Editorial

I thought at the beginning of the year that this edition was likely to be the last, as I was receiving very little in the way of copy. As the readership is ageing I was wondering whether or not pensioners had forgotten who they had worked for – early sign of dementia?

However as a result of me phoning around and twisting some arms I now have received a substantial number of words, so much that I will have to serialise some of the stories and there will be No 42 next spring!

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Fujitsu Heritage

I thought your readers might be interested in a couple of activities currently in play to celebrate the rich innovation heritage of Fujitsu, including ICL in the UK.

Working with Alan Thomson from the CCS, Fujitsu have recently published a selection of ICL Technical Journals – dating from 1978 to 2000, 43 issues in 14 volumes - on our UK website. Thirty two issues are now available with the remainder to follow. The original documents were scanned to professional standards by a volunteer at the archive of The National Museum of Computing at Bletchley

They can be accessed from our Innovation page: *http://www.fujitsu.com/uk/innovation/*

Editor's Note: The complete set of ICL Technical Journals were offered to the National Museum of Computing at Bletchley by Mike Dunn who works in the Fujitsu Netherlands office in Maarssen. He delivered them to my daughter who lives in Nieuwegein with her Dutch husband, who then brought them to the UK.

Also, as part of a refresh of our customer Innovation Centre in Baker Street, we're creating a display of Company milestones and innovations, featuring a number of items kindly loaned by The National Museum of Computing in Bletchley. These include ICT 1900 Series software manuals (1964), an ICT hand punch, and an ICL One per Desk (1984). The backdrop shows the evolution of ICT and ICL through to the relationship with Fujitsu and more recent Fujitsu acquisitions, highlighting the most significant technology breakthroughs during the period.

With Fujitsu celebrating its 80th anniversary this year, we are keen that employees and customers alike are aware of the pioneering spirit that runs through Fujitsu and its predecessor companies, particularly in the UK. As part of this, the Fujitsu President has recently launched a competition encouraging Fujitsu employees globally to contribute ideas for how technology can help to create a safer, more prosperous society in the future.

Please be assured the significant ICT/ICL 'firsts' that have gone before – from open peripherals, standard operating systems, multi-node architecture, the concept of service desks and many more besides – are being recognised and cherished by Fujitsu employees today.

John Williams
Head of Marketing Services, UK and Ireland

Life before & after ICL
Plus Ça Change

In October 1970 I joined ICL as a trainee operator working on a 1901 machine. I was introduced to the company by a friend who told me that you could grow your hair as long as you liked (it was 1970!) and everyone went drinking every day. With such a match to my skills, being a computer operator seemed like the ideal job!

The 1901 had 16 kwords of main store (roughly ≡ 64 kilobytes!), no discs and the executive (the simple operating system of the day) was loaded from paper tape. The machine was primarily used for software distribution (this mostly consisted of copying magnetic tapes). It was located in a shop window in Friar Street, Reading (where Nando's is now). We worked on a four-shift system, with four operators per shift (so there would always be two operators working over meal breaks) plus a couple of tape librarians. Such a "heavy" workload gave us plenty of time to engage in other activities and some of this spare time was spent teaching ourselves how to write in PLAN (the assembler language) and how to run the programs. This not only enabled us to support the people who assembled the jobs, but meant that we learnt a lot about various aspects of IT and that helped towards the objective of getting jobs without shift working. Occasionally we worked at Reading Bridge House where there was a 1901A, a 1903A and a 1904.

Eventually our poor old 1901 was replaced with a slightly less old 1903 that had been lying around disused at Lily Hill in Bracknell. Still in the early 70's, all our machines were relocated to Cardiff Road

in Reading where I spent a lot of time working on the 1903A which ran the GEORGE 3 operating system. There was still plenty of 'free time', so as well as learning to operate it, I learnt how to write Job Descriptions and soon moved into the small, but perfectly formed, technical support team. I loved GEORGE and worked on it until around 1976 when our first 2900 came in and I moved on to support VME (Virtual Machine Environment) on a 2970 running at Cardiff Road. It was around this time that I first met the Bits & Bytes editor.

In 1980, I moved on to developing systems software for VME and subsequently moved to work on applications for Local Government. I later became an architect, acted as a consultant and worked on a number of central and local government bids that led to me becoming embroiled in external standards activities that still form part of my role.

Nigel Grenaway BRA01
To be continued in B&B No42

A stroke of luck or was it many?

In 1955 I started a 5 year indentured apprenticeship at Simms Motor Units Ltd at their HQ in East Finchley, who were engaged in designing and manufacturing Starters/Dynamos/Fuel Injection Pumps and a series of electrical components for commercial vehicles.

Following the completion of my apprenticeship in 1960 I was called up for 2 years National Service in REME. Most of the 2 years I spent in Germany as a vehicle mechanic/electrician.

After this period I joined a company in Stevenage involved in the research into Water Pollution in both rivers and the sea. In this role I designed and implemented various experimental test equipment for the scientific staff employed by the Department of Scientific Industrial Research (D.S.I.R.).

Following this period of approximately 2 years I spent 1 year writing Test Procedures for the launch of the BLUE STREAK rocket (Britain's answer to the Saturn 5).

In 1965 I joined ICT in Stevenage where I worked first in the Design Office, followed by being asked by Brian Long to join his design team developing the General Peripheral Controller (PF56). This was a fantastic time as the team I joined was made up of Ian McGilvery, Bernard Wilks, Ted Forshaw (Project Leader), Ricky Friend, Bob Wright and Reg Ovenden. My responsibility was for the design of the top half of the machine involving the Control Panel, the cooling and also the logic gate. This involved close liaison with both the drawing office in the early stages of development and also sourcing outside components, and outside suppliers, such as switch gear, aluminium casting for the end plates of the control panel and side cheeks for the top of the machine. The covers were designed by an outside consultant (name I have forgotten) but the means of supporting the covers was left to the design team and me. As most of you will know of the copper 'finger' (not the golden rivet!) which was used to ensure that everywhere was safe for prying fingers and also the exclusion of mice!

During the build of the initial Prototype I was asked to assist in the handover of the follow-up builds to the factory in 1/3 Factory Letchworth. The contact there was a rather taciturn Scotsman who I liaised with Manufacturing in assisting with the initial production builds, which entailed all aspects of the machine. Basically sorting out any build issues or drawing updates and also the implementation of any modifications required as the initial builds proceeded.

Following on from the PF56 Project I was then Project Leader engaged in the 2900 Series builds, by which time Brian Long had moved on and Ted Forshaw was now Project Manager on all the following projects associated with 2900 and the Communications equipment which was under the logic design of Alan Thoms with Tim Marwood and team.

I then spent some time in the prototype build area working for Alan Bell and his team of technicians manufacturing cable forms and also wiring up 'backplanes'. Alan had two very capable Supervisors running the workshop whose names, I am embarrassed to say, I have forgotten. At this time Alan then reported to Ted Forshaw and then Derek Wotton. After some months working for Alan I was approached by Colin Skelton, who was I believe Project Manager, of Development Programmes for the 2960 Project. In this role I worked very closely with Tony Whitby and we often found ourselves driving up to West Gorton to attend Project meetings.

This brings me to early 1975 when I was asked with up to 90 other staff based in Stevenage to move to either West Gorton or Kidsgrove. As my children were aged 13 and well into their GSE studies, we felt it was not a good time to move, so I opted for redundancy.

Eddie Greatrex
To be continued in the Spring edition No 42

First Day in ICT

My first day with ICT started in 1964 at the Watford Office (119 St Albans Road?). I was then taken to my first site – a big insurance company office in Rickmansworth. For a 19 year old lad this was paradise – row upon row of pretty girls operating punch card machines, machine rooms full of more pretty girls and a bewildering range of heavy and noisy equipment!

After introductions and a tour around the site I was given my first task – "Here's a Hand Punch, take it completely to pieces, and see how it works...." A few hours later I had several hundred assorted small pieces and some understanding of the concept involved. Then my second task – "Now put it back together in working order!" That kept me busy for several days!!

Happy days followed as a Punch Engineer, assistant Tab/Sorter/Collator engineer – and also Chief Valve Test machine operator (there was a strict hierarchy of engineers on site – and boring/tedious jobs were allocated to the most junior Punch engineer – me.

One of the great technical mysteries of the age (to me!) was the internal workings of the Keystore Punch (Type 032) which had a mechanical storage unit – which could take input from the operator whilst outputting earlier input to the punch unit - all at the same time!

The Tabulators were big heavy machines which read Punched Cards by passing the cards over sets of 80 angled wire brushes. If (when!) the cards misfed or twisted during their travel through the bowels of the machine then card wrecks would result – often involving tens of cards as the machine continued to

ram cards into the growing wreckage until the operator reacted to the shrieking noises of the ongoing card carnage.

Having stopped the machine the operator then had to remove every particle of the wrecked cards. The machine could be slowly hand cranked to enable the wreckage to be picked out as the cogs were turned. Because of the sets of delicate angled brushes the machine could only be cranked in one direction. The hand crank – similar to a car starting handle (now, who remembers them!) was inserted into the machine at waist height and turned slowly in the only direction possible.

Here we come to the nub of the story. As the operator slowly cranked the handle her skirt could easily be wound around the crank and so into the machine – but the handle could not be reversed. More and more of her clothing would slowly disappear into the machine. – resulting in what was by far the most popular call ever to the engineers:

"Quick – send a MARRIED engineer immediately, a girl is caught in the machine!"

This always resulted in an immediate response from the senior engineers - they insisted on resolving these problems themselves – all junior / single engineers were confined to the engineers cubby hole for the duration 'to save her blushes'.

Happy Days! By the way – I'm nearly out of Number 1 Oil - Is there anyone out there with a spare can??

Trefor Busby

Post Office MATS Units

A few years ago in the UK there was a television situation comedy programme entitled "The Hello Girls". This was set in a nineteen sixties telephone exchange and frequently depicted young women seated at a manual switchboard where between their gossiping they supposedly connected the calling subscribers to the required lines. However, at no time were we shown how those customers would have been charged for that service. Until 1960 each operator would have had a pad of "tickets" (also known as "flimsies") in front of her and as she handled the call would have asked for and jotted down on a ticket the calling subscriber's telephone number and when the call ended would have entered a charge based on the distance and duration of the call. These were the days before it was possible to dial one's own "trunk" calls, i.e. dial out of one's own local area, and these manual switch boards were large and numerous to deal with the increasingly large number of calls being made. Although the imminent introduction of Subscriber Trunk Dialling (STD) was expected to greatly reduce the problem, ownership of private telephones was set to expand exponentially so a modernisation of the accounting process was urgently required. STD had been partly developed before the war by the Post Office's Chief Engineer Tommy Flowers at Dollis Hill. The war diverted his effort: he was the man who built the Colossus Computers for Bletchley Park and I believe he must have been the brains behind the analogue electromechanical computers built in nineteen forty by the GPO for use in all the wartime CH RDF (radar) sites.

Part of the telephone switchboard operators' duty was to sort into numerical order the thousands of tickets produced during their shift as the start of the

billing process and it must have been an enormous and tedious error prone burden to them. The real hey-day of the punched card was the second half of the thirties decade so it was a long overdue advance for those tickets to be replaced by cards as the start of a Mechanical Accounting & Trunk Sorting (MATS) process. In the mid nineteen fifties Powers Samas and Dollis Hill collaborated to design a suitable system to provide an entirely new billing service, Powers being chosen probably because their forty column cards could accommodate the necessary data. What a bonanza this was going to be for the card factories!

In the Post Office application the cards were not printed to give any indication of where those punched columns might be, as a standard general purpose punched card was. Instead the printing was laid out to show six lines of the digits 0-9 across which the switchboard operator would draw a short pencil line. Similar lines were printed to indicate the sterling values for the operator to similarly mark. Now, at the end of the shift all the switchboard operators had to do was to pack all the accumulated marked cards into trays without any sorting at all. All the cards thus produced from literally many scores of telephone exchanges within a "Telephone Area" were sent by road to the nearest one of the seven "MATS Units". At Oxford the MATS unit did the accounting for the Aylesbury, Reading and Oxford telephone areas. Other MATS units existed at Chiswick, Portsmouth, Bristol, Birmingham, Leeds and Edinburgh. In addition, the smaller pilot installation continued work at Canterbury for a number of years.

MATS Units were equipped with "Mark Scanning Punches". Here all the cards from one exchange were placed into the magazine of one of these machines and the cards were fed one by one into the "reading" station. The pencil marks were read by photo-electric means and the appropriate holes were punched into each card after it had moved from the "reading" station into the "punch unit". The card continued through a "checking" unit where cards having insufficient or too many holes were diverted into a "rejects" receiver for manual correction by the operator. The cards flowed through the Mark Scanner at a rate of about sixty per minute.

Next the cards were passed through the sorting machines. Thus all the calls made by any particular subscriber were collected together ready for the Tabulator machines to read, accumulate totals, print brief details of each call and eventually the total charge. That, in a nutshell, is the process, but of course it was rather more involved than that. In particular the charging for "Local" calls. Most Local calls were directly dialled by the subscriber and in the Telephone Exchange a small meter attached to the individual line for each subscriber faithfully recorded the number of time-based "units" used. But sometimes subscribers also made local calls via the switchboard operator. Then a different type of card was marked in units for the charge. These were kept separate from the trunk call cards but were scanned at the MATS Unit in the same way. After sorting, these cards were fed through an additional High Speed Summariser machine and for whatever number of cards originating from one subscriber; a units total was punched on a separate "Summary" card. The meters recording the dialled calls were photographed together with the line number, en masse, thirty or so meters per exposure by a 35mm camera on rails which was moved along the

ranks of meters. A Key Punch Operator viewed the processed film and entered the details of each meter individually into the automatic key punch (AKP) together with the customer's telephone number and the final key she depressed caused the data to be punched simultaneously into a "Meter" card. This card was then "verified" by a repeat punching process.

The Meter card and Summary card were passed through an "Electronic Multiplying Punch" (EMP) which multiplied the number of units by the prevailing local tariff and punched the result as sterling in another area of the same card that had provided the data. These cards were then filed by hand along with the subscriber's trunk cards prior to tabulation i.e. the printing of the Telephone Bill. All of the originating cards were kept for six months at the MATS Unit in case of any subscriber's query.

Such was the work I was to be unknowingly involved with when in 1959, nearing the end of my RAF service as a Ground Radar Fitter I responded to an advertisement in the Daily Express seeking "An Electronics engineer to be based in Oxford." Accordingly, sometime later I found myself at the small ICT office in Greys Inn road where I was required to undertake a fairly easy test paper. My fist was dwarfed by the massive hand of Arthur Papworth as he accepted me into the company. Shortly before the merger of the British Tabulating Machine Company and the Powers Samas Company, the latter had secured a contract to supply the Post Office with a suitable system to deal with their Telephone Accounts and I was informed that was the work that I was to be involved with. I was to be paid £10 per week initially and this would rise to £14 and ten shillings after six months if found to be satisfactory. Wow! That was pretty good money. I was told to report on my first day to Austin-Morris (BMC Service) at Cowley, the largest Powers contract in Oxford.

About a month later, a week after my demob, John Hodge, the local Powers manager greeted me in the BMC Service reception and I was quite amazed and utterly dismayed by what he led me into. The noise level in the large data processing machine room was almost unbearable to me and to my horror I was soon informed that nearly all the clanking and whirring machines had no electronics in them at all! Thinking that I had made a terrible mistake I very nearly walked out.

Perceiving that, John quickly told me not to worry and that I ought to see the Post Office premises. After being introduced to engineers Ken Jones, John Courtenay and John Scarlett, he took me down to Oxford and into the recently opened Telephone Exchange building in Speedwell Street.

A very large room adjacent to the actual manual switchboard room contained a number of covered machines, a very large number of boxes of forty column cards, and a tall thin gentleman by the name of Peter Roberts. The two of us were to be responsible for keeping the various new machines in good order. The room had been designed to house the new STD exchange equipment, and eventually would be, but in the interim it was to be the MATS Unit. However, as the GPO management had been slow in getting their act together we two engineers found ourselves to be there several months too soon.

I spent some of that time undergoing basic training at the Powers Samas main factory in Croydon but the only training I had on the Mark Scanners was what my new colleague taught me. I was sent to Croydon again for High Speed Summariser training which turned out a pretty much non-event. There was one final machine undergoing testing and the man putting the test packs through proved to be remarkably uncommunicative. Back at Oxford Peter and I idled away our time testing our new machines. Strangely our presence seemingly was not to be needed elsewhere by the Company during the interim period. On one occasion Ron Birling, John Hoidge's superior based in Watford visited us, seemingly to make sure that we were not getting fed up with our idleness.

Eventually contractors began work and a slightly raised floor was installed to permit the fitting of many brass power points distributed over the area and finally a covering of very thick blue civil service linoleum was laid. Large banks of filing racks were installed down the centre of the room and then we were able finally to position the machines to the Post Office plan and retest them.

Finally a month before Christmas, a posse of ten young women arrived complete with their guardian stereotype Civil Service spinster, the formidable Miss Whitehead. If you do remember the television comedy 'The Hello Girls' you will be able to envisage her style and her charges with uncanny accuracy! Although always artificially charming and extremely polite, she was a woman who most certainly had to be obeyed! All her girls had been trained at The Birmingham MATS unit which was already in full operation.

In the new year the unit became operational dealing first with just the Oxford Area but by the end of 1961 the ten Mark Scanners, twelve sorters and six tabulators were all busy producing the bills for all three telephone areas.

Don Adams

My time in ICT/ICL/Fujitsu

I was in the RAF for 5 years as an Air Radar fitter before joining ICT in October 1962.

A small story about the RAF, when I was based at RAF Tangmere, second line servicing radar sets.

One morning the Officer in charge came in and asked me "Have you ever flown before" "No" I said

"Would you like to" "Yes" I said – "Walk this way", and outside on the peritrack was a Varsity ticking over. Off we went, and I was treated to 6 or 7 circuits of the airfield, and watching the equipment I had been servicing. "How was that" the Officer asked. "Excellent" I said. A month later I was posted to a RAF Watton and had to fly every other month with the squadron.

I joined ICT at Putney Bridge, and my first computer was the RCA 301/ICT 1500 machine.

I enjoyed my training on this machine with Ali Barber, which was held at Stevenage, in what was once an old joinery firm.

The course was about a year long. Just before joining the course, I had a motor bike accident and had my leg in plaster, but this did not stop me joining the course. An engineer used to pick me up at London Bridge and take me on up to Stevenage.

After the course I returned to Putney working under Frank Tilley, Clem Gallup , and Don Ryan.

I was there for about 4 years, and then I was moved to the Kent region working at Marley Tiles, but now working on the 1904 mainframe. Later on I was promoted to System engineer, working at a number of

sites including Kent County Council in Maidstone, then moving to West Malling airfield, also Wellcome Foundation, Chatham dockyard, now and again going down to DOE in Hastings.

At this time I was retrained on various 1900 machines then onto 2900.

At KCC West Malling airfield, myself and a mods engineer Ray Ashton spent about 3 months modifying a 1904A into a 1904S and it all worked at the end,- it's nice when a plan comes together. We were both given a lovely thank you letter for our efforts from the KCC manager of the site.

I then left ICL and joined the Daily Express because the money was so good at the newspaper. (The money I got in the Print in 1984 was the same amount I got just before I left Fujitsu in 2000!).

The first six months was on all their computer equipment. Then Margaret Thatcher had her way with the unions, but I survived the 70% reduction in the Electricians union, and for the next 6months I worked on all the electrical equipment in the building. I was made redundant with an excellent lump sum pay off.

I was then taken on again in ICL, and was the site engineer at Bowater Scott's, and received a presentation award for the removal of a small 1900 machine and adding most of the peripherals to a 1966 processor. This all happened in about 6 moves, for which I had to create a software configuration and all the hardware moves. All moves worked out as per plan.

This came to an end, and I worked for a year on a software desk, doing Officepower and some peripherals. Next year working on Contract management, then working in Business support raising contracts for engineering service, this job was also short lived as it was being transferred up country.

Then an engineer came up to me and said "There is a job going in Chatham Dockyard at Colonial Mutual for a Manager running a Laptop & Desktop support role". I thought I have nothing to lose, go for it. I got the job, and we also took on a very good comms engineer. This I found was the best job I had done in the whole of my career in ICT/ICL/Fujitsu. The job lasted 2.5 years as this company was taken over by another Insurance company. I left Fujitsu when I was 62.5 years – and got the good pay out. When I retired properly I did not realise how much money one got from SERPS.

I have no financial worries at all now.

My main hobby now is Wood-turning, which I have been doing for about 15 years. To progress in Wood-turning, one needs to join a Wood-turning club. Most clubs always have professionals giving Demo's, and it's from these Demo's one can see how different ways of woodturning is done.

My first club was the Garden of England Woodturners. I then moved to the Wealden Woodturners which was easier to get to and less travelling time.

I was involved with the setting up of Visual & Audio for Demonstration days. I kept insisting

"You must make it simple for the Woodturners" I think we had the same saying in ICL "You must make it simple for the Engineers"

Another of my hobbies is using different operating systems other than Windows.

I have been using Open source Operating system in Linux, Like Ubuntu, Mint,, Open Suse, Ferdora, to name just a few.

I subscribe to a magazine called Linux Format which supplies a DVD every month which always contains at least 3 Operating systems known as "Distros" and they will run straight from the DVD without being loaded on to the hard drive. It uses Memory and the DVD to run the system; this is mainly for trying out the new system.

Freesat TV is another hobby, and I receive both German and English channels. On the German channels I watch "Eisenbahn Romantik" Steam train programmes.

Holiday time we go cruising on Saga boat "Pearl II". You don't need your car; you are picked up and brought back to home by a chauffeur driven car.

I have gone on quite a few cruises, mainly in the Baltic area, and Norway my favourite country due to my RAF connection.

My first hobby was sailing while still working, the Captain was an ex ICL engineer Ray Ashton, now since passed away. I had a very enjoyable 20 years sailing with Ray and his son. We even sailed to Holland for a week that was a real adventure for me.

I would recommend being retired.

Bill Shepherd

"What has ICL done for me?"

--apart from providing a very interesting way to earn a living, I'm sure many if not all of us have been given opportunities to enlarge our life experience in some unexpected ways.

Early on in my career, initially with BTM as a London-based field engineer, I was enabled to discover that I had a definite taste for draught Guinness, when served in the best possible way.

This was in 1957/8, when there was a Guinness brewery at Park Royal, Acton. Remember the advertisement and posters of the Toucan with a glass in its beak, the Ostrich with one in its throat?

My boss at the time, at Victoria House, Southampton Row, was one Larry Daly, known as an Inspector. He was always ribbing me for being thin - (he was definitely not.) When Guinness Park Royal bought a selection of machines, based around a 550 Calculator (might have been 542 Multiplier*),(it was a 542 editor)*

Larry said "Dave, I want you to do all this installation, take your time about it, and put some weight on!"

He knew that visiting engineers were treated to a lunch in the Middle Management dining room (much class distinction existed), including a pint, maybe two, of draught Guinness drawn by the experts. This I enjoyed very much. Despite serving in the RN for seven years, the deep, rich taste of draught Guinness had eluded me. At Portsmouth the offering was (to me) insipid Watneys.

So, for four or five days (!?), I did the job and enjoyed the 'perks', but did not put any weight on.

There's a sequel; two or three weeks later, an agitated call from Park Royal's machine room supervisor.

"We are not satisfied, send an engineer at once!".

Off I go, a bit anxious because I'm still quite green at customer relations. On arrival, "Oh, never mind the

machine, it's probably our operator fault. Come and have a Guinness".

This happened two or three times before I twigged – remember I was green. If the supervisor did not have a 'guest' for whom he could sign a Guinness chit, he did not get a free drink himself.

So he might call a typewriter mechanic, a Xerox engineer, or one of us. Kind of 'reverse Cry Wolf!'
Dave Clarke

FIFTY-YEAR STRETCH

In 1960, my transmogrification from a caterpillar of a Powers mechanic into the butterfly of an ICT computer engineer was complete when I was told to pick up a brand new Mini at an office in Park Lane! Abandoning my Powers van, I climbed into a new car for the first time and boldly drove home through the West End at 5pm on a Friday afternoon.

Within a year I had 10,000 miles on the clock and backache. The Mini wasn't designed for six-footers. If I'd taken out the front seat and driven from the rear, I might have been able to straighten my legs. As it was, I resembled a praying mantis, wedged in the front trying to reach the controls. I accept it was a "fun" car with everything MINImised, including mini pedals. To get out, I had to hang on to the door and pull myself up from kerb level. By now I was walking like a question mark and the question being, "What to do?"

The doctor prescribed pain killers and pointed to the door. It turned out he meant put a door under the mattress for support. Not having a spare door and not willing to live on aspirin, I decided on Yoga. I joined a class, explaining I only needed my back fixing.

Luckily, the class was in Hatha yoga, that is physical yoga rather than spiritual meditative stuff and not too aerobic, ideal for middle aged unfit Mini users.

It's now fifty years I've been practising. My back is fine, probably as I managed to switch my company car to a Morris Traveller. The yoga became a way of life. I wasn't a devotee, rarely working out between the weekly sessions, but though I've lost some body strength I'm still fairly supple. I still enjoy biking daily, though if I met you at the top of a hill, I'd be too breathless to tell you how much!

At 88 I daren't quit yoga as I'd disintegrate. It is non-competitive, calming and even when I've not felt like going, I've always ended up enjoying the sessions.

It might be I've been fortunate to enjoy physical health enabling me to do yoga, or the yoga has given me extended physical health! Whatever, it suits me and "Namaste!" to you all!
Dennis Goodwin

Does anybody remember me?

I worked at ICT in Stevenage many years ago for just a short time,1970-1971 and I want to find the name of someone who helped me out develop my career. I was wondering if I could put something in your newsletter in the hope that someone would remember his name.

The only thing that might make it a bit easier is that people do seem to remember me perhaps as I am mildly eccentric. The people I am trying to name will be old now 85 at least although there may be some younger ones who remember both me and those I am trying to name. I am not sure how I looked. I went through three phases in quick succession, hippy-like

long hair, reasonably respectable short hair and then short hair and a handlebar moustache. I think while I was at ICT I did not have hippy-like hair.

I worked for ICT in Stevenage in a building whose name I have forgotten but was like a letter H shape when viewed from above. Our office area overlooked Gunnels Wood Road. It was not on the top floor I think. I do not think it was on the ground floor either, that was where we built the prototypes. Underneath that was the canteen Cavendish Road end.

I started in 1970 and left early 1971. I know it is not very long but it transpired that these 9 months were a quite important 9 months for me. I was only 20 years old.

Perhaps the thing that people might most remember about me was I had failed at university. I tried to read electronics at Southampton but did not do any work, by the time I realised I needed to it was too late to catch up. One of the nice things about the ICT guys was that they saw I was better than that and encouraged me to try again. I did fill in my UCAS forms whilst at ICT and went to Durham and got a first. They were right to believe in me. I would like to thank them but I guess there are not many surviving.

They might also remember me because they got me paralytically drunk when I finally left at lunchtime at the Woodman pub on the other side of the motorway.

I worked in a peripheral design group. I seem to remember working on two design jobs: One was some type of modem or telex rack, the other was a disk drive. I did the mains, fuses, basic wiring to switches, relays, lamps electrics if you like, design on these machines and wrote the wiring schedules and did drawings of the harnesses.

There was an artist consultant who came up from London who chose the switch design and colours etc. so they looked nice on the outside.

The chap I worked for I think was called Bert, surname forgotten. I am trying to get a better handle on him but have not succeeded yet. Although he was quite an ordinary engineer, he went to Ascot every year in top hat and tails. He went with a chap called Thody, a local butcher who obviously did not work for ICT. I might be able to make some progress with Bert since Thody's son went to school with me. At the moment I cannot trace my school mate. I will let you know if I make any progress. He definitely encouraged me to go back to university. I remember we lost a drawing, and this caused a bit of a panic, we started another but the original was found rolled up under the flap in the drawings cabinet.
Tony Morfett IoM

HOW ARE THE MIGHTY FALLEN

Although I never worked at 1/3 factory in Blackhorse Road, Letchworth, I had cause to visit it occasionally in the late 1960s during the 1900 computer programme - first with the 1902/3 and later with the 1901.

Having never seen it before that time, I was truly amazed by the size of the building where, no doubt, thousands of tons of things that went clankety-clank were manufactured. I don't know when it ceased manufacturing or where the things it was making went to, perhaps Kidsgrove or Manchester. It was then taken over by another local company (Geo something) but eventually they pulled out and it stood empty for many years. I used to pass it on the way to

the local tip which is at the end of the road on the boundary of Letchworth and watched with some sadness as it gradually fell into disrepair, windows broken, graffiti everywhere. I meant to visit one of the premises opposite and ask if I could take a photo of it from their roof for B&B but I didn't.

Earlier this year I went to the dump and at last I took my camera. Bingo - no 1/3 factory. This enormous site is now a Barretts building site for what I suspect will be a very large number of dwellings, considering the overall size of the site. No doubt many B&B readers will have stories to tell about 1/3, perhaps what it did in the war - if the Tab was even in there by then; I know nothing of the history of it.

Keith Crook. Hitchin

Reunions

Stevenage & Letchworth Old Boys (renamed Punch Card Reunion)

The annual reunion will take place on **Tuesday 6th October 2015** at Stevenage Labs STE04.

As yet nobody has volunteered to give a talk! If no one person wants to speak for 30 mins I suggest that all attendees come prepared with an anecdote from their time in the company, so that we won't be sitting around doing nothing!

Please send £15 to Adrian Turner, 5, Nun's Acre, Goring-on-Thames, RG8 9BE. Cheques should be made payable to **Punch Card Reunion.** Payment can also be made via Internet Banking, ring me for the bank details.

Adrian Turner 01491 872012

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 **21 October 2015** 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.

Bill Williams 020 7607 9408
256meteorahlhorn(at)gmail.com

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

Watford-Harrow- Feltham
Mike Ray 01895 230194
East Grinstead 81 Club
Gordon Franklin 01342 328479
East Midlands UB40s
Brian Skeldon 0115 9725119
ICL Double Majority Association
Giles Allen 07951 937124 gilesallen(at)aol.com
ICL Midlands
Brian Trow 01785 257317
LEO Computers Society
John Andrews
GlobalLeoSociety(at)gmail.com
Liverpool Engineers
We now meet about midday on the second Wednesday of every month at Weatherspoon's, Great Charlotte Street near Lime Street Station.
Surrey Engineers
Trevor Harding 01483 565144
trevor(at)harding14.plus.com
West Gorton Reunion
Eric W Watts 01457 875080
West Kent Reunion
Ron Harding 01732 761076
ICL Old Buggas
Les Mowbray www.cuin.co.uk/oldbuggas
ExICL Kidsgrove
Nick Edmonds 01270 585953
nick.edmonds(at)yahoo.co.uk

OBITUARIES
Ivor Bowler

Sadly I have to tell you that Ivor Bowler passed away last Friday 28 August in the Royal Liverpool. He was 81 years of age.

Ivor was one of life's characters, a single man with no surviving family. I'm not sure when he came to work for ICT as a punch engineer after National Service in the RAF which he served in Germany. Perhaps slightly eccentric it is said that he could be seen furiously pedalling his bicycle down Edge Lane, with his white coat streaming behind him, from the "Auto" to wherever his next call was.

It is also said that at one time he had a m/c combination and was known to travel on it to Letchworth. Life goes round in a full circle and it was only in the last few months he had resorted to three wheels again in the form of a mobility scooter.

He was a casualty of the redundancies of the early 1980s but secured employment as a lab technician at a college in Liverpool. He had attended our monthly reunion, then held in the evenings, But on one occasion he was put off by the very loud music so we lost touch with him though he hadn't changed his home. It was quite by chance that he had acquired a telephone and the number was spotted in the Phone Book. So contact was re-established and I don't think he ever missed one of our monthly do's thereafter. Usually he was first to arrive at Wetherspoons, when he would reserve our table. By nature very quiet but he would regale us with one of his jokes that usually required some thinking about.

But last month he wasn't the usual Ivor, said he hadn't been eating though he did have his usual pint

and a mug of coffee. We ensured that he took a taxi home. The following day, thanks to some timely intervention by Larry Costello fearing that he would be alone at home, he was admitted to the Royal. I managed to visit him once and found him much improved, so didn't realise he was so ill.

Larry and Don Dempsey had visited more often and found out that he had lung cancer. They said that he knew his days were numbered, that he was very stoical about it and even asked a doctor if his passing could be hastened.

William Wood

Nortel Fund

BIR03	John I	**Hurley**	03/05/15	90
	John D	**Knight**	24/04/15	73
BRA04	Maurice C	**Blackburn**	12/06/15	91
BRA05	John F	**Batt**	18/04/15	68
BRS01	Frank D	**Gasper**	07/04/15	83
BRS06	Christopher	**Jones**	14/04/15	86
EDI01	Sidney G	**McKenzie**	17/03/15	89
GLA01	Alan S	**Murray**	28/06/15	86
IPS01	Francis	**Martell**	08/05/15	91
KID01	Gordon R	**Squire**	29/04/15	82
LET01	Edwin	**Roberts**	26/03/15	75
LET03	John C	**Windell**	01/05/15	86
LET04	Ronald F	**Day**	02/08/15	94
LET05	Douglas V	**Howden**	06/04/15	88
	Arthur F	**Ives**	16/03/15	93
	Marion	**Muncey**	16/03/15	80
	Thomas R	**Parker**	03/06/15	84
LET06	Robert	**Aish**	26/03/15	87
	Anthony A	**Brolia**	15/07/15	81
LET	Graham E	**Dawson**	02/05/15	73
	Yula B	**Goddard**	24/04/15	85
LON03	Victor C	**Collis**	06/05/15	92
	Robert W	**Humphrey**	07/08/15	78
LON11	Alastair C	**Haley**	11/05/15	93
	Ruth M	**Hatley**	24/04/15	77
	Iris	**Langridge**	20/05/15	77
	Alison	**Service**	23/05/15	71
LON13	John S	**Gatehouse**	30/03/15	91
	Derrick B	**Ellis**	15/07/15	89
LON30	Keneth C	**Collingbourn**	19/08/15	84
	John	**Foxon**	09/05/15	86
	John D	**Homewood**	21/04/15	87
	Frederick H	**Newby**	08/04/15	86
	Frederick C	**Norman**	18/06/15	90
	Robert D	**Ward**	05/06/15	94
LON31	Lilian F	**Morris**	04/07/15	85
MAN01	Frieda	**Caulfield**	04/05/15	63
	William C	**Swallow**	29/05/15	86
	John	**Youill**	07/05/15	86
MAN05	Anthony J	**Power**	01/04/15	76
	Alan	**Thewlis**	10/08/15	84
	Robert R	**Williamson**	28/06/15	83
MAN12	George A	**Lynn**	21/06/15	86
SLH06	Alan E	**Thomas**	12/06/15	73
STE04	Gordon	**Beatson**	06/06/15	83
	Victor R	**Hopkins**	17/04/15	84
	David J	**Morris**	25/03/15	76
	Alan R	**Payne**	16/03/15	83
	Roy P	**Shearwood**	24/03/15	79
WAK01	Neville G	**Smith**	23/04/15	85
WIN01	James J	**Cooke**	10/07/15	85
WSR01	Henry C	**Terry**	28/08/15	86
WSR02	Angela M	**Thresher**	04/05/15	65

No Known Location

George	**Bailey**	12/07/15	84
Edgar	**Bartlett**	01/04/15	91
Jack	**Benson**	22/04/15	89
Ernest W	**Binding**	26/05/15	95
Roger J	**Brann**	05/05/15	73
Norah E	**Cameron**	16/07/15	101
George K	**Chance**	06/06/15	98
Kenneth R	**Dale**	26/06/15	80
Nora M	**Davies**	01/05/15	89
Anthony W	**Eldridge**	15/07/15	91
John K	**Ellis**	28/04/15	91
Ian W	**Farminer**	12/07/15	65
Beatrice D	**Foreman**	21/07/15	99
Joyce M	**Gater**	20/06/15	94
John M	**Goodhew**	01/06/15	76
Clifford F	**Hackett**	31/03/15	91
Hilda L	**Handy**	24/03/15	86
Christopher	**Hudson**	07/05/15	81
Terence	**James**	01/08/15	76
Irene E	**Kerwin**	01/07/15	88
Rosamond J	**Kester**	20/03/15	92
Marcin	**Majdan**	22/06/15	89
Albert W	**Nixon**	28/07/15	90
Mary H	**Phillips**	19/06/15	90
John	**Rankin**	10/07/15	68
Arthur B	**Raynor**	11/08/15	85
Catherine	**Roberts**	20/07/15	92
William H	**Robson**	24/07/15	94
Arthur	**Rolls**	13/05/15	98
George	**Ruxton**	06/06/15	80
Barbara	**Simmons**	29/05/15	70
Albert E	**Staton**	19/07/15	90
Eileen	**Thomas**	29/06/15	87
John E	**Thompson**	17/03/15	85
Gertrude	**Tucker**	03/05/15	101
Jessie I	**Webster**	12/08/15	96
Albert	**Welsh**	13/06/15	81
Maurice	**Wilson**	04/05/15	92

ICL Fund

No obit information supplied by Pensions Trustee.

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.

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.shedlandz.co.uk

NEXT ISSUE
Copy for the Spring 2016 issue must be submitted by 1 February 2016, but would be appreciated earlier.