

Bits & Bytes

Editorial

I have finally got an Internet address, as so many people kept asking me what it was. How many pensioners are now on the Internet? At the time I started this newsletter in 1995 I sent out a questionnaire to people who attended the Punched Card Reunions and only five were on the Internet. I imagine that now, as many Internet Services are now free, (and only charge for support), that there are many more. I am prepared to set up an email directory and print it in Bits & Bytes on a regular basis. Send me an email if you want your Internet address published.

I have a problem which hopefully readers can help me with. This newsletter is in danger of becoming full of obituaries, (not the single line entries), which I think will make it very unbalanced and not as interesting as it should be. The question I need answering is "which obituary do I publish and which do I leave out?" I can understand now why the Nortel "Diary", (for pensioners in the Nortel Fund) has a policy of no detailed obituaries. My personal view is that rank or seniority in the company should not decide who is included.

Adrian Turner

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ICL NEWS

On 30 September 1998 ICL announced that Fujitsu had acquired NORTEL NETWORKS' (previously known as NORTEL) 9.9% interest in ICL. The completion of this share transaction means Fujitsu now owns 100% of ICL, thus simplifying the ownership structure before ICL relist on the stock market in 2000.

ICL are grateful for the support NORTEL NETWORKS' has given, and naturally understand their desire to focus on their core business in the global telecommunications market.

The working partnership with Fujitsu has always been vital in the strategy for transforming ICL into the leading international IT systems and services provider. This welcomed increase in support from Fujitsu for the ICL group only strengthens progress towards this goal and flotation in 2000.

This change has no impact on the operational activities of ICL as they sharpen the focus on IT Services and increased profitability.

ICL Acquire Smart Card Company

On 8 October 1998 ICL acquired 100% of Product Technologies Inc. (PTI), the leading smart card systems company in the US. This acquisition gives ICL a substantial presence in the fast growing smart card market and takes it a step closer to achieving ICL's goal of becoming the world's number one supplier of smart card systems.

Specialising in software for card management systems and the provision of end-to-end smart card solutions, PTI co-developed the SmartCity solution with ICL. With an installed base of over 60 sites, in the last 12 months PTI have installed systems in 18 universities, 3 military bases, a shopping mall, a corporate headquarters and a football stadium.

Major customers include all 3 US armed forces, Mellon Bank, Cybermark and the Russian oil company, LUKOIL.

This acquisition confirms ICL's commitment to expanding their smart card business. The global market for smart cards is set to treble within the next two years to over £3 billion per annum. The expertise and development skills of the PTI team in Connecticut will strengthen ICL's existing European-based skills to create Smart Card Solutions for vertical global markets.

The new group will be incorporated with ICL's Smart Card Group under the control of Philip Eames, Director of Payment Systems.

ICLNet

ICL launched ICLNet, on 28 October 1998, a pan-European telecommunications backbone network, which enables ICL to offer large national and international enterprises a complete, unified, end-to-end managed business solution backed by comprehensive guarantees. Companies' increasing dependence on electronic business operations has fuelled demand for a single IT and communications supplier who can offer an all-encompassing service. ICLNet is the vital ingredient which, added to ICL's existing business network services, makes this complete solution possible on an international basis.

ICLNet is a wholly owned network in Europe which uses an ATM (Asynchronous Transfer Mode) core. ICLNet's onward links provide extensive global coverage. The ICLNet technology and capacity ensures the fast delivery of voice, data and video to complement ICL's existing range of value-added

services such as EDI, directory management and billing services to support ICL's electronic workplace and electronic business solutions.

It is ICL's ability to control the ICLNet backbone that enables the company to offer solid guarantees of security and 100% availability and reliability where businesses need this level of contractual service.

ICL expects its enhanced services capability will enable the company to increase its network services business ten-fold over the next 5 years. It also anticipates that these network services will underpin £3 billion of network enabled business in 5 years time, as the company takes advantage of the rapid convergence of corporate IT and telecoms services.

ICLNet spans Finland, Scandinavia, Benelux, Germany, France, the UK and Ireland. Built around a network of 45mbps and 155mbps links, ICLNet utilises ICL's UK microwave network, that was outsourced by Transco, the gas transportation company, in 1997, and provides over 500 points of presence in the UK. Two network management centres control the network and provide full resilience. It is this infrastructure, coupled with the extensive skills-base, that enables ICL to offer managed network services with guaranteed reliability and availability levels as high as 100% if needed.

ICL Organisation

Operational Services Division

It was announced 28 October 1998 that Keith Todd had completed a review of ICL's services offerings and had decided to align the operational services into a single division to be known as Operational Services Division. In creating this new organisation, Outsourcing, currently part of ICL Services Division, will integrate with System Service Division with immediate effect.

David Palk, currently Managing Director, System Service Division, becomes Managing Director, Operational Services Division. Philip Wilson, Managing Director, Outsourcing will now report to David Palk.

This integration will better enable ICL to develop and deploy the full portfolio of global services offerings consisting of:

- Data Centre Outsourcing Services,
- Multi-Vendor Maintenance Support Services,
- Desktop Managed Services,
- Productivity Centres(e.g. Help Desks, Service/Call Centres)
- Managed Network Services

The advantages to customers and to ICL include:

- a simplified single point of access to these offerings,
- a single integrated service management capability spanning ICL's full range of operational services,
- the opportunity to grow the Outsourcing business in Europe through the exploitation of System Service Division's specialist sales force.
- closer co-operation with our colleagues in Fujitsu by providing a single interface to their Global Service and Support Group
- plus the opportunity to optimise Shared Services internally.

ICL Good News

£183M Magistrates Court system

A consortium led by ICL, with Unisys, was awarded an 11 year contract on 5 January 1999 to bring the present three systems together in a single new system. The network will help schedule court room appearances, allocate magistrates to cases, and keep details of whether offenders have paid fines.

The project is named Libra, and will connect 500 court houses together. It will be based on Microsoft desktop software linked to Oracle developed databases. It is expected to be fully up and running in two to three years.

ICL win £200M DTI Contract

It was announced on 20 November 1998 that the UNITAS consortium led by ICL, had won a 10 year IT infrastructure contract from the Department of Trade and Industry (DTI) valued at approximately £200 million, under the Government's Public Private Partnership scheme.

The consortium in which ICL partners with CMG, will provide the DTI with an advanced IT system which will radically improve the department's efficiency. The system is known as project ELGAR (Electronic Government through Administrative Re-Engineering). ICL will provide all the design, build, supply, operate and finance services that the IT system requires.

A requirement of ELGAR is to better exploit IT and help the DTI to deliver services to business and other government departments at reduced cost. As such it will require the consortium and the DTI to work in genuine partnership.

BACS multi-million pound deal with ICL

BACS, the organisation responsible for centralised clearing of automated payments in the UK, has signed a multi-million pound contract with ICL, for two Trimetra server systems.

During the final implementation phase, the Trimetra server systems enabled BACS to process over 45 million transactions during one day of the 1998 August bank holiday, proving their robustness to handle massive quantities of data.

ICL has been a supplier to BACS since its inception in 1968, when the first 1900 HPS server system was installed to handle data for fewer than 100,000 payments a day. Today, the new Trimetra server systems will manage the data for a peak processing day of over 45 million automated payments – a peak which is expected to rise to over 60 million transactions a day by 2000.

Trimetra was chosen by BACS, as it is ideally suited to environments, which require robust server systems for mission-critical applications. It was also chosen, as Trimetra is highly scalable, providing future-proofing to deal with the increased demands of the BACS' clearing service into the next millennium.

Rodney Inch, head of service delivery, BACS, said of the deal with ICL: "BACS cannot afford any possibility of downtime or product failure. If our payments systems should ever fail, payments would not be cleared, salaries would be unpaid and direct debits and standing orders would not be deducted. Through our long association with ICL, we are

confident that they understand our needs and the imperatives of our business."

BACS is using two multi-node Trimetra servers based at two locations – in London and the home counties – each to mirror the other's information.

LIFE WITH BTM/ICT

The Way We Were

Continuing Frank Townsend's history

1301 Exhibitions & Installations

In April 1962 I had my first taste of the Hanover Fair. This was the first public exhibition of the 1301 and everyone was very pensive. A large team of engineers was involved to cover every possible eventuality. The Luton contingent consisted of myself, John Hudson and Ernie Cutler and we all travelled by road packed in the Mini complete with tools etc. All the engineers were under the supervision of Bob Saunders including the Luton contingent.

The thing that remains in my mind about Hanover Fare was the great Beer Hall in the exhibition. We visited it every day, consuming German beer out of the litre German Beer Mugs. On a stage in the centre was a typical German Band complete with a conductor 'The Capel Miester'. While the band was playing the conductor would be casting his eyes round the customers. When he had selected a customer deserving the band's attention, he would lead the band in a procession round the hall to the table where the customer was seated. He would then place his cap, which was like a Robin Hood Cap complete with a feather, on the customer's head and lead the customer followed by the band back onto the stage. The privilege of being the selected customer was invariably becoming a spectacle and having the privilege of buying beer for the whole band. This beer often came in a bucket which was passed round all the band while the customer paid for it. When we saw the band stand up it was a signal for us engineers to quickly move to another part of the hall as we had no intention of being the selected customer.

In September 1962 the 1301 was first exhibited at the BEE. The memorable part is that on the last but one day of the BEE the machine was removed and transported to Paris and installed at SICOB. This meant installing the same machine twice in two weeks. To commemorate this event a film was made covering both events and I still have a copy of it. One of the gimmicks devised by us engineers to liven up things was to make the 1301 play music. As the music had to be punched on cards, note by note, it helped to pass the time. The result in this was that the 1301 appeared on French Television playing a duet with Georges Jouvin, the French equivalent to 'Eddie Calvert'.

In December 1962 the first 1301 was installed in Germany. This was at Hamburger Haffen. It was the two weeks before Christmas and I was accompanied by John Hudson and Peter MacCrae. The local engineer was called Ganserich and the weather was extremely cold. Outside the window to the hotel room was mounted a thermometer and each morning all the mercury was in the bulb at the bottom registering off the scale. As we walked to the customer each morning we passed the Alster which was frozen solid.

This was the first time I encountered a 'continuous lift' and as nobody could answer the question 'what happens when the lift goes over the top before coming down the other side. The only answer was to try it and see. It was an anti-climax but I had a good view of the way the building roof was built! Being the run up to Christmas, we purchased various presents for our families and Peter McCrae and myself both bought "Do-it-Yourself" cuckoo clocks. This led to an amusing scene back at Heathrow when we were each asked "Anything to declare" and we each answered, in turn, "a do-it-yourself cuckoo clock".

In January 1963 we installed a 1301 at BP Llandarcy. Little did I know that this was a forerunner of me eventually moving to Wales, fifteen years later. That winter was particularly bad so Peter Johner, a Swiss engineer, accompanied me in the Mini. Peter MacCrae and Bill Netley came by train. During the installation we were given a conducted tour round the refinery having first surrendered all our 'matches and lighters'. It is amazing how many bi-products come out of refining and the ability, by some simple changing of parameters, to increase the amount of Petrol produced by decreasing the amount of Lubricating Oil all while using the same amount of Crude input.

Another thing I noticed was that tankers bearing logos from other oil companies apart from BP were all filling up from the same dispatch point. So much for thinking that a particular brand is unique. Since living in Wales I have re-visited the refinery, but the Power Station, which was part of it and would power a town, has gone and only Lubricating Oil is produced. When Peter Johner and I returned to Luton at the weekend, we met the full implications of the weather and became stranded by the snow. Fortunately we ended up at the Windrush Transport Cafe on the top of the Cotswolds with the way forward and back both blocked by stranded lorries. After some hours the road east was cleared and we resumed the journey. The problem then was that the road had been made by lorries into two deep ruts with the centre piled up with snow. As the ground clearance on the Mini is very little it was not long before we came to a halt with the wheels spinning and the under-side resting on the snow. The only answer was for Peter to push until traction was achieved. This was repeated many times, and Peter spent most of the journey with the back doors open, his legs dangling, kicking us forward whenever we lost traction or jumping out, pushing and leaping back in as soon as we moved.

In the spring of 1963 there was another double exhibition of the 1301 with both on the continent. The first exhibition was at The Milan Fair and the contingent consisted of myself, Peter Johner, Peter MacCrae and Bill Netley. I travelled by road with Bill Netley, whilst the others travelled by air. The journey took two days with a stop at Bale. We then drove through the Alps to the St Gotthard tunnel. There the Mini was driven onto the train. The journey through the tunnel took about twenty minutes starting in Switzerland and ending in Italy. The exhibition was a success and the machine behaved it's self. One evening, after work we were looking for a restaurant for a meal. We found one which looked inviting so we went in. It so happened that they were closing for the night but when they saw us they reopened and cooked us a delightful meal. This showed

the difference between British and Continental attitudes, as had it been in England we would have been greeted with "Sorry we are closed". When the exhibition had finished we had to dismantle the 1301 so it could be transported to Zurich for the second exhibition.

While the machine was being transported we had to fill in the time by travelling to Munich to install a 1301 at Sud Deutsch Bremsen. The one thing about Munich is that it is the Mecca of German Beer. There are seven well known Breweries in the city, each with their Beer Halls. The beer is normally drunk from earthenware mugs (steins) and each brewery has a distinctive crest on the stein. Each Beer Hall has a shop which sells steins to customers drinking at the hall. As I intended to acquire a full set, this involved consuming seven litres of beer. This was achieved over two evenings and we all had a good time in the process.

Having finished the installation in Munich we all travelled to Zurich to rejoin the machine from Milan. The exhibition was called BUFFA and was to be held in a new exhibition building. When we arrived they were still building the hall. The wall and roof were there, but the floor was not even fully laid. Workmen were everywhere and it seem inconceivable that everything would be finished in the five days before the exhibition was due to open. A plinth was erected and we commenced to install the machine amidst all the bustle. With the typical Swiss efficiency the hall was finished and the exhibition laid out in time for the official opening. The machine again gave no trouble and we returned to Luton having spent 50 days in total on this excursion.

In July 1963 I went with a team of engineers to install a 1301 at GCHQ. As you will know GCHQ is one of the most security minded sites in the country. I had already had a taste of this when installing a 555 on a previous visit. At that time when visiting the toilet I was accompanied by a member of the staff who had to stand outside the cubicle door. The 1300 was to be located at one end of a very large computer room, which was already occupied by various computers. When we arrived, an area of the computer floor had been partitioned off with hardboard and the machine placed in the centre of this area. We were told the partitioning was so that we could not see what was in the rest of the room, for security reasons. The flaw in all the trouble to stop us seeing in the rest of the room was obvious as time progressed. Each day during the morning and afternoon we stopped for a tea break. This involved us trooping out from the partitioned area straight to the stairs, going down and then along a corridor under the machine room and then up the stairs at the other end. The ludicrous thing was that to reach the canteen we had then to go through the forbidden room. In June 1964 a second 1301 was installed at GCHQ. This time there was no partitioning, so obviously it had been realised that FEHQ were not a security risk.

Frank Townsend Pinged Burry Port S. Wales
To be continued

Now here's a funny thing!

A long time ago in the early 70's, Ken McLeod and myself found ourselves lumbered with doing a major overhaul on an Anelex printer at the English Electric site of the Phoenix Assurance Company in Norbury.

We had to remove the 160 column print barrel, separate the eight segments and give everything a thorough clean, before replacing two worn/damaged segments and then replacing the print barrel. (A thoroughly messy and time consuming job, as anyone of you who had to tackle this job will appreciate)

Well after readjusting penetration and flight times, we ran off a test print and then prepared to hand over the machine. At this juncture Ken spotted a small perspex disc, concave in shape, in the bottom of the machine. After careful examination of the disc and the top of the printer Ken noticed the ribbon reversal counter aperture, which was about the same size as the disc. However, we found that it did not quite fit, and decided that it must have expanded a little before springing out. So we had to chamfer the edge of the disc with a file, then with a spot of glue and slight pressure the cover sprang into place over the counter. Job completed!

Just then I was asked to help out at the CUAC site at Whyteleafe. After driving a short distance I happened to look at my wrist to check the time. No time! Why? There were no hands! Strange there was no glass either! No glass! Oh my sainted aunt, what have we done?

Then I saw the funny side of it. My watch was useless, but if it were any consolation the Phoenix printer was the only one in the entire world with a dust cover to its ribbon reversal counter!

John Grimstone

New Book

Another ICL Anthology

Hamish Carmichael has produced a sequel to the first ICL Anthology published in 1996. The sequel was published in November 1998 and can only be obtained by post direct from: Laidlaw Hicks Publishers, 63 Collingwood Avenue, Tolworth, Surbiton, Surrey KT5 9PU Price including postage and packing is UK £12.50 Europe £13.50 Rest of World £16.50. Cheques should be made payable to J.W.S.Carmichael.

LETTERS

Contributors are asked to give a telephone number on which they can be contacted.

Bits & Bytes

Thank you very much for your continued efforts in producing B&B - greatly appreciated. I must admit to skipping a lot of the technical stuff from all the clever people, and turning to the obituary column to check that my name is not there! Seriously though it makes me still feel part of a very successful company and remember how fortunate I was to work with so many nice people, and to have had such fun at the same time.

Presently I am working part time as secretary to a Day Hospital where they care for elderly people with dementia and Alzheimer's disease, so nothing changes - only kidding! Although I must admit typing reports on symptoms which I can relate to, is very worrying.

We moved to Surrey six years ago when my other half was offered employment here. Moving homes is not always easy, as you leave long established friends and familiar surroundings, but in other ways you benefit from making new friends and discovering new

countryside, shops etc. You join clubs to meet people, so I'm into Rosemary Conley, Brownies, NCH, and Line Dancing Yea Ha! Needless to say my other half doesn't do these things!

We have had some great holidays - top of the list has to be Antigua, several trips to Florida to see Mickey Mouse, and Cornwall. In my spare time I am surfing the Net - not, or more likely, playing Solitaire on my ICL PC.

You are welcome to print this gripping letter if you are short on news and I would love to read about what other people, especially the girls, are up to now. I would also like to send regards to all friends and colleagues and encourage them to keep taking the tablets!

Enid Kershaw ex STE04

Bull in a Hollerith shop

In B&B No 6 Frank Townsend's history includes the words "*I was introduced to the intricacy of "Multi Read Feed"; what an ingenious device!"* Not only ingenious but essentially very simple in conception. But nothing (at least in our business) is ever as straightforward as it appears.

Before the advent of the 901 tabulator, capable of printing alpha characters across the whole width of the print bank, we had to make do with twenty two on the Senior Rolling Total tabulator. So, in the normal course of events, a four line name and address would need to be punched in four consecutive eighty column cards, one line in each. This caused problems in sequencing and sorting the cards as well as wasting a lot of valuable punching space. How much better it would have been if we had been able to punch all of the name and address on a single card. Of course we could literally have done just that but still have printed only twenty two alpha characters; the remainder would have been lost as the card disappeared down the throat of the tabulator. What we needed was something completely foreign to Hollerith machines, the ability to take several shots at reading a card. Hence "Multi-read feed" MRF.

As I've said the device was in principle very simple. Two "grippers" would hold the two leading corners of the card and lead it back up and around the contact roller to be read as many times as required. The judicious use of "selectors" then routed different fields from the card consecutively to the print bank to produce the desired name and address. It worked well.

Government Section, under Cedric Dickens, was bidding for a large order from the Ministry of Pensions and National Insurance (MPNI) for the production of individually addressed pensions books, millions of them. Technical Division devised a special feed mechanism for the Senior which fed complete pension books and this coupled with MRF neatly solved the problem. Bingo! And the order was signed.

However!!!! In order to keep the name and address card file up to date it was obviously necessary to find any cards needing amendment and replace them. The obvious solution was to interpret the cards. There were well over two million cards and the only interpreter in the British Tab armoury was the serial "wire interpreter" (?413), far too slow for the job. So it was decided to buy some parallel interpreters from Machine Bull. (How many of you remember the 506 Bull Multiplier - in Government Section we had them all - including two IBM 602As)

The unusual feature of the Bull interpreter was that with wondrous Gallic logic it printed on the back of the card, at the bottom, upside down. This meant that in order to read the interpretation the cards had to be kept in their trays upside down. i.e. with the leading edge uppermost.

One facet of the punched card was the corner cut, a simple method of ensuring that all the cards in a bundle were the right way up. Normally, of course, the corner cut was at the top of the card, but since in the case of the MPNI the cards were stored upside down it was entirely logical for them to be produced with the corner cut at the bottom.

Since manufacture and delivery of the Seniors took many months, a large punch room was set up and work began punching, verifying and interpreting vast number of cards. All was complete in time for delivery of the first tabulator and an expectant group met to witness the printing of the first batch of pension books. The start button was pressed and the first card set off on its path towards the stacker.

Suddenly a nasty tearing sound! The machine stopped. The first card was removed and found to be almost torn in half. A second attempt was made with the next card and fared no better. Disaster!

You've guessed it! One of the two grippers of the MRF held on to the card and tried to lead it back round the roller. The other gripper tried to do the same but missed the card because of the corner cut and the card carried straight on. Catastrophe. Would we have to repunch the complete file of cards?

Mercifully not - all we had to do was to reproduce the file on to new cards with the corner cut at the top and interpret them. Not a trivial job by any means but only a fraction of the effort that would have been required to repunch the lot.

So the very machines intended to solve a problem can create their own and prejudice the careful plans of the investigator (as we were called). Of course, people can do the same - but that's another story.

Graham Morris Guildford

AERE 555

Further to Frank Townsend's history in the Autumn 98 B&B **Albert Brook** writes, to comment on what went on at Harwell. Albert has checked with Ted Evison who was the Oxford Region's engineer on site at the time.

Frank explains the system very well indeed, namely electrons behaviour in an atomic pile. The project was called the Monte Carlo program and initially blank cards were used. The card reader was the input mechanism and the output device was a gang punch. The program ran for more than three hours during which time the gang punch was running but not doing anything! When the result had to be punched the card sitting in the machine had skewed and was mis-punched. Something had to be done to correct this.

The designers from North Herts were brought in, including, I think, Alec Trussell. They, together with Jim Hailstone of AERE, implemented some mods and program changes so that the gang punch was only activated just prior to the result being obtained. Problem solved.

Frank may be interested to know that Timsbury Villa still exists but has been extended and renamed The Steventon Inn.

REUNIONS

Leo Computers Society

The 1999 LEO Reunion will be held on the evening of Friday, 15 October, at the premises of the Honourable Artillery Company at City Road, London EC. We shall be pleased to welcome all former staff of LEO Computers, also anyone who worked on LEO computers within the English Electric group, for ICL, or for any of the LEO users.

If you have attended these reunions before, you should have already received an invitation to this year's event. If you haven't, or would like more information, please call Dick Warren on 01753 885063. If you have Internet access, you can email our chairman Peter Byford at pgb@bcs.org.uk, or look up the website at www.man.ac.uk/science-engineering/CHSTM/leo.

The cost for this event will be £19.50 which includes a hot buffet.

Geoff Parry 01628 770129

West Gorton Reunion

Eric W Watts, 228, Oldham Road, Lydgate, Saddleworth, OL4 4DN. 01457 875080

ICL Central London Group

The next get together will be on the 21 July 1999 at the usual venue - The Fox at Epworth/Paul Street, from 12 noon.

John Doo 01245 259862

Punched Card Reunion Group

Adrian Turner 01491 872012

STE04 Office and Retail Systems

Derek Tourell 0181 386 9465

Watford-Harrow- Feltham Group

Derek Tourell 0181 386 9465

Copthall House Newcastle Staffs

Bob Green 01782 657763

Letchworth Group

Dennis Evans 01462 811273

West Branch Engineers

Eric Reynolds 01452 712047

East Grinstead 81 Club

Bert Gill 01903 763370

West Kent Engineers

Ron Harding 01732 761076

East Midlands UB40s

Brian Skeldon 0115 9727835

Oxford Region

Albert Brook 01235 531267

The Walthamstow Mob

Derek Windsor 01992 522761

Tin Hut Reunion Group

Olaf Chedzoy 01278 741 269

Obituaries

Charlie Portman 1933-1998

Charlie Portman died late last year after a three year fight against cancer. Charlie was a very significant figure in the history of ICL and in the lives of many people who have worked for the company and its predecessors. This obituary was written by Chris Burton who worked with him for many years.

Our greatly respected friend and colleague, ECP Portman (known to everyone as Charlie), died on 19th December 1998 on the threshold of his retirement from ICL. One word which sums-up the effect Charlie had on his colleagues is inspirational.

For many years he was my manager, but for forty years, for me as for so many others, he was our mentor. He did not autocratically dictate what to do; he advised, he guided, he inspired us with what to do.

Charlie Portman graduated in Electronic Engineering from the University of Liverpool and joined the Ferranti Computer Department in the Magnetic Drum Laboratory in 1954. He was soon involved with the new computers Mercury and Sirius, where he started to show his grasp of overall systems engineering. In 1960 he became part of the Orion 1 design team where his clear understanding of the interaction of software, hardware and a desired system specification could be brought to bear on pioneering work with multi-programming. Charlie took the first (unfinished) Orion to AB Turitz in Gothenburg and there completed the hardware and software so that the system was accepted by the customer. This was a major manifestation of his skill in motivating staff of different disciplines to achieve a goal in difficult circumstances. It was probably a defining episode for Charlie himself; he often recalled some of the events of that project with nostalgia and justifiable pride. His star had started to shine!

As the best system engineer in West Gorton he led all the new 1900 series hardware developed there, and participated in product planning for these larger systems. Once the hardware designs were established, he took responsibility for all hardware-oriented software for large systems, i.e. test software, executive-type software and design automation. He then carried this work through into the corresponding support for the early large-scale 2900 series machines. His responsibilities were now extensive, he had staff in Manchester, Kids Grove, Stoke and Stevenage. He met the challenge of these different tasks, which posed novel management problems in the 1960s and early 70s. He had been referred to in Fred Brooks's well-known book, "The Mythical Man-Month" as a person who knew about team-management. Yet he steered clear of the various management fashions of the time. He preferred to think of himself primarily as an engineer.

In the mid-1970s, Charlie turned away, temporarily, from managing big teams. He wanted to get closer to his love of the technically new and exciting. Having started his career in valve electronics, he turned towards advanced developments, particularly how ICL could exploit the falling cost and proliferation of silicon technology, the architecture of very large

systems, the role of federated and networked systems, when all these ideas were in their infancy. He had a marvellous technical imagination, which often I felt was nourished by his wide reading and appreciation of classical science fiction. Once in a discussion, when we were struggling to find the right direction, he suggested evocatively that we should think in terms of, *"stepping forward into the future hand-in-hand with our friendly robot."*

When the national Alvey Programme was set up, Charlie naturally became Project Manager of the largest of the Demonstrator Projects, applying Artificial Intelligence ideas to decision support in the Department of Social Security. His reputation as a great guy to work for spread to the two industrial and four academic collaborating organisations and a number of departments in the DSS. After the successful conclusion of the five-year collaboration, he managed those groups inside ICL exploiting the lessons learned about decision support in that large project.

His wisdom and understanding of the structure of large and complex computer systems, and his ability to explain and clarify the issues for other people has always attracted colleagues seeking advice on special technology and product planning problems within the company. He inspiringly brought out the best from everyone who worked with or for him, yet he modestly played-down his own role in so many of ICL's successes. He firmly believed in the power of individual skills and integrity when faced with distasteful organisational impositions. His own utter honesty, humanity and compassion seemed to be entirely natural, yet were surely reinforced by his wife Sylvia who would often be seen at his side.

Charlie drew much satisfaction from his appointment as an ICL Fellow and then as an ICL Emeritus Fellow, and he was also awarded an ICL Chairman's Gold Medal in 1998. Over the last few years Charlie worked closely with the IC Parc team at Imperial College continuing to inspire and guide them in their research into operational scheduling tools. He also took an active practical interest in the history of our computer industry. He was a key member of the SSEM Rebuild team that rebuilt the "Baby" computer, which was at the centre of the celebrations in Manchester of the Golden Anniversary of the running of the first stored computer program in 1948. Together we were re-capturing the fun in our enterprises!

Many people were proud to be counted as his friend or colleague. We will miss Charlie's warmth and wise counsel. We can rejoice that the glow remains from our contact with a man of great intellectual power, of modesty and integrity, and who had a humane respect for everybody.

Chris P. Burton Ferranti, ICT & ICL W.Gorton

Brian Procter 1936-1999

Brian died from cancer on 24 February 99. This obituary written by Nic Holt appeared in Cafevik on the ICL Intranet..

Brian Procter joined the EMI Computer Division in 1958, working as a commissioning engineer on the prototype of an early transistor based computer, the EMI-DEC 1100.

In 1962, he moved to ICT, Stevenage, with the merging of EMI's computer interests. As logic designer and later manager of the processor design

unit at Stevenage, he was a key figure on most of the smaller ICT/ICL 1900 range machines. He led the team which developed the highly innovative MICOS 1 microprogrammed engine, the basis of the very successful 2903/4 system which made its debut at Hannover in 1973. Brian became the product architect for small and mid-range 2900 systems. The MICOS design was further developed into MICOS 2, which was to be the forerunner of a series of successful machines including the 2960 and 2950, later the 2966, and eventually the DM/1.

With the closure of the Stevenage laboratories in 1975, Brian moved to Manchester. In the late 70s he conceived the hardware system architecture which, with corresponding developments to the VME operating system, became the Series 39 Nodal Architecture, still one of the most advanced multi-processor architectures in the world.

Brian worked on the introduction of Fujitsu VLSI technology into mainframes, incorporated into the DM/1 and Estriel systems. He recognised the opportunities for mainframe system design afforded by large scale VLSI technology - in those days generally considered suitable only for 'mini computers'. He led a team which demonstrated the feasibility of implementing the Series 39 Architecture in VLSI.

In the mid 80s, Brian played a major part in ICL's contribution the UK Alvey programme which was aimed at stimulating research collaborations between UK industry and academia, in response to the Japanese 5th Generation programme. Brian was technical manager of the Alvey 'Flagship' project researching parallel processing, and the subsequent Esprit EDS project which led to the ICL Goldrush parallel database machine.

Brian was made an ICL Fellow in 1990 and appointed Chief Architect of Corporate Systems Division in 1991. Before his retirement, he was responsible for the technical aspects of the 'Millennium' multi-server programme.

Brian's special interests were the future direction of IT platforms in the general context of advances in technology, Architecture and the business application of IT. He was awarded an ICL Chairman's Gold Medal in 1998.

Brian's creative influence inspired much of ICL's technological strategy over a period spanning four decades. His personal enthusiasm and guidance were responsible for the sound development of many of ICL's successful engineers. He will be remembered by those privileged to work with him for his insight into complex issues and ability to explain them in simple terms; his eagerness to understand new concepts and recognise their possibilities; his readiness to listen to other peoples' ideas and offer perceptive advice and encouragement; his determination to see the achievement of the things he believed in; and, above all, his gentle nature and his unfailing kindness.

Nic Holt

John Scarlett 1935-1999

John died suddenly on the 2nd tee of his golf course on Wednesday 10 February 1999.

He joined Powers Samas in 1955 and worked as an engineer in the Oxford Region, meeting his wife Greta at BMC Cowley when her machine broke down. They married in 1961.

In 1964 he joined International Division in Nairobi Kenya and during the following years worked in numerous overseas locations including the Middle East, India, Nigeria, Yugoslavia and Hong Kong.

I first met him when he worked on the ICT 1500 (RCA 301) and found him to be a very friendly, unassuming, gentleman. I then didn't see him until he came to a Punched Card Reunion at Stevenage. He hadn't changed at all, despite the passage of 30 years.

A number of his ex colleagues in Oxford were at his funeral in Southampton on 19 February, his 64th birthday.

Adrian Turner

Mike Jennings

Mike died of a heart attack on 18th. November 98 aged 65 while shopping with his wife.

Mike started his career at Powers Samas Whyteleafe and was on the 558 development team when I first met him.

Mike moved to Stevenage Labs and then to No 3 factory where he worked in the Specials Dept. I worked for Mike when he joined Specials in 1979 until we both took early retirement in 1991. I found him to be a very relaxed manager who gave encouragement to all his engineers, who were often asked to produce special terminals in difficult customer situations.

Roy Newbury

Walter Herring 1915 to 1998

Walter Herring or Wally as he was known affectionately to his friends originally had the ambition when he left school to become a newspaper reporter but due to ill health was advised by his doctor to take an 'indoor' job. He decided to enter service which eventually led to him becoming valet to the Duke of Connaught who was Queen Victoria's youngest son. When the Duke died Wally could no longer hold an exalted position in the hierarchy and decided that his future lay elsewhere.

The war had started so Wally applied to join the RAF but was turned down on medical grounds following a rigorous two days of tests. Some time passed until he was called back and the RAF doctors pronounced him fully fit after only half an hour! He entered the RAF a few days later and was soon sent to Bletchley Park to learn about British code breaking equipment. From here he was posted to Eastcote where he spent the rest of the war maintaining what we now call Bombes. Nothing was ever said about the way Wally was selected for this Top Secret work but his period with the Duke must have had something to do with it.

After the war Wally was recruited along with many of his RAF colleagues into the British Tabulator Machine Company who's main factories were in Letchworth. Wally worked for BTM then ICT and later ICL until his retirement around 1980. In the 30 plus years that he worked in the Punched Card and then the Computer Industry he made a very great number of friends such was the nature of the man.

He was always interested in new things and often got very excited particularly at meetings where the subject was one which he was particularly keen on. Mentally he never tired and when the secrecy was lifted on the WW II code breaking activity he was a focal point in bringing together those who had manufactured and serviced the secret equipment

during the early 1940s. This work will continue now that Wally has got it off to a flying start. This should result in a lasting tribute to those who's efforts could not be recognised fully at the time.

John Harper

ICL/Nortel Fund

Taken from the autumn 1998 and spring 1999 editions of the Nortel "Diary".

Birmingham	Johnson	James	09/05/98	82	
Bracknell	Bracknell	James E	26/09/98	80	
	Tubb	Roy B	15/08/98	62	
	Fairs	Norman G	11/10/98	82	
Bristol	Giggins	Arthur Roy	09/07/98	77	
	Wills	Arthur J	24/09/98	76	
Exeter	Kerr	William	16/06/98	75	
Feltham					
Harrow					
Kidsgrove	Cleaver	Thomas F	07/09/98	88	
	Coldham	Victor	25/04/98	68	
	Grose	James W	08/04/98	66	
	Hunter	Doris	11/05/98	72	
	Letchworth	Bamsey	Arthur C J	25/07/98	79
		Beard	Alan W J	14/09/98	70
		Christie	John E	08/09/98	93
		Davies	Harold C	18/06/98	75
		Dunne	Thomas	14/10/98	75
		Gentle	Hubert G	15/07/98	89
		Gentle	Lawrence	26/08/98	73
		Griffiths	Herbert	16/09/98	72
		Hyde	Desmond	10/09/98	83
		Loach	Herbert	08/08/98	83
		McPherson	William R	05/04/98	92
		Rouse	William H	12/10/98	88
		Scroggins	William J	10/09/98	72
	Shaw	Ernest F	04/04/98	81	
	Silby	Harry L G	16/08/98	81	
	Smith	Charlotte	17/03/98	85	
Sothcott	Victor H	13/08/98	87		
Thompson	Douglas L	24/08/98	77		
Woods	Josephine	05/09/98	69		
Manchester	Martin	Stanley	30/04/98	73	
	Spiers	Gerald	24/04/98	72	
	Fallon	Eric J	01/10/98	70	
Newcastle	Cook	Roy	22/09/98	76	
Norwich	Bowyer	William J	10/06/98	77	
	Van Gils	Jean D	09/08/98	65	
Putney	Wheeker	Ella C	11/08/98	81	
	Croft	Clifford C	21/05/98	87	
	Kenworthy	Lidka May	22/04/98	73	
Reading	Capell	Trevor F	17/05/98	60	
	Holley	Albert G	18/08/98	82	
S'hampton	Jennings	Ernest A	29/04/98	80	
	Nichol	John C	14/09/98	77	
	Smith	Harry	30/04/98	74	
	Thorley	Victor G	16/07/98	72	
	Stevenage	Nicholson	James E	19/08/98	77
		Nott	Catherine	15/09/98	82
		Rhodes	Dennis	16/07/98	76
	W. Gorton				
Winsford					
Other ICL Locations	Benson	Alan	21/01/98	60	
	Colledge	Jan	21/04/98	84	
	Colman	Harry	27/04/98	79	
	Cunningham	James G	27/09/98	86	
	Dickin	George E	26/09/98	91	
	Drewett	Arthur F	07/02/98	86	
	Ellington	Reneval T	29/03/98	69	
	Gardner	Rita M	11/07/98	69	

George	Marcella	13/10/98	
Gilbert	Horace	18/08/98	65
Hamilton	John A	17/10/98	66
Hunt	Peter M	25/02/98	70
Loader	Mary G	28/07/98	77
Lomax	George H	18/09/98	83
Miller	Eric W	06/07/98	70
Nicholson	Mathew O	05/09/98	82
Nowlan	Frank W	27/01/98	79
Plant	Reginald	09/07/98	74
Slatter	Richard C	03/09/98	70
Skerratt	Leonard	12/05/98	70
Stammers	Michael V	13/09/98	79
Thornton	Edward G	30/04/98	84
Tyrrell	Charles C	08/05/98	76
Whalley	Geoffrey D	17/05/98	71

ICL Employee Offers

AA Membership

0990 444444 Mon. to Fri. 09:00 to 17:00

Personal Computers

PC Interworks Ltd 01782 777477

Leisure Travel Services

Portman Travel. 0181 543 4433 09:00 to 17:30
Mon. to Fri.

ICL Fund

BRA05	Scarlett	John	10/02/99	63
FCY02	Booty	Anthony	4/11/98	59
GLA01	McKain	Robert	30/08/98	56
HOM99	Edmonds	Ronald	29/11/98	61
	Pearson	Dennis	23/09/98	67
IRE02	Cooke	Henry	16/07/98	61
KID01	Davies	Charles	26/09/98	67
	Landon	Harry	26/09/98	62
LEE01	Bowerbank	John	27/12/98	69
LON11	Ellis	Keppell	26/11/98	70
MAN05	Procter	Brian	24/02/99	62
MAN12	Portman	Charlie	19/12/98	65
STE04	Smalley	Jack	1/10/98	63
STE09	Jennings	Mike	18/11/98	66

PENSIONER REPS

State Pension

There has been considerable coverage in the national press on the problems being experienced with the new Benefits Agency system. The advice from Bill Williams is that **everyone** should get a pension forecast by submitting a BR19 form, (which you can obtain from any Benefits office), **before** you reach pensionable age. If you are informed that you are only entitled to the basic pension you can then produce the forecast at the Benefits office. If you still have problems you should ring the Benefits Agency Operational Support Branch at Newcastle, 0191 225 5273, and ask to speak to Mr Dave Marshall. It seems that he performs miracles!

Jack Kane 21, Hazlebank Close, Liphook, Hants.

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NEXT ISSUE

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