent theme among ICL users. Gayler notes that the newer forms of the Content Addressable File System (Cafs) need to be fully exploited and this points interestingly at certain developments within the field of expert systems. He also talks of 'active' criticism within the confidential framework for products emerging through test sites.

This is not a completely new way of doing things, but the discipline that is developing to refine products is encouraging.

David Stewart works within the System 25 orbit and is as gutsy in commenting about the good and bad features of the relationship. He finds for instance that 'the Service Desk is a great idea but is undermanned in terms of software support so that you are not quite as sure as you should be that ICL is going to hold your hand'.

Stewart views the new forms of the CUA as a 'good thing and a great catalyst for the future', and hopes that it will lead to more professional inputs on the trickier questions of techniques which can affect stategic policies. He is strong on the need 'to share intelligence and to keep looking at new areas such as the obvious office technology products'.

Brian Parlett of the BBC holds a brief for the classic 2900 user and is concerned to improve the flow of information about such topics as configuration planning, 'which must be a major service provided to users via the CUA as a channel where performance is a serious and measured issue, not just a vague degree of satisfaction or otherwise'. Parlett is not so happy about the tendency of ICL to retreat from openness into secrecy on points where configuration planning and other s matters are concerned

Performance evalu an endless user concer fresh thrust at the topi underway in the through a working par whirling sound behind groups is the noise of parties beavering awa activists are at the hea user groups and the IC is no exception to the

ICL's secretarial su designed to make the tation and flow of infor as adequate as is without acting as a ce views or facts. This r ship has not alway possible in the past, bu interesting reflection changes within ICL th port for user inputs is s than ever. Kelson thi matches the addiction new management te maintaining a firm po its side. He says: 'T policies offered by IC are a positive encoura to the expression views.'

The job that Purse new one and he basically because it k close to the top within gave him the scope to the user relationship. ICL had a few mom trauma a couple of yea was supported by its u very definite way. T ICL judges itself to b attuned to the lo shape of informatio nology, which is wh welcomes the propo vamping of the CUA.

In his view: 'You n activists in this job a need access to those wh and plan over the lon In some instances they same people and son they are different However, the commun needs in detail ter different from those policy realm. The new should help us say the priate things to th audiences.

'Negotiations of th are partly discipline partly a matter of im relations at the person We need to work as our side of the table users do on their side.

All the users stress growing complexity technology as it appe all the new ways to lin up and the enormous of services which co offered to end users always in ways which seem obvious to such Users always welcome help in charting strate proviso expressed was the same: that ICL seen to have an iron both the basic technol management of its aff

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Hedley Voysey is a fr journalist.

Battle for big system sales

While awaiting the first fruits of its deal with Fujitsu, ICL faces the vital task of sustaining mainframe revenue, says Paul Walton

Chris Bell

ICL chiefs Wilmot (left) and Laidlaw are looking to reduce mainframe contribution to turnover from 70% to 50% by 1984

hen it announced that Fujitsu would help make its next ion of mainframes, omised to take two rward: cheaper hard- hich would cost it less d money to build. quite separate prob- handling replacement ines for existing users, se churn', might, r, see ICL taking a k.

Wilmot, who had L's managing director e six months at the ld the world and the ition everything about d of new mainframes e would be selling as a the Fujitsu collabora- the autumn of 1981. It essential public rela- b, aimed as much at g the city, where ICL oon seek more cash, as ming the users.

e early spring of 1982, d fashioned a market- from Wilmot's state- of intent. But the y has since declined to ut just how the Fujit- Distributed Main- (DM/1) upgrade for or the Estriel replace- or its biggest seller, would be introduced *uting*, June 23).

CL spokesman said: e nothing more to say about the new main- or about base churn.' *omputing* has seen ainframe battle plan, ged in its handling of rtant base churn since ng.

is understandably e about the fine detail ainframe plans, since, *nputing* was able to arlier this year, 'ICL ng on big systems' *uting*, February 3). sly unpublished y sales figures showed L's targets were only 32% increase in large ales, with every other taking a dive.

highly likely that this could get worse, if users put off buying nent ICL mainframes now and the appear- the first fruits of the collaboration. Sales of ystems such as the w end mainframe or family might sag as ait for DM/1 and

s aware of the crucial nce of handling a transition, at least to revenue steady from rn. ICL has around talled mainframe sys- epresenting £1.5 bil- th of hardware, with er investment some- oser to the £4-5 billion hese users represent 0% of ICL's installed value.

ng aside the Atlas IBM plug compatible ture (pcm) which o got as part of the Fujitsu deal, ICL has two stated goals in handling base churn. Its mainframe systems will be greater in numbers and in sophistication, but will be easier to operate and cheaper.

ICL's plan, devised in 1982, was to reduce the contribution which mainframes make to ICL's turnover from 70% to around 50% by the time the DM/1 and Estriel come on the market. But because its hardware is getting cheaper all the time, ICL thinks that it will actually be selling more machines, not fewer, after 1984.

It is what ICL calls 'an economy of plenty', where

ICL plans to make more of its profit from 'added value'

'the software strategy is of paramount importance', the company plan states. ICL intends to make much more of its profit from 'added value'.

Sir Christophor Laidlaw, ICL's chairman, has said that, 'to use oil talk, more profits are to be made downstream these days than at the wellhead.

'We don't unbundle software earnings but lump them in with services. Although earnings under this heading have turned round sharply, I still want a lot more from software,' Laidlaw said, in the spring of 1982.

At that time, ICL was describing its strengths and weaknesses in mainframes in these terms:

- Hardware: Lag behind, catch up by 1984-1985.
- Networking: Lag behind, major thrust in progress.
- Systems: VME (operating system) architecture, major opportunity for leading position with 'operational aspects'.

The economy-of-plenty approach sees ICL preparing to sell cheaper and more sophisticated systems, as well as greater performance for the price. ICL is ahead of IBM in one respect at least: in its ability to offer massive increases in power by dualling or even quadrupling processors in a configuration.

Wilmot held out the carrot of more power straight away, as one of the incentives for existing users to upgrade machines.

A new 2988 processor was launched at the same time as the Fujitsu deal was announced, as a sweetener, and it swept away the old technology 2900 mainframes, those which would not be forward compatible to Estriel. Wilmot constantly pointed to VME-B/E, or the cut-down version of the 2900 operating system, as the single standard for all future ICL mainframes — aside from the IBM pcm Atlas range.

In a clever piece of operating system footwork, and juggling with the millions of instructions per second (mips) power ratings, Wilmot sketched out a series of upgrades and conversion routes forward to new hardware in 1984, and beyond.

But before looking at the sums which ICL did on this base churn, what does Wilmot think of his work so far?

This April, he gave a two year review of the ICL reconstruction, which was aimed, or so ICL claimed, at 'return to profit, and once again to take our rightful place as Europe's most important computer company'.

At the half-way mark, Wilmot said: 'Since we lack the resources to develop everything ourselves, we collaborate to round out our product line. And I'd point out that even IBM now follows this same approach.

'The most important collaboration is clearly Fujitsu, because it allows us at one and the same time to intercept the best mainframe vlsi chip technology in the world, while shifting development investment to distributed office systems.

'The DM/1 and Estriel programs are on track, and we have tremendously motivated teams in Manchester and Tokyo.'

ICL managed to put a price on both models of the DM/1 — although only one model might appear in 1984 — and on Estriel, over a year ago, because Fujitsu has already built the basic chip sets for both machines. ICL is now working furiously on integrating these chips with the existing ME29 and 2966 shells.

The system cost of a smaller DM/1 is likely to be £110,000, with a much bigger version costing £270,000. But both of these machines shave half of the price off the ME29 which they replace. The system cost of an Estriel is likely to be £900,000, which, depending on the power rating of the machine, knocks between a half and a third off the price of a 2966 or 2988.

ICL internally calls these 'nodes', rather than processors, since several are intended to be sold to a single site, with networking and high speed fibre optic communication between the mainframes. DM/1 is what Wilmot has christened 'the first office mainframe — about the same size as a normal filing cabinet'. Estriel will probably be sold in multiprocessor configurations, for the dp department.

What is surprising about ICL's own sales figures for hardware sales is that they are expected to yield the same lifetime turnover as the current installed base.

In fact, ICL wants to achieve the same revenue for some 8,000 mainframes sold by, say, the end of the decade as it achieved for the 4,200 mainframes now installed since the mid-1970s.

So profits have increasingly got to be found in system and applications software. And ICL is planning for this.

The added value to ICL, its profit, will come from selling transparent or open

The Fujistu deal will cut some systems costs by half

systems, where any alien machine may be working together with an ICL machine. It will come, too, from very high levels of reliability — first pioneered to great effect by Tandem — and safe systems where 100 different jobs all co-exist on the same system, but never crash.

In short, ICL could well end up charging for much of this sophisticated operating software, and use the Traderpoint relationship with system and software houses to provide the applications.

ICL spent 10 years and tens of millions of pounds developing its VME operating system. It could be said to be the only major difference between ICL and any other supplier of mainframes. ICL is moving towards a situation where base churn is VME, but it will not totally replace the importance of hardware to turnover in this decade.

The first major reduction in hardware costs which ICL will get from the Fujitsu deal will cut systems costs roughly in half, assuming that software, services, disk store and the rest stay at current levels.

What users will see is much more ICL kit, albeit smaller and faster. A typical site could take a couple of Estriels for the data processing department, with up to 15 DM/1 nodes around the organisation, acting as a distributed super minicomputer.

ICL is dedicating a team of over 200 salesmen to its key accounts, to sell this kit and to help with the installation of the sophisticated systems which it will run. But that will leave nearly 2,000 ICL users without a couple of dedicated ICL salesmen. The existing sales force and third party systems and software houses are expected to mop up this business.

While ICL can always be assured of keeping most of its loyal users, its base churn will become increasingly difficult to handle. The next two years are crucial if ICL is not to lose existing users.

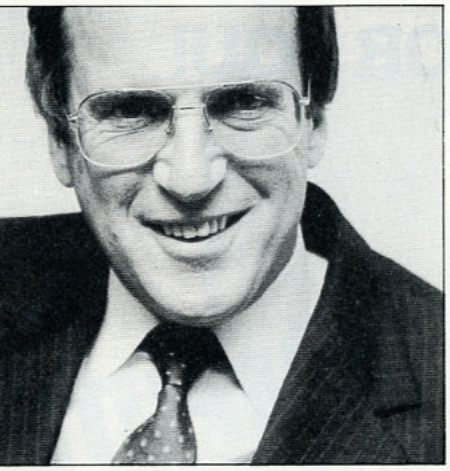
The company is still strapped for cash, and the myriad other systems which Robb Wilmot bought in are not contributing enough to turnover, let alone profit. ICL needs to keep the base churn going to provide the cash it so badly needs to manage two steps forward.

Paul Walton is a freelance journalist.

Features of the ICL Estriel

- Central mainframe application
- 7 mips single processor
- Most up-to-date technology
  —Fujitsu ECL for order code processor/MUX/MCU
  —Fujitsu complementary metal oxide semiconductor for input output control/store
- Single cabinet mainframe (node)
- Aircooled
- 800 systems over 5 years
- VME/2900
- 1900 emulation via CME*/George 3
- Fully microcoded
- High integrity design system (uses best of Fujitsu/ICL design architecture)
  —to minimise design faults and development timescales
  —to maximise design quality and designer productivity
  —permits fast production ramp-up
  —allows later use of fast, denser chips
- High reliability (intrinsic and perceived + 'continuous' operation)
- Good fault resolution
- Controlled manufacturing and field strategies
- Telediagnosis

Fighting the natives for



Richmond heads the new 'North America' division

ICL's US operation was restructured this year in its attempt to re-establish a customer base. Lorraine King assesses its strategies for penetrating the US market-place

The computer industry is seen in the US as the exclusive territory of its own indigenous companies and, with reluctance, of the Japanese. European companies, particularly those which appear to enjoy special support from their governments, have always been regarded as less than serious competition, so it is not surprising that ICL's efforts to profit in the US have met with little success since its first entry in 1970.

Takeover of Singer International Business Machines in 1976 and of Singer's US marketing rights in 1978 gave ICL a substantial US customer base from which it has launched previous sales campaigns to dent the dominance of native manufacturers, primarily using ME29 and 7700 ranges.

But ICL Inc had little success in gaining new customers to buy British labels, or in retaining its Singer base.

The latest campaign began in earnest about a year ago when ICL's corporate marketing decided that the DRS and System 25 products were capable of achieving substantial sales to the major US corporations. In a flurry of activity between the UK and the US, the former senior management of ICL left and were replaced by a 'caretaker government' from the UK. When ICL's only base west of the Rockies was sold to a distributor, national confidence in the company's continuing presence in the US declined and UK management had to offer prospective customers guarantees of contracts effectively signed with ICL plc.

Early this year ICL's international marketing operations were restructured, leaving the former territories of Canada, the US, and the Caribbean and South America as one division, 'North America'. Randy Richmond, an American new to ICL, was announced as director of the division and also president of ICL Inc.

A further restructuring of marketing functions within North America has established a new divisional headquarters at Stamford, Connecticut, which has also become the head office of ICL itself.

'As yet it is undecided what will happen to the former sites at Dallas, East Brunswick and Manhattan, but an ICL presence will remain,' says Tony Florence, marketing manager of North America Division. 'Some staff will obviously go, but by the end of the year we anticipate the head count will be the same as it was.'

ICL has announced that it plans to market the DM/1, the replacement for its medium range systems, in the US around the end of 1984. In the interim ICL Inc 'will aggressively sell the ME29,' says Florence.

The System 25 range is being marketed to those major retail corporations which operate predominantly in the sunbelt and the north-west regions of the US. Retail marketing will continue to be controlled from the Dallas area under the management of Ron Kyiohiro, largely in order to hold together the local team, who have become a corporate authority on the facilities and operation of 'Handi', ICL's home and improvements application package.

'Handi' is an American package originally written for the System 10. Considerable effort has already been made in England to enhance its facilities to a level exceeding any of its US competitors and to convert it to the System 25.

A new point-of-sale front end for the US market had to be built in the US, using a Cyberdata terminal, but the long-term future of this solution worldwide has not been decided. Florence anticipates that conversion work should be completed 'by the end of the ICL financial year' (September 30). Some prospective US customers, such as Scottys of Fort Lauderdale, Florida, have been tempted to run trials of the package in its System 10 version. Others who were initially projected as this year's business have been hanging back, partly to let someone else make that first commitment, partly to see if the promised recovery of the US economy this summer will actually take place.

ICL's old Singer System 10 and 1500 base does not present an easy target to upgrade to the replacement System 25 range. Many of these old systems use software which has not been upgraded for many years, making conversion as tortuous a path as a total change to a different manufacturer. In any case, ICL's desperate need to make its smaller equipment ranges profitable dictates that it concentrate its limited manpower and field presence in the US only on major prospects which would result in the sale of multiple System 25s.

For this reason it is also targeting the DRS range at major government buyers and corporations who would use it as a terminal network serving a large central mainframe.

> Retail will not necessarily remain the major area

The DRS is manufactured at ICL's Utica plant in upper New York state. Anxiety to ensure the future of the plant, which is a major employer in a depressed area, was undoubtedly a factor in persuading local government officials to buy the terminal system for data entry of social security records.

The same consideration, and a wish to follow suit, may have influenced New York Telephone, which also uses the DRS for data entry.

ICL hopes that these initial sales will succeed and encourage other institutions, such as the State of California at Sacramento, to place substantial orders. 'The policy is to exploit the network product line by surrounding mainframe installations, particularly DSM,' says Florence. 'If all goes well, retail will not

a US foothold

necessarily remain the major area in the US.'

The downgrading of retail to a position of equal, if not lesser, importance to the DRS range is a very recent change of market focus at ICL and one which is not supported by some market analysts' views.

Dale Kutnick of the Yankee Group says: 'The DRS is just another minicomputer — so what? Its network capability is no big deal. The US is overrun with minicomputers and we're not predicting they'll have such a good year. ICL will never dent the US market with minicomputers. It's going to have a very hard time getting in at all.'

Frederick Withington of Arthur D Little is also unimpressed by ICL's small systems. 'The majority of ICL's small revenue base is in the UK and it has been slow to keep up with the pace of modern technology.'

Withington is also unhappy that ICL has taken on some smaller ailing British manufacturers, 'which has left it with several incompatible products of doubtful value'. He is impressed by the Fujitsu deal, which 'could lead to excellent future products at the larger end.

'ICL could be expanded in the States, but it cannot do much until its new larger products are available. Its smaller products are unlikely to show because there is too much good competition.'

But ICL is unable to market Fujitsu products in the US because of possible conflicts with Fujitsu's existing outlets in the market-place, such as its large investment in Amdahl. Similar marketing restrictions prevent it from selling the Mitel-based DNX product and the 'Three Rivers' originated graphics terminal. It also has 'no intention of marketing the DAP (distributed array processor) because of local support problems,' says Florence.

> 'The DRS is just another minicomputer'

ICL does intend to market Cafs (Content Addressable Filestore) in about 18 months' time, together with the DM/1 range. Florence states: 'We are working on Cafs to interface with IBM. The ISP version of Cafs better allows us to develop this interface.'

Withington regards Cafs as 'innovative technology' and Kutnick goes further when he states that 'Cafs is the only way ICL is going to get an entry into the US. It should get Cafs to sit between the micro and mainframe, to act as a tight link between the mainframe and the IBM PC.'

Kutnick sees Cafs as an essential element of office automation and one which could give ICL 'the potential to grab a niche in the US office automation market. But it needs to develop a good work station.' ICL's original DRS work station for office automation, the Logica-based 8800, could not be sold in the US because of failure to pass national emission regulations. A new product has now been announced, but is not yet planned for release in the US.

ICL believes it has at last got the right products for the US market-place. It has not finally decided which vertical markets to concentrate on. 'But we will not hit everything that moves,' says Florence.

'Very large corporations will be targeted. We are establishing marketing, software and support agreements with third party organisations and will run the lot very much like Traderpoint in the UK.'

Kutnick believes ICL 'may get original equipment manufacture deals, but not users — at least, very few. To get customers, you've got to have a support structure in place. To get the support structure in place, you've got to have revenue. It's Catch 22. And ICL can't market.'

Lorraine King is a freelance journalist.

Kutnick: unimpressed

ley Voysey examines ICL's prospects as a credible contender in the lucrative IBM market-place

Strategies for an IBM connection

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framework to us for pushing standards along in a sensible fashion.' ECMA has an unusual reputation in the standards field. It has been known to arrive at a standard in time for it to be relevant. That makes it rather special.

In the context of what ICL is up to in the IBM surround, ECMA's role is especially interesting in the field of message handling systems.

The ECMA intention is to prepare a total message handling system for use as a standard almost as soon as the ink is dry on the telecommunications aspects of the support services for such tasks. While the telecommunications people are mostly concerned with telematics products, the ECMA forces are aiming at complete software products for dealing with the internals of documents and the presentation of documents in the widest sense.

Ward confirms that 'among other standards in this field the Graphics Kernel Standard (GKS) is probably important because it exists and can be used'.

This attitude is a more formidable one within Europe, as the West Germans have made significant strides forwards using the GKS as the basis for many office presentation features.

The evolving ICL systems for the office, due to be released this year in a more comprehensive form, are under test within ICL itself as well as being widely discussed among its users.

However, the continental market for these products will simply not emerge unless the standards field keeps up the pace of its efforts. There are good reasons for believing that the pace can be maintained and that Europe, in particular, will move into the '80s by the time the calendar shows that the mid-'80s are here.

The standards field must keep up its efforts

Meanwhile, the ICL training machine is attempting to pass whole platoons of staff through the baptism into SNA and is incorporating SNA competence into its products as it goes. For special customers there are additional sources of SNA configuration management to draw on, such as the Network Technology people, and this linkage is examined for use where appropriate. But the preferred way is to build the adaptability into product redesigns, since this is done to be competitive anyway.

ICL's Terry Ward: 'We are stressing the networked aspect of all that we do'

The activity of software houses is centred on the IBM market and this forms a catchment area for the ICL policy in its relationship to the IBM market-place. Although ICL is still a company driven by technology factors it is offering a service to other service firms in its drive to locate and peg down the end user.

Indeed, the ICL policy of trapping onward sellers into dealing with it is only credible because of the IBM surround policy and the general drift via DRS to local area networks, admittedly currently running at the modest rate of about 3 megabits per second.

But higher and higher rates of connection, combined with linkages to all manner of private branch exchanges, will foster the image of ICL as a network-based supplier of general information handling technology.

Ward stresses that the Mitel agreement relates most pertinently to rather grand overall plans and emphasises that there is no intention of ICL trying to cold shoulder any other brand of telephone and digital switch.

He is sure that ICL has the close attention of firms in the retailing sector of life as well as of administrative types trying to edge into useful combinations of text and data automation.

There was not much mention of the factory automation side of things, but most of the buzz in this sphere seems to be specialised in the UK.

The product marketing side of ICL recognises that the IBM-using industry has become a 'major industry in its own right'. So at present much of the ICL emphasis, according to Judith Thompson of ICL's product group for the IBM surround, rests in 'establishing the credibility to handle strategic plans based on the practices of the IBM-using market'.

IBM users are a 'major industry' in their own right

She is sure that the response elicited so far from the market-place is encouraging in that ICL is being evaluated afresh as a systems source in this type of problem-solving and policy implementation.

It is difficult to untangle the special situations of major sites in the UK, where the fresh approach by ICL must be especially welcome to the more vanilla-flavoured chunks of the general IBM-using market. In this area there is not too much belief that IBM understands what is best for supporting policy needs, which are often geared to user expectations that no supplier is able to fulfil — at least, not with any great certainty.

The Content Addressable File Store (Cafs) keeps cropping up when conversations are held throughout the UK's computing community, although this is not the case on the continent. However, Ward confirms that this is exactly the sort of technology stimulus that warrants users paying attention to ICL, even if they basically view the world from an IBM supplied podium.

If the price can be fixed at some appropriate level, the contours of SNA look like a positive encouragement to dot Cafs-based products about the network, simply to stop it blocking up with traffic to and from its host computer elements.

This is part of the contradiction involved in the basic design of SNA. At first sight it looks like an incentive to leave the outer fringes of the network somewhat devoid of independent competence. This happens because so much is made dependent on functions which are placed 'upstream' of terminals.

However, when the opportunities for cluster management are examined in depth, it is clear that the network is likely to improve in overall performance if end users have access to local processing power, while the controllers look after events which must flow through the network — of which there are many.

While ICL ponders its opportunities, it also works with its IBM 4300 and sets out to chart a technically sound course for the IBM-using market.

When ICL started to talk about the IBM surround it created a flurry of jokes, of which the most typical, perhaps, ran: 'Why not pay a tax to IBM for a benefit blocked by ICL?' But the image of getting the worst of both worlds is rapidly fading.

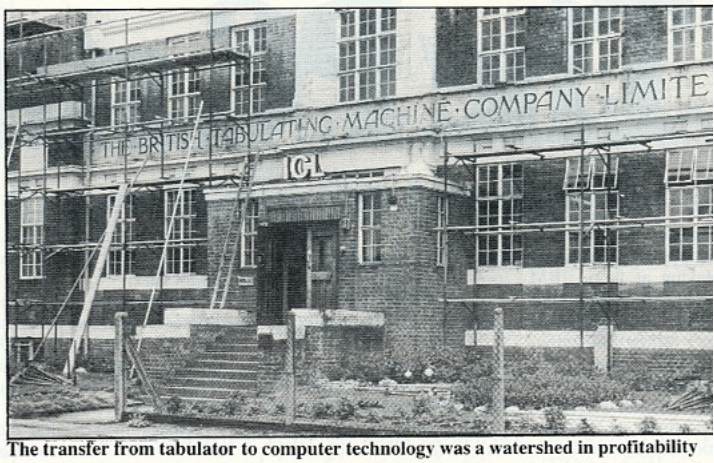
British Telecom will supply many of the main big computer links between multi-machine IBM centres, or IBM compatible machine centres, and its Megastream service may well have a management component as time goes on.

The way this management is arranged and exactly what is done via such added services is important to the future health of ICL in serving the IBM surround market — in the UK. On the continent the battle for credibility will depend on other alliances.

Hedley Voysey is a freelance journalist.

Breaking out of the old boom and slump cycle

Can ICL management find waves of products to help it ride clear of a crisis? asks Richard Sharpe



The transfer from tabulator to computer technology was a watershed in profitability

Spectacular though the management of ICL's recovery has been, the most difficult job for ICL's chairman and managing director is only just beginning.

Successive waves of top management have put together recovery plans, and all, with various levels of government assistance and success, have pulled the company through, in one form or another.

The job now facing Sir Christophor Laidlaw and Robb Wilmot is to build a strategy releasing ICL, once and for all, from the cycle of boom and slump which has been its history from the 1950s.

The crash of 1981 is only the latest, but most severe, of the slumps experienced by ICL and its predecessors.

This cycle of boom and slump is not entirely dependent on the general business cycles of the UK economy since 1950. The UK economy has experienced seven troughs since 1950. ICL's profitability was at a trough in four of the seven times. In three of the others, ICL's profitability was either climbing or at a peak and ready to fall.

> Managers who ignore the cycle may be crucified by it

When the end of the life of a main line of ICL products does coincide with the business cycle, the results are dramatically clear.

Indeed, the whole computer age for British Tabulating Machines, as it was called until 1959, started off badly. Its first computer, the 1201, was launched in 1957 to be followed by a decline in profitability of some 16 percentage points as the old tabulator business evaporated in the face of the computer age.

The launch of the 1900 range of mainframes, ICL's staple diet before the 2900 launch, was also followed by a similar dip, but this time, in 1964, from a much lower base. The 2900 launch in 1974 fuelled a three year profitability expansion, only to be followed by the collapse in 1981.

This analysis of ICL's economic history points to the fact that the company is on a cycle of boom and slump, that the transfer from tabulator technology to computer technology was a watershed in profitability and that managers who ignore the cycle may be crucified by it.

Philip Chappell and Christopher Wilson, Laidlaw's and Wilmot's predecessors, suffered this fate. Bolstered by the profits from the 2900 series and reaping the rewards of the Singer takeover, Chappell and Wilson presided over the most profitable time ICL has had as a computer supplier, only to lose their jobs because of the most severe slump.

They could not be blamed for the state of the UK economy, which hit a trough in 1981, but they could be blamed — and were — for ignoring the cycle of economic history.

Just how that cycle works can best be explained when looking at the introduction of a new product range, the 2900s, in the early 1970s.

The old product line must be kept alive in the face of competition and the general economic climate for the research and development (r and d) of the new line to be completed. A sudden dip in the orders for the old product prompts a raid on reserves because the r and d into new products must carry on. In fact, the pace of development, and therefore its costs, should be increased to get the new product out into the market and earning cash as soon as possible.

This transition is never easy, but once accomplished, a few years of relative growth are almost guaranteed. The new product earns more cash, which can be used to develop the new wave.

Laidlaw and Wilmot are in such a position now. They have the added advantage of moving the company away from a strategy based only on mainframes.

Laidlaw told *Computing*: 'We have the advantage of taking a major move away from just a mainframe strategy. By its very nature the business is moving away from the data processing manager.'

Wilmot constantly emphasises the point that ICL is now going after distributed computing business with the office as the single biggest element in that. 'Office systems will be a different wave, even a counter cyclical wave', he said.

Neither of them would say categorically that their strategy had taken ICL off the wheel. Only IBM seems to have achieved that, with such a broad product range that successive waves of products pull in the cash for the underlying r and d as well as manufacturing investment.

Digital Equipment (DEC), which looked set on a similar course of avoiding the cycle, had its wings clipped in late 1982 when orders for the PDP11 range fell off sharply, dropping its profit levels and scaring the industry.

In DEC's case a bit of budget trimming and a short term salary increase freeze will probably be enough to get the company back on track. In ICL's case the remedy has to be far sterner.

The prospects are, then, for three or four years of profitability growth at ICL followed by another bout of crisis. But the history may not teach us enough t stand the complex in of economics and th ter industry. On t Laidlaw and Wilm have engineered a which will take ICL DEC and IBM leag

Richard Sharpe is Computing.

The PC stays on course

L is now producing 1,000 Personal Computers a month and selling them as fast as it can make them.

nose who see ICL as a bunch of Britishers playing at being IBM only have had their ices reinforced by the ny's rather unimagina- noice of name for its al computer.

ICL Personal Compu- certainly an accurate otion of the beast, but as ighty US giant had y kidnapped the term to 'PC' virtually a brand ICL might have shown ependence by taking a ck.

nes apart, the ICL g — now well into its l year — has carved out remunerative niche for itself, and the launch last February of a new and more powerful range has seen both manufacturing volumes and sales increase dramatically.

'Currently we're turning out 1,000 machines a month from our Kidsgrove plant, and they're being snapped up just as fast as we can make them,' says Mike Warwick, ICL's marketing manager for the Personal Computer. 'The Traderpoint third party marketing scheme has now matured and simply sucks in products.

'Now we can confidently predict total sales of £50 million worldwide for the ICL PC for our next financial year beginning September 1983 — up from £20 million for the current year.'

The rise in manufacturing volumes is even more dramatic. ICL shifted only 2,000 units during the PC's first year — two months' worth at the present level of business.

Traderpoint is a vital element in the PC's success. Virtually all ICL PCs are sold through the scheme, which was set up early last year to capitalise on the advantages of third party dealers.

Although ICL's sales volumes may not seem very high compared with others in the very high volume micro market, Warwick claims this is a reflection of a deliberate policy to keep the ICL PC 'upmarket'.

'We chose not to go for very high volumes in what I call the "twin floppy" market,' he explains. 'IBM, Apple and Sirius are beating one another's brains out in the single user area, so we wanted to steer well clear of it by opting for higher value machines with lower volume sales.'

In fact, the typical ICL PC system costs the user about £4,000, which provides a basic 64K bytes of memory with 5 megabytes of hard disk storage and multiple vdus. And if the user wants an entry level system or 'twin floppy', to use Warwick's term, he claims that ICL can give a better deal: £2,350 for a system whose IBM equivalent will cost £2,800.

The kinds of user ICL is interested in are serious professional and business users — estate agents, solicitors, and the larger end of the small business market. 'We're simply not in the market for hobby computers, scientific machines and personal micros for use at home,' says Warwick.

'For us the key to sales will increasingly be vertical marketing,' he adds. 'End users see personal computers in a confused light, so we must offer more and more complete hardware/software solutions specifically designed for specialised professions and businesses.'

To this end, ICL has been attaching increasing importance to developing its applications software and endorsing specific applications on offer in the ICL Software Catalogue.

The latest move in this direction is the signing of a deal with the software house Holland Automation, the first fruit of which is Hi-Line, designed as a comprehensive set of business and financial programs for the new range of PC.

Covering all the usual ledgers, together with modules to handle stock control, invoicing, sales analysis and bill of materials, Hi-Line is supported by both ICL and Holland Automation. It is available in all the main European languages and is therefore claimed by ICL as 'one of the very few truly international microcomputer business systems'.

Further ICL-supported software due 'very shortly' includes MicroSafes, a production control package which will operate under the MPSL-BOS operating system, and software aimed at the retail point-of-sale market. More esoteric systems include a package specifically for video stores, which was originally developed in Australia.

ICL's high visibility has helped PC sales

Among the users who have already tried Hi-Line is Peter Richardson, finance director with Amari World Steel, which deals in bulk stainless steel.

'We've had our PC for only nine or 10 weeks and using Hi-Line we've already managed to transfer all our accounts onto the machine. In fact, that's the accounts for six separate companies within the group, and I've already managed to produce final figures for some of them using the system,' he says.

Prior to its acquisition of the ICL PC, Amari operated a completely manual system. Richardson's only other experience of computer usage was 10 years ago, using another British machine, the now defunct Molecular 18 from BCL.

Richardson came to the ICL PC via a consultancy, Infologistix. Some years ago he asked them to recommend a machine which would be suitable for an integrated business system to handle both his accounts and stock control.

Infologistix came up with the Rair Black Box, but further investigation convinced Richardson that this machine and the software which would be needed could not provide a cost-effective solution to his problems, and he shelved the idea.

Last November, however, Richardson decided he would split the applications and seek a solution to accounting problems alone for the time being. By this time, of course, ICL had signed a collaborative agreement with Rair allowing it to manufacture and market the Black Box as the ICL Personal Computer.

Infologistix now recommended the PC, and the added software available, combined with the 'clout' of ICL as a very established computer supplier, swung the

upmarket

Myles Hewitt investigates the PC's track record

decision for Richardson.

He has no complaints about his dual work station system and is planning to add stock control, again using Holland Automation software, in the near future. He also uses the word processing package Lexicom from Microtrend, one of the wide range of packages running under CP/M for the PC listed in the ICL Software Catalogue.

John Ross of Braintree-based Infologistix says he recommended the ICL PC because it offers very good value for money for a business which requires hard disk storage in small amounts.

'The ICL PC is still cheaper than most when it comes to hard disks, and I recommend hard disk systems to most business users because of their speed and reliability advantages,' says Ross. 'I would only recommend a floppy-based system where a user really did want to cut corners in terms of price.

'I am also impressed with ICL's multi-user capabilities, although I'm sceptical about it once it goes over four users. But as a two or three user system, it performs very well.'

Amari's case provides some evidence that ICL's high public visibility as a long established computer supplier can help it gain sales.

'It's clear that many users chose ICL because of a predisposition in favour of the large computer manufacturers,' explains Roger Leach of Patrick and Leach, a microcomputer dealer selling the ICL PC under the Traderpoint scheme. 'Although those in the computer industry are very familiar with names like Commodore or Apple, many lay people know very little about them and feel more comfortable with a bigger and longer established supplier.

'In fact, one of the main reasons we chose to sell the ICL PC was the fact that we could exploit ICL's large customer base.

'We're also impressed with ICL's marketing strategy. It seems to have succeeded in "squaring the circle", understanding the need to market the PC through third party dealers like ourselves, while providing us with links to the direct sales force handling the higher level systems, such as the DRS range.'

> 16-bit upgrade kits will shortly be available

DRS is ICL's range of distributed intelligence systems, and the fact that this is also available through Traderpoint dealers is another piece of bait to entice dealers into ICL's bed.

Leach also says that the fact that the ICL PC is a version of the Rair Black Box is another point in ICL's favour since it allows them to offer a 'proven piece of equipment which has been on the market for a number of years' for which a very wide range of standard applications is available.

But the fact that the hardware is well established has also led to criticism from the 'state-of-the-art' enthusiasts that as an 8-bit machine the ICL PC is a little 'old hat' in comparison with 16-bit offerings such as the IBM PC and the Sirius.

Warwick rejects this as insignificant in terms of making sales, claiming that the ICL PC will run applications four or five times faster than the comparable systems offered by IBM, DEC and Victor, which supplies the Sirius.

Even so, ICL is keeping itself covered by offering 16-bit upgrade kits from September or October, moving into volume production of 16-bit systems from November, initially running under CP/M-86 and MP/M-86.

For most users, however, arguments over the respective virtues of 8- or 16-bit systems are irrelevant. 'The users are interested in complete ready-to-use systems which match their business requirements,' says Leach.

'At the moment most applications software is available for 8-bit machines. But it's a "chicken and egg" situation, and the presence of 16-bit systems will lead to more applications being written for them. And ICL's 16-bit upgrade kits and systems will allow us to take advantage of that market.'

Richardson puts the user's point of view more succinctly: 'Whether a system's 8- or 16-bit is totally irrelevant — the ICL PC did the job, and that's why we bought it.'

Myles Hewitt is a freelance journalist.

PC volumes and sales rose dramatically this year

A flexible micro system

Early criticisms of ICL's DRS 20 family of multiple microcomputers have been laid to rest, the company believes, and the range has become its fastest growing source of sales. Paul Walton looks at the range's apabilities and specifications and suggests some of the question marks that still hang over its future

The fastest growing sales for ICL now come from the DRS 20 family of multiple microcomputers, with one major systems house likening the machine to the distributed processing engines with which Digital Equipment (DEC) and Data General (DG) virtually created new markets.

Over 50,000 of the diverse DRS 20 range have now been sold, according to Roger Hill, head of the marketing and product development team which is trying to carve out new markets for ICL.

Early criticisms of DRS 20's potential have been laid to rest, Hill reckons. He believes that the machine's concept gives it far wider application than merely being a replacement for ICL's old 1500 series intelligent terminals.

'We believe that we are not only selling to existing users of our own equipment, but breaking new ground into what may be called "office systems", and also into the traditional areas of distributed data processing.

'We would estimate that around a quarter of the present units being shipped are shipped into non-ICL accounts or new business areas,' Hill said.

Russ Austin, sales manager of one of the largest DRS 20 systems houses, Team Computer Services of Leicester, believes that the machine can take on 'DEC, DG, Systime, most of those distributed processing firms'.

Team is a dedicated DRS 20 applications software producer, something which was badly needed. Austin claims that he has sold DRS 20 configurations into 'almost every kind of site you could imagine, with the potential to run almost any application'.

So what is DRS 20? A multi micro?

Hill defines what he describes as this 'unique product' as having 'specifically designed processor architecture with specifically designed processors dedicated to filing, communications, work station management and application processing'.

These so-called function processors are Intel 8085 8-bit chips at present, although Hill adds that special DRS 20s can be 16-bit (by using the Intel 8086).

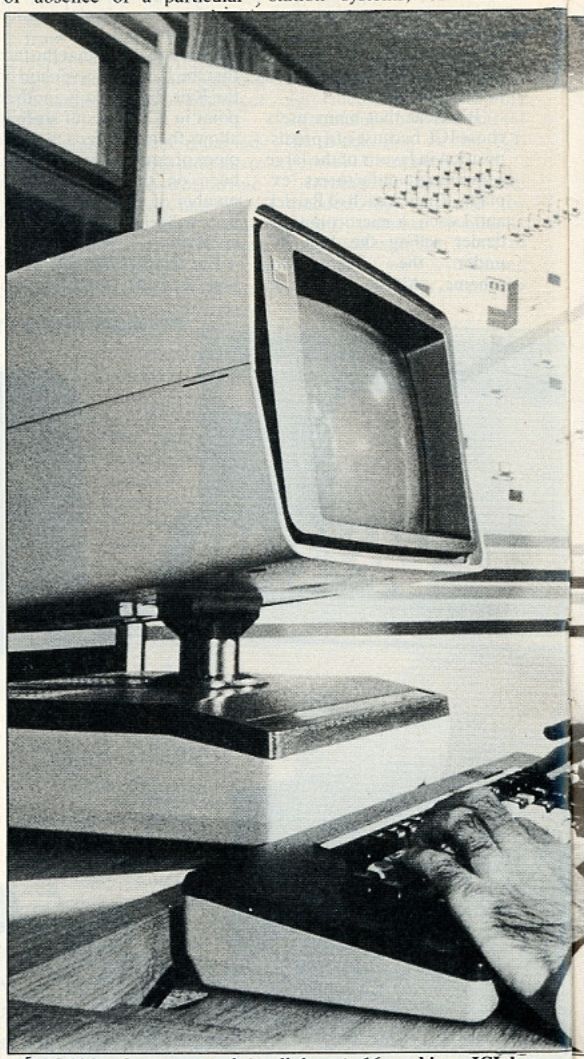
Function processors which can be easily swopped are the basis for DRS's upgrade potential, with the added flexibility of mixing-and-matching in which function processors are used, or extended. Different DRS 20 models refer to the presence or absence of a particular function processor.

But Hill adds that DRS 20 is more than just the hardware or its architecture: 'Its distributed operating system, DRX, is equally sophisticated — supporting virtual filing and applications across local area networks, concurrent communications to multiple information sources, information servers and a high resilience to underlying technological changes resulting from the use of 8- and 16-bit micros in each work station.'

In other words, the DRX operating system pulls each of the function processors together in a collaborating network, communicating via a high speed link inside each DRS 20, or via a local or wider area network on the outside.

A DRS 20 local area network can link up to 16 machines, and Hill added that ICL has several hundred of these installed and working.

Austin said that Team does not sell DRS 20 as a micro, but rather as 'a series of micros, or networked system'. He added that the product is 'not unique, so much as unusual, being similar in concept at least to a number of networked cable and plug in work station systems, of which



A DRS 20 local area network can link up to 16 machines. ICL has

becomes ICL mainstay

Wang's Wangnet is probably the leading example'.

ICL will make DRS 20 capable of connection to the rest of its range by way of the so-called Open Systems local area network, or Osilan. It recently opened up fast access to its mainframes, but Osilan is still at the test stage, and there is currently no firm policy about who will be selling this all important connectivity.

Austin said that while Osilan — really a series of communications protocols — is in the ICL price book, and is being sold on test by the sales force, no systems house that he knows has bought one or sold it on yet.

'There aren't a great deal of comms protocols around yet for DRS 20, but I expect that they will be developed in the not too distant future. We wouldn't write all our own, but buy them off the shelf, to match the competitive situation,' he said.

Hill said that ICL's prime aim with DRS 20 is for 'a major push into the integrated office systems market, of which the DRS 8850 document storage system is a part'. ICL will need systems houses like Team very badly to do more than just turn over the existing ICL user base.

Hill claimed that he was very pleased with the way DRS 20 sales were going 'inasmuch as our forecast achievement for our present year is in the order of a two-fold increase over the business achieved (last year)'. But according to a detailed breakdown of ICL sales figures revealed earlier this year (*Computing*, February 3), some of its distributed systems must be doing badly.

Distributed processing was nearly 18% down on budget, for ICL's first quarter of this year, with break-even hanging on success of ICL's mainframe sales.

If the DRS 20 range is doing so well, the System 25 or ME29 systems must be sagging.

Austin said that ICL has fulfilled all the promises which it made for DRS 20, in the space of 18 months. But money to fund additional development must be running short, as the System 25 is given a tactical boost, and ME29 also eats up cash with the development of its Distributed Mainframe/1 successor.

If ICL sales now hang on mainframes, in a year's time they could equally hang on the success or failure of DRS 20.

Austin said: 'We are very happy with DRS 20's release six of the DRX operating system. ICL has fulfilled all the promises, and from now on it will be adding enhancements and more utilities, we hope.'

But there are still some significant questions which ICL has not yet answered. They relate to the fine tuning of what appears to be a winning idea, to maximise sales.

ICL's own library of utilities and applications for DRS 20 is still pitifully small, a point which Team has raised with Hill. He said that the product will be developed continually, but he gave no details of how, or when.

Hill stated: 'ICL has released application packages which cover new business application areas to handle payroll, personnel management, business planning, budget planning together with a program generator package.' And of course people will always want more.

The DRX operating system can run CP/M applications by taking control of that operating system, but there are no plans to add what is fast becoming the distributed processing world's *de facto* operating system — Unix. Hill would not comment on plans to add the CP/M multiprocessor competitor, MSDOS, to DRS 20 either.

And the overlap in power, capacity and application of DRS 20 systems and System 25 is still unclear.

But Hill does not agree: 'ICL does not believe that there is a function overlap between DRS and System 25.

'The System 25 is clearly targeted and packaged as a complete business solution. The DRS 20 product is targeted specifically at departmental level, to support management in its need for increased information.

'The flexibility of the DRS 20 enables the product to be used as a working tool by not only the casual user, but also the professional,' he said.

And of course, DRS begin as a one termina for under £3,000 — so System 25 could neve

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Hill said: 'There redundancy built ir system which would date its use for an in period, the architectu sympathetic to techn change.'

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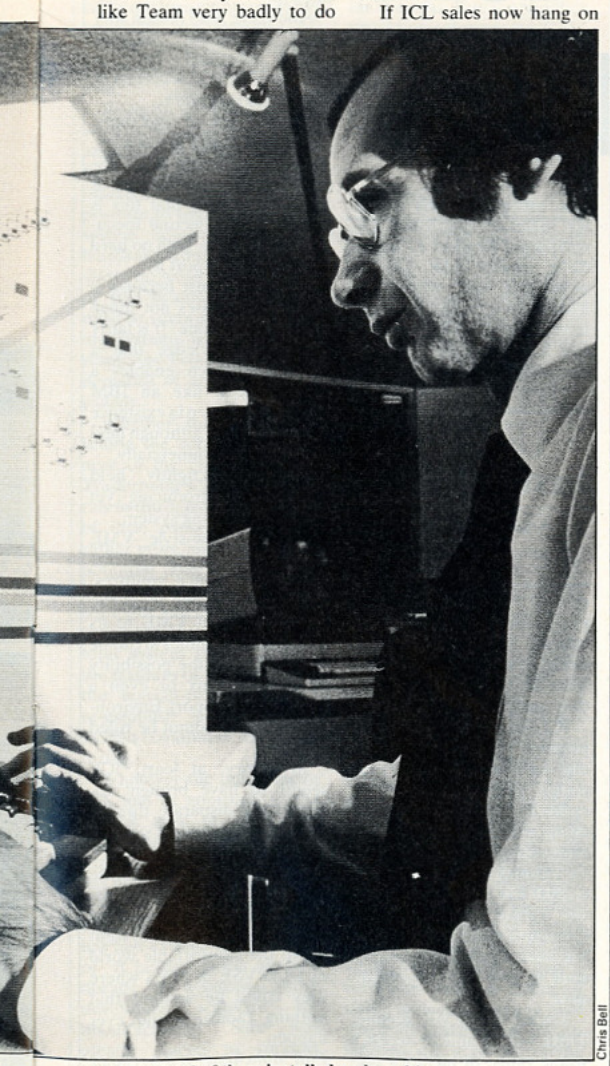
Paul Walton is a f journalist.



several hundred of these installed and working

Chris Bell

Manchester follows the tale of the complicated genesis of ICL's new-style VME operating system

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ICL 2903 users have already been given the migratory DME, which now becomes just a component of the new VME

Overdue unity for operating systems

for bringing its old 1900 customer base into the 1970s with what it called Direct Machine Environment (DME).

So, right from the beginning, ICL's software development talents were stretched across three fronts: the original VME/B development, the stopgap VME/K development and the migratory DME.

> DME has been a thorn in ICL's side

While this was not an untenable situation, it came pretty close. DME, particularly, has been a thorn in ICL's side. The concept of emulating an outdated machine (whether it be the 1900, System 4 or 2903) on a new one does not help to give a manufacturer credibility on the market-place.

ICL had taken the gamble that its users were ready for a new generation of computers when, in fact, much like IBM users who were not given the choice, all they really wanted was more of the same, faster and cheaper.

DME filled that gap by enabling ICL's established user base to continue with whatever folly they had chosen years before. System 4 users could still pretend they had a System 4, even though it might say 2900 on the orange box. George 3 users could still stick with George 3, and the upwardly mobile 2903 users could still pretend to hold onto their roots.

The need persists even today and the latest move, which effectively turns everything on its head, is to continue with the philosophy of being all things to all users.

The change is that now DME becomes merely a component of the broader concept of VME.

VME/K, by the way, fell from grace in 1981 — very quickly after the change in management which brought Robb Wilmot into the hot seat. It was a good decision for ICL, as the pathetically small number of users of VME/K just did not justify its continued development. An indication of the size of the VME/K community in the late 1970s comes from the fact that the chairman of the VME/K user group did not actually have the system in operation — he was just thinking about it!

The only identifiable group of VME/K users consisted of a handful of universities who found succour in an independent development by Edinburgh University more suited to their needs — the Emas

VME/K users that stuck with ICL were quickly absorbed into the larger community of VME 2900 — or VME/B-E, as it had been called previously.

This still left the knotty problem of the large number of DME users who steadfastly hung onto the past: either they could not afford, or just did not want, to make the transition to VME. Now ICL has effectively brought them into line by placing DME regimes subordinate to VME.

This process began in 1980 when ICL announced its Concurrent Machine Environment (CME), which enabled both VME and DME regimes to operate at the same time on the same machine.

The logistics of having two radically different operating systems sharing the same machine were achieved through use of microcode — one set for making a 2900 look like a 2900 and another set for making it look like something else (usually a 1900). It is, incidentally, a testimony to the neatness of the 2900 design that this was even possible.

A hint of what was to come could be found in the old VME/K operating system. One component on the cards for VME/K users was something called VME/K Meep. The Meep probably stands for Machine Emulation Environment Product or something similar (the product never received official release). In essence it would have allowed VME/K users to run a DME-style operation underneath VME/K.

The new-style VME allows

> Users will have no choice but to buy the new VME

exactly that, but it has somewhat disconcerting implications for ICL users. In effect, it means that they will have to buy VME whether they want it or not.

ICL can justify this with promises of greater functionality for DME users operating under VME because it has radically altered the way things work. All the stuff that previously sat in microcode for running a DME regime on a 2900 has been shifted into the software itself. At the same time more of VME itself has been dropped into microcode to give better performance.

Under the VME regime, DME will be able to access a whole range of facilities previously not available to it.

The overall objective, as ICL puts it, is: 'To make available the functionality of VME and new technology for networking, programmer productivity, decision support and office use, but to allow existing customer work to continue to work without unnecessary and costly changes.' All things to all users, in other words.

In essence, the overall objective has changed little since the first days of the 2900 when ICL realised belatedly that its users were not going to fork out a large conversion fee to move from 1900 or System 4 to 2900. And that is to unleash the power of the 2900 hardware to whatever style of user requires it.

ICL goes even further in saying that the new-style VME and the 2900 hardware is 'today a suitable environment for hosting fifth generation developments'.

Part of the fifth generation ideal is a 'machine' flexible enough to offer many different styles of operating environment, suitably packaged to meet a particular need. Using the virtual machine concept as it was originally envisaged — as a means of creating a conceptual machine to the user's specification — VME promises to provide 'a library of interfaces at all levels which operating regimes can call on as needed'.

And there is no reason why those operating regimes should necessarily be confined to what ICL is currently offering or may offer.

The 'library of interfaces' can just as easily be used by, say, Unix or even an MVS-style operating system. It should be noted that this is merely an intellectual speculation, however, with no hard evidence to support it.

Of course, just because it can be done does not mean that it will be done. It is fairly common knowledge that a DME/370 which enables a 2900 to look like an IBM machine has been in existence for some years, although never exploited commercially.

ICL, quite rightly, held back from introducing yet another operating system.

But the new-style VME would seem to offer greater potential for such ventures, and if ICL's claims about the transparency of VME to its subordinate regimes are to be believed, then the possibility of a VME/Unix or even a VME/Ada Support Environment (Apse) cannot be ruled out.

In theory, at least, ICL seems to have brought together the disparate threads of its 2900 operating systems at last.

Unfortunately, it is a little late for those ICL customers that tired of the unfulfilled promises of the past and went off to the comfortable world of DOS/VSE or MVS where they could be assured that nothing radical would ever happen.

Phil Manchester is a freelance journalist.

Independent houses seek a closer role

ICL's integrity in deals with third party suppliers is undoubted, but it needs to demonstrate a stronger commitment to total systems support to restore confidence in the UK industry, says David Casey

Symbiosis is a phenomenon not confined to biology. The principle of two entities being dependent on each other for their existence underlies the current ICL product marketing strategy and its relations with software houses.

It would underestimate ICL's potential as a manufacturer and distributor of hardware to claim that it could not survive without the help of independent systems houses. If the company is to retain any credibility as a 'total systems' supplier, however, third party involvement will play a crucial role.

Without devoting an unwarranted proportion of its resources devising software for a spectrum of vertical markets, ICL must be in a position to offer users a total system solution. Providing hardware from 8-bit Personals to the Atlas is one element of the strategy: this range must be supported by operating systems which are constantly evolving to meet the demands of application specialists.

Whether the vehicle for selling the software component of the 'package' is the Traderpoint scheme or referrals to third party suppliers, is of little consequence. It is rather more important that a potential user is presented with a coherent image of a company and its suppliers, all sharing the single objective of total system support. After the traumas of the late 1970s, the market-place needs to re-establish confidence in British computer manufacturing.

Whatever the criticisms of ICL and its approach to the market may be, the company's integrity in its dealings with independent suppliers has never been in doubt.

Geoff Chaplin, marketing director at Safe Computing, has had extensive experience of ICL for more than a decade. As a systems house developing software for manufacturing, Safe was ideally placed to support ICL's penetration of that sector of the market.

Chaplin was enthusiastic about the relationship which had evolved. 'As a direct result of ICL's marketing, we are selling a product to more than 30 companies. ICL has helped us to expand that system and keep it in the market-place. It is the most honourable company one could ever imagine.'

A similar vote of confidence was expressed by Systemsolve sales director Peter Wemyss. But as a supplier providing solutions on CTL, Data General and Hewlett Packard alongside its ICL business, he was able to identify weaknesses which had existed in the relationship. 'ICL would stand a far better chance of increasing sales if it embraced the software industry more closely, and used companies like ourselves to sell the ICL solution,' he claimed.

> ICL leases its documentation instead of selling it

Wemyss cited the case of a Systemsolve customer who had suggested a 60 terminal installation based on an ME29. 'Given the response required—which was nothing exceptional — we proposed Data General. It was viable, but more importantly, a similar configuration could be demonstrated to work.'

As an independent systems house, the Systemsolve team was free to implement that solution — a view not totally shared, it appeared, by ICL.

Wemyss took up the story: 'seeing the loss of an existing customer, ICL maintained that we should join forces with it at the eleventh hour — providing a system that we believed could not work. Its problem is that it continues with a customer under its own steam and only when all possibilities are exhausted will it go out to the software industry.'

Wemyss has already witnessed a shift in the approach by ICL. When the Blue Circle Group placed its order for seven pairs of ME29 machines, the hardware contract went direct to ICL, with Systemsolve on the same 'party ticket' to supply the software. 'The ICL team realised at the outset that they could not do it on their own, so they approached us. While we could have proposed alternative hardware, the ICL solution does exactly what the customer is looking for.'

The fact that ICL is prepared to work more closely with outside suppliers has been welcomed by maintenance companies handling the supplier's kit. In terms of support provided to these independent operators, ICL has traditionally fallen far short of the standards set by IBM and DEC.

Documentaion, for example, is not sold but leased — a bone of contention to David Travers, who directs operations at Data Processing Customer Engineering (DPCE).

He sees the ICL policy as a legacy from the time when there were no independents prepared to challenge the manufacturer. It has serious consequences today, however. 'No two machines are identical after engineering changes. Maintaining up-to-date logical documentation is therefore imperative if the system is to retain its value.

'There is no problem if ICL continues to maintain the system, but there would be major difficulties for an independent company.'

DPCE has overcome the second hurdle set to baulk an entrepreneurial spirit. ICL does not supply diagnostics, forcing the maintenance company to invest heavily in its own development of such a system. 'This is a major problem which ICL still has to address,' in David Travers' opinion.

He states: 'All other suppliers of this calibre will provide diagnostics to independent maintenance companies, and even the end user. It would give the customer the chance to decide whether he wanted ICL to look after his kit — or go outside.'

One of the first independent maintenance groups in the ICL arena was Mills Associates. The company's engineering sales manager, John Chapman, talks of a 'long and chequered history' with the manufacturer, stretching back over 12 years to when Mills was predominantly a bureau. 'ICL was opposed to third party developments of any kind, but we had a vested interest in persevering. The obstacles placed in the way of the independents by ICL have kept many maintenance companies out of the market.'

> Opposition to third party suppliers has relaxed

Chapman has seen a relaxation of opposition to third party suppliers during the past three years, to the extent that Mills has established a satisfactory working relationship. Totally independent of ICL, the company buys spare parts from the original manufacturers, and re-cycles system components wherever appropriate.

In only one area was ICL co-operation a requirement. Chapman and his colleagues accepted that interrogating the 2900 microcode would present a problem: a contract was negotiated with ICL for the supplier to provide whatever services became necessary.

Like Chapman, Travers of DPCE sees the independent maintenance companies improving the acceptance of ICL as a manufacturer. 'Vendors who have become receptive to the idea have maintained the second-hand market value of their computers. Relative to IBM, for example, ICL has not been performing well.'

Important though the maintenance policy of a supplier may be to the useful life of a product, system software has a more insidious influence on the market. Operating systems which do not permit the smooth transfer of applications programs serve only to increase the cost of software development. Extensive coding may be required to take account of constraints built into one or more of the operating systems.

With the ICL policy of dedicating operating systems to specific ranges of hardware, how does the company match up to the developers' requirements? Wemyss at Systemsolve sees opportunities for improvement. 'Many software companies have profited from ICL's inability to come up with the r ducts in the past. W independents were improve the basic IC software. the appeared reluctan corporate those in range.'

Current ICL oper tems attract more n ticism from softwar

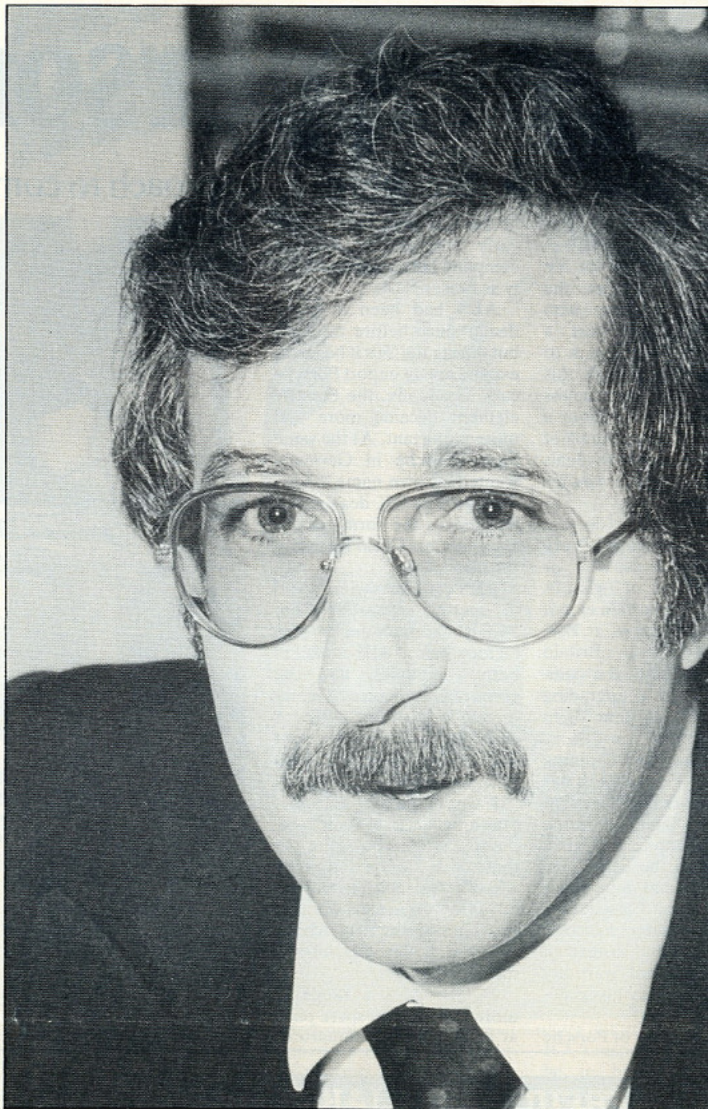
The ability to 'fine ICL operating syste ticular application ments is severely res factor which could a ware design. Sys project manager Col contends that whil prepared to listen t tions from software the company is less take them up.

'We could cert more entrepreneur knew they would su he claims.

For a company bound as ICL, the p years have been tra more than a purely sense. The role to be third party supplier recognised: even dent maintenance from beyond the p with the streamlini tem software produc providing a mo effective way of d 'big-systems' applic

ICL's commitme industry has a long however.

David Casey is a journalist.



Systemsolve's Peter Wemyss: 'ICL needs to embrace the software industry more close

Dp for a personal service

rsche Cars GB's foresight in its approach to computing has led to rising sales, says Kevin Townsend

rsche is a small com-pany with a big name. ts cars are not for the market, but for the dual; for the person who more than just a d of getting from A to f-evident though this eem, it is nevertheless remembering about a ny that likes to think of s employing individuals and look after cars for ividual.

ll companies do not big computers. Very hey make do with, or the most of, what is le. To a certain extent what happens at Por-Cars Great Britain 3), although the com-s currently upgrading he ICL System 10 to stem 25s.

ughout its computing , however, PCGB has remarkable foresight nall company: in going t to online real time sing in the early '70s, mple, and in persuad-German Porsche fac-accept direct telecom-ations input instead of nched card warranty it had previously de-d.

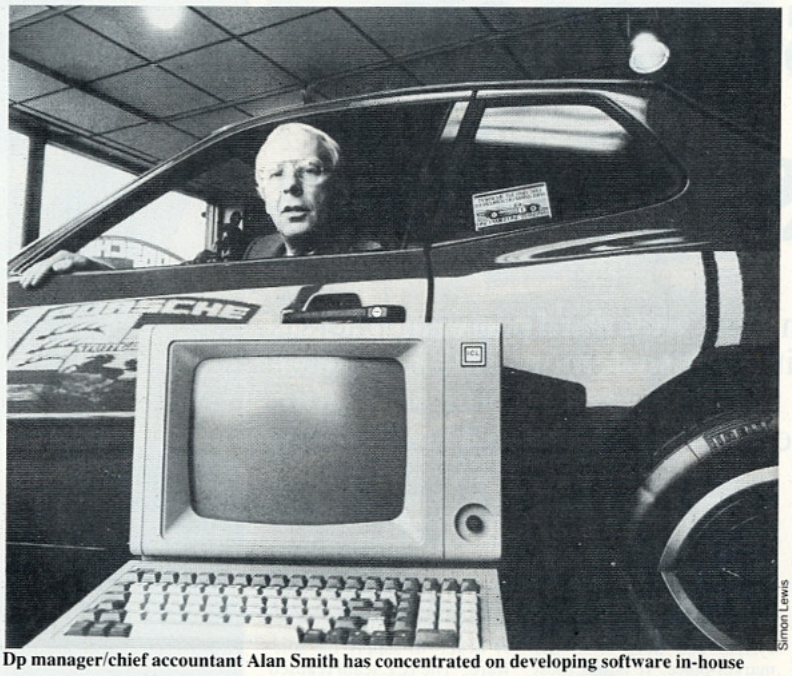
real history of Porsche in the UK goes back to the early '50s, and to AFN, a company better known simply as Fraser Nash.

AFN had been a motor dealer since before the war, but during the '50s it began to expand and to import Porsche cars. Gradually, the Porsche element became more and more important. At the same time, Porsche in Germany wanted its own name associated with its UK dealer, and this led to the formation of Porsche Cars Great Britain in the mid-1960s.

AFN continues to exist and to operate separately from PCGB, although the Porsche factory has a 60% stake in both companies, and the corporate structure is common to both: Alan Smith, for example, is chief accountant and dp manager for both PCGB and AFN.

It was in the early '70s that Smith began to look at computers. When you sell a car that costs a minimum of £9,000, and can cost up to £28,000, you are expected to provide a service to match the price tag. Today, this can only mean computers.

PCGB holds a range of more than 10,000 spare parts at its Reading headquarters, at a value that already exceeds £1 million. A sophisticated stock control system was an obvious priority. 'We looked at IBM's System 3,' said Smith, 'but decided that it was basically a batch system and not what we wanted. The partition slicing of the Singer 10 was much more attractive.'



Simon Lewis

Dp manager/chief accountant Alan Smith has concentrated on developing software in-house

Thus it was that the first System 10 was installed in 1975, shortly followed by two more. Today, two of these are with PCGB in their new Reading offices, and one 35 miles away with AFN at Isleworth. A 2400 baud modem link connects the two sites.

The current upgrade is from the 10s to new 25s, one of which is at Reading and the other at Isleworth. AFN is still expanding in its own right, and is opening a new base at Guildford. When the conversion to 25s is complete, one of Reading's System 10s will eventually be transferred to the new site.

Meanwhile, Smith has visions of linking all his nearly 30 dealers throughout the country.

This is one area where the Porsche acknowledgement of the individual becomes apparent: Smith is aware of the advantages of everybody standardising on compatible ICL equipment, but he is also aware of the current question-mark over the future of the 25 and the possible wish of his dealers to use alternative equipment. 'We are recommending that our dealers buy ICL System 25s,' he said, 'but I do not expect them all to take it up. If our dealers do buy 25s, then what we can offer is a lot of software and a lot of expertise.' Smith has always concentrated on developing his own in-house software in a high-level language. 'Assembler takes too long, and packages are never quite right,' he claims.

One of the most surprising features of PCGB's computerisation is an almost total lack of hysteria. Smith admits to all the standard problems: 'a weak initial specification; too much freedom given to the user departments, who were allowed to continue to vary their requirements; premature implementation leading to well over 1,000 post-implementation amendments.'

The biggest surprise of all, however, has been the unchallenged introduction of a weekly employee efficiency report. 'We don't use this to nail our staff to the wall,' says Smith. But even so, his must be one of the few companies in the country where such an undisguised staff productivity monitor has been accepted without a declaration of all-out war between men and management.

> Word processing has been a great success

'The reason is simple,' he says. 'Our staff believe us. We pay above average wages for above average staff. We don't employ automata. We can compare individual productivity against standard times and discover, not who's slacking, but who needs extra training or help and in which areas.'

One of the great successes of PCGB's computers has been the introduction of word processing. Smith decided not to opt for a separate dedicated word processor since most of the information required was already held on the existing system. A word processor would not save work, but would create it by demanding significant and unnecessary re-keying between the two systems.

Instead, Smith opted for a combination of ICL software and in-house development, together with the purchase of a Qume daisywheel printer for quality output.

The system was first developed for the Motor Show of 1980. The company decided that every visitor who was a conceivable customer would receive a follow-up letter. But, true to form, it would be a letter and not a circular; and an individual letter and not a 'Dear Sir or Madam'.

An important feature of the system was a table of salutations that could convert, for example, 'John Smith Esq' from the top of the letter to 'Dear Mr Smith' at the salutation. This, coupled with the mammoth task undertaken by the managing director to sign each letter personally, created truly individual letters. 'We never failed to get the letters out on time, so people received them straightaway after the show,' said Smith. 'Some were so impressed by such service that they placed firm orders for our cars there and then!'

Since that introduction, the word processing element has been expanded considerably. Internally, items such as staff contracts of employment can be generated automatically from the personnel file. Externally, the company is able to keep in closer and more personal touch with its existing car owners. It can undertake surveys to see how drivers feel about their cars and service; it can perform selective mailings to invite owners to showroom parties (on a rotational basis, to avoid pestering individuals too often); and it can approach new prospects with an invitation to 'test drive a Porsche'.

'We know,' says Smith, 'that our sales have risen since the introduction of this system.'

Throughout its computing, Porsche Cars Great Britain has paid scant regard to tradition. Its dp manager doubles as its chief accountant. This much is not unusual.

But the first computer arrived nearly a decade ago, and accounts, payroll and financial modelling have still not been installed. 'Accounts may be dear to my heart,' said Smith, 'but I have a duty to satisfy my users first with the resources at my command.' And this is certainly unusual — if not from a dp manager, quite definitely from a chief accountant.

Smith has in fact, just purchased an ICL PC2 to look at his own applications. 'With a 256 Kbyte memory, the PC is nearly as big as System 10s, and even one of the 25s,' he commented.

Kevin Townsend is a freelance journalist.

Vendors stage a clean fight with menders

ICL is taking a 'correct but competitive' stance to third party maintenance, says Tony Durham

ICL is giving active support to independent UK companies which claim to undercut the manufacturer's own maintenance prices by up to 30%.

With one important exception, third party maintenance companies claim that their troubles with ICL are past. The independent maintainers lay claim to satisfactory or even cosy relationships with the big manufacturer; ICL's own posture is now, as it was before, one of 'correct but competitive' behaviour towards the independents.

'While we will adopt a commercially fair attitude to them, we do regard them as competitors,' said Mike Fox, ICL's business manager for customer services. 'It's slightly different from a software house situation where someone is bringing something to the product which assists the sale.'

ICL sells the independents spares, leases them its internal maintenance manuals, and controls its chagrin when an independent maintainer poaches not only the customer but the site engineer. Where ICL draws the line is at letting others use its diagnostic software. 'An enormous investment is made in the development of the software,' said Fox. 'The intention when we made that investment is that we are seeking to recover it through maintenance revenues.'

One complaint of the independents is that ICL quoted unreasonably long delivery periods for spares. 'ICL did offer to supply us with spares, but on a lead time of nine to 18 months,' said David Phillips, a director of the Kendal group which maintains System 10 minis at about 60 UK sites.

ICL's Fox explained: 'We sell spares on the same lead time as the service organisation within ICL has them from our manufacturing organisation. The third party maintenance organisations are buying on manufacturing lead times. We stock ourselves up for the maintenance business we expect to do. We don't stock up to sell to third parties.'

Kendal obtains parts either from used machines or direct from the source manufacturers.

'We actually placed one order with ICL for some parts and they did come in within a couple of months, I'll give them that,' Phillips conceded.

'Since then we haven't really put ICL to the test,' he added.

Even if other independent maintainers have felt a thaw in their relations with ICL, dealings between ICL and Kendal remain frosty. Kendal is UK distributor for the US company SYS-10, already sells

> 'We don't stock up to sell to third parties'

SYS-10's DSU go-faster box for the System 10, and may be about to market the DSU's successor, the ST.1, in a direct attack on ICL's own System 10 replacement, the System 25.

ICL sees Kendal as a doubly dangerous competitor since customers who go to Kendal for maintenance may then buy SYS-10 hardware instead of coming back to ICL for their next machine. Kendal's Phillips claims that 'the ST.1 should completely do away with the need for any user to go to the System 25'.

He agreed: 'That has got to be one reason for our cool relations with ICL.' On maintenance itself, Phillips claimed that 'we respond generally, we believe, more quickly than ICL. We believe that our prices are currently somewhere in the region of 10-20% below ICL's.'

Kendal's 60-odd System 10 sites bring in £300,000 a year, and Phillips says the turnover is still increasing. The business cannot last forever. 'The System 10 customer base will decline over the next three to four years, but there are enough to make it worth our while to maintain them. There are still, we believe, in the region of 800 to 1,000 System 10s in this country.'

Barron McCann is another company which maintains System 10s and supplies add-ons and enhancements. But unlike Kendal it has established a good working relationship with ICL.

'When we first started, we had open hostility,' recalls joint managing director Dave Kennington. 'Customers who were looking at our attachments were threatened either with increases in charges or with withdrawal of maintenance.' But this is no longer the case.

'With Wilmot's arrival the wind of change in ICL has been really amazing,' said Kennington. 'Instead of hindering us they've actively encouraged us.' Once again, ICL's attitude to a competitor in the maintenance field has been influenced by the other products and services offered by the competitor. ICL now calculates that Barron McCann add-ons like telex do not compete with its own products and may actually help to sell them.

While Barron McCann's maintenance operation uses some ICL support — the company sends its engineers on ICL courses, for example — it has remained largely self-sufficient in spares. 'We do our own card repairs anyway,' said Kennington. 'We have various sources of supply which go back to the US if necessary. We do some refurbishment.'

Kennington says his maintenance prices come in about 12-15% below ICL's.

The company with the longest experience of maintaining ICL equipment, excluding ICL itself, is Mills Associates. 'We cut our teeth on 1900s, starting about 12 years ago,' said engineering sales manager John Chapman.

'Our relationship with ICL was, to say the least, fraught,' he claimed.

The dispute revolved round the question of ownership of maintenance manuals. Maintenance manuals (which are not the same as operating manuals) are often kept on the user's site, and the innocent user might imagine that they are part of the product he has bought. But in a court battle with Mills Associates in the mid 1970s, ICL established that the manuals remain its property.

'Happily all that is behind us now,' said Chapman. 'We now have a very good relationship with ICL. It has come to terms with independent maintenance.' Mills and other companies can lease manuals from ICL, though they may find that revealing passages about ICL's diagnostic software have been deleted.

Mills Associates offers maintenance as part of a range of services which includes installation, refurbishing and upgrades. About £1,500,000 of the company's £5,500,000 turnover comes from maintenance contracts on old 1900 series mainframes and mid-range 2903s and 2904s. 'Our prices are roughly 25% less than ICL's on the 2903 and 2904 range,' said Chapman.

> ICL will not sell diagnostics to anyone

The latest challenge to ICL's service organisation comes from Britain's biggest independent maintenance company. Data Processing Customer Engineering (DPCE) is moving in aggressively on users of current-range 2900 mainframes. The Wokingham company has maintained ICL machines since 1978, but recently it signed up its first 2960 user. 'We'll cover all the new range, P and S series machines,' said sales and marketing director Des Cassidy.

DPCE took over the maintenance of Hunting Engineering's 2960 at Bedford on April 1. It also recruited ICL's site engineer. Mike Rice, head of Hunting's management systems department, explained the reasons for his choice: 'I think it was essentially financial. We were going to save about 30% on the current cost of maintenance across the computer and the terminal network. We've taken a fairly adventurous step.'

Is Rice happy with DPCE's service? 'The short answer must be yes,' he said. 'But it's early days yet.'

'The major stumbling block to maintaining 2900 series machines,' says DPCE's Cassidy, 'is the lack of availability of diagnostics. ICL simply will not sell the diagnostics to us.' This is not a personal gripe: ICL will not sell diagnostic software to anyone. DPCE's answer was to get its own diagnostics written, at considerable expense, for the System 4, 1900 and 2900 series machines.

Another secret ICL will not part with is its microcode listings. Both DPCE and Mills Associates call in ICL's help when microcode faults arise. One hazard of this arrangement, at least according to ICL, is that things may take a little longer than usual to sort out when a 'grey area' fault arises, which might be in microcode (and therefore ICL's responsibility) c be in hardware (a responsibility of th party firm.)

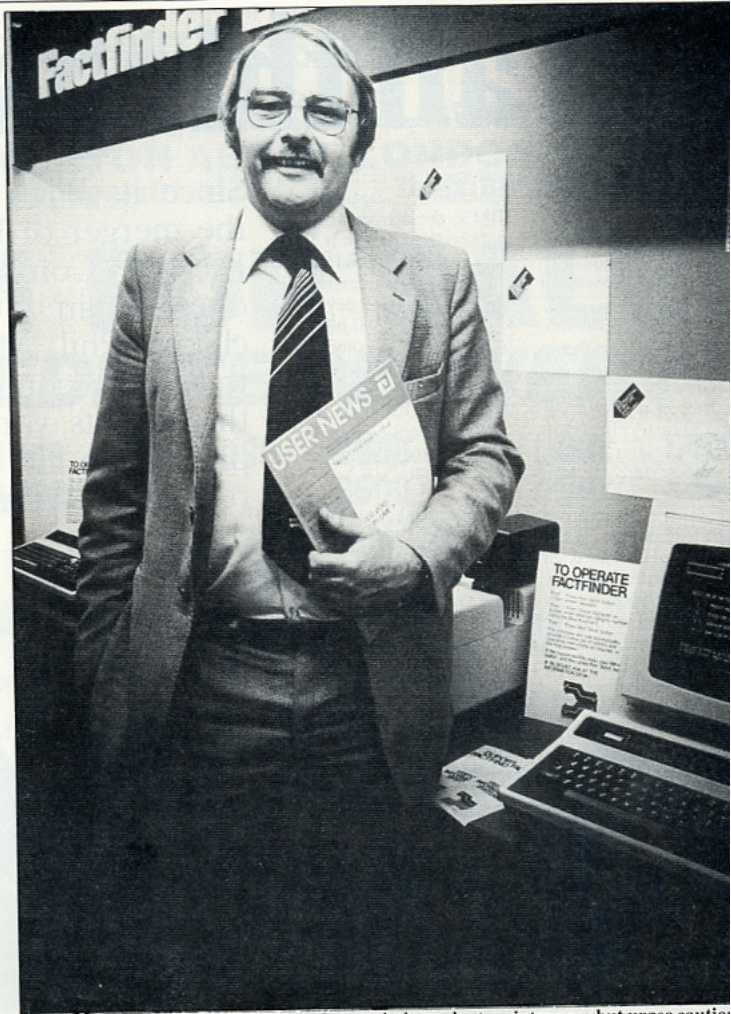
In Robb Wilmot' assault on the ICL sheet, spares holdin run down and the e were made redundan visible effect on the q customer service. T £18 million is being inv improve customer there will be the servi with their computer r every customer's ser tory, eight new servic and radio telephone engineers' vans. Spar are being strengthen

David Kelson, cha the ICL Compute Association, told *Co* 'The biggest probl spares, and the spar tion has improved.'

The independen taken only a few pe ICL's £100 million nance revenue, but t existence adds weigh pressure on ICL's organisation.

'I welcome the av of third party mai because it gives cor to ICL and compe healthy,' said Kelso ers he urged caution their credentials, ch stability, check the holdings, check the to the availability spares, and finally c number of engineer got. And if they are competitive with IC you should consi party maintenance.'

Tony Durham is a journalist.



ICL CUA chairman David Kelson welcomes independent maintenance but urges caution

Still all things to all users

Since its birth in 1968, out of the merger of ICT and English Electric Computers, ICL has operated in a distinctive style, claims Phil Manchester, who traces the company's evolution through its various managerial phases up to the present-day regime of Wilmot and Laidlaw

e ICL we know and ove today was born in Harold Wilson's ng '60s' at the same hat many industries ndergoing a process of neration.

white heat of techno- innovation (as it was nown) was to put the o the front line through pices of a united UK er industry. Both En- lectric (later English e Leo Marconi) and d been growing steadi- ough the process of ion, gobbling up the component parts of K computer industry nout the 1960s.

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l its

nd ICT l' into ICL. ost immedi- e style that remain with until the present ame apparent. jewel in the UK's ogical crown, ICL d the full backing of s Government in the £13.5 million toward npany's research and ment program.

trospect, a more un- marriage is incon- e. Within the company vo separate groups of ees who continued to with their previous ers — a situation complicated by the s that had happened

de, ICL had many t groups of user, some rking on Elliott and machines from the others having just re- delivery of brand new 60 look-alikes in the the System 4.

as obvious to many the time that the new y could not continue ort the wide range of ery that it had inher- l remain competitive. en, when support and e were bundled up e cost of the machin- was impossible for ICL nue with the complete f products.

tably there was a pro- rationalisation and the ngs of a bitter struggle he company between ous factions. The ma- ons in the battle were CT people, who were oning the ageing 1900 and the ex-English people, who put their on the as yet un- System 4.

ystem 4 was, perhaps, iest recognition of the nt power of IBM in the processing market- While ICL's combined customer base in the UK was significantly larger than IBM's, the attractive export markets that the new ICL was after were dominated by IBM and its highly successful 360. The System 4 — developed from the same 360 blueprint by the US RCA company — was seen by English Electric as a way of gaining a slice of that market. It had, therefore, signed a licensing agreement with RCA to manufacture the machine in the UK.

ICL inherited this agreement and appeared to want to honour it. There were, however, problems with the operating system software which ICL had little enthusiasm for solving as it already had a new operating system in development for the 1900 and its successors — what came to be known as George 3.

So rather than put its resources into developing the System 4, ICL chose to develop further the 1900 and to lay its plans for what was to become the 2900.

Sir Christophor Laidlaw

Philip Chappell

Robb Wilmot

Cross put ICL on the map at home and abroad

In the meantime, a further injection of government funds (£14 million) came in 1972.

The same year saw the arrival of a new, flamboyant style of management under the managing directorship of Geoff Cross.

There can be no doubt that Cross was the man who put ICL on the map — not just in the UK, but in international markets too. He oversaw the development of ICL's 1900 replacement and put the company on a course toward rapid growth, culminating in 1976 with the purchase of Singer Business Machines.

Cross came to ICL from Sperry Univac, a company already well established in international markets. He brought with him a more outward looking, expansionist view of the data processing market and a team of hot-shot technocrats from his previous employer.

Although this gave a significant boost to ICL's roster of talent, it also created yet another faction within the company. The new boys from Univac were put into key positions to develop the new range, the first glimpse of which appeared in 1973 with the launch of the 2903.

This was quickly followed in 1974 by the first real 2900s — the 2970 and 2980 — and the beginning of the long running saga of ICL's operating systems.

Most people in the know saw the 2900 hardware as an inventive and positive step forward. But when it came to the operating software, the same problems that had dogged the development of the George 3 system gradually sapped user confidence in the 2900.

In many ways 1974 was a turning point for the whole data processing industry.

Hardware technology had advanced dramatically since the so-called third generation of computers typified by the IBM 360 had emerged, and it was becoming increasingly difficult to tweak 10-year-old machine designs to meet the ever-growing demands of customers. IBM had avoided the issue by cancelling its plans for a fourth generation — the Future Series — and settled into a slow evolutionary path dictated by its customers' heavy investment in software. The 370, launched in 1972 was really just more of the same.

ICL took the bold step of introducing an entirely new machine with an advanced architecture, a radically new operating system (VME) and no direct compatibility with its existing range of 1900 machines.

User pressure forced ICL into a compromise which basically consisted of a 1900 emulator on the 2900. ICL called it Direct Machine Environment, while unkind commentators used the DME initials for other purposes.

At the other end of the market-place, the company scored some considerable success with the 2903 in both its home and international markets. This success at the lower end of the data processing market was further enhanced by the purchase of Singer Business Machines' international operations — Geoff Cross's parting gesture.

Here again, ICL had the same sort of problem it had at its beginnings: yet another set of users with another set of software and a somewhat bizarre machine architecture.

Singer's main product, the System Ten multi-user mini, could not have been further out of step with ICL's 2900 range if it had been deliberately designed that way. Its architecture was based on a stripped down 6-bit byte, a hard-wired operating system, and a useful but unique assembler language. (Cobol was nowhere to be seen.)

The System Ten was also a direct competitor for the 2903. It is said that at the time ICL was not that interested in the System Ten, Cross's justification for buying Singer being its international marketing and customer base.

The Wilson style was more subdued than Cross's

Then, in 1977, Geoff Cross abruptly resigned for 'personal reasons' and went off to the US leaving Chris Wilson, then director of international operations, as the new head of ICL.

Under Cross's management ICL had almost tripled its revenues from £154 million in 1972 to £419 million in 1977. Furthermore, by 1977 ICL's export revenue exceeded its home sales.

Through 1978 everything looked good for ICL on the surface. A plethora of new products, including new 2900 models and developments based on the old Singer machines, gave it a broad portfolio.

Beneath the surface, however, things were not what they seemed.

The Wilson style of management was more subdued than Cross's had ever been. In fact, by the end of 1978 virtually all trace of the Cross style had been purged from ICL, most of the personnel he had recruited having departed, and a more traditional style of marketing returned.

Then in 1980, disaster struck the firm. Despite a rise in turnover, the 1980 profits were half those of 1979. The reaction of the City was predictable and the share price plummeted. ICL management, equally predictably, blamed the recession for the company's fall from grace.

Inevitably, heads had to roll, and in 1981 both Chris Wilson as managing director and Philip Chappell as chairman of the board were deposed. The new managing director, Robb Wilmot, together with the new chairman, Sir Christophor Laidlaw, moved in and quickly took a number of what might be called Draconian measures to bring the company back into profit.

Part of that action was to secure a further injection of government funding (basically an overdraft guarantee of £270 million).

The Wilmot regime also instituted staff cuts — many at a senior level — and a tightening up of financial procedures. In some ways, Wilmot's style resembles that of Geoff Cross, although it is still too early to see whether he will achieve the same success.

According to sources close to the company, Wilmot has changed the manufacturing operation beyond recognition and has shown ICL how to make use of advanced chip technology. He has also instituted a more open form of management.

But ICL watchers are agreed that underneath the new glow that Wilmot has brought to ICL, the same old factions still persist.

Even under Wilmot's more realistic management style, it seems that ICL still wants to be all things to all users — a role that computer manufacturers can ill afford these days, unless they happen to be IBM.

Phil Manchester is a freelance journalist.