Editorial

When I joined the British Tab in 1958, I had no idea that I was starting a 35-year career in something which would give me such a satisfying time. When it ended at the end of 1994, I decided that I would like to keep in contact with ex colleagues. Unlike the STC Pension Fund, the ICL Pension Fund did not have a newsletter to inform retired/redundant personnel of what was happening in the company or who had died! After many meetings with Personnel/Human Resources and the ICL Pensions department, who were not interested, David Palk, (who I recruited into Dataskil in 1978), said he would fund it. They then changed their mind!

I have enjoyed putting together Bits & Bytes over the past 25 years, but I think that this edition, Number 50, is an appropriate number to finish on.

Technology has overtaken a newsletter published every six months. Facebook is instant and I would suggest that those ex-colleagues who want to keep in touch should go to https://www.facebook.com/groups/4872016732)

Social Media has now overtaken the written word. Pictures and words can be shared instantly.

I'm now 83 and I think that it is time for me to "retire". I have enjoyed producing B&B and would like to thank all those who have contributed over the years.

All good things come to an end – it was good while it lasted.

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MY 20/20 VISION

As this is the first issue of Bits & Bytes for the new decade, let us hope it won't be the last, though at 93, it is probably my last decade!

My first decade, the Twenties, is a bit vague, also, in my dotage, was the "Onesies"

The Thirties was the golden decade of my childhood, when the sun always shone.

The Forties were darker, when it seemed to rain bombs, shrapnel and V-rockets, but it was exciting, for a while.

The Fifties meant austerity, personally and nationally. Trainee wages, two children and a new house, but inflation was low, and life could and did get better.

It's said, "If you can remember the Swinging Sixties you weren't there" It didn't swing for me with a young family, frequent courses at Stevenage, evening classes and a mortgage.

The Seventies was when we seemed to come down with a bump and pay for the Sixties, with the 3-day week, industrial clashes, even in ICL.

By the Eighties, I realised I was never going to run the company nor was ASTMS, our union, and this was as good as it was going to get, so when the offer came for redundancy, I took it.

I've been retired for as long as I worked, which is quite satisfying. Most of the pieces I contributed to Bits & Bytes were looking back on life. This is inevitable as there's not a lot to look forward to at my age. I find the people I encountered, rather than the machines I worked on or places I visited, I recall with the most pleasure.

Are we unique in our reunions after 30 odd years? I feel Adrian's efforts with Bits & Bytes helped. Looking at our entry in Facebook, I don't feel the same connection, as they reminisce about systems, sites and technology that appeared after I'd retired in 1984.

Nevertheless, the same comradeship exists and I hope Bits & Bytes survives to maintain those friendships formed in ICL

Dennis Goodwin.

The radar story.

We had a problem with DRS equipment unloading the disc for no apparent reason. I found it on my 'to do' list and as I did not know much about DRS I asked a colleague who did, which book etc I should read before I started asking stupid questions.

In later years I loved the TV programme called 'Faking it' where a most unlikely candidate would have intensive training over a 4 week period and then be pitched into competition with experienced people.

Frequently coming out from the ordeal very well.

So I was getting used to having instant expertness thrust upon me. I did the usual things finding out which were the successful fault repairs, I was finding it tedious to follow through on a general swap out of parts until it all went away. So I was picking up the difficult or repetitive calls that defied normal fault finding in our patch, this did also extend across to the Bristol area as well.

There was a problem with a system in Exeter and it was decided to eliminate mains electricity interference by putting in-line filters on the mains entry electricity supply. There was some improvement but not much. I was in contact with Jim Brown who I had known for years and he

was in engineering support and he said he had this wonderful new bit of kit that could be set up to record transient pulses that the mains filter would not 'see' as they were high frequency. And they were dying to test it.

We arranged to meet on site it was a main depot of the Milk Marketing Board. The test gear was about the size of a small oscilloscope but had cost as much as my company car! There was a very thick manual with it and we did our best to set it up. It had till size paper with it and would print the output for inspection. So we watched for a while and then left for home.

A week later I had a call from Jim and he said he had a very strange call from the site saying it had run out of paper and what were they to do?

So we went to Exeter again to be met by a mass of paper all over the floor. We had clearly screwed up in setting up the equipment. We did our best and rolled the paper up and started to read off what was printed. It was recording transient pulses and time stamping them for a whole week and most of them had required the DRS to be re-started again. Jim said he would take it back and analyse it.

A few days later he said there were regular periods of pulses, which tied up with incidents and then everything worked again, we chatted and he said it was a bit like a regular interference and the only place he could think of was the airport radar at Exeter. But he had a possible solution. He said "Do you remember that little girl you used to bounce on your knee?" "Yes" I said remembering his daughter some 20 years back. "Well she is now a WRAF Officer and she is in Air Traffic Control".

About a week later he came back to say that the pulses causing the problems were probably from the military radar at Exeter as the times tie up with RAF traffic landing and taking off. She also knew that the radar was due to be changed out as it was transmitting outside of its normal frequencies. But we should keep this secret otherwise we might have a mucky fan to contend with. Now you can't get the MOD to admit that they even have an airfield at Exeter so I did not try.

I sat on it for a couple of days wondering how to attack the problem. Then it came to me, I bet that the local RAF guy belonged to the local Rotary Club. So I spoke to the manager at the Exeter MMB branch and told him the story and he said he was in the Rotary club and thought he did he know the RAF man at Exeter. So our MMB man spoke with the RAF man, the radar got changed out very soon afterwards and all was sweetness and light again.
Roy Verden

The lorries and the roadworks.

By now I was getting used to some of these weird equipment breakdowns and I was asked to sort out the car hire company, Kennings I think down near the south coast. They had a DRS that would just power down its disc drive for apparently no reason. I was getting to know the top ICL man at Stevenage, he was responsible for the DRS kit in the UK. A very down to earth guy altogether and good company. He had seen and worked with it in the USA and ICL bought the rights to build the equipment here. The build here was to make it all as cheaply as possible except for the military version where the original electronic interference protection was incorporated called 'Tempest'. This stuff was used on our warships I also had the job of helping to round up spares boxes to go out to the Falklands with the Task Force. All our efforts went down with the big freighter, Atlantic Conveyer, however. As an aside the whole enterprise of assembling the back-up forces and

getting onto a war footing was only possible because ICL had developed a parallel processing unit for the military that dramatically increased the speed of searches on the disc drives. Like almost a factor of 20.

Anyway, I was telling him this tale and he said he thought he could get a temporary loan of a DRS with 'Tempest' protection and he would take away the rogue unit to find out what was wrong. I think at this time STC was around and he had the use of one of their special 'rooms' where you could fire RF at whatever was in there to see what effect it had. Well he found that the frequency of 27 -30 Mhtz would unload the disc drive on a regular basis.

Now those that go back a bit know that 27 MHz was the frequency of CB (Citizens Band) radio and all the truckers had them in those days. This tied up with a chance remark I heard that when there were local roadworks there was always a problem on the DRS. One can surmise that the truckers would warn those behind of road problems and the spectrum would be alive with CB radio chats and the DRS would unload its' disc.

I went to the Repair facility at Kidsgrove and I was shown around the circuit board that was being changed out and low and behold there was a 555-chip involved. Now the 555 chip was a great one for us guys knocking up circuits and you were always told to decouple a particular pin to earth with a small capacitor to stop it firing off spontaneously. But it was not decoupled on the DRS PCB, I spoke to a design engineer and he said I must not touch the PCB on the equipment, all modifications had to be authorised and tested. So, nothing was done. I suppose it had not been necessary with the original RF protection, but hey! What do I know?

The original DRS unit was sent back to the customer and it was now fitted out with the 'Tempest' stuff, which for all the world looks like Christmas metallic frilly decorations, spread around where the covers meet and it filled the gaps. All of this was a box sealed off from stray Radio Frequencies, (RF).

The system was re-installed, and it worked fine problems all gone away.
Roy Verden

Sunrise and the computer.

We were having to change out the Tape dump units before they had their final fix on a regular basis but some were coming back with No Fault Found. One place was a small Milk Marketing Board set up where they distributed bull sperm to farmers for inseminating cows. A sort of select-a- daddy set up.

Now the expected working day was that the data entry staff, who were all ladies were supposed to do this at end of day at around 4ish. Then the disc would be dumped onto the tape and this would be sent off by special post. This was not the best idea in the world as the tape had a mirror image of the disc flaw areas included. Well life being what it is, what is supposed to happen, and what really happens, can be quite different. So there were Jim and I watching a lady doing the data entry, all went well and I asked her to do it again, Jim got bored and leant over to find his cigarettes and the tape started to unload. I yelled don't move anyone, what happened? Jim sat back where he was, and she started again, and it went well. I said let me have a think.

I asked Jim to move away and put a chair in his place shading the unit and the tape drive behaved, I moved the chair and it unloaded. After looking around I saw that the

sun which had now risen a bit more was shining straight onto the tape unit. Now the tape has the oxide scraped off at each end to reveal the clear plastic tape beneath and a little light shines through this to a photocell and so it knows when the tape comes to an end. But the sun was shining straight through and giving a false input to the circuitry.

If she had been doing the work in the afternoon there was no problem as the sun would have been on the other side of the building, but she did the work to date in the morning so she could finish as quickly as possible before going home in the afternoon.

Word spread very quickly that ICL was blaming the sun for some of the problems and when I reported to the Board I was in for a lot of banter, but the lady now drew the curtain behind her when working and the problem went away.

Roy Verden

BERLIN Story

In 1968-9 After a few months in Staines building and Commissioning the Bryant Fixed Disc system model 2B, I was asked if I would go up to West Gorton to help with integration of the Disc system into 1900 systems. As I was born in Cheshire and still had family there I agreed and after a short time I was asked by ICL Mgt. to do an internal transfer permanently to Mfg. Which I did.

I made lots of very good friends there like Jack Fennel a great engineer we worked together for some time. We installed the systems in British Gas West Midlands, Scottish Gas Board, Nottingham University, Science Research Centre whose existing KDF9 (I think) Mainframe was across two floors of clean rooms with video links to the console.

I was told to prepare and present a paper about the FDD to all the UK University's Heads of IT. it was a week-long event covering a complete 1906a system. I thoroughly enjoyed the experience. We had some very clever people in the audience, who were asking detailed and difficult questions, one who had baracked every presenter with how he would have done things differently, he interrupted part of my presentation when I was showing a fix to reduce head crashes, Bryant had implemented this fix to align the flying head by accurately applying a silicone glue to the back of the head to keep the head at the right angle to the disc. He was holding a sample and trying to break it and he shouted out what happens when it fails, I answered 'loads of people including you have tried to break that one without success' the audience all laughed and he did not interrupt again for the rest of the week, other members of the audience came over to me during the coffee break and said thank you for stopping his unhelpful comments.

Another day I was called into the office asked if I would go to Germany to help with the installation of a system 1904e In East Berlin. Of course I said yes,

I flew out to Tempelhof and was picked up in a large Mercedes taxi and taken to the office, I was put into a company apartment in the STERN BUILDING, it was wonderful. The next morning I went into the office and met the Mgt. and the English secretary said she would sort my papers out and fix up a hotel for me the next night then we would see how things went for the rest of the visit.

At the end of the day I was dropped of at a large building where two floors were a hotel, I checked in dropped my bags in my room and went to the bar for a drink, a nice guy served me and we chatted, on the second drink he came around the bar and sat next to me and put his hand on my thigh, well I quickly made my excuses and went to my room, put a chair under the door handle and got into bed. I remember it vividly as it was the first time I had ever seen a continental quilt. The next morning checked out. I went to the office and the Secretary saw me and started laughing, I called her names and we knew she had set me up, we became good friends and she showed me around West Berlin.

joined the team in East Berlin and moved into a flat over there. Going through Checkpoint Charlie for the first time, was nerve wracking they told me NOT to smile while they checked my passport photo against me.

The Customer was the East Berlin Council. People in our commissioning team I can remember were Ernie Wonderly, & Bill Muirrison, were already there. Well we got the system up and running and it seemed to be OK, I pulled a night shift running diagnostics on the system, In those days I loved watching the neon lights flickering and I miss them now, So sitting at the console with the all the computer doors open it was like a science fiction film, loved it. I went to make myself a coffee and as I went back into the computer room I thought it would look better with the main lights off, so I switched them off, as I walked back to the console I noticed the system had crashed so I rebooted it up again enjoyed my coffee and the neons, but started to worry, was it my switching the lights off that had any involvement with the crash.!

I thought long and hard then got up and switched the light on/off again and it crashed again. It was a repeatable problem I wrote up the log and we had a review in the morning. Everyone had ideas and we tried them all nothing worked, touch the light switch and the system crashed. We checked the earthing everything we could think of but no we could not fix it, I got in touch with Gorton and asked for systems design help, a guy called Mike Combridge came out and we tried loads of solutions nothing worked then Mike & I were looking at the diagnostics and he pointed out where the system lost its place in the test programs, when I was checking the FDS and with a scope I could see there was an Extra Tach mark when the lights were switched. Mike had a quiet think and we checked the diagrams again, Mike hypothesised that it was an earthing problem, but the earthing was correct to the specs, we lifted the floor tiles and ceiling tiles and found they were made with a high metal content, Mike said he thought the room was acting like a Faraday cage and the electrical noise was being reflected within the room. We tried all sorts of changes until we added an extra earth link between the disc drive controller and another part of the System, and that fixed it, but we had created an earth loop something we were always told to avoid, the system was working, so we left it like that and Mike said he would write a report when he got back to the UK Office.

We had a wonderful time and experience in Berlin a lovely place with great people. We used to work and sleep in the East and relax in West Berlin, One night I remember we had had a few drinks and England had a football match against Germany (not sure if it was East or West), but Bill was keen and had bought the Daily Express with the back page showing the headline result with photos. Well we walked back through Checkpoint Charlie and Bill was a little merry and he pulled out the paper and held it above his head waving it at the guards who were not amused. The next day Bill realized what he had done, we teased him and he did not come with us to the West that night, and when we got back to the flat in the East, we told him the guards wanted to speak to him the next time he went

though, as he had bought black market currency, he was afraid to go back through Checkpoint Charlie and stayed in the east for a few days, eventually coming out by another city route.

Ernie was caught in an entrance kissing one of the computer operators one night by the police his papers were checked and he was pulled in for a full body search, the next time we went through Checkpoint Charlie.

We had been told about a wonderful sports recreation club in West Berlin and we decided to go on a Sunday we were off work, another first for me. It had 3 indoor swimming / relaxing pools each one hotter than the last, 3 saunas each one hotter than the last and an outdoor full length pool, a little gym area, lots of shower cubicles and a restaurant, now it was December with 8 inches of snow and ice on the pool but we paid our entrance fee 10 marks (8 marks to the £) and went in, then we understood and accepted it was a fully naked establishment, we were given locker keys and towels and told to get undressed and go though. Alongside the 3 pools was a seating area about 6 rows high, after our showers, we sat quietly with towels protecting our modesty on the top row. There were quite a few people in the pools and some very attractive ladies, I remember Ernie saying he had to get in the cool pool rather quickly which he did we all joined him and it was superb we got acclimatized to each pool and moved to the next one, then into the sauna, shower then back in the pools circuits. There was a German guy who was doing the full circuit pools saunas, then the outdoor pool, back in shower then another lap he had the largest Gold ring i have ever seen an ingot that covered almost the whole of his finger. Well it got better as we went to eat lunch, as English we fastened our towels around us went to select a table picked our food and sat down, we were the only ones protecting our modesty, It got better, while we were eating. An absolutely beautiful black girl came from the serving counter with her food she was fully naked and came to our table she said 'I am sure you guys won't mind me joining you, we were tongue tied, but happily accepted graciously, we asked how she spoke such good English and she told us her father was an American GI and mother a German lady, the experience made the day.

The only bad thing that happened to me was late one night I was on an UBER station in the cold and walking back and to on the platform to keep warm I passed an old guy on a bench he was obviously disabled, and as I passed him on one of my walks he looked up at me and said 'Your lot did this to me' in perfect English It shocked and upset me. Another day I had to walk across Potsdamer Platz where 600,00 people were demonstrating against the Vietnam war, and the atrocities the American's were perpetrating, later admitted to by the USA.

I returned to the UK full of admiration of Germany and the German people.

Stewart Campbell

LEO: Publicising and Preserving the World's First Business Computer

Much is known about the way American electronics companies such as Google, Microsoft and IBM have globally dominated the computer industry over many years. Comparatively little publicity has been given to the pioneering activities in the 1950's of the giant British catering company, J Lyons & Co in paving the way for computers world-wide. This company had enormous foresight and innovation qualities that led to development

and manufacture of LEO (Lyons Electronic Office) based on user centred design and subsequently recognised by Guinness World Records as the World's First Business Computer.

Such was the success of LEO within the Lyons Company that versions of the computer were purchased by many blue-chip companies such as Ford Motors, British Oxygen, Shell Mex & BP and Government departments, including Inland Revenue and the Post Office. Some remained in operation until the 1980's. A few of the LEO pioneers from the 1950's are still with us, one of whom, Professor Frank Land, has recently been honoured with award of OBE for services to the information systems industry. Today, The LEO Computers Society, a registered charity, thrives as an active organisation, most of whose members worked on LEO computers during the 30 year lifetime of LEO. The Society is keen to promote, to as wide an audience as possible, the general awareness of LEO and to seek support for the preservation of its history. It seems important to explore LEO's contribution to the start of computing, because the social cost of how we create, share and store information is only now being properly articulated. Media stories frequently cover some aspect of this, from fake news, to data protection, to discussion about artificial intelligence and the Internet of Things. LEO was at the beginning of this story and perhaps, if the central ethos of LEO--the importance of the end user--had been held more closely by its successors, the picture today might be quite different.

To explore these issues now, the Society is currently working, together with the Cambridge Centre for Computing History, on a Heritage Project, funded by the National Lottery. This includes digital archiving of documents and collection of physical material, development of a virtual reality simulation of the original LEO and interviewing those who worked on LEO machines. For current and future generations, the project will assist in the understanding of how computing technologies developed and their impact on our daily lives.

When LEO went into 'retirement' in the 1970's and 80's, some of those who were employed on LEO were understandably allowed to keep items of hardware, documentation etc, as mementos. The Society now seeks help in obtaining such items as donations to the collection being acquired by the Heritage Project and to identify individuals who may have had LEO experience and are willing to offer themselves for interview.

So, here is an appeal to our readers: The LEO Computers Society (www.leocomputers.org.uk) would welcome contact with anyone who has LEO material of any description and would be prepared to donate it for the Heritage project or offer themselves for interview about their LEO experiences. Please contact: secretary@leo-computers.org.uk

From Lily Hill to the World.

What stands out in memory now, so long after the events, is the amount of long-distance travelling I did, in spurts, at particular periods.

In USA in 1962, working for RCA EDP Division, Camden NJ, on RCA 501, and its successor RCA 301, and the proposed but aborted RCA 601, I was on the COBOL Development committee, along with reps of the other 11 active USA computer manufacturers.

Each month we had a ½-week meeting in a different city, so I went to about 10 meetings, from my Philadelphia

base to Boston, Seattle, LA, Chicago, Minneapolis, Dayton, Detroit and others.

My plummy English accent delighted all the other delegates, also my ability to quickly draft technical proposals or resolutions in good clear prose, on demand, based on others' ideas and suggestions.

Then there were the years 1990 - 2000, after I left ICL, when I continued attending and contributing to various ISO (Internat Standards Org) and ECMA (European Computer Mfgrs Assoc) techincal committees. Some of these were on file structures for interchangeable media (tapes, floppies etc). But mostly they were on the multi-byte character code, encompassing all the world's alphabets and writing systems.

From 1994 to 2000 I was editor of the 1000-page standard, ultimately adopted by the www/internet, and now better known as UNICODE.

All that required at least 3 overseas trips per year, frequently to Geneva, but also often to Japan, S. Korea, USA (Washington, and Seattle), Paris, Stockholm, Helsinki. Turin, and so on.

As I was no longer employed, I had to scrabble around to get funding. Most came from BSI (Brit Stds. Inst) as I was UK "expert" at meetings. But ECMA petty cash also helped out on occasions, as my work reflected so much credit on that body, in the opinion of the Director-General.
 Bruce Paterson

Behind the curtain

I was asked to install a disc drive system in Bucharest in the middle of Winter. As it was my first trip behind the Iron Curtain I was given a briefing, if I was offered money exchange I was to refuse, if I was followed it was most likely their security police and not to lose them. As very few people visited Romania there was only one direct flight a week, so I had to fly to Zurich and change flights with a twenty minute overlap. My first flight was late landing, but I was assured by the air hostess all would be well. I was driven out to the aircraft that was waiting on the runway. On arriving at Bucharest airport, I noticed the first of the economy drives, the runway was not cleared. We stacked as the snowploughs went back and forth. Finally, we could land. At customs I found £800s worth of excess luggage was allocated to me and the officials rubbed their hands. Things suddenly changed when a man came up to me the wrong way through customs and announced that he was from the "Protocol Department" and he handed over cartons of cigarettes to the officials and we were through. The next experience was the taxi driver who wanted to know what currency or cigarettes we would be paying in as this governed the price we pay. At the hotel came the next shock. The hotel boasted television in all rooms and a restaurant with an extensive menu. The television proved to be a black and white and the state program was continuous propaganda. The next shock was the menu which was extensive but proved to have only one item available. Leaving the hotel, I found how cold the winter was in Romania at this point I found I had a "Minder" following me, these could be identified by the trench coat and trilby hat. I went into a sort of super-market. All the shelves were empty but for one that had Vietnamese vodka. The next day I saw a lorry outside this shop, and it had eggs. The shop keeper was swamped by people wanting to buy them, so the shopkeeper was selling straight out of the back of the lorry. The night was when things came home to me. **Nicolae Ceaușescu** had heard

that car headlights took 1/10 of a horsepower so he band the use of them. Then he reduced the streetlights to one in three. On arriving at the site, I found there were way too many engineers. But this was one of the better ideas. No one was unemployed so excess engineers were allocated positions in places of work and paid by the state. With the new system was replacing the old and the old system was to be relocated to a university in an old monastery in the mountains. So, all the engineers were trying to prove they were indispensable. It did make the engineers keen to learn from me. The return flight was direct and was in a VC10 but there were only six passengers.
Derek Cheek

Romania Again
Sometime later I was asked to re-visit Bucharest but this time in the Spring. I was to go out and meet up with a salesman who was selling spares to help maintain their tape system. Whilst I was out there, I was to resolve and ongoing tape deck issue that they believed was a design fault. I arrived but the salesman was not there. I tried to 'phone the UK to find what had happened but the 'phones were out. But I found their telex still worked and I could still remember how to use it. So, they sat me in front of it and I started. I found that the salesman was stuck with a client in Italy. I was to meet up with the customer but not to enter into any sales talk. So, I went to site and had them explain the fault. It took me less than half an hour to understand the issue. They were degaussing the read/write head with the deck still powered on. The customer realised there was nothing I could do but wait so he organised his chauffeur to take me on a guided tour of Bucharest. Later I did my own wander round. When I left the hotel there was a doorman who called up the taxis for the queue waiting. I was in the line waiting, in front of me was a high-ranking Russian officer. The doorman went in front of the Russian and opened the taxi door and ushered me in. I then realised the Russians were not liked. Further to this was when I was wondering around the shops. The shop keepers were responsible for keeping the pavement outside the shop clean. I saw a shop keeper dash outside their shop with a brush sweeping the pavement over a Russian officer's shoes. The other thing I noticed was there was plenty of food and flowers. Everything was warm and bright. The downside was that they had suffered a 8.2 earth quake. So, a number of buildings were collapsed into the street. Another oddity was Ceausescu had been told there were not enough quality Hotels. So, he had all the Hotels re-rated, the three star became four star and the two star became three star. I learnt more about Romania on that trip than I would ever learn in a classroom.
Derek Cheek

Beware some salesmen.

ICL introduced the Distributed Resource System (DRS) in the 1980s. Individual intelligent workstations obtained mainframe access and downloaded application software via a daisy-chained coaxial cable from the main cabinet.

As a regional support engineer I was asked to investigate intermittent hang-ups at British Gas local Headquarters in Altrincham, Manchester.

I developed a method of monitoring the LAN (local area network) using a modified length of co-axial cable and an AVO8 multimeter.

Following a lengthy investigation a fault was found in the building mains wiring where the earth and neutral wires were linked in a mains distribution box under the false flooring.

This caused a fluctuating current, from switching on any electrical device, to flow in the neutral cable and also flow down the earth cable.

Each DRS20 workstation was connected to mains earth but the LAN cable, being connected to the chassis, provided an alternative route to earth so that some of the erroneous earth current also flowed down the screen of the LAN cable. These fluctuations caused the LAN to freeze randomly.

I reported this problem to the Field Engineering fraternity to make others aware of the problem and also my technique for its resolution.

Sometime later a similar problem was reported in a sales department on the 17th. floor of MAN12, ICL Arndale Centre in Manchester.

I used my modified cable and AVO8 to locate an incorrectly wired mains plug on the departmental printer. One of the sales team, Peter, showed an interest in my technique and assisted me by switching off devices while I monitored the LAN cable current. Problem resolved.

Some weeks later I received a request from the company Suggestion Scheme to evaluate a proposed diagnostic aid which was, essentially, my modified cable and AVO8. I had to agree that the suggestion would work and the originator received £500 pounds, an appreciable sum in the early 80's. The originator turned out to be Peter, the salesman from the 17th. floor.

When I contacted him and suggested that he might split the £500 he refused, his response being that I should have suggested it myself.

I learned then to be very wary of salesmen.

Sid Heaney

Not always what it seems.

There is a large NGO for which I was responsible for in the mid 70's and the site also had a resident engineer. Now I always trusted my engineers first and customer second. These events took place over a period of about 6 months.

In those days the large systems 1904/5s etc had an agreement to keep the % uptime at 95% or above. Most of mine were 98% and over. However, this site kept dipping below and after consulting with my resident engineer Ron, almost on a predictable timescale. He identified and I later checked back, that, with a certain operator on shift the performance apparently dropped below 95% and would then be at 99 / 100% for the following week.

I drew up several months figures and went to see the computer manager, he was incensed that I should be accusing his operator and so he called him in to the meeting. I gave in as I did not want to spoil a hitherto excellent relationship. Things improved.

Then as we were stretched for man power my engineer Ron picked up a computer site 15 minutes away and he was happy to do so as it got him out and about. But he phoned me and said 'How come after I have been gone for 10 minutes the NGO system has a fault? He was right! The suspect operator even phoned my boss and complained that they did not have an engineer on site as they were supposed to! So my boss was spitting blood and had me in for a 'talk'.

Well we were now looking for suspect intervention with the computer. There was another problem with a (EDS 60) disc being re-numbered and one of my engineers told me had explained to the operator what to do in general terms but not in detail, so it was locked into the system and there was a breakdown. Our suspicions were getting more aroused.

When the so-called machine gone dead, can't load Exec, happened we would run tests but never found a fault. Ron, my man on site came up with the idea of a fine black thread through all the holes in the many rows of pcb's and this did take some time to do. Then a few weeks later I received a phone call from Ron saying 'I've got the b*****d'. A call had been placed with system down just after Ron left for another call and when he returned he undid the 1904 covers and there were several broken threads.

I dashed over telling Ron to take over the system, when I arrived I checked to see the broken threads. We had our own ideas that he was doing outside work on the system. I called in one of my system engineers and we went to see the Senior programmer and asked her to look at the system without prompting her in any way. She came in and looked around and immediately said 'Where did those data tapes come from, they are not ours? There is also an unknown disc running in the system.

The computer room went into lock down and an audit and then there were some tearful confessions from a new young lady operator that she had been told to do things she did not understand and the finger finally pointed at our man!

He had been pulling pcbs until the computer failed. He would send the other operators out for a tea break and then he would take out the typewriter paper roll insert another and re-load Exec and bring in foreign discs and work for an hour. When done he pulled same pcbs, computer stops and then he replaces the old typewriter roll. However I think something went wrong he had not anticipated and he was left with a stopped system and all of the evidence on view.

He was suspended and eventually sacked but won his appeal!!!!! The computer manager came to see me and we agreed the conditions of him coming back did not actually specifically say he was to be an operator so he was offered a job as a data entry clerk, which he declined. I later found he was on another ICL site and went to see the ICL service manager who passed on the information and I think they either moved him or moved him on.

I had a more amusing run in with the chief electrician on this site. When a 1904 switches on there is a large inductive load and ICL recommended a certain type of contactor for the job. The original one failed and a new one was needed. I went to see the chief electrician and I asked, very nicely, for the exact one specified. This was not one they stocked so it did not happen and the computer would have great trouble starting up each morning until the electrical bits failed inside the contactor, I asked again for the right replacement, but was met with the argument that all contactors were the same. So another was fitted and it also failed.

We now had a meeting, with me on one side of the desk and the Chief with 3 supporters, on the other. He again started the same argument but pointing out that now there must be something wrong with the computer! I sighed

wearily reached into my back pocket and placed a five pound note on the table and suggested he put his money where his mouth was. He got up without comment and walked off, but he bought the correct contactor and all was well, he also avoided me after that and I never saw his five pound note either!

Thinking of failed computers, I used to look after Glaxo Labs at Greenford and at a meeting they told me that they were buying a second hand 1904A and it was to be transported direct from the site, Smiths, not sure whether this was Crisps or Instruments.

I phoned up the engineers and asked after the machine. "Don't touch it with a barge pole", they said. Smiths were to have an early 2900 to mollify them for the poor performance of this 1904A. I have to say that this machine usually performed extremely well and was very reliable.

Now this was not good news to say the least. I asked to see copies of fault reports, which they duly sent and I had a look and decided to call a small system engineer meeting on site plus the site engineer. From the engineers point of view they wanted to fix it, so were full of enthusiasm for the task.

We bashed it around for a few hours, I kept notes and the upshot was a series of checks, the most intimate being to re-solder, using a solder heat gun, the complete I/f between the processor and memory which was a large number of co-ax thin cables, maybe 2mm dia. This was only really possible as the computer had to be separated at this point for transportation, so we would have easy access. It was not a job that would be considered to do when in situ on its last site.

For my part I negotiated a whole week to bring the 1904A on-line which Glaxo readily agreed to. The I/F work took nearly 2 days with very careful handling of the cables, other ideas were also worked on and we handed the system over to the customer. The first day there was a PCB failure and we were on tenterhooks!

It never went wrong again for 3 years after that! That is when I moved on so that time frame is certain. I had complaints from support that I was not sending in system fault FIRs but I said it is 100%. "It can't be", came the response, and down came a Support engineer, he talked to the customer, after I suggested it.

The Computer manager said to him, "I come in every morning, walk through the computer room and run my hands over the covers and say, (quote!) "You are my Rolls Royce"!

The Support engineer came back to us and asked WTF did we do to it? So we told him! He swore a bit more and left us to it.

Roy Verden

Wireman Short Circuit

One of our customers who sold wire to anyone was unhappy, he had found out the home phone number of an ICL Director and was badgering him and said that he was going to the media to tell everyone what a crap machine he had and what a crap company we were.

This was in our Branch so it went to the Manager then to my boss, none of them wanted to touch it! Guess who was there at the bottom? I was briefed, I checked out where he was located and decided to pay an unannounced visit. Why give him the benefit of working himself up for the occasion?

As it happened I had to take my daughter into London for an early train so I parked at our 'Wire man's company' about 7:30 and waited. Just before 8 o/clock he arrived. He

was a little business man about 5' 4" and a bit rotund and he came with a chauffeur in a, I think brown Rolls Royce. My first thoughts were "Ah! I know you"! Not personally but by type. Do not get me wrong this was not a negative thing. At the time I was an avid follower of Saturday Night Theatre on radio4 and used to record the plays for listening to later in my car when on the move.

Also I used to work at J & F Stone which had two brothers running it each with a Rolls and a chauffeur so there was a comparison. One of the plays had been all about a similar business man and a salesman and the salesman's efforts to get to the business man and sell him something he wanted anyway! He basically needed to be 'courted'. I went in and asked for him and a response came for me to go to the boardroom and wait. I was happy about this as it was his playground and he would be relaxed etc. He arrived and I introduced myself, he looked disappointed at me and asked if I was the only one free. I then came out with one of better ripostes and said "I may be free but I am not cheap"!

We sat across from each other and I started asking questions, I did not attempt to answer anything, well I did not know enough to and never was one for platitudes. At the end he said "I have met many gentleman like yourself before, nothing will happen" and we parted. I thought to myself, "Oh boy just you wait!" I fixed an afternoon appointment for the next day.

I had already spoken to the salesman and he was frightened of him, but I decided he had to be there. I phoned the ICL salesman's boss said I wanted him for the afternoon and he agreed. I contacted the salesman and said to meet me there for 10 to 3 the next day, he immediately said he was busy and I said I have already agreed it with your boss. I also had to work out a way to get on an even footing with chairman.

I did a lot of homework and then arrived at the site. The sales guy arrived and I said I will conduct the meeting you will sit there and say nothing unless I turn to you and speak. He seemed OK with that.

We met in the boardroom again and this time he had his assistant, a young lady who knew the business. I asked him how the business was running and he was pleased to say very well, never been better, we are very busy. Always good to hear I thought.

I then went through my homework and extolled the virtues of the ME29 in the various ways and each time I made a point and a company using the equipment he said "I will contact so and so and check with him". This went on about 4 times until we got to a particular point and I said and this company uses this equipment for the same thing and before he could make his usual "I know Mr. so and so I will ring him" I scribbled down a name and phone number, passed it across and said there is another contact for you.

He looked at me and he knew he had just been outwitted we both smiled. I then said "What is the real problem?" He said the s/w will only measure wire to one decimal place. Why is that a problem? He said "I sell platinum wire to power stations and I need 3 decimal places"! I turned to the salesman and asked him if he knew that and he said "No". I then spoke to the chairman and said "Did you emphasize that point when ordering the equipment"? To which he prevaricated!

"Leave it with us". He came round the table grasped my hand and said "what a pleasure to do business with you". The young lady was smiling as well as she was not used to anyone standing up to him.

I went outside with the salesman, he looked like he had been pole axed, everything I said was probably not in his training course. But I said "Get the s/w altered, his business has outgrown the equipment, do something about it".

I got a call sometime later that the company had spent £90K upgrading the machine and was now happy. I have always stood up to bullies no matter what level they were. Most small business owners are psychopaths (and why shouldn't they be?) Some people need bullying to get the job done but it can become a habit.

Roy Verden

Norman Sanders

I met this 90-year-old computer pioneer recently and was amazed by his story in the very early days of computers. Click on this link!

https://archivesit.org.uk/norman-sanders/

 Editor

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 **15 April 2020** **1**2 noon at the Shakespeare's Head. 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.
brian(at)morrismail.co.uk

Liverpool Engineers
We now meet about midday on the second Wednesday of every month at Weatherspoon'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 [JD Weatherspoons]
Dave Badminton
email davebad(at)gmail.com or
davebad(at)blueyonder.co.uk
Phone 01245 259301

LEO Computers Society
Hilary Caminer
secretary@leo-computers.org.uk

West Kent Reunion
Ron Harding 01732 761076

Kidsgrove-Drawing-Office
The Annual reunion is held at the Bleeding Wolf, Scholar Green on the first Monday in December

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

OBITUARIES

When you are gone
Recent deaths have highlighted a problem for people who want to write an obituary for an ex-colleague.

We have worked alongside somebody for many years but when the question is asked "where they were born, educated, joined the company?" we suddenly discover that we hardly knew anything about them and their family background. This is especially true for those who never married and have no close relatives. Can I suggest that we should each write a potted CV giving these basic details so that when we die the eulogy given in the church or crematorium and published on the Bits & Bytes website is factual.

You should also produce a list of friends and ex colleagues with their phone numbers and/or email addresses so that they can be informed of your death.
Editor

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

Bits & Bytes Archive
Please make a note in your diaries to access the website on a regular basis.
www.bitsandbytes.org.uk

LAST ISSUE
 I have enjoyed producing Bits & Bytes over the past 25 years, but I feel that modern technology, especially social media, has taken over and the stories from the 60s and 70s mean very little to recently retired people!

Goodbye and Good Luck!