

Bill Ellis

Interviewed by

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It's May the 24th 2016 here in London, England. I am Alan Cane, and this morning I'll be talking to Bill Ellis, one of the pioneers of both the UK's computer hardware industry and the computer software and applications industry which developed in parallel with it. First we'll be discussing Bill's business career, and then his background influences, and his views on the way information technology has developed over the course of his long and distinguished career. And it is indeed a very long career Bill. You go right back to the, the early days of what was then BTMC. Well, I know that at school you studied biology, and then you were a trained soldier. How did you learn about BTMC and what persuaded you to join this business?

Well we're now talking about 1959, and frankly, the careers advice I got from school was pretty hopeless. And having finished National Service, at least I got a good commission, and actually had a very interesting and informative opportunity to meet people and learn about the world during that period. I frankly wrote to 20 or 30 companies, Beck and Pollitzer, Unilever, God knows who. And somewhere on the list was BTM. I had no real understanding of what they were about or what they were doing. And luckily at that time, [laughs] their recruitment process seemed to be, if you had done some National Service and been commissioned, it was a very big step in the right direction. The team I finished up with in training, was about ten people, probably only two were graduates. All the rest of us had had interesting small careers I suppose, and that seemed to be the reason for selecting me to do this, this task. Although, technical serviceman didn't sound like a very exciting job at the time.

[01:58]

Mm. But at this time, they had not yet developed a computer industry, is that right? These were tabulators?

Yah, basically they were, BTM had a product called the Hollerith machine, which they licensed from America, and it was a punch card driven device, and primarily they did accounting systems, relatively small accounting systems, for people using the cards as their process. And actually, during my training period that first year they merged with a company called Powers-Samas, for those who go back that far, who had the same product except it happened to have a round hole rather than rectangular.

But their machines were completely different, they weren't sensing electronically through the holes, they were physically putting bars through the holes. And I think they very quickly got sort of, opted out, absolutely impossible thing to go on with.

Mm.

So... But the only thing they did bring to the table, and this was about the end of my first year, they were a much more sales-focused organisation, where we were all jolly people helping out and whatever, rather than based on commission and things like that.

Mm. But was it the technology which appealed to you, or just the chances of quick promotion?

[laughs] I think it was a nice opportunity to get a job to be honest. Although, £468 in the first year doesn't sound very much now. And I didn't really foresee what it would all develop into, to be honest with you. And I suppose as we, as you will find out as we talk, I mean, I'm not a great technician in any sense of the word in both programming sense and whatever, but I am an all-rounder in terms of being able to talk to people, and, and later on when sales became an important part of what was going on, I sort of adapted to that rather well I think.

[03:48]

Mm. So, your first job was technical serviceman. Now what did that really mean?

Well, basically, I started in the City office, after a year's training, which actually in those days were responsible for the Square Mile and all that was in it. We were primarily tabulators, maybe one or two of the more clever firms had a calculating machine, and they were just coming in at that time. And we, our task was really, support to the client through maintenance reviews, maintenance reports, through bringing new products to him, talking about other things. It was a very low-key sort of job. On the other hand, we were talking to people who had come up through their accounts department to became a data processor. Well they weren't even called that then. They were manager of the department. And they really had no more vison than,

Bill Ellis Page 4 AIT/010

can we get the accounts out on time and can we do them quicker, and so on. So it was, it was a pretty low-key start, to be honest, for those first couple of years.

Mm. So did you wield screwdrivers, or ...?

No, no, I never, I never actually...

You didn't actually [inaud] machines?

No, I never actually... The serviceman role, I think, I think became technical something or other later on, but, technical adviser I think was probably the right word they used the serviceman role never really fitted the task we did. [laughs] It was just one of those stupid things I think that they, they put together at the time.

Did you enjoy the job?

Oh absolutely. I mean, I'm privileged to have worked in an industry where every day was fun. Every single day I looked forward to going to work. I mean, [laughs] I can't think of working in a bank. I mean, today's different I suppose, but in those days a bank sounded like an awful career. But this was, every day you met a different person. I was privileged enough to know a little bit more about the technology than the people we were talking to. I met people far above my level in all sorts of industries. And so every day was fun, every single day.

[05:50]

So in 1961, BTMC became ICT.

Yup.

And you became a technical adviser.

Yes, a technical adviser by then. A slight improvement in grade I suppose. And basically, it meant I had a slightly bigger role, so, you met different people in the client department; you talked a bit more now about the future; you started to learn

about new products that we might have in the pipeline. And so, it sort of rolled into that. But we certainly were not earning commission, it wasn't a sales-based job in that sense, it was an all-round advice, guidance. Don't forget, at this time the clients basically bought a piece of equipment which was good for purpose. [laughs] We, we gave it to them and they decided what to do with it. So, so in a sense, you just had to worry about, did the machine work correctly? You probably did a lot of tests with them early on to make sure they were happy and so on. But it wasn't writing applications or knowledge about their business or anything, any of that stuff that came much later that you needed.

So, you were essentially selling them hardware which they would take away and adapt to their own business.

Absolutely.

ICT stood for International Computers and Tabulators.

International Computers and Tabulators. Yah. So they kept the tabulator bit.

So there were computers at that stage?

Yes, only, I mean in a sense they were computers. They were very early calculators. I think again some of these early machines were licensed from America sometimes. Later on that happened a lot. But I think very few people, maybe the Prudential, people like that, might have the odd calculator and things. They were quite a big box and quite expensive. And somebody had to program them. The tabulators were programmed by boards with hard wiring, which I had had my go at. [laughs] I was very happy not to have done it for very long. So, so it was early days, very early days. It wasn't for about five years when things started to move rapidly.

Mm. And your area was the, was London City, the financial district, the Square Mile?

Absolutely right. I can't give you the exact date, but at some point we merged with English Electric, and then we became ICL. And English Electric again brought a much more positive sales organisation to the way they worked, and shortly after that they said, this is ridiculous, we, in the City we should have a banking area, we should have an insurance area, we should have a stock market. And actually they put banking and stock markets together. And then we became specialist, gradually, specialists in these areas. I joined insurance. And that's when things changed dramatically. And so all the funny things like United Rum Merchants and AEI Electronics who were in the Square Mile vanished to somebody else's problem. And so we started to become specialised. And with that, you needed to have, gradually, a knowledge of what that industry did, and what services we could provide to help them.

[08:52]

Mm. I think, ICL I think became ICL in 1963.

Yeah, I was going to say, yah.

Something like that, yes.

Yah.

And of course, I mean there was a range of ICL computers at that time.

Yah. Around that time, English Electric obviously had their KDF things, and I remember Sun Life here had a KDF9 which I worried about.

Yes.

ICL had the, well they had their own thing which was called the 1300, which is a very very large machine. [laughs] Not particularly great for small companies in the Square Mile. And they'd license in a thing called the RCA 1500, which was very compatible with the IBM 1401, which was our big competitor in that market. So, by then, computers were beginning to come in. But the ICL range was technically very

clever, because of the Ferranti connections, quite hard to make work well. I don't mean because they went wrong, but because they're difficult to program. And physically large, and air-conditioning and air cooling and so on were required, yah.

[09:56]

So in fact, it would have been basically the banks and insurance companies who could afford a machine like that.

Absolutely. I mean, I mean, the insurance companies, two things interesting in those days. They were all, all their admin offices were virtually in the City. Now, probably in the, in the sort of, Seventies and Eighties, increasingly they moved them out into the country somewhere, so you have all sorts of people moving away. But in those days they were in the City, and they were the administrative heart of that company. So like Prudential, who were huge in terms of its requirements, they definitely moved into big computing as fast as they could. And I think they may have had a range of different machines, and I didn't look after them, I looked after London and Manchester, United Friendly, and increasingly a lot of Lloyds companies. But it was a very exciting time. And ranges came out very quickly, I mean the 1900 probably lasted five or six years, and then, they produced the 2900, which changed things quite a lot. Actually that must have been in the middle Seventies I would have thought.

Yes. I mean in the Sixties, how difficult was it to sell big computers to companies?

[laughs] Well that's an interesting point. I mean, what I can't exactly tell you is when... I remember going on a 1500 programming course for ICL, six weeks in Brighton, which, actually the six weeks in Brighton was quite jolly; the programming was rubbish. And when we got back they said, 'Well we're going to set up a sales organisation within the industries. Any volunteers?' So my hand went up like a flash, knowing programming wasn't for me. And that's the first time we started to get proper sales organisation, with your own territory, commissions around the territory, and very high quality, in my view, sales training for large accounts, which I went on various courses with ICL with. Because we were, I was quite young still, twenty-five, twenty-six or something, if that, meeting finance, by the time you were into final stages of the sale, meeting finance directors, meeting very senior people in these big

companies, who in a sense, I mean you had to produce the evidence, you had to produce the reports, and so on, but in a sense they sort of, ended up trusting you a lot, to make sure that you delivered what you said you were going to. And increasingly I think important, that you didn't run away to some other place. So you looked after them through the difficult phases of installation and, and so on, yah? So, it was an interesting process, and I think... It was a big change from the old days where you were advising and hoping somebody would say what they wanted. Now we were doing, we were doing account planning, we were planning what we could offer them over the next few years. We gradually got into forums with the client, trying to understand what his plan was for the future, or their plan was for the future, and in that case, try and fit into that plan so that we can add more equipment as they required it.

Mm. So it was a matter of building up a relationship with the client.

Absolutely. Absolutely. I mean I, I can't remember exactly my territory, except it was very Lloyds oriented at the time, became very Lloyds oriented. But I probably had, ten major accounts in, some large, some smaller, in different stages of development. And so, you know, everyone was different in terms of how you could help and advise them. And obviously we, we gradually built our own little teams within our company who worked well with you or whatever to do the technical work which inevitably had to be done as well, as the client got cleverer.

Mm.

The early clients were, as I say, people from the, through the accounts department, but, by then, they were hiring in senior people with technical skills. So we, we were suddenly talking to people who knew a bit about what it was all about.

[13:58]

And were you providing software and applications at that time?

Well, again, that came in more with the, beginning to come in with the 1500, and certainly after the phasing out. But basically, I mean, there wasn't an application

Bill Ellis Page 9 AIT/010

industry in those days. I think, I'm not right exactly, ICL set up a thing called Dataskill, in Putney.

Yes.

But I think that was a bit later, and it took a long time for them to see there was a huge market out there to support these clients with application skills and programming skills to develop the things they wanted. And then in fact the software industry in a sense were dabbling at it then. I can't remember the very early players, when they started, but people like Scicon, Logica were certainly before us, and others, started to move in, and offer services. F International probably as well.

Yes.

And it took time to make that happen. And the big clients whose hardware companies didn't offer much of that. They offered systems skills about their own boxes, but they didn't offer application skills in whatever market they were in until later on.

So this would have been the days when companies had their own IT department.

Yah.

They would buy in their hardware.

That's right.

They'd have their own teams to write applications for their specific business.

Yah. Yeah, I mean that all sort of started, but the very early ones were run by people who knew nothing about computers either, to be honest. Obviously that all changed as the years ticked by, and you had very, very sophisticated clients who had, as you say, proper IT departments, and started to recruit their own people as programmers and developers. But it all took a long time to happen: well it took, took a bit of time to happen.

[15:38]

Mhm. What was it like competing against IBM in those days?

In the City, pretty tough. They had a dominance in the financial sector; they had, in my view, very good equipment to support it, and they had a very strong office in Basinghall Street, here, which, [laughs] we used to drink with them sometimes on the way home at Moorgate. And, and they were tough. But, you know, we fought back, and, and we had our own successes as well. But they were always a big, a big competitor. And really there wasn't much else in the hardware sense in the City. Ferranti had a few funny things, can you believe. London and Manchester, they had a Pegasus computer.

Mm. indeed.

And, and English Electric gradually phased out their range as the ICL 1500s and things came in. So, it was all about IBM really.

[16:32]

Right. Mm. And, you were a fully-fledged salesman by this time?

By then, absolutely, yah. Yah.

Yes. And this was a role you enjoyed as well?

Absolutely, very much so, yes. Yes. You know, and I went through... The problem is, being sales, you sort of, you think you're good with your territory and manage it cleverly, and work it out, you can see the sort of, income you might achieve in a couple of years' time, by then, in this industry, because it doesn't all happen that year. And so when they start talking about management roles, you think, hang on a minute [laughs], the basic salary isn't all that wonderful, and where do I get anything else on top? So, it's an interesting career decision I think about where you, where you end up with, which is certainly one of the reasons why I joined Software Sciences later on.

[17:14]

Mm. You mentioned earlier that, at this sort of stage you had started to talk to your clients about the future.

Yah.

And how did you see the future of the industry at that time?

Well, I mean when I meant the future, I meant in a sense what they were going to do with their business, rather than the future of computing.

Ah.

I mean maybe that came up, but I can't honestly remember the details of that. But much more interesting and important for us is, were they going to buy some more motor companies, and do more motor insurance; were they going to go to the general business? So it's really trying to understand what their development was going to be in order to see how we could support that, and/or add extra equipment to support it, yah.

Mm. Were you involved with the big leasing companies?

Not... No, not particularly. I think the leasing side, in a sense was a competitor of ICL, because they, they delivered equipment direct to the client, and did the leasing arrangements, as you rightly say. I don't think, I can't remember very many big insurance companies actually going the leasing route, or the plug-compatible route. There was a bit later on. But, I don't remember them as being a great competitor at that time to be honest. But that's certainly an option for, for the client, he could go direct to a leasing company, buy in the hardware that way, put it all together himself. But they had no support you see.

Mhm.

The leasing company would give no application support, no.

No. No, it was basically a financial operation.

Yes, an interesting point, it was a sort of niche that went on, you're right.

Yes. Doesn't exist any more, I think.

No no. [laughs] No, that's right.

[18:50]

So, by 1969 or thereabouts you had been selling for about ten years.

That's right, yah.

Yes. And, at this stage, you joined SSL, Software Sciences, is this right?

Well, what happened was, I had reached, I was running really the Lloyds market for ICL, I wasn't called a manager particularly but I was number two in the insurance business. And so, they dragged me off one day to Putney and said, 'What we're going to do with you now Bill, in order to develop you for the future, is put you into a staff role for a year.' [laughs] And so... And I said, 'Well that's interesting. So what sort of role will you put me into?' And they suggested I join recruitment at Putney Bridge House. And I said, 'Well you know, tell me a bit more about the deal.' The salary, well the salary was a good salary, but there was no commission arrangements. And I had a plan for the next two years. And so, at that time, Colin, who was the banking area manager of ICL, got into this situation which became Software Sciences, and he talked to me, and said, 'You know, I haven't got a sales guy to run it, and I've heard you're doing a good job,' and so on, so on. 'Would you like to think of it?' I've got the letter somewhere with the system. And, I went back to ICL and said, 'Look, I think, you know, probably don't want to do this staff thing. I've got a better offer,' boom boom. They then offered me London North-West, [laughs] which is probably... or London North-East actually, which is probably the worst territory anywhere near London. But by then I had actually said to Colin, 'I'll do the job.' And so I was on three months' notice to leave, which actually they finished after two

months. And it just, because, the role they were offering me didn't seem sensible, and here was a great new opportunity to start up something where software was the main theme. Quite a few of the people who were, well there were three founders really, set it all up, and when I joined they made me a director on that day. Because I had done quite a lot of business for them in my notice period. [laughs]

Right.

And, the heart of this little company that, Software Sciences was when we started, were people I knew from the finance sector.

Mm. So who were the founders?

Well Colin Southgate was the Chairman and basically, organised the... I'll tell you a bit more about the background to it in a minute. Organised the background. There was a man called Hankinson, who's still around, who did the planning and so on; and Geoff Whittam, who has unfortunately died now, but Geoff became the sort of, chief programming, product man – sorry, product director man. And then, as I say, I joined, I was number five I think or something on board, and they made me a director on that day. So I wasn't quite a founder director, but, very much involved in understanding what was happening.

[21:43]

I mean, the background to Software Sciences was, there was a company around that time funded by, basically many City firms through Kleinwort Benson, called Miles Roman, and a man called Charlie Ross, and I can't remember the other man's name now, set it up, primarily to set up a business which allowed companies with accounting systems on accounting machines to actually move to a bureau-based thing. They had a Ferranti terminal which was colour; they had the, the Modular One computers from the UK. And they raised about five million quid, which in those days, in 1970, was quite a lot of money. And it went into a big company called Autonomics, which was the name of this thing. Meanwhile, they put a little bit on one side to set up a software sort of, situation. So I think about half a million was put into a thing called Software Sciences [Holdings], and they set up Software Sciences Limited, they set up a small specialist company called Zeus-Hermes, and another one,

in training I think, just as an offset. Unfortunately Autonomics wasted their money and went down the drain in a big way. And I remember going to Kleinwort's with Colin and seeing Cyril, and he said, 'Look, the trouble we've got is...' Because we had made a small profit in the first year of our business, so we thought we'd done rather well, had an amazing client list from nowhere. And he said, 'The trouble is, the articles say, if it's going down the wall, everybody goes down the wall.' So, so the end of our first year, which we thought we'd done quite well, there we were, with no business. But, basically, we managed to do a deal with the liquidator. So we bought them, I mean the assets were nothing anyway, a few chairs and cars and things. Bought the business, and moved rapidly from very expensive headquarters in Curzon Street down to Farnborough in Kent where we bought a small company – sorry, in Hampshire.

Yes.

So that was the background. It was just, Colin knew the people very early on, and he got involved with the guy setting up Software Sciences Holdings as it was called, and they chose him to invest in, in terms of setting up a company. And we grew to 100 people in that first year, and as I say, beat our budget. And client names you would really give your eye teeth for.

[24:06]

So how did that come about? Why were you so successful?

Well, I man two or three... I hope I did a good job. I mean, people like, I'm trying to think of the names now. Minster Insurance, the Commercial Union, quite a few of the stockbroking companies, because we had people who knew the stockbroking side of the industry very well. We had I think decimalisation at that time, and got a lot of business through decimalisation. So we were, we were very lucky.

So was it, I mean, helpful that you knew all these people in the financial area?

Absolutely. Oh absolutely. And not just me, I mean some of our technical people worked very well closely with, particularly in the stock markets world, because there

was a sort of, ICL did produce some sort of stock market package, and a lot of people worked on this package, so it was quite easy to talk to the brokers and the jobbers at that time. And they trusted the guys they knew who had moved to Software Sciences. So, we had, we had a number of pressures that allowed us to grow so well in that first year. I mean our problem was recruitment, to be honest, I mean just trying to get the people on board.

[25:10]

Right. And what were you offering your clients?

We were offering them application skills, and, or, sometimes, technical skills on the computer itself, because we had a lot of people from the ICL world who knew about the systems products, systems computer software that they had. So, so those sort of things basically.

So, you weren't building products.

No.

You were...

No. We didn't... We... We weren't really building products. These would come out later on. Our products history is sort of, interesting. We certainly didn't think of small, clever products in the application sense. We tended to think about large things, and we were lucky if we sold two or three of them at a time. So, so no, no individual product with our label on it, at that time.

Mm. But were you putting your people into companies to work on their...?

Absolutely.

Right.

Absolutely. Yeah, absolutely. Sometimes on our own sites as well. So, depending on the programming role. So, it was a mixed role of application programming and systems software support, and other things of that nature. Just beginning to get into business applications, so where we would actually, with the client, design the application for him, rather than program it. We had people who knew about the industries, we knew about insurance, we knew about stockbroking. So we could actually help him develop the actual business need at that time. And that was, that was quite an important part. We had several people who wouldn't program but they could write up the, the requirements of a big application.

Systems analysis.

Absolutely, systems analysis, absolutely right. Yes. [laughter]

[26:51]

Yes. So, could you give me an example, perhaps a fictitious one, but an example of, you know, how a client might come to you and what they'd ask you to do, and how you would solve the problem?

Well, I mean, in terms of the sales process, I mean we did all the right things, like we contacted them. I don't think you could call it cold calling quite, but, we contacted them to, hopefully, to be given an opportunity to present our skills, particularly if it's something we could talk about in their terms. And that's always the first process. They need to be willing to talk to you, and talk to you, and maybe they did it competitively. There was some stuff that was competitive and some stuff that certainly wasn't, because they knew we had what they wanted. So that was the first bit. And then obviously the team you put in to do the job has a huge impact on, they feel comfortable with that team, they think they know, may know one or wo of the people. We'd do some presentations, we'd show our skills. So that's, that's the way it all tends to get packaged up. And some of these were, I mean if it was a £100,000 job, that was quite a decent size job for us in those days. I mean some were bigger, but... So it didn't have to be enormous. And quite often you did the first phase, so you might, as you say, develop the application with application analysts and so on,

and then they might say, 'Well now can you bid for doing, actually implementing it.'
So you could have it in two or three stages.

Mm. Did you work on any computer, or did you specialise in a particular language?

No well, well, obviously, obviously, obviously we started off with a very strong ICL bias, yah?

Mhm.

But on the other hand, I mean some of these machines were plug compatible, so you could, you could switch, if you knew about 1500s, you could switch pretty easily to the IBM 1401s and things, and the coming 360. So, yeah, and gradually that bias to ICL gradually died away, and obviously when they set up Datasolve – Dataskill, sorry, then they became competitive with us as well. So, you had to move on to do other things.

[28:55]

Mm. Just going back a bit to ICL. The launch of the 1900 series, you were there when that took place?

Yah. Yah, I mean I, I mean, I remember it being announced as a product, and they dragged us out, and, funnily enough, I got the job of doing the presentation when they announced it at Olympia.

Oh yes.

And we had the 1904, which you might remember was a multi-programming machine.

Right.

So we had a demonstration put together by, quite senior people from the BBC, whose name I've forgotten now, to try and expose, it was doing four programs at once.

Bill Ellis Page 18 AIT/010

[laughs] And, and there we were on the floor with a microphone showing the next piece of kit working and so on, while probably behind the scenes people were rushing bits of paper tape in and God knows what. So yah, it was a funny week at Olympia with the announcement of the 1900 series, yah, particularly 1904 when it came out, which was multi-programming.

So this was quite a big thing?

It was a big thing at the time, yes, and quite good for me in terms of, learning a bit more about talking on your feet and so on, yah? So that was good.

Why did you do the Olympia presentation, why you personally?

Well, well I think, I think they just talked to various people, and I was selected. It wasn't a formal selection in a sense, somebody said, 'Well, he's quite good on his feet and so on, why doesn't Bill do it?' And, there were several of us, it was quite a big demonstration, so there was probably a team of six people, and we did shifts and so on. So, so it wasn't just me, by a long chalk. [laughs]

[30:24]

OK. Well let's go back to Software Sciences now.

Yah.

You joined as, sales and marketing director.

Sales and marketing director, yes. Yah.

Yes. Yes, this was because of course you had extensive sales experience.

That's right, yeah yeah. Well I mean, Colin had offered, in my letter of offer I was called Sales Manager, or Sales and Marketing Manager. I mean there's two interesting things here. Obviously I was very lucky to be given a chance to become a director in those early days, and I think he had been quite impressed by what I

managed to deliver. And, and the other thing was, OK, you get a sort of, a better salary, a bigger car, and I got a few shares, but the commission deal wasn't quite so good. But nevertheless... But the shares were a very valuable thing to have in those early days. And we had a very exciting first year, as I say, where we grew from, including having to buy ourselves with a small amount of money actually out of Miles Roman and start again.

[31:23]

And '71 was a very tough year, the market sort of collapsed in the private sector, more or less. And one of the things I managed to do, more by luck than judgement, is push us much more towards the public sector, and by then Government was beginning to put organisations in place to support their own computer business, their own computer operations. I'm trying to think what it was called now. There was one at, on the Thames there, it's called something, which was all about organising procurement.

Mhm.

So, the department concerned, like, it might be, I remember we won a large job called Prism with the personnel record department of the Civil Service, and that went out to formal tender. And we got to the last four, and managed to win that on 1904s, 1900s. It was a very large personnel system. And, it was basically monitored and evaluated by this unit in, on the Thames there, which helped the client decide who to do it with. The good thing they had there I think was, they always, they always wanted to get a new company on the list. So, obviously one spent time talking to them, in order to get into the list at all, and then they would always try and find a new company on the list to try out. And we were quite successful at some of those [laughs], much to the chagrin of some of our competitors at that time. Because by then we were competing with CAP, Scicon, Logica, big companies.

Mm.

[33:06]

Bill Ellis Page 20 AIT/010

So interesting time. But I was very lucky to switch quite a lot to the Government sector, and I mentioned earlier, we had bought a little company based in Farnborough,

which, the name I can't remember, but it specialised in air traffic management.

Oh yes.

And they did a lot of work on airport management and sighting and so on. And they

pushed us into an avionics section over time which we certainly hadn't thought about,

by their knowledge. A lot of them were ex air traffic controllers, and one of the guys

on the company was the president of the air traffic controller guild, Paul Holden.

Oh yes.

Yah? And, and so, so we managed to sort of, by luck in a sense, be in the right place

at the right time. Because, the problem with the private sector was that, they put you

through the bidding process and then didn't do anything. It wasn't like, they gave it

to somebody else; they didn't do anything. And that was very frustrating, I mean for

all of us competing, because you put money into the effort, and your team's tied up

doing the bid and so on. So, we were lucky to switch. It saved our bacon in my view

in '72 and '73.

Yes. So when you talked about Government purchasing, would it be the Central

Computing Agency?

Sorry?

Would it be...

Yes it was, it was, yah. That's right.

Which was run I think by [inaud].

Absolutely. I'm trying to think of the name. Creswell, Creswell might have been the

MoD part of it, which is Man C, which used to be in Northumberland Avenue.

Because they had a sort of civil government bit, which obviously we worked at first, because they were easy to get into. I mean, getting into the military, which we did do, thank God, was a much tougher process, and they had a separate, slightly separate group in Northumberland Avenue, which I seem to remember visiting many times. I mean one of the most exciting things I think for us was that, later on ICL announced the 2900.

Mhm. Yes.

And, the outfit you're talking about set up a evaluation group to evaluate the 2900 before, on behalf of Government generally, to see how it worked, and we were lucky enough to get eight people into that evaluation team.

Oh right.

Some of them at very senior levels. And that went on for two years, at least two years, so it was a major contract for us. And it obviously gave us a lot of access to senior Government people when they knew we were evaluating potentially a machine they almost had to buy. [laughs]

Indeed. Yes, what was the result of that evaluation?

Well, I mean, it isn't one thing is it? I remember we had a guy we had recruited from UNIVAC's research centre, and he became head of performance analysis, I think. I mean, Al Racklin his name was, typical American. I didn't understand anything he did. But he could tell you the potential power of the computer and so on. And so we did a lot of work on that. But lots of work on the operating system, and basically, trying to make sure that, if they, if large departments got one of these machines, they actually delivered what they said they were going to. So it was all pretty technical stuff to be honest, I didn't really understand much of it. But, they kept us on for a long time. [laughs]

[36:23]

Ah, well. Indeed. And, SSL was very successful, was growing quickly.

Yah. I mean we, we grew very successfully during this period actually. So...

How did you solve the problem of recruiting the right calibre of people?

Well, and it was an ongoing task to be honest. I mean even when we started that first year, we started off by, Colin was very keen on getting graduate intake, so we did the milk rounds and so on. And, we recruited a team of about nine people in that first year from, from universities and so on. Mixed places. And that went on for the next ten years. And I think, increasingly all the bigger companies obviously had their university intakes. One of the things we did was, I mean it was an all-day thing, so I remember having to talk to them early on, try and explain what they might be joining, and stuff like that. And certainly later on evaluating, we used to do it the same day, overnight we, we made a decision about who we would have on board. We gave them a plan programming thing for an hour or so, [laughs] which is a bit... I would never have passed. But they had interviews, they did some games later on. So, a normal sort of, quite, quite strong recruitment process. And it wasn't all, it wasn't all mathematics and so on, I mean we, I remember got several astronomers from Sussex University.

Oh yes.

And, people like, several people who had got history degrees and so on. So it was an all-round thing. But that went on from then on for about ten, fifteen years probably. And sometimes we took 20 on board, I think it was about, the most we could cope with. And they were always the most, they all started probably fairly lowly down, but they were always the people you could sell more easily. Always.

[38:14]

Mm. And, what did you do with these people once you had them on board? Was there in-company training?

Oh... Well, yes, I mean, yes so they all, they all went through an induction process. I mean mostly they could program, yah, I mean mostly they could. And then they, they

started at the sort of bottom level if that's the right word, in the programming world, and as we grew bigger, we could put them into different teams. So you'd get two or three in Team A and so on, so spread them around. And they, I mean mostly they rapidly developed, to be honest, they were very very good guys, all of these. I mean, I don't think... The last one I saw was about, eight years ago, a chap called David Lang, who was in our very first course. And David I've tracked over the years, and he just retired, [laughs] I mean quite right too. But I mean, he's one of the people I would put into any problem situation we had where the programming's gone wrong, and he will fix it. Just one of those sort of animals, yah? And we had lots of them like that. And I'm sure other people had that experience as well. But recruitment was a major task, and quite a big cost. And sometimes you got it wrong, I mean, I mean quite often you, people you got wrong tend to be more senior, you know, quite high. I had a lot of problems with picking sales people, not easy to do, because, [laughs] they're probably quite good at the gift of the gab, and you sort of believe it. So, it's, you know, it's, it's quite a hard job, that. And so sales turnover tended to be a bit higher than, I think, on the technical side.

Mm But did you have a pool of talent, particularly in, say, salesmanship, did you have a pool of talent to choose from, or, would you have to train these people in the business of selling services?

Well, I think we probably, one or two came up through the system, but mostly, later on, I was trying to recruit people who you could ;put into the role straight away. I suppose the team, maximum I looked after was probably about 20 people, as full-time looking after the sales teams. I mean later on, I was doing something higher up, but, and other people had that problem. But it is really quite hard to get people who can do it. I mean, we advertised, and we did all those usual things, and you, you got a lot of people responding. But it was a tough time, because everybody else was doing it.

Mm. I mean where would they have come from? Other services companies?

Well, yes, I mean... Yah. Yah, usually, usually other parts of, either parts of ICL, because they could see the applications world and their software world changing, or

competitors. There were a lot of small American companies at that time who came over, I mean there was the NCRs and the Burroughs and so on.

Mm, yes.

Yah. So there's... And who were very much sales-oriented companies. So you got a good guy from Burroughs, he knew how to sell.

Mm. Mhm.

Interesting point.

And how did you manage them? What kind of career structures were you able to put in place?

Well, the best we could manage. But, I mean, one of the things Colin wanted was, a clear career structure, whether you be sales, marketing or technical, and you could go to the top of the company; it needs a route, or any route. So, you know, it wasn't, chief execs were always chosen for the marketing sales side. And we tried to achieve that, when I tried to achieve it as a salesforce. I mean, it's a bit like, you go to a Michelin star restaurant and talk to the chef, and he shows you the team working for him, and you say, 'Well, you know, fantastic food,' and, you know, what happens to these people? He says, 'When I can't teach them anymore, they go off and set up their own business.' And there's a similarity to that. The really good ones, if you can't, can't meet their achievement goals, they will go off and find somewhere else. So, I mean that's one of the problems as a sales organisation. And actually it's probably quite a good thing, because you need new blood and so on all the time.

[42:20]

Apart from your success in the UK, you also...

Yes. Yes, I was going to say...

....opened subsidiaries overseas.

Yeah, we missed that. I mean, I can't remember exactly when they started. Probably about, '74, something like that.

Yes. Yes.

The first office we set... We had a little, a little investment by a Dutch bank, which didn't last very long but it helped us when we, when we bought the assets of the company. And so we knew a little bit about Holland. So Holland was our first operation. We had the normal management problems [laughs], picking a Dutchman to run it, which took a little time. I think some of those early jobs were because, the people we worked for in England had Dutch connections as well.

Mhm.

But it became a very very successful business, Holland in particular. And one of those graduates on that very first course, by then five years with us, ended up as the MD, a chap called Crispin Shaw, and he finished all the way through when IBM bought us and so on, later on in life. And it turned into our most profitable business by a long chalk, and, I think 150 people or something, and later on you will see, in the world we lived in, we tended to go for exciting, difficult, complex projects, and Crispin had a very big share of those. Like, he did the radar system for the whole of Rotterdam harbour. He did all sorts of exciting things. So, it was very successful. We didn't have so much success in Sweden. It lasted through a couple of larger jobs with Ericsson's. And then sort of faded away really. And we didn't really have similar success in Germany, which was based round a foreign exchange product really.

Oh yes.

But, but Holland was very very successful, yah.

Mm. Mm. And, in these foreign countries, were you employing local people, or did you put in...

Both really. Both. I mean increasingly at the end, local people. Holland's particularly good, because everybody, virtually, speaks English anyway.

Indeed.

And their computer skills are equal to ours. They're very easy people to work with. So, I would have thought by the end it was eighty per cent Dutch, and probably twenty per cent people from England who either wanted to stay on or brought a particular technical skill to the roll.

[44:42]

Right. You didn't try the States?

No. [laughs] No, no, luckily. Well I say luckily...

And why not?

Well, I mean, we... A tiny... I'm not sure it's a proper story to tell, but, a tiny business we had in America. This was quite late on. And we, one of the... There's too many bits to Software Sciences.

Mm.

Now we had a little point of sale business, and they sold a system to [The] Hoffman Books [Company] which has got 900 book stores in America, small, two or three terminals probably per store. And, we had a big project with Hoffman, and halfway through it they went broke.

Oh.

[laughs] And stupidly I think in retrospect, we decided we'd got so far down the line of building this system, we'd market it as a bookstore system. Take the Hoffman[sp?] name out of it, market it as a bookstore system, and for those who want technical

knowledge, it was based on the Z80 computer, a long time ago, with fourteen-inch Winchester disks, which were probably not the most reliable disk in the world, aimed at bookstores of about two or three terminals max, built in Atlanta. And Colin sent me out there, I was international director briefly, sent me out there once a month for a week to monitor what was going on. And I remember going there at its first stages of production, and this guy came out of the office with a pair of snow shoes on his back. And I said, 'Well, where are you off to?' It was very hot in Atlanta at the time. He said, 'Well, we've installed a system in Alaska.' [laughs] And, I think that was, one of the marketing things they did wrong, they installed a small number of systems across the whole of America. So it made maintenance an absolute nightmare, yeah, particularly with the reliability of the system. They changed managing director two or three times, and we were struggling with it to be honest. The other thing that inevitably sales people do is, is sell the most exciting things. So instead of little bookstores, they did things like Georgia Tech Book Stores for the university, ten terminals required. So the system was sort of, struggling to meet these demands. Luckily about that time BOC got taken over by Airco, which was a big American company, and they had little tiny sort of, stock of gas cylinders all round America. And they took over the system and they built something based on that, knowing where the cylinders all were in the little, different towns. But it was an interesting venture. That was the closest we got to doing, doing anything serious in America, yah.

[47:26]

What are the major problems, and I say are because I am sure they still exist today, what are the major problems in dealing with a client?

With American clients?

No, with, with any client.

Any client. Oh well, as I, you know, as I... As the business got bigger, we increasingly took over large complex projects which we quite often bid fixed price. And, and also, the large commercial clients at this stage, people like Asda, Marks and Spencer, so on, had very big competent IT departments of their own. And so you were starting to do jobs which were several millions of pounds, quite often fixed

price. And one of the things you had to do in my view is find a way of working with that client through that period to, to build up a relationship of trust and support. So he knew that any time he could pick up the phone to somebody and say, 'Look, I've a problem,' you know, 'can you fix it?' So I, I turned myself into a person who did a lot of that for our chief executive as it happens, sometimes because we needed to, and that's called ret alert [laughs], and sometimes because we were, knew we were going to have our problems. So I personally looked after Asda, where we were doing some very large complex projects; I personally looked after some work with Lockheed Martin on the Merlin helicopter, which went wrong. And out of that, I had an idea that we should have... It doesn't work for all clients, obviously, but for the very large ones which are a risk for everybody, you need to build a system which allows the client to feel he can talk to somebody about his problem, rather than bottle it away and not tell us about it. We need to have people who can relate to that. So the client relation thing became quite an important part of what I used to try and achieve. I've even written some papers about how they should do this, because project managers aren't particularly interested in that. They're down to meet the budget, get the thing delivered on time, hopefully do it at a sensible cost, and so on, and walk away.

Right.

But it isn't as easy as that, because there are all sorts of problems about walking away [laughs], that you had solve first. So that was an important part of later on in life really. Much more data sciences.

[49:50]

If the project goes wrong, what technically causes that earlier intervention?

Well, I mean there's a myriad of, myriad of causes. I mean the first problem we have is to find out if it's going wrong. Because obviously we do project reviews, internal project reviews, regularly, but project managers are quite good at hiding, you know, what's going on. So you have to have a very good audit team in the first place. You sometimes get it from the audit team, you sometimes get it from the client, who knows something's going wrong, yah? So it does vary. And the timing of these is quite important as well, because if it goes wrong down the road a long way, getting it

back on the straight is a big effort. I mean one of the things I made clear to my chief executive, was Andy Roberts, I would only do this job on the basis that you supported what I needed. Because these guys ran profit centres by then. And so, me dabbling in their business, and maybe causing them to put more resource into it and so on, wouldn't be a popular move. So I said to Andy, 'I'll do it on the basis I'm allowed to, I'm allowed to use you as a threat to get it done,' yah? So it was interesting, a very interesting role.

[51:04]

It is, yes. Let's go back to the history of Software Sciences.

Yah.

I'm just checking the day. But there was the sale to British Oxygen.

Yah. Well...

This is...

Well, we... It must have been '78 I think.

Yes, '78, it was indeed.

Yes, '78. I mean British Oxygen owned us, don't forget, and they had quite a big internal computing service business. They had a consultancy unit which worked in... British Oxygen then had all sorts of businesses.

Sorry. Explain that to me. You said British Oxygen owned Software Sciences?

No no. No, it didn't own it. So, but they had their own very... Sorry, I made a mistake there. They had their own very large organisation. They had a, they had a bureau type business of their own, and they had an internal consulting group, quite big, and they had a chap called Brian Mills, not the tall Bryan Mills, but he was the IT director of British Oxygen, had grandiose ideas about growing the business. And he

knew about us. So, they came to us, and, I wasn't personally involved, Colin must have been, and made some sort of offer which we thought about for a long time, or for a year. And then eventually the offer was really quite good, so we thought we'd do it. So the offer came from BOC to join in, join in with them and become British Oxygen and Computing Services, which was the Software Sciences business and the Datasolve business, which was their internal IBM bureaux, offering services. And I suppose it made quite a big business, probably 150 million or thereabouts, if you put it all together. The bureau business was starting to sell outside services, although mostly it was selling its own services to other BOC companies, and the consulting groups certainly were selling itself to other BOC companies. And that was the deal. One of the other things unfortunately, well in a sense unfortunate, was that, the deal they did was a four-year deal, so that we got paid in four instalments.

Oh, right.

Which happened happily for the first two years, but they then wanted to push us into things which wouldn't help the deal. [laughs] So, Colin eventually said, 'Let's just pay the final bit, and then we can merge properly, and we all do everything together.' So it was an interesting situation at the time, yah.

Mm. In retrospect, was it the right decision?

Well, I think, I think so, because, it put us into a, it put us into a, a much bigger, as a much bigger player. I mean it didn't last very long, because, I mentioned Airco earlier, Airco sort of, BOC would never admit it but Airco in a sense bought BOC, and they put a man in charge called Dick Giordano, wo was one of the very highly paid chief executives at that time, and, it didn't take Dick very long to decide he wasn't in fish farms and computing and all sorts of other things. And he said, 'I'm going to get rid of you. Because I'm just going to concentrate on gas and medical things.'

Mhm.

So that, so that, so we must have been BOC Computer Services, three years maybe at the most I would have thought. And then he, he let, obviously, the City know we were for sale, and I remember going round to various people as part of the sales team in various things, before Thorn EMI appeared.

[54:38]

Mm. Mm. Well tell me about the Thorn EMI [inaud].

Well, again they, actually they had quite an interesting operation at that time. I mean obviously I'm not a, I'm not a whizzo expert of Thorn, but they had a defence business, which was, a lot of it was embedded software, but quite a lot of application software. Good computer skills, major businesses all over the place. And, they had other threads that they could pull together. And they had quite an ambitious approach to building a big business. And, they, eventually they just... I mean I think we had a little problem selling ourselves at that time, but they came up with a good offer. I remember Sir William Barlow was on the board of Thorn EMI at that time, I think deputy chairman or something, and he had followed us a bit anyway, because, he was ex-English Electric, and Hoffman ball bearings and God knows what. And I think he was quite an instigator in saying, let's make him an offer and see where we go. So that's how it all came about really.

Hm. And the company itself at this stage was still doing the, the kind of things it had traditionally done, or developing new offerings

We, we Software Sciences were very much doing that. The Datasolve bureau was a bureau service business. Facilities management hadn't really taken off then; it came later. So they sold computer time. They may have done some application support. It had a few product businesses, in the tax world for instance.

Oh yes. Mhm.

Yah. And, and when we joined Thorn EMI, we joined with Datatech, who built Sinclair's computer and modems. We joined with AFA-Minerva, God only knows why, which was a security company [laughs], and also fire. So, they made gas

cylinders – sorry, exhaust cylinders. So, so we, by the time they put all those little funny bits together, it was a £200 million business.

Mm.

And Colin set up a sort of holding group which he was chief executive of, and I had joined him as sort of, marketing and whatever at Sunbury, while the individual businesses like Software Sciences got on with their own, got on with their own thing. But obviously I spent a lot of time helping Software Sciences because I knew that very well.

Mm. And Colin Southgate became CEO of Thorn EMI.

Yah, they...

How did that come about?

Well, later on... I mean... Well... [laughs] Not sure how. Obviously a good business. Colin became MD of the UK company quite quickly. And, and I think he became the MD, because one of the decisions he made when the Thorn board were asking him is, would they invest, I mean we're not talking billions, but we're talking lots of millions of pounds, into setting up something that would be into the microchip technology world. I mean not quite Intel but that sort of thing.

Yes.

And Colin said, 'Not in a million years. You would just be wasting your money. You're never going to be able to compete with the people out there doing it.' And I think, they worked that out later on, and that saved them a lot. So they had, obviously, some very high quality advice from somebody who's got a lot of presence when you meet him. And so, he became MD of the UK company. And he made, [laughs] he made a number of serious management changes, both in attitude and in people maybe, at that time, which all worked as well. I remember a meeting where he said to people, he put up his notice of what he was going to do for them, and then he

said, 'These are the things you've got to do for me.' Like get your figures on time, and do... All this stuff. And, then he said, 'Well that's the deal gentlemen. If you don't want to do what you're doing,' he said, 'leave now.' [laughter] So I think he changed the sort of management style considerably. And later on I think made some very big decisions about changing the, the focus of Thorn into much more a music business.

Mm.

Because Thorn had boiler building, and God knows, fifty companies, yah? All sorts of stuff. Lighting was a huge business, Thorn Lighting was a huge business, yah?

Yes.

So, later on he sort of, he said, 'No no, we're in, we're into copyright and music and whatever,' and gradually focused on to that. And the share price reflected that in that time. I wish I had some. [laughter]

[59:16]

So, this led to a management buyout.

Yah. Well I think Colin sort of, put it on the market. I've left some stuff here. Put it on the market in a quiet... Well he came to us actually and said, 'Right gentlemen,' he said, 'We're going to go through this process of consolidation, I'm going to stick on three businesses,' boom boom. 'So, you know, you're up for grabs. I'm going to give you a few weeks in advance of anybody, if you'd like to make an offer.'

It's quite extraordinary isn't it, the founder of the business...

I know. I know.

...is having to, to sell it off.

Bill Ellis Page 34 AIT/010

I know. I know. I know. I mean, it's very, he was being very nice about it, you know. He said, 'I want you to have the first chance.' And I didn't personally get involved in who, you know, finding the investors and so on, like, people like Cinven, who I obviously met later on. But obviously, Colin may have helped with that. So, eventually, after a lot of effort and whatever, he managed to put together a deal which everybody was happy with. And that led to all the publicity and stuff I've left behind about, about Data Sciences.

So Cinven was the major backer?

They were the major backer, yah. Yah.

Right.

Yeah. I mean we all had to put a bit of money in ourselves, and all these jolly things, yah.

Do you remember what kind of price it sold for?

No, I don't really, to be honest, because... I know what I put in. [laughter] I don't think it was huge. And also, Colin, they kept a twenty per cent interest themselves.

Oh yes. Mm.

So they had two, you know, we had two or three backers at that time. I mean Cinven were the major backer, and they took most of the equity, but we all, we all had to put in a bit of money – well didn't have to, but we all did put in some money, to pick up some shares at that early stage.

[1:00:53]

Mm. Anyway. It became Data Sciences.

Yah. Yah.

Yes. And...

About 100 million turnover, and, about, nearly 2,000 people. Offices primarily in Farnborough, Hampshire, and in Sunbury, and the Dutch office and so on, it was all part of the deal. So...

Mm. And still doing the same kind of work.

Yah, doing the same kind of work. I was, I was by then in charge of all the corporate communications, and setting up the new, the new logos and the new style of, of brochures and so on. And, continuing with this high-level sort of client management situation. So I didn't get so involved in the nitty-gritty. But, yah, I mean, a good business. It, it struggled to be honest with you. I don't quite know why. Senior management level didn't quite work out. We probably had too many people at too senior a level not doing a great deal. And, after x years, about four or five I think, the figures weren't very good any more, and Cinven obviously knew that. [laughs] And they decided to appoint a new man to do something about it. So we lost Mike Smith who had been the Chairman and Chief Exec. They put in Andy Roberts, who... And Andy had come from ICL. And I suppose he, he had changed two or three major things. One was, he sort of, made it clear that, you know, he was going to put a new role in as far as the company was concerned. He put in his own new sales and marketing director, a chap called Mike Wade. He formed five or six industry areas, and turned them into profit centres, with key, key players in the company by then he had evaluated. And we then ended up with a pool of programming talent in the centre at different levels where the profit centres took them out and bought in, which turned into quite, a very good sort of, a very good model. So you had your big pool of technical resources, all different sorts of resources obviously. I mean talking 1,000 people. And then you had your industrial facing units run by a guy on a profit basis, winning the business, bringing the application skills, and doing the projects, buying in the services from the centre.

Right. Mm. Mm.

Bill Ellis Page 36 AIT/010

And in fact, that turned the business round, and within three years we were very profitable again, going forward, and Andy had always come in, the Cinven the aspect always had a view that they wanted to make their money.

Yes, of course.

So, so the listing opportunity came up, and I've actually brought a prospectus, number fifteen prospectus. So we got that far. Just in case you wanted any detail. But, we got within, probably about ten days of a listing, and then IBM came over the wall. Because they, they wanted to embrace this model in their global service business.

Oh yes. Mhm.

They thought the model was really good. I didn't get involved in those negotiations. But they produced cash, you know, and bought the thing for over 90 million, paid off all the advisers in full, paid us back our money and a bit from the shares [laughs], which was quite nice, as they were, I thought they were worth about a halfpenny at the time. Well no, not by listing date but... So it was all very sudden, but very interesting, yah.

[1:04:35]

Mm. So, by, I think it was 1995 the...

Yes, '96, '97, yes, that's right, yah.

Yes. So you had been, you had been 25 years at SSL by that time.

I had, I had indeed, yes. Yes, That's right. No.

Yes. And there you are, an IBMer...

An IBMer, yes.

...for the first time in your life.

Yes, absolutely. Absolutely. A bit of a shock actually.

Well, tell me about it. How, how enjoyable was that?

Well, the first part, the first year was easy. I mean, they put me, they made me redundant after about a year, a very good deal for me, and they hired me back the following day, which I'm sure you shouldn't do now, to do the same job as an external contractor, yah?

Oh yes.

Which suited me as it happens very well. I suppose what I found difficult is, their idea and mine about senior account management is completely different. I mean I by then was running a senior account team of about ten guys, I had been, who were looking after big new business opportunities, and big current client situations, yah?

Yes.

And look, I mean some of our MoD procurement was three years in the making.

Looking after a serious client like Marks and Spencer or Asda or whatever, Shell

International, is not a one-year job. And their idea of client management was, you put
the guy in and within six months he's looking for the next assignment.

Mm.

Now you can't do it, you know. So, I had a lot of trouble with them in terms of understanding that situation. I mean it got to the stage where, Asda I knew extremely well, I met Archie Norman quite a bit, and I knew the IT director very well, and he told me they were going to go out to do a complete facilities management of their whole operation. And he was talking to the major players in this field, like, I'll get there in a moment, not Arthur Andersen but, CSC, and the big players who would take over the whole operations, yah? And we're talking, you know, a five-year deal,

Bill Ellis Page 38 AIT/010

probably, several, lots of millions of pounds. And IBM wouldn't quote. Oh EDS was one of the other ones, yes?

Oh yes. Mhm.

And he said, 'I can't believe this,' you know. And I remember going to IBM and saying, 'Look, this is absolute nonsense. They're IBM machines, you've 4,000 IBM terminals in their stores, the software's all IBM. You have a genuine retail research unit in America, doing retail. This is on a plate.' And after lots of effort they actually didn't want it. But I mean, I just, you know, I just couldn't understand this, I mean. So I just found it very difficult. And I was getting a bit old I suppose by then, and actually quite a few of our senior guys didn't, didn't fit into the IBM global service mould, and nor did they implement the, the so-called model they bought us for. So, a few of them had left who I knew quite well, and they were based at Wokingham, and they asked me to come and help set up their sort of marketing sales operation. There were only going to be about 20 or 30 people, and all project, high level project managers basically. So, and I could do that part-time, so that's what I retired gently to.

[1:17:54]

So this is DAV Management?

DAV Management, yah.

What does DAV stand for?

That's, that's David, David Craig. DAV. Andrew Roberts, so Andy Roberts was, he wasn't full-time or anything but he, I think he financed a lot of it. And Vicky, which is his wife. [laughs]

Oh right. [laughs] OK.

DAV. And you know, it suited me very well, it was convenient. A bit of fun. I knew half the people in the business. And we had some very interesting clients, many of

whom I knew very well. And it was, you know, complete freedom of operation compared with the IBM world, which is very constrained in my view, and difficult to get... I mean I remember saying, I mean I looked after M&S for a lot of years, I said to this guy, 'Come and meet this director of M&S who looks after IT as well as lot of other things.' Could I get them to meet him? I mean, I just didn't understand how this worked. 'Send us another memo about what it's all about.' I said 'Well, they want to see the people who are in charge. That's what they want to do.'

[1:08:58]

What sort of level in IBM were you as it were corresponding with? I mean would you have talked to the chief executive, or...?

Two or three of our good people who ran these units got very senior jobs in IBM. And the finance director of Software Sciences and Data Sciences became the general manager of IBM UK I think, briefly, yah? A chap called Richard Atkins.

Oh yes.

So, so I mean, some of them fitted in very well, and it worked. It's just where I fitted I think which was quite difficult. Probably because I didn't really fully understand how their senior management in the world of some of the industries I was working with, what their goals were, yah?

Mm. Mm.

In terms of finances, their own money and so on as well. So maybe I was seen as, not a threat exactly but not part of the thing. And, and certainly that second year of course I was just, I wasn't on the pay roll.

Mm. Mm. Of course these were difficult years for IBM anyway.

Well I think it was, yes, I think it was. I mean global services were a fairly new venture, and certainly in Europe and in the UK, probably maturing at that time, so,

difficult to work out what they were all about. And certainly they didn't implement the, the so-called model that we had, which is what they wanted us for, so...

Right. OK.

So things did change, yah?

Mhm.

Oh, nothing wrong with them, I mean they paid me everything. I had quite a lot of... I still had quite a lot of fun, but it wasn't quite the same. [laughs]

So, in your DAV Management role, what do you do?

Well now, now even I've packed that up.

Oh have you? Oh, right.

Yes, even I've packed that up. I'm very very old now. And also, I mean they, they, my black book as they say has got a bit out of date you know, people are not working any more. But we won some wonderful pieces of work for them, with David and so on. Like Racal, we did a lot of work with Racal. A lot of work with one or two of the large network providers. And, they still, they still do it a bit, not so much now, because basically, in that early stage everybody was employed. Now basically they act as a, they act on behalf of very senior contractors, and try and fit them into pieces of work which they obviously make some money on. So, so about three years ago I think, four years ago, I probably packed it up. I still see them, and have fun and talk about it. Not a big business. Interesting one. But they, they always wanted to keep it small, and in a sense it's a model for a few of them to make quite a lot of money at a contractor level.

Yes.

Yah.

[1:11:37]

Looking back over your career, which bit have you most enjoyed?

Well, as I said somewhere earlier I think, that, I mean every day has been, been wonderful.

Al the way through?

Yeah, I mean all the way through. I mean because, because I'm a great people person, and therefore meeting people, having that opportunity to meet people. Trying to take an interest in what they do in their world is, is not a difficult thing to ask about, and that's what people really enjoy talking about. I mean I suppose the Software Sciences bit was, was wonderful really, because I was younger. Made some crazy decisions in those days. I remember Colin coming in when we were doing this buying out from the, from the liquidator, gave us an option to buy some more shares for money, and I, I put in quite a bit, so I became, apart from him I became the second largest personal shareholder in the company. And going to my bank and them coming up and looking at the house, and saying, 'Oh God, all right, we'll cover you for this one Bill.' And the solicitor saying, 'Don't touch it with a bargepole.' But you still did it, and, luckily that all came home later on in a good way.

Indeed.

So, so sometimes you've got to take a few risks as you go along, yeah?

[1:12:51]

For the last part of the last part of this interview we're going to discuss some of Bill Ellis's personal life, some of his opinions, views on the industry.

Sure.

So, Bill, when and where were you born?

I was born in Ostend, 4th of July 1937. My parents were both English, but both working in Brussels as, in the racehorse industry. My mother was the daughter of a racehorse trainer, and my dad was an actual working jockey. Quite well known at that time in Belgium, there was a big racing industry. Quite well known. He, I think he obviously did quite well, he had a very big house in a fancy part of Brussels, and he had a very big stable somewhere else as well. Unfortunately I didn't really know him at all, as he was killed when I was two, actually racing in Ostend and coming off a horse. I think he, it took a bit of time, I think it was pneumonia in the end that killed him.

Oh yes, yes.

Which often happened in those days. So...

Indeed.

So, so Mother was widowed quite early on. And, I mean I was still only, you know, '37, so I was still only probably about four or five years old, and because she was British, and because her father was British, when the Germans looked like coming, well he did come to Brussels, they all fled pretty quickly to England. And she and her brother, oldest brother, Albert, came and joined the services there. Albert was quite a character, because he, he spoke about five languages, and being an adjutant's secretary or somewhere in Andover, he said one day to the boss, he said, he said, 'You do know, I can do...' these applications come in for special requirements. He said, 'You do know I speak five languages?' [laughs] So, so he ended up as a major in Special Operations Executive.

Oh right.

So, so quite a character. But, my mother joined the WAAF, and in that she met, somewhere in that she met a man called John Monckton, who was squadron leader. He was not a flyer, he was aircraft recognition and intelligence. And so, I vaguely remember this, they got married, I mean, I think in '47, and, the service was at St Margaret's Westminster and I was a page. I've got pictures of me being a page,

although, the details of the wedding's a bit tricky. And, and that was all fun and games. And I had quite an interesting schooling career. Because we had a house in Pembridge Square, they rented a house in Pembridge Square, so I went to St Vincent's, which was a little primary school in Holland Park Road. And then, they sent me to Knoll, which is a rather more fancy little prep school at Woburn Sands, which later on I discovered, which I think was probably the reason they sent me there, which I had no idea about, Walter Monckton had been sent there...

Oh yes.

...when he was the, before he became Attorney General and so on. So it was obviously a Monckton connection.

Right.

And then for whatever reason they sent me to Sutton Valence, which had a prep school, because my stepfather, John Monckton, had gone there, and his brother, George. And, because it had a prep school attached I then stayed at Sutton Valence for about, eight years I think.

Mm. And, while you were at Sutton Valence, you did A Levels in zoology, botany and chemistry.

Yah. Yah, that, again I think, I was, I was not very cleverly advised about what subjects I should take, because I'm not really a scientist in any shape or form, and probably enjoy history and English and things far better.

[1:16:45]

Mm. What sort of childhood did you have? Your parents both died...

Sorry?

What sort of, what sort of childhood did you have?

Lonely is the wrong word. I mean, I think, well, one is, it was quite good being at school, because that took a great chunk out of the year. And I think, I think I got on well at school, with people generally and with my contemporaries. In fact I still meet with four or five of them, who all left the same year as I did, Sutton Valence, and this is a long time ago. And then, the Monckton family, he was, John was the eldest son of five, and his mother was a very good person, nice person, and they lived in various parts of Kent, which, I lived with them quite a lot. So, so I suppose, I didn't see many boys except the boys I knew at school. Because there wasn't time to probably build a relationship. Maybe later on, the last couple of years, that's different. But yah, I mean, all nice people. Slightly quiet family I think in great respect, very straight, very straight family. But, yes, I had fun.

[1:18:09]

Mm And then you did your National Service.

Yah. I mean, I think by the time I finished the school bit and saw what subjects I had taken, which weren't all that wonderful, I wasn't going to go down that route, and I certainly wouldn't have got to university with those subjects I don't think, so, National Service came as an option. I was probably, in the last three or four years of it.

Yes.

And, I mean, I don't think you had any chance of saying what you wanted to do. [laughs] So I... They made me a gunner, and I did my basic training up in Oswestry, which are all the training regiments. I didn't do very well at WOSBy, the officer cadet thing, the first time round, and my colleagues there, who had gone to Dulwich school and so on, all said, 'Come and follow us, we're going to volunteer for the Airborne,' which meant another sort of, six shillings a day I think. So I volunteered for the Airborne, luckily enough passed the course. And I think one of the reasons for doing it was, I didn't want to be lolling about in some backwater of the Army. Whereas if you joined the Airborne forces you were, you know, in the forefront really to be honest. We had, we had better kit, more fun, and so on. And so, I was an

Airborne gunner for about a year, based in Aldershot, but flown about all over the place, and obviously did my parachuting and things, which was good fun.

Mm. Parachuting.

Not if you're carrying two shells of a 4.2 mortar down with you, but nevertheless, not bad. And very interesting. I think the thing about National Service, certainly the early bit, maybe more so than the last bit, was, I mean, I had been to a public school, we had the CCF Force, I knew how to dress properly, I was probably a corporal or something, I don't know, in whatever it was. And then you arrive in Oswestry, and the people sleeping next to you have never seen a piece of soldier's kit in their lives. They're all from all over different walks of life, not very good some of them. And so, we spent the first three weeks getting them dressed and getting them organised. And they really were a different variety of animal. So a very big learning curve about people. Because you do get your nights out to go and have a drink and so on. So that was very fascinating, and interesting.

[1:20:28]

Yes. So that would be the major sort of, learning you took from...

Absolutely. Absolutely. It was, it was absolutely, taught me a lot about what life... Because being in a public school, even in those happy days, you are in a slightly sort of, bubble environment of that place, and all the people around you are 'similar', inverted comas, and then you go into this place where some of them are down from Glasgow and God knows where. They could hardly speak English anyway. It's a long ago. And certainly completely hopeless in terms of anything to do with getting dressed for the forces and so on, yeah?

[laughs] Not sure we should leave the bit about Glasgow in.

Yes. No, OK.

But since I come from, since I come from Edinburgh, I will allow it. [laughs]

Oh right, OK, yes. Well... Yeah. [laughter] Well I didn't say the Gorbals, but I probably should have done. [laughs]

[1:21:14]

Very good. Looking back over your career, what do you think have been your major successes, what have you been most proud of?

Well, I think there are two or three things. They come up in the earlier talk to a certain... I think one is, I was willing to take some risks in terms of backing my judgement in the businesses, and, I'm not an 'entrepreneur', inverted commas, like many of your other selection are. But nevertheless, I put my money where my mouth is two or three times, and luckily enough all paid off. And I think that was, I've talked to other people I know in business, not particularly in the IT world, and they always say, well, you know, they, they just went through the corporate machinations of the big companies. But anyway, that was one thing. I suppose, I've had a whole range of pretty, pretty good successes with sales situations where you really weren't sure what was going to happen. I mean, there's no one that outstands, but some of them are real fun, like, there was a tender from the MoD to do a new Wavell system.

Oh yes.

And, we had a little marketing office at that time in Gloucester Road, and we closed it, and clunk on the door mat about a week or two later was a brown envelope which the caretaker had sent to my home address, which he knew for some reason, and there was the formal tender process for this Wavell replacement system, for the first phase.

A Wavell was a radio system, wasn't it?

It was a radio command system attached to Ptarmigan, Ptarmigan, for forces in the field. Yes, it was a longish time ago. And, they didn't give it to Plessey and people who might be the supplier; they gave it this to the large software companies. So this thing arrived probably ten days late, we were up against the big names, all the household names. And, I got a, I got, which, a good salesman can manage this, I got a good team together. I got the A team. And we put together this tender, in whatever

we were allowed left, got it into the thing, and we went to, we went to a couple of meetings with MoD. And there was a guy who, I don't know whether you're interviewing or not, it has been a great sort of, proponent of the industry, called, then called Brigadier Chris Last, he ended up as Major-General. And, I just knew at the end of the sessions we had had, he got on with me. And so we pulled off this win out of the blue, from nowhere, which led to four or five phases of work. And we ended up bidding a joint thing with Plessey to try and implement the whole thing. Now we didn't, we didn't get that. But it was a huge piece of work, and very significant in terms of, of what we had to do. So, there's been fun like that. And several situations of that order, where I was surprised we won it. [laughs]

[1:24:25]

So that was the second thing. And I suppose the thing, again which we touched on quite a lot, is, I spent a lot of time now worrying about, in the large complex systems world, how do you manage and control the implementations of those, in a way that leaves both parties happy?

Yes.

That's really a summary of what this client management's all about, is leaving both parties happy in terms of the trust in relationships you have together.

[1:24:54]

Yes. Mm, OK. And, in terms of the things you regret or biggest mistakes. [laughter] What...

Well, nothing to do with IT, but I was a member of Lloyds. [laughs] That was probably my biggest mistake ever.

OK. [laughs]

But I'm still here, just about. Even though I thought I knew about it, having sold systems and services to them for ten years of my life, still got it wrong. But...

This was the Lloyds crash when the Names suffered badly.

Yeah yeah. Yeah yeah. Yes, I was underwriting member of Lloyds, quite a lot of money, through that phase. So, but, which is, you know, painful. However, there we go. I think the other thing, which is nothing to do, again, with IT, is, we sold Little Polveir six weeks... We had the horse for seven years, won the Scottish National, sold it six weeks before the National and we won it. [laughter] So that, that wasn't a very clever move either, for all sorts of good reasons at the time.

You still have an interest in horses?

I still, I still do have an interest in horses, yes. I mean, I kept on with horses till about, probably seriously till about five or six, maybe, no, probably eight years ago. Then I got involved with South Africa, because we bought a small house in, near Cape Town. And so I was away for the English winter, which was the plan, so, all my horses were National Hunt, winter horses. So now I'm back, we sold the house, we're here in the summer, so I'm a member of a racing syndicate now, we've got five fillies. So I keep my hand in, at a much cheaper cost. [laughter]

[1:26:32]

Right. What advice would you give a young person thinking of going into the IT industry today?

Oh, that's a very fascinating question. Because, the luck, the things I went in for, are no longer there. So I suspect now, it is a much tougher role. You certainly have to have much higher qualifications than I had, particularly if you want to go into the technical world. I think there are opportunities now to get into businesses at a start-up stage, much smaller than we could. And I think, I think you need to... I mean again I haven't tried, I haven't put myself in a position of trying to think, how would I as a youngster get into this? There must be masses of opportunities, there are thousands of people employed in the industry.

Mm.

I suspect you, I suspect you have to look hard at what you want to do with your career earlier on. I was just lucky to be in something that grew around me, and grow in a way that suited me fantastically well. I think now you could lose yourself in a technical programming sort of role, and that might become a bit dull after a bit, unless you do something with yourself within that industry. So I think that's quite a, quite a difficult question for me to, to really understand and answer properly. It is a fantastic world out there, the salaries are still in the high range of people being employed.

Mm. Yes.

It should still give you a variety of things to do in life, unless you just sit down and run through a task. I would have thought it's still, you know, very viable. I would, I would find it much tougher.

[1:28:25]

Mm. Yes, yes. Are there people who have had a particular influence on you during your career?

Individuals?

Individuals, yes.

Well the obvious ones are easy of course. People like Colin have been very good in terms of, a) the ability to know him so long through, through the various roles, and still have the ability to go and meet him as chief executive, you know, if I wanted to particularly, but also, his management style is such that you, you move, you work with him. I mean when he was my direct boss we got on like a house on fire. He knew how to pull my strings I suspect. So he was, he was very much a, a big influence in sort of supporting, helping, moulding me, I suspect. Other people. I found, I met some very interesting people in the industry which are nothing to do with my day-to-day work. And it's, it's really good to be exposed to that in the sense that you realise there are all sorts of people of great intellect, great strengths. I mean, odd cases in point, John Ockendon was one of the most brilliant public speakers I've ever heard. I remember a conference in Munich which I was probably on the council...

Oh, I don't think I was President. I was on the council of. And he gave a talk in one of the forums, in a sort of, English German. [laughs] It was in Munich. English German, which is the funniest thing I've ever heard. So there were some wonderful people in the industry. I mean, here I am, having admittedly in the CSA and things, worked alongside people like Chris Gent, now Sir Chris, or he might even be Lord, I'm not sure; Geoff Unwin. Major players in their own right, and setting up their own businesses. So, you know... I'm quite good at sort of, picking up threads of what people have to offer, in terms of, in terms of their skills and their, and their work and so on, yah?

[1:30:35]

Mm. You've been quite involved with the Computing Services Association.

Yes, I did. I did. I mean, I was in that phase in Data Sciences when I was running corporate communications, client accounts. So, I didn't have a sort of day-to-day, I must worry about the figures, job. So, very kindly, the chief exec said, 'Go and get involved with the CSA,' and they said, 'Come and join the council.' I had been, you know, we'd been members obviously and I had been to things and so on. So I was on the council for six years. And saw it through quite an interesting, with it in an interesting phase where, they were doing a lot of work really trying to work with Government to get UK's industry accepted. You know, because we always felt the French always had a huge advantage over us, both here and in, particularly in France, you could hardly get any big business in France. So, I remember meeting various ministers of software. Lilley comes to mind. I'm trying to think of the other one. Probably Baker, I don't know whether Baker was a minister of software. He might have been later on. Wearing the hat of, either as a council member or when I was President, just trying to sort of, get them to understand, if a British company can win this particular piece of work, it would allow us to play, replay that in that industry several times.

Mm.

It could have been the utilities, it could have been whatever. Nuclear side. That piece of, first bit of work was critical to helping us develop that skill and win more business

and so on, yah? And just trying to get them to understand all this was really quite difficult. So... And we also spent a lot of time getting statistics, about how big we were, what sort of work we did, how many people they employed, and a lot of work went into that every year in the CSA. And we became, you know, we, we think we represented a body which turned over billions a year. And certainly by the time we finished it certainly turns over billions a year. It became Intellect later on, which is probably a better, people might recognise that name more than CSA, through a merger with The Electrical Engineering Association.

Yup.

And I assume it still goes on.

[1:32:45]

Indeed. You mentioned Government ministers. I mean, is it your view that the Government has been either helpful or unhelpful, you know, throughout your career? Of whatever colour.

Yeah, sure, sure. Yah, it's... At the level of trying to influence them in a broad sense across a whole spectrum of things, like, like meeting with the minister of software, and trying to get him to understand the issues we face, I think that was quite hard work. Later on in life, getting to our local MPs were Gerald Howarth, now Sir Gerald Howarth, who was a Minister for War at the time, and James Arbuthnot, now Lord Arbuthnot, yeah? Who was Fleet. We managed to have meetings with them, looking at us as a constituency company. And those, those I feel went quite well. I mean, they won't give you orders, but they will help you where they can in terms of knowing what's going on or fixing a meeting and whatever. So we did quite a lot of that stuff. In fact, Heseltine was going to open the new building for Software Sciences in Farnborough; unfortunately Westland intervened.

[laughs] Yes.

And so we got George Young instead. But, so I think, I think meeting individual ministers, not about specific things, they can't, they can't fix that obviously, worked reasonably well.

OK. Mm. Yes. But not specifically in terms of contracts or assignments?

What, in terms of Government support?

Mm. Yes.

Well, I mean, these things move in mysterious ways to a certain extent. One of the very large, fixed price tenders, Software Sciences – Data Sciences one, was for the implementation of a office system for MI5. Now it's got a certain name, I won't bore you with that. It was a £15 million fixed price implementation. A lot of effort went into that. Christopher Last, by then Brigadier – sorry, by then Major General Chris Last, who I met through the Wavall thing, organised a meeting with a lieutenant-general, whose name I can't remember. I mean it was a meeting in a restaurant having lunch or dinner or something. Whose unit was responsible for all this side, yeah? Now, he wanted the opportunity to meet people that he would have to deal with if we want it, putting it sensibly, no, no question of anything else. But, but that came off. And so we won this amazing system, which we delivered on time to budget, which I don't think was ever used in anger, because, they were, they were, it was bid with specialised tempest-proof terminals.

Yes.

In the middle of this... A three-year job. In the middle of this, Apple and all that arrived, and so they, they never used it because they used the, the package services you might say.

Right.

So interesting situation. But, but yeah, I mean that's the sort of way these things sort of happened, yah.

[1:35:58]

Mm. Mm. How do you feel about the state of the UK IT industry today?

Of the UK...?

IT industry.

Oh right, yah. I would have thought it's thriving. I mean I'm not, I'm not so well versed in what's happening now, because I'm not, I don't obviously attend CSA meetings, or, sorry, Intellect meetings. But I would have thought it's a pretty strong industry. I mean it's so, it's so fragmented now, is the other issue with it, that it's very hard to sort of pick, pick any particular thing. I mean there are so many small companies doing tremendously well. I mean, there aren't so many of the big stalwarts left. Maybe they've merged or, or the Americans, there are a few Americans left. So I think the choices of large companies to outsource or whatever are more limited. But I, you know, the industry goes on dynamically growing so fast, they must be, must be good here.

[1:36:56]

Mm. Yes indeed. Tell me about the Babbage Club which...?

[laughs] Yes. Well, yes. Well the... Yes, the Babbage Club, it all goes back in the mists of time a little bit. And certainly, why I was selected to join it, I have no real idea. I mean it's made up of a, originally I think one or two people from the CAP world, who I know. So I remember the club in its heyday, Barney Gibbens, John Ockendon, Alan Benjamin, they were all CAP people. Donald Moore, who was a senior partner of, consulting for KPMG. Bryan Mills, of the maintenance and so on world. And, and Jack Howlett, who was professor of computing at Oxford. And one or two... Oh Robin Lingard, who was... I mean why Robin fitted into this funny world when he was a civil servant of some repute, I never understood. I think it may have come to me through Ernest Morris, who was President of the CSA when I was President of the – sorry, President of the British Computer Society, when I was President of the CSA. Why they chose me, somebody else will have to tell you.

[laughter] But we, we met sort of, irregularly, at different restaurants, usually in London because most of us could get there reasonably well. There was an old oil painting, not huge but reasonable size, of Charles Babbage, and it was called the Babbage Club, and the deal was, you took, somebody took the picture to the restaurant, organised for it be hung on the wall near our table, and we had a jolly lunch I think – sorry, dinner probably, that went on quite late. Talked about all sorts of general things. And Alan, who was wonderful at writing and so on...

Alan Benjamin.

Alan Benjamin, yes, wrote the minutes. Nothing to do really what we had all spoken about, but very humorous and fantastic. And they were good fun, and, and we... And I've been involved in several parties with people, like, Ernest always used to have a very nice summer party in his house, and we were all there. And I've had one at mine years ago. And, now, despite many of them no longer with us, we sometimes, sometimes organise a luncheon for the three or four wives that are left, and two or three of us who are still going. But it was a wonderful club. And I certainly was approached by senior people in the industry once or twice to find out how they could join. [laughs] And there is no advice I could give them unfortunately. [laughs] It's sort of, one of those things.

Mm.

So, yes, good fun. And very good for me, to meet such a high-powered crowd.

Yes. Were you a member of the Real Time Club?

No. No no. No no. No, I've got enough other memberships outside IT to not need any more. [laughs]

[1:39:51]

Right. Well Bill, I think we've covered a good range of topics in this last hour or so.

Super.

Bill Ellis Page 55 AIT/010

Anything you want to tell me that I haven't covered or haven't asked you about?

No, I think you've done a fantastic job, as I thought you might [laughter], having remembered each other earlier on today.

Indeed.

No no, I think, you know, the information you gave me about this session was very helpful. It's made me search about in the attic for all sorts of stuff to try and get the dates right and the timing. And, I hope it's been helpful, and of interest.

Oh indeed it has. Bill Ellis, thank you very much indeed.

Super.

[End of Interview]