

Bits & Bytes

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No 48

Editorial

As my typing speed, with two fingers, isn't very good, I was very pleased when Vince Celano told me about Microsoft Dictate which can be added to Office 365, which I have done. I have received ten pages of "pen and ink" from one of the original HEC programmers who is not IT literate! I used this new software to input one of his articles and was amazed and amused at what the PC input to this newsletter.

I'm sure that many of you have used sub-titles on your TV and realise that what is said is not always transcribed correctly. It happened for me when reading this article, and in future, when I'm short of copy I think that I could publish "before and after" stories.

A famous name in ICT/ICT left this mortal coil in January. Mike Forrest was a name that was well known in Putney and Bracknell in the early days of New Range. There are many "Urban myths"/Facts about this very strong character, many recalled in Hamish Carmichael's two ICL Anthologies. They can be read on the Bits & Bytes website at www.bitsandbytes.org.uk.

I have attempted to write an obituary, which is later in this edition, but as I have mentioned many times in the past, the facts of his career in the company are very hard to come by. Please produce a mini-CV for your obit!

Adrian Turner

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Copy Wanted

Many of you will have worked for ICT/ICL/FJS etc. for a long time, during which you must have had some interesting/annoying/frustrating times.

eg. How effective were:

Quality circles/Conversations for change/The Lean Method

How many job titles did you have in your career?
Was there a best job?

Any interesting customer stories?

How different was your first year of work to your last few years?

Those that worked on Hardware must have seen big changes & some disasters.

Tell us if you accidentally created a disaster rather than fixing one!

Vince Celano

How I stumbled into computer programming

On 2nd February 1953, at the age of 20, I joined the British Tabulating Machine Company Ltd as a punched-card Technical Service Trainee on an annual salary of £377 – I have the letter of appointment in front of me as I write this.

The strange total of £377 was due to the fact that the company operated 13 4-weekly accounting periods and that the annual salary had to be divisible by 13! The great thing was that in one month each year you received 2 monthly payments – bliss!

I had received a few offers of employment (Courtaulds, ICI etc) but I chose BTM because;

They offered 14 months of training before you had to start any real work.

8 months of your training before you had to start any real work. was spent at the companies training school at Moor Hall in Cookham Berkshire during which time your board and lodging were provided for free.

Never having heard of punched cards I was absolutely fascinated to watch them all whizzing back and forth in sorters and collators during a demonstration in Head Office at 17, Park Lane following my initial interview

Moor Hall was brilliant. A delightful location in a charming village near the Thames and with 13 pubs in the immediate area. The training staff were excellent: instructor Hugh Pincott was both professional and caring: the accommodation and food were great and the number of young and attractive maids cooks and cleaners looked after us very well!

Most courses consisted of University graduates but mine was unusual in that we were the heterogeneous collection of those who are not clever enough to have gone to university who had already had a job somewhere, had a spell in the military etc. We had an Australian immigrant, a Burmese government official, an ex- Navy officer, a posh gent who owned a Bugatti etc - they made the most interesting group

During our initial training we had to spend 2 to 3 month periods in a district office. Since I was a southerner I was quite rightly sent to Manchester and Sheffield for my time "in the field". In Manchester I was immediately dispatched to Tootles Ltd who had recently transferred all their invoicing systems onto a large new punch card installation and which was running badly behind. Every evening at 5:30 Ken Grimsley, (a senior technical advisor) Eddie (an engineer) and myself took over the installation and

produced as many invoices as possible (rushing from one machine to another like mad things) until the operators appeared at 9 am the following morning,

During my 3 months in Manchester I don't think I ever saw the light of day during the week!

In Sheffield I was assigned to John Groom Davis, another senior technical advisor, who became a very dear friend until he died a few years ago. I spent most of my time plugging and testing tabulator boards for various steel companies down the Attercliffe Road. In both cities I stayed in digs each with lovely landladies and have had the greatest respect for Northern Hospitality ever since

On completion of my basic training course at Moor Hall on the 5th of March 1954 I reported to Tom Percival in Park Lane who was deputy sales personal manager, was responsible for new recruits, to get my posting. "You have been selected to go on a 2 weeks computer programming course" he told me. "What is computer programming" I asked. "I don't know but come back and tell me" he replied. At the end of my course I returned to John's office. "Well what is computer programming?" he enquired. "I don't know, I didn't understand a word they said during the 2 weeks" I informed him! "Well you must have fooled them as they want you to join them on a permanent basis" he told me. And so, at the age of 22, I became the youngest and most incompetent computer programmer in the company!

Accordingly I found myself a member of the company's Computer Commercial Research team based in 143, Park Lane. Under the direction of Ronnie Michaelson, the team consisted of Brian Bagnall (a mathematician) John Insall (a statistician), Rosemary Bonham Carter (who bought some much needed glamour to the team) and Roy Hancock (the computer engineer).

We even had our own computer – well sort of! The Hollerith Electronic Computer No1 (HEC1) consisted a 6ft x 6ft metal frame with a mass of electronic valves sticking out of the back and each represented by a neon on the front of the frame. There were no mechanised input or output devices. The only means of getting data and program instructions into the HEC1 was by flicking down a binary switch and inputting into the Input Register the binary equivalent of the required number. Output required you to read the binary digits in the Output register and write the numeric equivalent on to a piece of paper! Not the slickest system, but at least it was a computer engine on which we could learn and experiment.

Pat Morrish

An "It Can't Last" (ICL) incident.

I had been given the task of turning round the situation at a company called Fairy Arlon.

The It Can't Last sign was in big letters on the company notice board so you would see it in the foyer on arriving. I was a little dismayed but made no comment.

It was a factory of 300 workers near Heathrow making I think, high quality filters. The breakdowns were regular and to me the entry level equipment was unknown and getting on a bit. After a couple of days I got to know what was going on and after talking to the operators I was starting to form an opinion.

The work practices were not good, a difficult manager and operators who were 'borrowed' on a daily basis from other departments and they all hated their day with the man.

I was puzzled why the system failed early on then got better, so one day I arrived early (07 :30) and saw that the one man band computer manager was storing the disc drive overnight in a steel safe. The computer room was kept at around 70 degrees F so when the disc came out in the morning it was very cold, when it was mounted on the drive the aluminium discs expanded on warming and so at the start of the day they tracks were out of line with the read heads. I said this was bad practice but he would not alter his ways.

Now I learnt a very good practice from a project manager who saved ICL's bacon at a Parliamentary Hearing on the failures of the DVLA at their beginnings. He kept a Day Book of the day's events and agreements etc. In fact he had a stack of them. And this day to day detail showed how the DVLA had been less than fair in apportioning the blame and ICL came out squeaky clean. Since then I had been keeping my own Day Book. (*I still have mine! Ed*)

Going back to the problems it was also clear that the equipment needed some resilience and upgrading and I found a spare disc drive in working order and arranged to have it transported and installed on the system.

We agreed to have a sort of 'Y' switch ability in case of disc drive failure, this was agreed and written in my book and I went home.

Next morning I arrived to turmoil. The system was down, 300 workers were idle and the M.D. was waiting for me in the computer room. I listened to explanations and I asked the manager why he could not switch to the other drive. I am not saying this would have solved the problem but it was an agreed option in case of trouble. Unknown to me he had re-connected the system after I left. He denied all knowledge of this agreement and was in A.P.M. (you work it out). I opened my briefcase and gave my Day Book to the MD, showed him the entry for the day before and that spelt the end of the manager!

I was asked what they should do. In those days ICL had operating staff that could go straight out to a customer and manage and run a small system, I got one down for just after lunch. After a few days he had each day's work done by early afternoon without extra help, The disc drive was stored in the computer room. I believe the ICL man was offered the job but declined.

A week later I went to check and also saw that the "It Can't Last " sign had been quietly removed. But the problems here had stalled the sale of new ICL equipment to the parent company and ICL had been asked to resolve this first. Now it was sorted the sale of new equipment went through without problem. All because somebody thought security was putting things in a safe!

Roy Verden Ex-Problem manager FEL 01

LOST and FOUND

I was an only child, as was my brother. I'll explain.

My parents were 43 when my brother appeared. I was 17 when Mum started mumming all over again.

It wasn't till my son delved into the family history a few years ago, we discovered I wasn't the elder brother. We knew Dad had been a widower when he

married Mum in 1925. Further searching revealed that in 1921 he'd married an Ada B Richardson who tragically died that year, giving birth to a son Ronald who lived until 1958. My brother was amused, I was no longer the dominant brother.

My son has recently re-established me as Big Brother, discovering that at Edmonton Registry Office in 1921, my father H Goodwin married Ada B Richardson who died that year, leaving no issue, i.e. she was not pregnant. Coincidentally, on the same page, another Ada B Richardson married a T Goodwin, no relation and it was she who died the same year in childbirth having produced a son Ronald.

Last week I had an elder brother and now I haven't. This week I had a £10 note and then I didn't. I decided to lunch at the local pub The King Harold. With only a summer menu, I exited to the Station café where, to my embarrassment, I couldn't find the £10 note I'm sure I had. I settled for a snack and slunk hopefully back to the pub. My tentative query about losing something was met with a counter-query as to the nature of the loss. When I suggested a £10 note, I was reunited with my money, for it had been handed in. Hooray for the King Harold and its honest staff!

10 years ago I had a Nortel pension and then didn't. Following our successful claim on the assets of Nortel, I'm hoping that some recompense for loss of annual increases will be coughed up. There are not many of us left and if the rate of legal progress continues, at 92 I might end up being the sole beneficiary, which would neatly round off this story.

Dennis Goodwin

Job Up!' Turing-Welchman Bombe finds the key to Enigma again

24 September 2018

The reconstructed Turing-Welchman Bombe at The National Museum of Computing on Bletchley Park successfully found the key to break an Enigma-encrypted message in a live link-up with Poland.

The event formed part of the IFIP World Computer Congress in Poland as a tribute to the Polish mathematicians who discovered how to break Enigma, and to the British codebreakers who developed their techniques and made such a huge impact on the outcome of the Second World War.

Enigma was used by Nazi Germany to communicate encrypted messages about their operations in the various fields of conflict. Each day, codebreakers at Bletchley Park would try to find the new key of the day, which when found, enabled them to routinely read other Enigma-encrypted messages sent throughout that day. The race to find the key of the day began around midnight when the wheel settings of the Enigma were reset across each network.

The Bombe Team volunteers at TNMOC enthralled an audience at the Poznan conference by reconstructing that race live during a live video link-up.

Ruth Bourne, a 92-year-old former Bombe operator (who still makes regular cameo appearances demonstrating the Bombe at TNMOC to the public), was present to verify the procedures and to recall those arduous and stressful but highly rewarding codebreaking days.

By early morning, today's Bombe Team had found the key and by lunchtime were deciphering a message sent in English from Poland and calling *Job Up!* :

Header: JWK IHM

Encrypted message: IEEV LDQE WVUQ SHPG PZWL

Decrypted message: MYXD OGXH ASXN OXNO SEYY

(My dog has no nose)

Asked to compare today's team of codebreakers with those of the war, Bombe Team operations leader Paul Kellar modestly put the day's success in context. "The wartime engineers and codebreakers were much better than us! The engineering of the Bombe is as good as anything we have seen throughout our engineering careers. The codebreakers kept in their heads information derived from the Bombe -- we have to carefully write down the information as we go. Their innovative engineering and codebreaking skills are awe-inspiring to this day."

Ruth Bourne was one of many hundreds of Wrens who operated the 200 or so Bombe machines in satellite sites close to Bletchley Park. Working eight-hour shifts in around-the-clock codebreaking, she knew her work was important – but little more than that. "All we were told at the time was that we were codebreaking enemy messages. I never even heard the name Enigma until long after the war."

At the conference in Poland, Dr Cezary Mazurek, director of the Poznan Supercomputing and Networking Centre, explained that his institution is affiliated to the University of Poznan, where the Polish Enigma codebreakers were trained in the early 1930s in clandestine courses. Dr Marek Grajek described how the Polish codebreakers revealed their work to their British and French allies in 1939, enabling them to start reading Enigma messages as the Second World War began. Sir Dermot Turing and Dr Roger Johnson acknowledged those pioneering Polish codebreakers whose insight and ingenuity opened the door to compromising the secrecy of enemy operational messages throughout the war with such an impactful result.

A recording of the real-time feed between the conference in Poznan, Poland, and The National Museum of Computing on Bletchley Park will be available shortly.

Spell Checker

Eye halve a spelling chequer
It came with my pea sea
It plane lea marques four my revue
Miss steaks eye kin knot sea.

Eye strike a quay and type a whirred
And weight four it two say
Weather eye am wrong oar write
It shows me strait aweigh.

As soon as a mist ache is maid
It nose bee fore two long
And eye can putt the ear or rite
It's rare lee ever wrong.

Eye have run this poem threw it
I am shore your pleased two no
It's let a perfect awl the weigh
My chequer tolled me sew.

Colin Pool (SHE01/WAK01/MAN12)

Hillman Imp Disaster

Way back in 1962 I, and a large group of others, started a brilliant student apprenticeship with Ferranti shortly to become ICT. In the summer of 1963 we were supposed to do the industrial part of the training but, due to the takeover and the fact that we student apprentices were at college and keeping quiet, we were forgotten and had a long summer holiday with pay. By 1965 we had completed an OND and some of us were lucky enough to have been given a further three year student apprenticeship doing an HND in Electronics and Computer Engineering. During the summer break of 1965 I was sent to Edinburgh to experience field engineering and was posted to Scottish Widows joining the existing Field engineering team. I spent my time cleaning peripherals fraternising with the girls in the punch room, visiting other sites in Edinburgh and fixing record players radios etc., for all and sundry. When I wasn't working the Edinburgh festival was available and the locals were very friendly. One day the regional manager Angus Macdonald made me a very good offer. He needed to upgrade the Rootes Group 1300 at Linwood but it had to be done at the weekend and he couldn't get a volunteer to do it. He assured me that it was quite simple just fitting a larger pulley on the motor shaft. The 1300 was a true star ship console computer with lots of flashing lights and a large punched card reader, card punch and a line printer all built in. The 1300 could read cards at 300 cpm and print at 300 lpm the upgrade doubled both speeds by changing one motor pulley.

The Rootes factory at Paisley was on one side of the main road to Glasgow and Pressed Steel Fisher was on the other side of the road. Car bodies and individual panels were carried by conveyor over the motorway into the Hillman car factory. The 1300 was, amongst other things, scheduling the assembly line. Orders for cars came from dealers on punched cards they were read into the 1300 and processed to create a production schedule. Picking lists were printed and sent to the various parts stores and Pressed Steel by pneumatic tubes to all parts of the factory.

I accepted the challenge, and extra money, and duly turned up at the first car factory I had ever seen with the upgrade kit and instructions. I completed the upgrade and ran the tests as instructed everything went without a hitch. I phoned the regional manager to tell him all was well.

Now the factory was assembling Hillman Imps, Huskies, Singer Vogues and Hillman Minxes with numerous options orderable.

On Monday morning I was sent for by Angus Macdonald and told that all hell was breaking loose at Linwood and they were blaming the upgrade and me. When I arrived there with Angus the line was stopped and every car produced was labelled an abortion and was parked up for corrective work. Each had random bits assembled into a monstrosity of a car. It seemed that speeding up the computer caused the stores people to be overwhelmed by picking lists. They were panicking and wanted the upgrade to be reversed. Adjusting processes and procedures to allow for the increased speed was all that was required.

Roy Thomason

Stranger than Fiction

I started in computer design in 1956 in EMI. When EMI was absorbed into ICT I moved to Hitchin in 1963 in the middle of designing with Brian Procter the computer that became the 1903. Some years later I was persuaded to stand as a candidate for Hitchin Urban District Council so I set about completing the nomination paper. In the field called Description you couldn't put any party affiliation like "Monster Raving Looney Party" of "The xxx party candidate" so I entered Computer Designer then got it signed by 10 supporters and sent it off. The returning officer was the Clerk to the Council, one Wilfred Wilson who rang me at work some days later to tell me that he couldn't accept my nomination. I was quite surprised as I had taken care to ensure that it was completed properly. The reason he gave was the description. "If you say that you're a computer designer, that means that you understand how a computer works and I can't accept that". *(At this point when I'm narrating this incident, the listener usually interjects with "are you pulling my leg" or "you must be having me on" but, dear reader, be assured that this is absolutely true)*. There then followed some fairly fruitless efforts on my part along the lines of "how do you think computers are built and who gives them the instructions how to do it?" and "be assured Mr Wilson that it's infinitely easier to design a computer than a V8 car engine" (which is certainly true). So eventually I played the trump card which is to threaten him with the High Court. One of the delights of the UK is that it takes elections seriously and any disputes are dealt with not by a County Court or a Magistrates Court but by the High Court. He seemed somewhat surprised that I would do this so in one last try he said "can't you be something else?". My response was that he either accepted my description or it was the High Court; at which point the conversation ended.

I suppose that, even today, the brilliance and ingenuity that computers achieve like AI, CGI, iPhone, digital cameras, Satnav and so on totally mask the fact that what any computer actually does is to subtract one number from another and test if the result is positive or negative; and that's all. If Mr Wilson had realised that, he could have saved himself a phone call. A simple tool like a chisel in the hand of someone like Mr Sheraton can produce a thing of beauty which people accept without question. Although it is very simple at heart, what makes the computer seem so smart is that (a) it does what it does extremely quickly and (b) it is the Sheratons of the world who have the imagination to turn what is nothing more than a number cruncher into these wonderful tools that have become such a huge part of our life.

On a lighter note you'll find an amusing bit of brilliance if you google *Joyce the Librarian*. Like computers the components, in this case words, are simple. It's how they're put together that makes the miracle.

Keith Crook

Fond Memories

My name is John Shillito. I joined ICT in 1962 as an electronics engineer. Originally I worked on the 550 and 555 'Plugged Program Computers', based in Sheffield. When the 1900 range first came out I retrained at Letchworth, learning the use of every

transistor in the thing, 6 months at Letchworth is like 12 months in Brixton. We put the first 1900 into Firth Brown's, the Steel people in Sheffield. Later I progressed onto Large Systems, 1904's etc., then later 2900's. At some time in between I became a Software Specialist, first concentrating on George 3, then VME/B. I became a 2900 'Dump cracker'. During the BMEEP project whilst basing myself at BSC Scunthorpe I wrote the BMEEP Dump cracking guide. This was later accepted and issued as an official S&TS Manual. A copy of this now resides at the National Museum of Computing at Bletchley Park. I left ICL in 1980 when they were running short of cash and set up a small company selling PC's. I look back at the ICL days with many fond memories.

John Shillito

INNOVATION – but not quite as we expected

I was prompted to add a story to this esteemed publication when Adrian Turner phoned to chastise me for bragging to an ex-ICL social media group that, at just short of seventy years old, I was the oldest person still employed by Fujitsu. I was wrong – Adrian called to advise that in fact Chris Barnard is still employed up in VMEland (Manchester) and he is seventy two! After a bit of mutual reminiscing Adrian suggested that I should document some of the events from my career – which is so far forty six years with the company. So here goes with my observations about one of the three, (in my humble opinion), of the most innovative changes which ICL ever introduced. I might add that I believe that innovation is usually about the way people do things – rather than about the technology which enabled or drove those changes. I reckon the three most significant industry changing innovations have been: (1) The introduction of common Operating Systems and interfaces; which was probably the most profound of all the industry changes which ICL led. It enabled the industrialisation of software applications and batch production of “general” peripherals. (2) The second was the exploitation of UK tax law to enable “Exchange Hire”, which drove hundreds of millions of pounds worth of our business in the nineteen seventies and was a key driver of our large (arguably obscenely large) market share within National and Local Government. (3) And my final suggestion is the introduction of the One Per Desk, which – while technically a bit of a dead end – drove phenomenal business change which kept ICL at the forefront of the computer market. It is the latter I want to address here.

I have enjoyed many different roles in ICL and Fujitsu, but I am at heart a bean counter. In 1984 I was working for the UK&I Finance Director, John Lillywhite, as Financial Controller of UK Marketing. The most exciting technical development on our industry's horizon was the potential for the “personal” computer. At that time there were “home computers” which mainly enabled home learning about programming - like ZX Spectrum and the BBC Micro computer - but there was nothing to address the business community. Then people like John Panter out in the wild west (Bracknell) started talking about having a discrete machine on every workers desk, providing some business applications and combining a “smart” telephone with a remote modem linked

terminal. The One Per Desk was being born. With hindsight, ICL's principle business mistake was to develop our own product instead of intercepting the Intel, MSDOS and Windows technology which was setting California on fire. However, what we developed and sold was reasonably successful for a couple of years and was of tremendous benefit to both ICL and to the whole computing industry. But the most significant innovations I want to talk about were not just the technologies of the OPD.

Up in the ivory towers of Putney we had realised that high volume/low margin devices could not support the very large sales bonuses which our sales force were used to. The OPD had a very small margin in the order of eight pounds sterling per unit, so we needed another – cheaper - path to market. In October 1984 the Company set up a “special project” and charged me with building a telephone sales channel with a tight and highly motivated team. At that time I had zero experience of selling, but undaunted, I moved myself into the ex-Dataskil office in Old Compton Street in London's Soho, where our little OPD marketing team (two guys and two secretaries) were based. In an earlier part of my career I had spent a couple of years involved in Management Training at Hedsor, and I was arrogant enough to fancy that I knew sufficient management psychology theory to be able to build a really tight team. What could go wrong?

To generate a really close team I figured that we needed to locate them in a “hostile” environment so they would gel together for their own protection! Although this sounds silly, it actually worked quite well. I managed to acquire some space on the first floor wing in Letchworth's 1/3 factory - the heart of manufacturing territory. It was also useful that the production line for OPDs was in the same building. What more hostile environment for free thinking bright young marketing types than smack in the middle of a conservative, process driven, factory? I recruited half a dozen fairly inexperienced – but strong minded and highly intelligent – young people to populate the new sales unit, which was to be called Userpoint. Before the product launch we worked together to invent and document the new telephone sales processes; and we built our own (very embryonic) database for product warranty tracking. As far as I know this was ICL's first attempt to create a computer searchable Configuration Management Database which was more than just an asset log. Although there had been sub-sets of records kept on computer before this (Key Edit at Sydenham stores for instance); prior to this experiment the “formal” corporate product and field modification records were held on hand written cards in LET01. There was no precedent that we knew of for telephone selling what were effectively top end white goods so we were pioneering processes.

Userpoint had a creative –some say hedonistic – atmosphere. Work hard and play hard was the Userpoint motto - and as a team we made working hours flexible with a policy that as long as staff put in more than they took out, they could run a “core hours” policy between ten and four. Not only that, but we let them police this regime and work out their own cover for each day themselves provided they recorded the hours to show they weren't cheating. By allowing that flexibility I reckon that through this mechanism – and making work fun - I usually got between forty and

forty-five hour weeks out of each of the Userpoint Team without having to pay overtime. The team loved it, at least that's what they tell me at our annual reunions. But the regular incumbents of 1/3 factory frowned upon the flexibility and I had to field some complaints from Manufacturing Division about our behaviours – and our noise!

The launch of the OPD slipped into 1985 so we had plenty of time to get "Userpoint" ready to rock n roll in time for the product launch. From a business point of view Userpoint as a sales channel was a failure – We sold less than twenty machines in a year, although we did also manage the distribution of sample machines with approved "Customer Concession Forms". We lost a couple of sales because we were not able to take credit cards, but we did sell one device for cash when an Indian gentleman turned up at the office with a briefcase containing just over a thousand pounds in cash!

Despite the lack of sales the phones were hot – we were surprised to get lots of calls from users who had already acquired their OPD, but who wanted stuff explained to them. In 1985 the concepts of first, second and third line "help" were born in that first floor office and although we didn't realise at the time that we were pioneering. Prior to OPD all "white goods" were serviced and repaired by visiting engineers, but during 1985 Userpoint was rapidly evolving to become the first "helpdesk" in the Western World.

At the end of the year the team sat down and defined what they would need future software to do if we were to continue such a venture. The resulting report established the outline specifications of both the service desk and the telephone management tooling applications which are the backbone of the Indian economy nowadays! Much later in the nineties I was, for a short period, ICLs representative at the IT Service Management Foundation (ITSMF) and that first iteration of processes and terminology was input to the group undertaking the initial drafting of "ITIL" terminology – the IT Infrastructure Language. The terms we had coined and defined as "Event", "Incident" and "Problem", as well as the title of our embryonic 1984 "Configuration Management Database" – the "CMDB" - are now much better defined and are part of the standard ITIL nomenclature used for Service Desks worldwide. The Userpoint experience did not become the sales channel that ICL had intended, but it was certainly innovative and those pioneering developments have helped shape the very nature of the way the IT business is delivered in this first part of the twenty-first century.

The OPD product also drove many other innovative changes which significantly contributed to preparing ICL for the future as the computing market expanded from specialist back office machinery to high volume end-user controlled products. Prior to 1985 we had only built "batches" of products, and the 1/3 factory manufacturing line was the first "production line" established in our company. I was told that the largest batch we had ever made before 1984 was forty printers - the OPD production line churned out thousands of OPDs and Tonto's (the BT badged variant). Some of the production techniques themselves were innovative in their own right. Flow soldering and washing PCBs with water instead of CFC's were new techniques which were ahead of their time and resonant with the developing "green"

agenda. The product was also instrumental in precipitating organisational and operational change as there was corporate realization that the advent of increased volumes and "whole unit replacement" products meant that we would no longer need a specialist transport company or highly skilled installation engineers. ICL Transport was sold off and the steady reduction of dependence on engineering skills accelerated.

Perhaps the most perceptive innovation of ICLs approach to the OPD was psychological, and came from the developers in Bracknell. Faced with addressing a market which had not existed before, they were acutely aware that until 1985 only secretaries and IT geeks knew how to use a keyboard ! This was a real barrier to getting an end-user product like the OPD generally accepted. Their solution was brilliant. They packaged a built-in keyboard driven game – Sidney Snake – which would train keyboard skills secretly while the user was having fun. A really clever and innovative solution. OPD turned out to be a stop gap product for ICL but it was a great rehearsal for what was to come. By the time IBM launched their desktop devices into Europe ICL was match fit for the new market.

Roger Cooper December 2018

Reunions

The West Midlands ICL Pensioners

Meet for lunch, beer and a chin wag, bi-monthly on First Tuesday of the month, usually at The Square Peg, Corporation Street, Birmingham, B4 6PH from 12 noon. (Attendees are usually former Customer Services MF Engineers, POS, Key Edit, etc., from BIR03, BIR04 and 'guest visits' from NOT02). All welcome!

Newcastle Friday Club

On the first Friday of each month Ex (and current) ICL/Fujitsu employees from the North-East meet for a beer and bite at Wetherspoons Quayside Pub in Newcastle; we meet at 12:30, and any Ex ICL/Fujitsu people from the North East or who have had any contact with the North East are welcome.
Mike Green 0191 386 6787

ICL Central London

The next reunion will be on Wednesday **17 April 2018** at **The Shakespeare's Head, 64 Kingsway** from 12 noon. The pub is on the eastern side of Kingsway just south of Holborn tube station.

MOD Mob

Retired and active staff from the London and MOD UK unit has met up for a number of years now, so we have now established ourselves as a sociable group of individuals. The date of the next meeting will be posted on Rod Brown's B&B Repository website.

Anyone who is retired or active and wishes to meet up with individuals who worked anywhere on MOD contracts or in the group is welcome. Lots of people worked in CHOTS as well as in the main MOD team and all are welcome, security clearance not required, just bring a smile. Email to **modmob(at)shedlandz.co.uk** for enquiries.

Kidsgrove-Drawing-Office

The Annual reunion is held at the Bleeding Wolf, Scholar Green on the first Monday in December
brian(at)morrismail.co.uk

Liverpool Engineers

We now meet about midday on the second Wednesday of every month at Wetherspoon's, Great Charlotte Street near Lime Street Station.
Bill Wood 0151 426 4025

East Midlands UB40s

Brian Skeldon 0115 9725119

Old Timers Stevenage

We always meet on the last Thursday of the month [Except no meeting in December] @ 12:00 in The Standing Order in Stevenage Old Town.
Dave Badminton davebad(at)gmail.com or davebad(at)blueyonder.co.uk
Phone 01245 259301

LEO Computers Society

John Andrews
GlobalLeoSociety@gmail.com

West Kent Reunion

Ron Harding 01732 761076

ICL Old Buggas

Les Mowbray

Ex-ICL Kidsgrove

Nick Edmonds 01270 585953
nick.edmonds(at)yahoo.co.uk

East Grinstead 81 Club (Now finished)

Surrey Engineers (No longer meeting)

Trevor Harding 01483 565144
trevor(at)harding14.plus.com

OBITUARIES

Mike Forrest 1931-2019

The death was announced in January of one of the most outstanding characters in ICT and ICL. He was instrumental in the planning and introduction of the ICL New Range of computers which became the 2900 and 3900 series.

The future of the British computer industry was dependant on New Range being a success.

In January 1969 the New Range Planning Organisation (NRPO) was set up under the general management of Mike Forrest. It came up with a New Range architecture *"which was elegant, efficient, not in the least baroque, and in advance of anything offered by any other computer manufacturer"* (Martin Campbell-Kelly).

Michael Laugharne Neville Forrest (MLNF) was born on 22 July 1931 in Kobe Japan where his father was working for the Rising Sun Petroleum Company, the Japanese offshoot of Shell. The family moved back to the UK when he was two. His father died a couple of years later and his mother remarried a farmer in Wiltshire. He was educated at Gresham's School in Holt after attending a prep school in Salisbury.

Called up for National Service he taught radar in REME, and then read engineering at Trinity College Cambridge. He joined the British Tabulating Machine Company in 1957 and worked in development and then manufacturing in Stevenage. Under Chris Wilson he took up a position in Sales and then progressed to be Head of Product Planning in 1968.

In Nov 1968 he went to the United States with Arthur Humphreys, and met with RCA, CDC and Burroughs to see whether they would co-operate on a new range of computers. This didn't materialise and in January 1969 a New Range Planning Organisation, NRPO, was set up under the general management of Mike. In 1972 he was made Head of Software Development under Ed Mack with 1000 people working in this unit.

There were many delays in getting 2900 systems into customer's offices due to the advanced hardware and software being introduced and as a consequence Geoffrey Cross removed him from his position in 1975.

"Mike was in charge of VME development in Bracknell, and I often took customers to see him to be convinced that it would work someday. He grew his hair shoulder length and sat cross legged on the floor, but that didn't help much!" (Ninian Eadie)

In 1977 he took up an appointment in Paris where he and his wife Anne lived for three years.

When ICL took over the computer part of the Nokia company Mike was involved with the integration of the two businesses.

He retired from ICL 1993 when he was Head of Operations.

MLNF quotes

"I must be getting old – (in his mid-fifties) – I do really need my four hours sleep".

"Do you know who I am!?"

"Sleep, dear boy, is an old fashioned way of staying still so the dinosaurs don't eat you. As you may have noticed there are no more dinosaurs !"

Quotes from Ex-ICL Facebook and ICL Anthologies

"A true multi-tasking and dedicated project manager who focused on results and as such usually got the very best contribution from those who worked for him, or those of us in the rest of the company he had to contact to resolve solutions"

"He had a fearsome reputation as a bully, but was a lovely bloke in private. I'm proud, and grateful, to have had him as a mentor".

"Mike had a reputation as a bully and he continually "fired" people - but got cross if you didn't come in the next day!"

"Most of us can deal with them; you just have to push back. I always got on OK with him"

"Had a couple of run ins with him and over the years he insisted he'd "Sacked me! Oh, how we laughed!"

"I had a few 'moments' with Mike during my time at Beaumont but I always knew he was just doing what he thought was right for the company and I respected him for that".

"I was an intern. He fired me and I told him he saved nothing as the government paid for me. He laughed and said true, and de-arrested me".

"I had a number of interactions with Mike both when I was in manufacturing in the 80's and server development in the 90's. I lost count of the number of times he tried to get me fired but always had a strange respect for him".

"A legend for me as a newbie sent on a last minute mission to Sweden with him. I swear he did the work of 5!"

"He was a work alcoholic . I remember him from the early 70s in BRA01 where I was one of the shift leaders in the computer hall and he was the Director on the top floor. One weekend Bob Sanders, who was our dept. manager, rang to say Mike was upsetting everybody because his home terminal wouldn't work, and Bob asked what we should do. I said somebody should take it away from him. 15 mins later I was in Bob's car driving to Mike's house in Sonning. That in itself was an experience! Fortunately Bob was the only person in BRA01 who appeared to have influence over Mike and we duly took the terminal back with us so everybody had a quiet rest of the weekend"

"Remember him well, and his outbursts, and put downs but he was the most committed person to ICL I ever came across. He was also very nice to me when I was going through some personal issues. I would also say RIP but he never rested and hated B...S...".

"At BRA01 he called the network guys and the conversation led to the famous "Do you know who I am?" The answer was No, "Do you know who I am?", and put the phone down on Mike".

"However his biggest contributions were probably early in his career with George 3 and System B (VME) where he was able to deploy his tremendous technical abilities".

His funeral was held in the small chapel of the Reading Crematorium on 6 February 2019 and it was overflowing - about half of the attendees got a seat.

Among those present were Sir Peter Bonfield, Ninian Eadie, Tony Hadaway, Nigel Hartnell, Andrew Mayo, and Alan Wakefield from ICL.

Steve Jobs' last words

He died a billionaire at 56yrs of Pancreatic Cancer and here are his last words on the sick bed:

"I reached the pinnacle of success in the business world. In others' eyes my life is an epitome of success.

However, aside from work, I have little joy. In the end, wealth is only a fact of life that I am accustomed to.

At this moment, lying on the sick bed and recalling my whole life, I realize that all the recognition and wealth that I took so much pride in, have paled and become meaningless in the face of impending death.

You can employ someone to drive the car for you, make money for you but you cannot have someone to bear the sickness for you.

Material things lost can be found. But there is one thing that can never be found when it is lost - "Life".

When a person goes into the operating room, he will realize that there is one book that he has yet to finish reading - "Book of Healthy Life".

Whichever stage in life we are at right now, with time, we will face the day when the curtain comes down.

Treasure Love for your family, love for your spouse, love for your friends...

Treat yourself well. Cherish others.

As we grow older, and hence wiser, we slowly realize that wearing a \$300 or \$30 watch - they both tell the same time...

Whether we carry a \$300 or \$30 wallet/handbag - the amount of money inside is the same;

Whether we drive a \$150,000 car or a \$30,000 car, the road and distance is the same, and we get to the same destination.

Whether we drink a bottle of \$300 or \$10 wine - the hangover is the same;

Whether the house we live in is 300 or 3000 sq. ft - loneliness is the same.

You will realize, your true inner happiness does not come from the material things of this world.

Whether you fly first or economy class, if the plane goes down - you go down with it...

Therefore.. I hope you realize, when you have mates, buddies and old friends, brothers and sisters, who you chat with, laugh with, talk with, have sing songs with, talk about north-south-east-west or heaven and earth, That is true happiness!!

Five Undeniable Facts of Life

1. Don't educate your children to be rich. Educate them to be Happy. So when they grow up they will know the value of things, not the price.

2. Best awarded words in London ... "Eat your food as your medicines. Otherwise you have to eat medicines as your food."

3. The One who loves you will never leave you for another because even if there are 100 reasons to give up he or she will find one reason to hold on.

4. There is a big difference between a human being and being human. Only a few really understand it.

5. You are loved when you are born. You will be loved when you die. In between, You have to manage!

NOTE: If you just want to Walk Fast, Walk Alone! But if you want to Walk Far, Walk Together!

Fujitsu Pensions Website

<https://fujitsu.pensiondetails.co.uk>

To access Bits & Bytes click on the link given on the very bottom of the home page.

**Direct telephone line to Pensions Department:
020 394 93492 (New number)**

Bits & Bytes Archive

The Spring and Autumn editions of B&B will be available in the last week of March and September each year.

Please make a note in your diaries to access the website on a regular basis.

www.bitsandbytes.org.uk

Facebook

I know that many people think that Facebook is only for the young, but it is a good medium for posting pictures of old computers and old people! Search for **Facebook ICL Pensioners or Ex-ICL** and post pictures that you have of the past.

NEXT ISSUE

Copy for the Autumn 2019 issue must be submitted by 1 September 2019 but would be appreciated earlier.