

# Ken Salmon Access Summary

## **00.00.00 Gavin Clark introduces the interview and Kenneth Salmon.**

Gavin Clark introduces himself with the National Museum of Computing and Reading Museum. They are interviewing former employees and customers of Digital Equipment Corporation as part of the 60<sup>th</sup> anniversary of DEC opening their first office in the United Kingdom. It is the 13<sup>th</sup> of December 2023, and they are in Reading. He is talking to Ken Salmon.

## **00.00.20 Family background and education.**

Kenneth Andrew Salmon was born in Hong Kong in 1953. His father was in Hong Kong army and was taken prisoner by the Japanese on Christmas Day 1941. He was held for three and a half years by the Japanese as a prisoner of war and on his return after the war, he joined the Hong Kong government as a prison officer. Kenneth was then born and attended junior schools in Hong Kong. The first being Quarry Bay junior school and the second ( <sup>1</sup> ) junior school. After that he attended secondary school, George 5<sup>th</sup> School in Hong Kong. Later his parents thought it would be beneficial for him to attend a school in the United Kingdom to gain independence. He went to a boarding school in the United Kingdom for two years. It wasn't successful and Ken returned to Hong Kong for his A 'levels at King George 5<sup>th</sup> School. He passed A 'levels in maths physics and chemistry. After his A 'levels, Ken decided to return to the United Kingdom to study computers.

## **00.01.58 University education.**

By this time, it was 1971. There were very few universities offering courses` in computers and Ken studied a course at the University of Essex. Computing was a small part of their mathematical studies department, and some considered it a type of calculator for mathematicians. Ken graduated from Essex university after three years with a degree in computer science. At the Essex campus, nearly all the computers were Digital Equipment machines including the mainframes. At the time it had the largest DEC System 10 installation in the country.

## **00.02.52 Career choice.**

Towards the end of his third year, Ken was interviewed by Digital. They seemed to have first choice in interviewing students. He described his third year project which was to make a computer or motherboard using one of the latest microprocessor chip, an 8 bit chip. It was the Intel 8008, and he was making it with a partner. Today, it is known as a motherboard, at that time it was thought to be a complete computer that you could communicate with. Two senior managers at DEC, Jeff Odes and John Atkins told Ken he was exactly the person they

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<sup>1</sup> Please ask interviewee for the spelling of the school. It sounds like 'cow lin' but I could not find a school with that name in Hong Kong.

were looking to recruit. He was made a job offer which he accepted, and he started a job at Computer Special Systems Division at the Digital Equipment Company in Reading.

#### **00.04.05 Recap and discussion on computer science.**

Gavin commented that Ken had mentioned that computer science wasn't well known at that point in world history. It wasn't well practiced in universities or schools. His course seemed very hands on and practical. The computer science courses today seem to comprise of software and algorithms and Ken's course sounded as if it was constructing hardware. Ken states it was a choice. At university everyone did the same thing in the first two years of the computer science course but in the third year there was an option to specialise in hardware or software. He chose to do hardware as software didn't interest him although he was competent in it. He was practical and was more interested in putting components together and making things work rather than debugging software. Gavin asked if he was a fixer and maker. Ken described himself as old school. As a child he enjoyed playing around with Meccano kits. He made cars out of soap boxes and was practical. Building hardware was his thing.

#### **00.05.52 History of the computers used by Ken and their environment.**

Gavin asks about the Intel 1880 chip, was it new? Ken mentions it was the 8008 chip which was the chip before the 1880. There was the 8086, 8186, 8286, 8386 and so on. It was only 8 bits. Gavin asks why it was the exciting. Ken states that the DEC system 10 computer was in an air-conditioned first floor suite and the power on a little chip on a small board was amazing at the time. They could have memory but the capacity for memory was small. 4K of memory to them was impressive in those days. Today 4meg<sup>2</sup> is nothing.

#### **00.06.52 The computer built by Ken.**

Gavin asks what computer Ken built as he made a motherboard. Ken explains the 8008 chip is a processor.

#### **00.07.11 Details and method of how the computer was built.**

To make the processor work to undertake tasks you need several things.

The first item that is required is a clock to give it rhythm. It needs memory and it needs input to create output. The input looked like a telex machine. The output was a VDU screen which looks basic compared to what was used is used now. Gavin asks if it was soldered together. Ken confirms it was soldered on the wire wrap. Wire wrap was when a chip came into the department with legs that are plugged into a socket. They soldered the base of the socket onto the circuit with wires.

The wire was a metal wire with a yellow cover. The end was stripped, and wrap put around a pole that stuck out from the board. One point is connected to the other. How the wire is

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<sup>2</sup> Meg – an informal abbreviation for the word megabyte which is a unit that is used to measure volumes of data.

wrapped depends on the circuit you wish to make. It is called wire wrap because the wire is wrapped around a pin.

Gavin asks if it was difficult. Ken responds that it was boring, but you needed to really concentrate and at Digital they were fortunate to have a team of people who did it twenty-four hours a day, seven days a week. When he was at university he had to do it.

It was an experience that you could learn from and sometimes something called 'cross talk' between wires occurred which was destructive. 'Cross talk' was electrical magnetic interference.

#### **00.09.20 Interviewing for DEC staff at Essex University.**

Gavin recaps that Ken built a motherboard which is in computers and servers today. He moves on and mentions that DEC came to the Essex and Colchester campus every year. He asks why DEC came to the campus. Ken responds that DEC consider it be a captive site as everyone who did the computer course was familiar with DEC equipment and software.

Students had an advantage over others as they were familiar with the company, its products and software. It made Essex university an obvious choice for DEC to hold interviews there. Gavin asked if they came to the campus regularly. Ken replied they did every year on a regular basis for recruitment. A person called Lyn Gillon previously undertook Kens first role. She moved to another role within the company and Ken was hired to take her place.

#### **00.10.45 What did they do with the DEC computers?**

Gavin asks what they were doing with the computers at Essex. Were they being studied and was Ken supporting them? Ken responds no, they were hands on. The DEC system 10 was the mainframe and they ran batches of jobs on the computer by programming using punched cards. Half the day was spent typing in the punch the cards. Ken keyed in the cards, they were punched and fed into the computer. They had a stack of cards three or four inches thick, and they were fed through a reader into the DEC system 10. The next day there was printed output.

#### **00.11.35 Programming the computers.**

Ken states that the computers they had were PDP 15's with old DEC tapes. They had PDP 11's and PDP 8's. By 1971, the PDP 8's were old and the PDP 11's were considered the 'bees' knees'. They were new. Ken spent the first six years of his career working on the hardware and the software for the PDP 11. Gavin asks why DEC valued Ken. Ken responds that it was because of a hardware project he was doing, and they wanted someone to join Computer Special Systems.

#### **00.12.35 -Computer Special Systems (CSS).**

Computer Special Systems, the department Ken joined he describes as a 'skunk works.' It was a group of people that do non-standard products. Customers would specify what machine they wanted, and Ken would work in a team that customised it. For example, the

PDP 11 computer was interfaced with a special interfaced control machine<sup>3</sup>. This project would be given to special systems people who would design and provide a bespoke custom piece of hardware. The design was non-standard products which would allow a DEC machine to contact their specialist machine.

#### **00.13.25 Job Role at Digital.**

Gavin asks if DEC were looking for a person to fill this role and what type of role it was. Ken confirms it was an engineering role his strengths were logic design. It was in the days of 'AND Gates'<sup>4</sup> 'XOR Gates'<sup>5</sup> and 'Flip Flops'.<sup>6</sup> The terms may not mean a lot to people, but they were foundations of the microprocessors that are used today.

Gavin asks if Ken was offered a job and interviewed. Ken replies yes, he was interviewed at the university. He was invited to Reading for a second interview, was given a job offer that he accepted as he knew all about Digital.

#### **00.14.22 Reasons for choosing to work at Digital.**

Gavin moves on to ask him what he knew about Digital and why he made his decision. Ken explains that Essex university was a huge DEC site. The other company IBM was not well thought of and was not considered a place that you would want to work at because of the culture at the time. Digital marketed itself as the second largest computer company in the world. If you didn't work for IBM, then you worked for Digital and Ken felt he was fortunate to have to a university with its links to Digital as it helped him apply for his job with them.

#### **00.15.20 Knowledge about Digital.**

Gavin asks if Ken knew about Digital before he went to Essex university. Did the university make him aware of Digital? Ken was aware of Digital before but only in passing. In Hong Kong when you mentioned computers people think of IBM and ICL. This was because Hong Kong was a British Crown Colony and ICL was the British computer company as there were a lot of installations in Hong Kong. When Ken told friends and family who his employer was, they asked who?

Gavin asks how that made Ken feel. Did he think he made the right choice? Ken stated he reassured himself that he knew who Digital was, his relatives didn't so that was their issue not his.

#### **00.16.15 Interviews at Digital.**

Gavin asks whether it was competitive at Digital? Did he have to queue to get an interview? Were they selective? Ken responds that Digital had first pick of who they wanted to interview, and he thought nearly everyone would have applied. Only a fraction got an interview with Digital. There was banter in the university over who would get a job with Digital, and he was one of the fortunate ones who did. Gavin asks whether it was a desirable

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<sup>3</sup> Please ask the interviewee to confirm what this is as I was unable to find a satisfactory explanation.

<sup>4</sup> AND Gate A circuit which produces an output only when signals are received simultaneously through all input connections.

<sup>5</sup> Xor Gate A digital logic gate that produces a logical output based on the relationship between two or more binary inputs.

<sup>6</sup> Flip Flop Data storage elements to store a single bit (binary digit) of data.

thing and Ken stated it was 'a feather in your cap' to get a job in the computer industry at that time and it was an achievement. A lot of people on his course ended up as electronic engineers and joined companies such as Plessey and Ferranti.

#### **00.17.20 Working at DEC.**

Gavin asks if getting a job at Digital was prestigious. Ken replies as a student at Essex university it was a 'feather in your cap' but he wasn't sure if people thought the same in the outside world. People who knew about the computer industry were impressed. DEC had a good reputation and people who were employed by them at that time were proud to work for them. It was cultural. When he left in 1980 it was with regret.

#### **00.18.09 Moving to Reading.**

Ken came to Reading to work for Digital. On the visit for this interview, he walked past the hotel that he was put up in for two weeks when he joined Digital, and it brought back memories. He was put up for a further two weeks on the Basingstoke Road. He worked at Arkwright Road, and they put him up at what used to be called the Post House Hotel down by junction 11 of the M4. He ended up sharing a house with another employee at Arkwright Road and it worked out well. He spent four weeks in hotels. Two weeks in central reading and two weeks down near the motorway junction. The four weeks gave him the chance to find his own accommodation. Gavin asked how he felt being just out of university age 21 working for the world's second largest computer company. Ken's response was it was exciting and great.

#### **00.19.34 The team in Computer Special Systems.**

Ken felt welcome and part of the team as soon as he arrived. The team socialised and went to the pub Friday lunchtime. It was a social environment and a hardworking team. It had an ethos that was different as it was project based. It had projects and the only thing that management cared about was delivering the project on time. Working hours were not a consideration, the job just had to be done on time. They worked hard and played hard which they enjoyed.

#### **00.20.37 The work buildings at Arkwright Road, Reading.**

Gavin asks Ken described the Computer Special Systems building in Arkwright Road. Ken mentions he took some photographs recently and refers to them as single storey being like sheds. They started off in one building, 40 foot wide and 150 feet long. There was a corridor at the front that went down the entire building with offices on the left and right hand sides. It was freezing cold in winter, was not much better than a Nissan Hut and could be very hot in summer. They started off with one building then two then three, four and five as the business grew. Ken joined them when they had two buildings and the third was built shortly after.

The sales and marketing staff had shiny offices at the front with cars. He thought it was very British as the engineers were in a shed at the back of the garden. That is how they worked

and how it was at Digital. Gavin summarised it as a series of shed like buildings and Ken agreed it was like that and is still like it today.

Gavin asked what the atmosphere was like working in there and were the buildings separate or joined together?

The buildings were separate, and it was fine until the middle of winter when you got horizontal weather, and it wasn't great going from one building to the next building. One building was for senior management, administration and accounts. Another building was for engineers. The third building was for the people who did software. The fourth building was for low volume manufacturing.

If they designed a product for one customer and found there was a market for it with other customers, they put it in low volume production. They didn't make large numbers such as thousands, but they made tens and hundreds. They had a dedicated group of people who undertook that work, and it made a lot of revenue for them.

The final building was a repair centre, and engineers did their testing in it. It was a bit of everything. There were wires across the floor, and you tripped up every time you went in there. It was like a bird's nest on the floor.

#### **00.24.12 Kens role in the building repair centre building.**

When Ken worked on a project in the back of that building, his colleagues fitted 16 PDP 11/34's on a network. This product was being designed to do process control of truck time<sup>7</sup> manufacturing plant in the country we know as Ukraine. Ukraine was part of the USSR at the time. Ken was asked to go somewhere near Kiev to commission the system, but he turned it down.

#### **00.24.50 The environment Ken worked in.**

Gavin asked what the environment was like. Was it a garage or laboratory? Ken responds that it was a garage not a laboratory, it was not spotlessly clean, but they had freedom to design bespoke kit which went officially on Digital equipment in the field. This was quite an achievement as computer companies do not want their equipment altered in the field. Digital's a specialist organisation that had a charter that allowed them to do that

#### **00.25.41 Where did the orders come from?**

Gavin asks where the orders came from. Who asked them to do this work. Did it come from higher up in the company? Ken replies that to answer that question he would have to give some back story. Digital began its business by producing printed circuit boards with discreet components on them such as capacitors resistors and transistors. Each one had a function, an AND Gate or OR Gate. The company had customers called OEM's. They took these modules, wired them in a rack to do certain functions. From that Digital went on to create its own computers. When Ken joined Digital, PDP 8's appeared everywhere. The customers (OEM's) were taking Digital computers and adapting them to do a variety of functions.

The OEMs would state that they had a certain piece of specialist equipment and would ask if Digital would connect it to their computers.

The Digital salesmen would contract a member of the CSS team called an application engineer. The application engineer would see what was required and would provide a quote. If the customer agreed the project engineer (which was Kens' job) would state, the timescale needed and the cost. Ken described it as a company within a company.

#### **00.27.58 Customer requirements**

Gavin asks Ken if there any times when he could not provide what he was asked to do. Ken confirmed that there were a lot of occasions because of technical reasons and cost. He mentioned that 4k chips were normal and you couldn't do tasks that were a meg, but most jobs were within their capabilities.

Ken adds that engineers being engineers, they would often get halfway through a task and then find that if they added a bit more then it wouldn't cost a lot to make something more efficient.

A lot of the products went into low volume manufacturing. One that Ken could recall because it was well known was something called the VT 30<sup>8</sup>. Ken recalled that in the past when there was an election there was something called a 'swingometer'.

ITN approached Digital and asked for a digital swingometer that would show bar charts and graphs when a button was pressed.

Digital developed that to work on a colour screen. At the time it was difficult to process colour. It was a successful product and low volume manufacturing could not keep up with demand as once ITN had it their competitors wanted the product too.

#### **00.30.09**

Gavin asks if it was used for a particular election or broadcast and what year it was. Ken suggests it may have been 1974 to 1980 Gavin mentions that there were elections in 1979 and 1974. Ken recalled that it wasn't 1974 as he had just joined Digital then. Gavin suggests it must have been 1979 with the Thatcher victory. ITN had the digital swingometer and it was thanks to their hard work at CSS.

#### **00.30.40**

Gavin asks if other companies wanted a digital swingometer? Were there other technical applications? Ken states that he didn't know as he wasn't close to that part of the business. Digital focussed him on peripheral interfaces. He gave an example of someone wanting a tape driver interfaced with a PDP 11 which was his role. The people who worked in colour graphics were not interested in him. Ken confirmed he didn't take part in the development of the swingometer, but he demonstrated it to a customer. He wasn't involved in its design or commission.

#### **00.31.30 Memorable Projects**

Gavin asks if Ken can recall a particular or memorable project. Two projects come to Kens mind. His first project was to do with an interface. It was a data formatting 'thing' from an ECMA. ECMA stood for European Computer Manufacturers Association. It was the ECMA 34 protocol.

The company, Philips in Holland had developed a ECMA 34 tape drive. Kens first job that he did on his own was to design a tape drive. Digital had one called the TA11 because his was designed by CSS it was called a TAS11. He designed it from scratch, and they sold a lot of them outside Digital. As it was for a ECMA standard, everyone had to have it. It was his first success which is why he remembers it.

The second project was a big network system for a Ukraine tyre factory, and it was challenging because it was so big. It was networking 16 networks with PDP 11/34's fully loaded, and it stretched its capabilities. CSS had to interface process control interfaces<sup>9</sup> to that system. Tyres had to squirt liquid rubber, it had to be measured and there were a lot of processes it had to do. It was so large Ken had to go to another plant. Digital had a plant in Ayr, Scotland and Ken had to go there for a week at a time. It was large project and was commissioned in Reading, but they could not store it. It was stored and commissioned in Ayr where they had the space. It was connected and tested in Ayr. Then it was shipped out to Ukraine. They had to get special licences as there were problems having American high-tech equipment shipped to Russia. Ken didn't want to go to Ukraine as it didn't appeal to him.

#### **00.34.56 Culture of Computer Specialist Systems**

Gavin mentioned that it sounded like a thriving environment and were there different cultures. Ken comments that he thought there was. The team liked the best of both worlds. CSS liked to be part of DEC and were proud to be the people who made bespoke items for customers and made it work. At one point they mentioned that 60% of the revenue generated by DEC from the installations had CSS content in it. That was amazing. Gavin asks if it was work hard, play hard as they came into work at the weekends which may not happen now and if it was it a young workforce? Ken responds it was, there was a generation gap between the management and engineers. The engineers were nearly all under the age of 30. When Ken joined, he worked for a senior project engineer and learned a lot from him. He sees him at reunions and reflects that they are all getting older. Gavin asks if it was a male dominated environment. Ken comments it was male dominated as it reflected the time. There were women, but they did mainly clerical, administration or finance jobs, perhaps two women in the wiring workshop. Ken didn't recall women being design engineers expect the women whose role he took over. In the drawing office where the circuits were drawn up it was dominated by women.

#### **00.38.03 DEC at Worten Grange Reading.**

Gavin asks if Ken moved to Park 1 and Park 2 on the campus. Ken said no, the move to DEC Park or Worten Grange occurred after he left. He saw it being built and visited later when Digital were a prospective customer of his but never worked there. Gavin asks what Ken thought when he saw it being built.



Ken comments that when he worked for CSS in Arkwright Road it was small and nice because you knew everybody. When everyone was put in this huge building it became impersonal. It wasn't necessarily his view as he didn't work there but his friends mentioned it. He said to them that they liked working for a large company, they agreed but they liked working for CSS which was part of the big company. They didn't want to be part of the big company.

#### **00.39.35 How did Ken integrate into being in Reading.**

Gavin asks if he was part of the Reading group did, he mix much, did he integrate, he was in Arkwright Road did he become part of Reading. Ken thinks carefully then responds he became a supporter of Reading Football Club, does that count? He says that he lived in hotels then moved to Thatcham to live with an employee which is more Newbury than Reading. From there he shared another house that was owned by another DEC employee who was seconded to Massachusetts and was in Burghfield Common. Reading was the nearest shopping centre but as men they weren't interested in shopping they were more interested in local pubs. That was their social life.

#### **00.40.52 Staff at Digital**

Gavin mentions that they were talking about the culture, it was a sign of the times that there were few women. His predecessor Lyn Gillan moved on within Digital and when he joined, (Ken giggles) he was given a toolkit with 'Lyn' engraved in the handles. Did engineers get watches? Ken responds that there were promotional watches that were trinkets. Gavin continues that he understood that engineers in the field did get watches. Ken mentioned that he wasn't a field engineer, so he didn't get one.

#### **00.41.38 DEC's approach to staff, disability and culture**

Gavin continues that Digital were known for doing the right thing, especially in the United States with advancing people from disadvantaged backgrounds. Did he see a lack of barriers to advancement in DEC? Ken stated he didn't feel that. He wasn't 100% 'Anglo Saxon'; he was from Hong Kong and was half Chinese. He was also disabled as he had polio as a child and had a problem with his left arm. It wasn't an issue for Ken. Digital was fine. If Ken had any problems the staff would be helpful. Brian Higgs the wire shop manager would offer one of his staff to help. Ken found it an advantage and said that towards the end of his tenure they started to note the numbers of disabled people and asked if they could include him. He was fine with that.

#### **00.43.19 How did DEC make reasonable adjustments for Ken.**

Gavin asks how they were supported in his day-to-day work because he was disabled and his role at CSS was very physical. Ken comments that it was less physical than people would think. Kit had to be moved on trolleys, if heavy boxes had to be carried other people would do it. It wasn't a problem.

Were there any programmes he wanted to go on to advance on? Management training? Ken states that when he joined, he was a junior engineer. Towards the end of his time there

he was a project engineer. Ken states that engineers preferred to be doing work not being sent to Beaconsfield to go on a course for three days and he was quite resistant which might have been to his detriment.

#### **00.44.48 The reason for leaving Digital**

Gavin mentions that it is interesting that DEC had a culture that pushed engineers into the business side of things. There were two tiers. Ken states that it was not his recollection. The reason he left Digital was simple. It was material. He noticed that all the people who were paid lots of money and had nice cars were salespeople. He asked to become a salesman and was turned down straightaway and was told he was an engineer. They were recruiting salesmen from university. On a flight back from Stuttgart after repairing a piece of CSS equipment that had failed, Ken was sitting next to a marketing director from a computer printing company. He said to Ken if he wanted a job to talk to him. Ken went to work for him. The reason being Ken wanted to improve himself. In his first year he earned twice what he earned at Digital. That was the difference in salary between sales, marketing and an engineer in the UK.

Gavin asks if there was a reason in DEC why he couldn't change roles. Ken says yes, it was HR or what was called personnel. Alistair Wright the personnel manager said, 'Ken you are an engineer get out of here'. Gavin comments that Digital wanted engineers to have management roles. Ken responds he didn't want a management role he wanted a sales role.

#### **00.47.28 Leaving Digital**

Gavin asked how he felt at leaving, he had great experiences, it was a cultural fit with a great engineering culture in DEC. Ken said it was scary, it was a real wrench, he had good friends the same age and still sees them fifty years later. They still talk about the old days. There is a glue that holds them together. Ken said that some of the people working at Digital had the company taken over by Compact then Hewlett Packard. Today they are still working for Hewlett Packard and haven't moved on.

Gavin asks why he felt sad to leave, most people are pleased to leave. Ken says it was starting again in an alien environment. DEC was like a family, and it was like leaving your family for the first time, it was exciting but sad. Gavin asked how it was like a family. Ken said it was the culture. Ken explained people would look after each other's back, they looked after each other. They socialised together and everyone went to the pub. There was a pub called 'The World Turned Upside Down' which they thought was a good name for a pub for Computer Special Systems. His life revolved around DEC. The houses he shared were with other DEC employees. Gavin asks if DEC employees went to the same pub. Ken replies that DEC employees in other sites would go to the closest pub. The staff in Kings Road would go to their nearest pub. With CSS, the senior management went to a different pub to the workers.

#### **00.51.07 CSS Senior Management**

Gavin suggests that in DEC it was more integrated and at CSS it was less integrated and asks if CSS had a more 'us and them'. Ken suggests that senior management weren't integrated

with the people, but people knew them. Bob McPherson, Eric Cocker and other people. People knew them as they walked through occasionally, they would say hello but would remain aloof. At the 'worker bee level', Ken says it was fantastic.

#### **00.51.50 Socialising at Digital and CSS**

Gavin mentions they went to pubs together, did they do anything else together? Sporting events, concerts, gigs? Ken says yes, it's a knockout, car treasure hunts. At weekends they did social events. At Christmas there were Christmas dinners. They would join with the rest of Digital and would go to annual dinner dances at 'Top Rank' in Reading opposite the railway station. It was the one time of year everyone in the UK integrated. They didn't stand out as engineers as other people didn't know each other there either. It was to get everyone together, top brass such as Darrel Barbay and others would make a speech, and everyone would feel good about themselves and then carry one with their jobs.

#### **00.52.58 Travel for work with Digital and life in Reading**

Gavin summarises that Ken went out at weekends and asks did he travel out of Reading? He travelled for his work as he went to Ayr and Stuttgart. When a piece of CSS equipment failed, the regular field service engineer wouldn't know how to fix it, so they had to send their own staff out for a day. Ken says he had to go to some strange places. The CEGB<sup>10</sup> and Tewkesbury, all over the country and on the continent. He spent some time in and Ayr and Galway. He says going to Ayr was good, they would go in the winter, and they would stay at the Turnbury Hotel which is where the famous golf course was that was plush but cheap in the off season. They bumped into famous golfers, (Ken giggles) but he was not a golfer.

Ken went to Elm Park to see Reading football club play, first at Elm Park and then at the Majeski stadium. He has a story to tell later. He and his son were season ticket holders for over 20 years, but they aren't doing so well now.

#### **00.54.59 Life outside Digital and CSS**

When Ken was at university, he was a member of two organizations. One was a member of the union technical organisation which did sound and lighting at concerts and discos'. After that he went to join URE which was University Radio Essex which broadcast on 301 meters medium wave band.

When he came to work for Digital, he wanted to continue with broadcasting, so he joined Hospital Radio Reading. Its studios were in the bowels of the Elm Park stadium and in the winter, there was no heating and ice on the walls. They moved to better premises in Battle Hospital, now they are in the Royal Berkshire Hospital with professional equipment. In Ken's time they had a couple of record players and a mixer. Gavin asks how Reading (football) were doing then in the 1970's. Ken mentions that is difficult to remember. They were in second or third tier of English football. One match he can remember going to is the quarter finals of the FA cup against Southampton. It was a huge match. Tickets were being exchanged for high prices; he went to the match, but Reading did not get through. Ken reflects that he did integrate with Reading, joining Hospital Radio Reading and Reading football club.

### **00.57.02 How has Reading changed with the influence of Digital**

Gavin asks Ken how Reading has changed and what was the influence of DEC. Ken replies that it is a difficult question. Reading and Digital were synonymous at one point and Digital helped to create the Thames Valley Corridor, the Silicon Valley of the UK. Ken isn't aware of why Digital came to Reading but it's coming here and establishing itself attracted other high-tech companies in the area.

Gavin asks could you see the influence of Digital in the town. Ken says initially no but Digital started to sponsor events. He ran the Reading half marathon which was sponsored by Digital. He had Digital plastered all over him. In the town people would have heard of Digital but may not have heard of what they did.

### **00.58.35 Did the Digital slogan 'do the right thing' filter down to employee roles?**

Gavin mentions that they have discussed that DEC was the second largest computer company in the world. He had all those people at Essex university wanting a role, it was a feather in his cap, once he was in that environment was, how did it feel was he aware of his role? DEC has a famous slogan 'do the right thing', by the customer and employee. Did that ever filter down to him as the worker, the customer. Ken says he wasn't aware, it may have come in after he left. He said that in CSS it was like the Nike slogan 'just do it; they would make it happen if they could. They didn't have a slogan, but it felt like that.

### **00.59.39 The Demise of Digital**

Gavin mentions that they know the history of DEC, Ken had left but he read about it and heard about it from friends and colleagues. How did Ken feel? Ken states that the main emotion he had was sadness. Digital grew fantastically, it had a great trajectory, some people thought it grew too quickly. Ken talks about the problem being managed DEC being managed by senior staff, Ken Olson. He says there are a lot of books written about this. There are some people who are good leaders at starting companies, some leaders who are good at growing companies, some leaders who are good at sustaining companies. Rarely do you get one person who can do everything. Strategically Ken thought that DEC had missed many opportunities and should have realised because of its own philosophy which was with IBM you get a central mainframe with things connected to it. Digital would talk about distributed processing where you have lots of little computers doing local jobs. You communicated through a network and that is very modern.

The personal computer revolution that Digital missed was all about distributed computing, instead of PDP 11 you had a pc. Digital ignored all of that. Gavin asks how he felt as he had invested a lot and had friends telling him. He was still in the industry and read everything in the media. DEC missed opportunities. He states that it was senior staff not putting the company in the position it had to go to survive. They continued to be proprietary in operating systems and in their microprocessors. Ken states that they got left behind and what was a shame was that a small startup company called Compact bought them.

### **01.02.58 Kens favourite computer**

Gavin asks which is Ken's favourite DEC computer, which one was close to his heart. Ken states it is not a fair question as he spent almost of all his six-year career with DEC on PDP 11's. The PDP 11 was closest to his heart. He brought a PDP 11 programming card with him and could still remember how to use the loader from memory. He states that it was the best minicomputer of its day. He had a lot of time for it. The software was good, but it wasn't developed enough to be what we call 'apps.

#### **01.04.09 Reminiscing about Arkwright Road**

Gavin asks if Ken still thinks of Arkwright Road. Ken mentions that it was a coincidence, but he was having some work done on his car and walked to Arkwright Road and reminisced. He took a few photos. The buildings haven't changed, one has had the front modified. He went up to the front of one building and a receptionist asked him what he was doing. He told her he was reminiscing, and she said to carry on.

#### **01.04.55 Feelings about the Past at Digital**

Gavin asks what he felt about it, what thoughts did he have. Ken mentions that he was thinking of people. He looked at a window and thought John Gorman's office, Bob McPhee's office, Dennis Brown's office. He was wondering where they were now and what they were doing. Were they still with us? He said he was remembering the good times. He still meets people from CSS even if they live far away. He regularly sees someone from Gloucestershire called Ian Burton. They often meet halfway, Ian comes to Wantage, and they have a pint.

#### **01.05.55 The legacy of Digital and CSS**

Gavin asks what the legacy of Arkwright Road and CSS is. Ken pauses to think. Ken says he thinks that the legacy isn't CSS but the bond the people have. It is a very strong bond. When they have CCS reunions, there was a man who was in software who emigrated to Australia and when he returns to the UK it stimulates a CSS reunion. They go to a pub called 'The Old Bell' at Grazley Green which was where they used to go to when they were working for DEC. The last few reunions had 30 people when there were only 50 engineers. The legacy is the people and their attitude. CSS doesn't have a legacy; all its products are in the bin as they are 50 years old. If 60% of installations were through CSS, then it really supported growth of DEC in the UK. If that is a legacy, then it is fine, but it is not something that you can say that is because of CSS. Gavin comments if it was 60% then that was quite a business transformation, and he empowered a lot of employees and companies. Ken talked to an application engineer who said that the sales team loved them. When a customer comes up with an objection and says you can't do that, he could say CSS can. If anything was a legacy perhaps that CSS helped Digital grow in the UK.

#### **01.08.35 Legacy for Ken**

Gavin asks what the legacy was for Ken. Personally, Ken values the friendships and culture. It was all about teamwork. He only worked for two companies after Digital and took the teamwork ethic with him. He said he was successful at building teams in those companies, and he was proud of it. He thinks that happened because of the legacy he got from CSS.

**01.09.25 End of the interview**

Gavin concludes that it was great, and he thinks that covers it. Ken thanks him.