



ADAPSO Reunion Workshop: IBM Relations

Moderators:
Oscar Schachter and Paul Ceruzzi

Recorded: May 4, 2002
Washington, DC

CHM Reference number: X4556.2008

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ADAPSO Reunion – IBM Relations Workshop

Conducted by Software History Center—Oral History Project

Abstract: A group of ADAPSO members discuss the relations IBM had with the software industry starting in the mid-1960s and how IBM assumed a dominant position. They talk about the ambivalence of IBM toward ADAPSO and the impact that the anti-trust trial, unbundling and several suits against them had on the way IBM did business. They discussed the various position papers created to document ADAPSO's position about problems with IBM's policies. They summarize by identifying the positive impact that IBM had on the industry.

Participants:

<u>Name</u>	<u>Affiliation</u>
Martin Campbell-Kelly	Warwick University, historian
Paul Ceruzzi	Smithsonian Institution, historian
Martin Goetz	Applied Data Research
Bernie Goldstein	Broadview Associates
John Gracza	ADAPSO staff
Burton Grad	Burton Grad Associates, Inc.
Luanne Johnson	Software History Center
Kim Jones	Forecross
Lee Keet	Vanguard Atlantic Ltd.

Oscar Schachter: This is the session on IBM Relations and my name is Oscar Schachter. I think I know most of you. I'll be the moderator. Paul Ceruzzi to my right here is the co-moderator. Paul, why don't you say a couple words about yourself.

Paul Ceruzzi: I'm a curator at the National Air and Space Museum, part of the Smithsonian Institution in Washington D.C. I have a special interest in computing primarily relating to aerospace but also to computing in general. Of course, IBM has had a very big presence in the aerospace computing field. Maybe some of you don't know that, but they have.

I'm interested in computing topics generally, including what has been going on this weekend, which I've found extremely fascinating.

Schachter: Our Rapporteur today is John Gracza.

John Gracza: I was on the staff at ADAPSO from 1987 to about 1992-1993. I spent a number of years working for the software group.

The Early Years

Schachter: We're going to try to cover the relations that IBM had with the software industry from the earliest period that we're aware of, which is the mid-1960s, through the end of the 1980s. I did not get involved until the early 1970s and, at that point, the issues that were just starting to come to the fore were in the software products area. IBM had recently, in 1969, unbundled its software and hardware. There were still many issues remaining even after that unbundling, as we'll see.

Prior to that time, IBM had divested itself of the Service Bureau Corporation, which had been a wholly-owned subsidiary, although it was separately run and managed as a result of a 1956 consent decree. But in the mid-1960s, IBM was starting to look at re-entering the data processing market through timesharing and other means. If anyone has some memory or knowledge of that period that would be very helpful. Bernie?

Bernie Goldstein: If there is a birthdate for the industry, it's probably with the 1956 consent decree. IBM, in that era, played a very influential role in the development of the industry. IBM's salesmen were extremely aggressive and would frequently sell hardware to users with the justification they could sell excess computer capacity to cover their costs or even to make a profit. And selling excess time or access to computers was the origin of many early firms that eventually became players in the computer services business. IBM eventually lost its monopoly position in the industry, but at that time, they were a monopolist.

I think the best illustration I have of IBM's position in the marketplace is that, if you wanted to upgrade your computer, you would pay an additional price of 20% or so more than what you were paying. IBM would send an engineer into your facility and *remove* part of the machine. There were governors placed in the machine to limit its processing capacity and, therefore, you paid 20% more *for less*, as you upgraded your computing equipment to make it run faster. I don't know who else would have the power to do that in a marketplace except a monopolist. I can't imagine somebody who had to deal in a more competitive environment being able to do that.

One of the things they did that helped build their position was to develop training programs. Remember, the original computers in the marketplace were Univac computers. If a client had a problem developing a program, Univac would send in experts in who would do that for the client. IBM took the same budget and spent it on schools to train customers how to do it themselves. So Univac developed technological cripples in terms of people using their hardware while IBM developed disciples. It was those disciples who eventually moved around to other positions, supported by the extremely well done educational programs, who helped build IBM's position in the marketplace. If you put a 75% market share together with those vignettes of what it means when you have that 75% market share, you can begin to understand how dominant this company was in the marketplace. It doesn't take much imagination to see business managers or a board of directors sitting around deciding what hardware they are going to buy and deciding that the least risky is the hardware that represents 75% of the marketplace.

So IBM put giant American companies out of the business. It destroyed RCA's attempt to be part of the business, largely destroyed General Electric's attempt to be part of the business. This was *enormous* strength and *enormous* market position. That's the era we lived through prior to IBM's conflicts with the software product companies.

Processing Services

Schachter: How did IBM affect processing services companies in the mid-1960s?

Goldstein: Well, the effect was that a monopolist can engage in monopoly pricing. We could not afford to buy the machines because virtually all of us were underfinanced and had limited resources. We rented, so we were marked up twice, if you will. Number one, by the higher price that a monopolist could charge to take his product to market, and, number two, by the fact that we had to pay the rental price and not the capital price on some depreciation scale.

Schachter: So you were renting time from some large corporation?

Goldstein: Sometimes we were, but that comment also applies to renting equipment and putting it in your own computer center.

Burton Grad: Let me ask a question here about processing services companies in the 1960s. Was SBC itself a major factor in the concern about IBM during the 1960s?

Goldstein: I would say no. I had the impression that, in the IBM Corporation, SBC was sort of a Siberia. If you weren't in the hardware side of the business or the research side of the business, you were sent to SBC. Sent to Siberia. So there was a Darwinian selection process, I think, in the IBM organization that didn't bring the most aggressive management to SBC.

Grad: But Frank Lautenberg of ADP said in his speech last evening that IBM was their largest competitor and yet ADP ended up being a very large customer of IBM. He talked about his complaints to Vin Learson at IBM: How can you compete with me when I am one of your best customers?

Goldstein: Well, Frank played in a different league at that time. Frank was in the big leagues of this industry while the rest of us were in the little leagues. IBM's attitude to SBC can perhaps best be illustrated by their private settlement of Control Data's antitrust action against them. The reward that Control Data got was SBC. IBM said, "Here take it, it's yours." So I don't think IBM gave a lot of weight to SBC when they made that decision as a mechanism of settling that action.

The 1956 Consent Decree

Martin Goetz: Who pushed for SBC to be separate in the 1956 consent decree? Was it companies like yours that were saying make them separate?

Grad: The 1956 consent decree had nothing to do with computers; it had to do with punched cards.

Goetz: Why did the Justice Department ask them to separate it from the rest of their business?

Grad: Because Remington Rand had only 10% of the business. The punched card business was the issue. The decree told IBM you can't control 90% of the punched card delivery business anymore. You can't say that other people's punched cards won't work on your machines anymore. You've got to separate the service bureau from the rest of your business because that's feeding customers across to your hardware business. As I understand it, that was all part of that 1956 decree. It was later interpreted to include computers, but to my knowledge that wasn't explicit in the consent decree in '56. Does anybody know?

Schachter: That's a fascinating bit of history, because I think all of us are under the impression that the consent decree in '56 primarily had to do with separating the Service Bureau Corporation from the rest of IBM.

Goldstein: It was one of the Bills Of Particulars.

Goetz: Wasn't ADAPSO pushing for it?

Goldstein: No, ADAPSO didn't have a role in that.

Grad: ADAPSO didn't exist. It was founded in 1961. This is '56. SBC was one of the founding members of ADAPSO, wasn't it?

IBM and the Service Bureau

Schachter: And that points out that IBM's role in ADAPSO has been schizophrenic. We've had fights with them on the one hand and, at the same time, they've been very supportive of the industry. When ADAPSO needed them on a tax issue or a software protection issue, etc., they were there. They were very supportive of many of the positions of the small software companies.

Lee Keet: That was much later, though.

Schachter: Yes, that was later.

Keet: They got dragged into ADAPSO kicking and screaming as a result of the activities that Marty started and a lot of us participated in. I think they decided they had better have a representative watching us.

Goldstein: Someone on the inside seeing what's going on.

Grad: That's correct. Bill Lynch was SBC's representative in the early 1960s and then Steve Beach joined in the mid-1960s. He was a lawyer from SBC. I think what we're looking for is whether there is any institutional memory as to what the issues with IBM were in the 1960s. It sounds like there weren't any heavy-duty issues with IBM, except as a competitor, in the early 1960s. It's in the later 1960s with software that the issues start to heat up. Is that correct? Did you see it that way, Bernie?

Goldstein: I think that's reasonable except that they had the power of pricing their equipment in a very special way, the power of a monopolist.

Keet: I'd like to correct the record here, if I'm understanding it right. Steve Beach and others represented the Service Bureau Corporation, not IBM.

Goldstein: That's correct.

Keet: I don't think IBM was involved in ADAPSO at all until the 1980s.

Goetz: No, no. When I came in 1972, Tommy Spain from IBM was there as a member of ADAPSO.

Grad: And I was brought in as an ADAPSO member from IBM in 1972.

Keet: I stand corrected.

Goetz: They had a vendor relations group within IBM and, I think, the ADAPSO representatives were part of it.

Grad: Industry relations was the term they actually used. In 1971, about the time that the Software Industry Association came into ADAPSO, Bill Lynch suggested that, since I was the director of development for one of the software areas, I should join ADAPSO as an IBM representative to try and counteract what Marty was doing.

The IBM Anti-Trust Trial

Goetz: I joined ADAPSO when the Association of Independent Software Companies became part of it in 1972. In January or February of that year, ADAPSO had a meeting in Dallas where they had what they called an IBM Mock Trial. Bernie Goldstein spoke and chastised IBM at that time. When ADR became a member later that year, there was already an economic policy group in ADAPSO that had been formed to try to influence the Justice Department in the IBM trial. That group started at the beginning of 1972 when they had the mock trial.

Schachter: The first written record I could find, thanks to Marty who provided it, is an ADAPSO monthly bulletin to the members in 1972 stating that ADAPSO had intervened in the IBM antitrust action to try to open up the file records.

Goldstein: It was being tried before Judge Edelstein. The secrecy rules did not allow for the dissemination of the progress of the trial or the positions taken by the principals at the trial. ADAPSO entered a friend-of-the-court filing to open those proceedings.

Schachter: And, in fact, they were opened.

Goldstein: Yes.

Schachter: That was the first interaction that I could find.

Grad: I think a number of individual companies may have provided information to the Justice Department or prepared position papers. I know, Marty, that you were certainly one, but there were others.

Goetz: As a member of AISC prior to joining ADAPSO, I visited the Justice Department with some members of ADAPSO, Larry Welke and others.

Goldstein: AISC was an independent software organization. I think you had fifteen thousand dollars of cash and we did the deal for cash. [*Laughter*]

Grad: So was SIA. They were both independent organizations.

Keet: When did SIA come in, was that the same year?

Goetz: They came in before, at the end of 1971. Larry Welke belonged to the software group and brought it into ADAPSO in 1971. AISC came in about a year later.

Grad: And that's when I got involved as IBM's representative to the Software Section. Lynch was still responsible for overall relations. I'm showing in my notes that Ed Kane was involved and Grant Leschin and well as Tommy Spain, all from IBM.

Schachter: What years were those?

Grad: This is in 1975; they had been involved for some years but I don't know exactly when they started.

Goetz: Well, I know Tommy Spain was there and Grant probably shortly thereafter.

Grad: At some point, a Manufacturers Relations Committee was established and I don't remember when. Does anybody recall when that was set up? It was operational in June of 1975 according to the minutes that I have here.

Goetz: Do you have anything that might show who was in attendance?

Grad: We have Lloyd Baldwin of Cincom Systems, and Jerry Dreyer from ADAPSO. Bruce Coleman of Boole & Babbage was the active leader at the time. He was the president of SIA. I have detailed notes from a Manufacturers Relations Committee meeting. That was the original name, I think, that we agreed on.

Schachter: Right, we didn't want to single out IBM. But was there anything other than IBM that was discussed at those meetings that you see in the notes?

Grad: I don't see it here. I have a note from Tom Farewell, who was on the staff of ADAPSO at the time, about getting other companies such as GE, Xerox, Honeywell and

Burroughs involved. But as a practical matter, the name of our session here is IBM Relations because that was 99% of it. I remember that at one point we had a big problem with DEC because they wouldn't give us access. They wouldn't play by even IBM's rules. But it didn't affect many people. It affected just a few companies.

Unbundling and the ADR and Control Data Suits

Schachter: Why don't we go back in history to 1969 because there were several seminal events that took place in 1969. One was the decision by IBM, which they made evidently at the end of 1968, to unbundle software and hardware. And secondly, the ADR suit against IBM. If Marty could talk to the ADR suit and Burt could talk to the unbundling within IBM because he was involved in that, that would set the stage for what happened in the 1970s.

Goetz: The ADR suit, which was in April of 1969, was about four months after the Justice Department brought their suit. We had been competing with IBM against their free software for about four years, so we had a four-year history of having skirmishes with IBM. But it wasn't until they had a new product called TSO, a timesharing option that they announced they were going to bundle with their operating system, that we went into court. Prior to that we didn't really feel that we had a court action. We settled that suit about a year later. I do think that ADR and other companies helped push IBM to unbundle voluntarily by using the press and others to tell them it was unfair competition. Originally, the Justice Department suit was a hardware suit. It was the Big Seven against IBM in the mainframe hardware market. But there were leasing companies that were having problems with IBM's method of pricing their hardware, as did companies that were manufacturing peripheral devices. We got the Justice Department interested in our issue as a software company. There were about four different private companies pursuing IBM, along with the Justice Department.

Grad: The most significant suit as far as IBM was concerned was the Control Data suit in terms of its scope and the skill with which CDC pursued it. I was on IBM's unbundling task force and this is my recollection. We weren't allowed to carry out any papers so I don't have any documentation, only what I can remember.

It got stirred up, apparently, by Burke Marshall and Nicholas Katzenbach, IBM attorneys, telling Tom Watson, Jr., IBM's chairman at the time, that systems engineering was a tie-in sale and that there was no way they could ever win a suit on a tie-in sale on systems engineering. That was the primary impetus for unbundling. But if they made the decision to unbundle systems engineering, they also had to unbundle education and field engineering where they were getting pressure from independent firms that wanted to be able to maintain any manufacturer's equipment. IBM announced the decision to unbundle in 1968 and hoped that would avoid a Justice Department suit. At least, that's what Marshall and Katzenbach had told them: If you go ahead and do it on your own you probably won't get sued by the government. Again, this is anecdotal. It's what I was told.

We set up the unbundling taskforce in December of 1968. I went to work on the software aspect of it from the Data Processing Division and, of course, in January of 1969 there was a big shock when the suit happened anyway. As most of you know, the government didn't push the suit very hard for quite awhile.

Schachter: For twelve years.

Grad: No, for just the first three years, there was not much happening. It seemed like the government was depending upon Control Data to push ahead. But Control Data's suit was not about software or about services; that wasn't where their concern was. They were pushing on IBM's so-called "fighting" machines and early announcements and those kinds of things. They were very good.

Marty's suit came in April of 1969. By that point, we had pretty much decided that everything on the applications side was going to be unbundled and we were arguing among ourselves about systems software. The systems people didn't want to unbundle any of the systems software but the view from the attorneys and others was that they had to do something. So they drew the line so that utilities, sorts, the flowcharter, all kinds of utility programs including languages, were unbundled. But the main systems software, OS, DOS, all those things were kept bundled.

Schachter: But even when some software was unbundled it was given away free.

Grad: No. It was just a timing issue. They were totally unbundled but the timing was that, as of January 1, 1970, you'd have to pay for any software you obtained. You were given six months notice because the announcement was made on June 23, 1969. Those who already had these programs got to keep them without charge but any new customer had to pay. There were arguments about what had been promised, what hadn't been promised, whether a salesman had done something or not done something, and there were a number of special cases. But as it ended up, there was no big fight about software inside IBM except for systems software. The real fight was about systems engineering. *Everybody* got pissed about that. Every customer was unhappy about it and IBM adjusted their position and changed the rules. The story is that David Kearns, who was then a vice president in IBM's Data Processing Division, lost his job at IBM and went to Xerox because he was responsible for the decisions and how they were implemented in systems engineering. I don't know if it's true or not. That was the story.

Goetz: When I joined ADAPSO, we were concerned about IBM's business practices and some of the problems that the hardware companies were having in terms of fighting machines, pre-announcements, and so forth. I know that Lee Keet early on was very concerned about some IBM pre-announcements that froze his market. ADR was concerned about tie-ins because we had just settled our suit and they had tied in TSO to their operating system. We weren't going to fight that but we were concerned about additional tie-ins. So there were lots of

issues. When I joined in 1972, ADAPSO was already in the process of preparing a position paper for the Justice Department in case there was ever any kind of settlement or consent decree. I became president of the Software Section in 1973 and, at that point, there was universal agreement within ADAPSO to have a position paper. The only thing that was controversial was that we said in the 1973 position paper that IBM should have a separate software company. And that's where some people disagreed. Informatics, in particular, said, "Let the sleeping giant sleep." [Laughter] But as far as their business practices were concerned, we were all in agreement. We wanted them to toe the line.

Grad: An interesting comment just to add to that. I was IBM's representative on the IBM Relations Committee and I was very active in SIA, which was what the Software Section was called then. Because I was running a software group within IBM, I remember thinking, "Wouldn't it be wonderful if it was a totally separate corporation." All the damn rules about releasing programs were killing me inside IBM. I couldn't develop programs for back-level operating systems. I couldn't run on anybody else's software systems. I couldn't tie in with anything. I thought it would be wonderful if I was running a separate operation. I didn't say that out loud, of course. But IBM business conduct guidelines were revised partly as a result of the Manufacturers Relations Committee. ADAPSO had an effect. I can tell you that. ADAPSO affected IBM's business practices.

Schachter: We're glad to hear that.

Grad: One of the things it affected was an awareness within IBM. People in IBM ignored the software world. They paid no attention to it.

Goldstein: Well, yes, and that carried throughout the IBM organization. There is a program on the radio in New York that asks you to identify the turning point in a baseball game and, if you guess right, you get a prize. The turning point for IBM was when they entered into the contract with Microsoft and what they did to themselves then.

Grad: But that's the 1980s, isn't it? That's 1981. We can get to that but what I'm concerned about is capturing this period of time because IBM did not succeed as an application program provider. It just didn't.

The Significance of CICS

Ceruzzi: What about CICS?

Grad: That's a system program. It was my product; it came out of the Data Processing Division. Lee keeps telling me how lousy it was because he had a much better product that he was competing against it with.

Schachter: He's probably right. [*Laughter*]

Grad: I won't argue.

Ceruzzi: So explain for the tape the difference between a system program and an application with regard to CICS.

Grad: Mr. Keet, would you like to do that?

Keet: Well, CICS was a telecommunications monitor, which is a sub-operating system. It runs under the control of the operating system but it divides up the resources within a protected program space. It runs in a separate partition, to use the word that applied to the System/360 and the operating systems of those days. And it provides a master scheduler, a stack, dispatch and control mechanism so that a program can host multiple terminals. Each of those threads, to bring another term in here, can have its own control mechanisms, its own space, and can also exercise control over rewrites of files so they don't trample on each other.

Ceruzzi: But, in practical terms, it was used by customers to do online transactions.

Keet: No, no. It was the shell into which the customer wrote his applications. It was not an application. It hosted the application and there were rules you followed so that when you wrote the application, you could be assured of various services that allowed multiple terminals attached to that application to execute independently of one another.

Kim Jones: A good analogy today is if you think of collapsing all of the client Windows computers and saying, "Now they are all running in the mainframe in one space." That's what CICS was.

Grad: We used the term "transaction processing system". You could write your transaction applications, what it was going to do with each of these transactions coming from dumb terminals, 2260s, and later 3270s. And it would handle that application cleanly for you. But it was a systems program.

Ceruzzi: Was this something that was understood in the trial?

Goetz: It wasn't an issue in the trial because IBM unbundled it. It's a sub-operating system and, logically, they could have said, this is part of the operating system. But they didn't.

Grad: There's a reason why they didn't. The product divisions which were doing the operating systems didn't believe in any of this stuff. We built this with customers. CICS was built with Commonwealth Edison of Chicago. And IMS, the database management system, was

built with one of the aerospace companies. The Data Processing Division did those because the product division said, "No, we don't have time or money to do that." So we also built all the VM programs. All of what became the enduring programs came out of the Data Processing Division, so they were never considered to be systems programs.

Schachter: And after unbundling, those were separately charged for.

Grad: Yes, we had seventeen programs that we unbundled. CICS, IMS, and GIS were among them. They unbundled one language. But the ones that made money were CICS and IMS. Everything else was second rate. We had PALIS for the property and liability insurance industry and ALIS for the life insurance industry. But they were nothing. It's interesting, from a standardization standpoint, that all the application-building companies, when they built their online applications, ended up using CICS, for whatever reason.

Keet: Not true. That's absolutely not true. We had more than 20% of the market in 1978 when IBM announced a tie-in—an *uncontested* tie-in. The master scheduler of CICS henceforth would be the control mechanisms for the DL1 database system for the smaller systems. I went to IBM and told them that this was a tie-in. There were people there from the ADAPSO IBM group, including Ed Kane and Grant Leschin from Industry Relations, and a bunch of others, and they all nodded their heads and said, "Yes, it's a tie-in. It's linked. What do you want us to do?" And I said, "What are my choices?"

And they said, "Well, it's clear that you can sue us." They gave me the impression that they acknowledged that I had an open-and-shut case. They said that IBM didn't damage our market intentionally. Which I do believe, incidentally. They said, "We'd love to make it up to you. Would you like some contract programming work?" [*Laughter*]

The third choice was to walk away. Fortunately, at that point, we had other products that we were thinking of porting to CICS because it did have a dominant market share and I made the decision to just walk away, not to sue IBM and not to take the tainted dog bone that they were throwing.

Part of the problem was that IBM used its market muscle to tell the guys making the decisions that they needed to stay 100% in the IBM camp if they wanted to be favored customers. We were there fighting over the scraps, the customers that had said no to IBM and were buying independent software. We were competing with companies like ADR which had a database system and had added on a telecommunications monitor and were selling the two combined.

Schachter: So they had bundled two products. [*Laughter*]

Keet: We didn't take them to court.

Goetz: Lee, for the record, we sold them separately.

Keet: I know you did. When somebody wanted to buy an independent telecommunications monitor, we won most of those sales. We had a really dominant position until IBM made that tie-in decision.

Ceruzzi: And what was the name of your product?

Keet: Task/Master. It was one of the first. We introduced a predecessor product named Graphics in 1969. We changed the name to Task/Master and introduced a multitasking version in 1970. We sold it aggressively from 1970 to 1978 and a lot of the customers were on non-perpetual recurring licenses so when IBM killed our new sales, we still had a very good revenue stream. It was another reason we could walk away. But it wasn't true that CICS was a good product or everybody would have bought it because they love Burt. [*Laughter*]

How ADAPSO's Position Affected IBM

Schachter: Why don't we go back to 1972. At the end of 1972, the economic policy group met in New York and prepared a position paper which was adopted by ADAPSO in 1973. It's so interesting to read the five points of proposed relief. In 1987, ADAPSO adopted its last position paper with regard to IBM. It has virtually the same five points, with an additional two points added to cover additional IBM practices. So it's hard to say exactly how much effect we had on IBM. I believe that we slowed them down, that we made them think twice about what they were going to do, but that, in large part, we didn't stop them from doing much. Marty, I don't know if you would agree.

Goetz: I think we slowed them down. I think the plan was really to just slow them down. In retrospect, I think it was just that IBM was basically a hardware company. They were thinking of what was good for their customers and what was easiest for them, not about stepping on some software company. I think when we made them aware of the problems they created, they became more sensitive and, in that sense, ADAPSO was very effective.

Keet: What happened in my experience was that there were so many of us they had contact with as a result of ADAPSO that a lot of people in IBM came to appreciate us. I know I said to them bluntly that I was selling a hell of a lot more hardware for IBM as an ex-IBMer making software than I ever sold as a salesman selling IBM hardware. I think that they eventually saw that we were good for their business, not bad for their business. I think some of the enlightenment came through these constant encounters.

Grad: I think Lee's point is very significant. Those of us inside IBM who were interested in software felt that we were being stepped on all the time by the hardware people because we

had to justify software in terms of hardware sales, not in terms of a stand-alone business case on software. We kept saying, "The best thing that can happen is that all the software companies use IBM systems, IBM tools, IBM whatever, and that their software runs on IBM hardware. That's the way to win." We didn't get much of a reception until very late in the 1970s. I'm trying to remember when the "love-in" took place that Sam Albert organized where they invited a whole bunch of software executives to partner with them.

That may have been later, probably early 1980s, but I see here in my notes that in 1975, IBM hosted a very large meeting for all of the people in ADAPSO to give them a complete education on what IBM was doing. It was obviously a sales pitch.

Goetz: They did that every two or three years. It was sort of a love-hate relationship.

Grad: But there was a meeting called a "love-in". I think that's the time at which they finally realized what Lee was saying. That it was really to their interest to have these people on their side and that they, in effect, made IBM totally dominant because all the applications were being built under IBM systems.

Schachter: But there did come a time, as lawyers like to say, when even that became an issue because the ability of software companies to provide applications and provide tools for IBM operating systems depended on having interface information that was complete and available early on in the development process. They didn't get the information until the product was already released. That became a major issue when IBM started adopting an OCO policy.

Grad: When did the big level-playing-field project start?

Jones: Was it about 1984?

Grad: Was it that late? I'm trying to tie it in time-wise.

Jones: It probably did come up in the late 1970s but in a different context.

Schachter: But even in the 1973 position paper, Point No. 4 was that the IBM software organization would be required to release comprehensive software interface specifications to all interested independent software companies at the same time it released them to its hardware organization. I don't know if that ever happened but...

Grad: To its hardware organization or to its internal software people?

Schachter: In later variations of this, it became its internal software development organization. In the first iteration it was to its hardware organization. We didn't distinguish between them either, I guess, at that time.

Grad: A lot of the growth in the big software companies in the 1970s was in database, data communications, that kind of stuff. A lot of the money from the bigger companies came from that area. They were arguing that IBM was taking advantage of internal knowledge and that they couldn't get the interface information they needed. Also they couldn't get guarantees that the interfaces were locked. There was a set of those issues. My recollection is that was in the late 1970s but I could be dead wrong.

Jones: I think it was continuous.

Schachter: There was never a feeling that we had the same information that the IBM organization had internally. I guess, as time went on, IBM started to protect itself against Fujitsu and the plug-compatible competitors like Amdahl, and it just became more and more problematic. Until in the 1980s they adopted the OCO policy.

Grad: I'm trying to remember. I know that I was instructed, even though my applications people in IBM had early access to interface information, that using it was very dangerous because it wasn't locked. And if I took a chance and built against that, I took the risk of losing money. They were concerned that if they published it and then changed it, all the software companies were going to be coming after IBM claiming that they changed the rules. So they said they couldn't do that. The response from the software companies was that they shouldn't let the internal software people have it either. That was the counter-offer.

Goetz: They wanted to be on an equal footing.

Grad: And that was the whole level-playing-field issue that came up later.

Goetz: But I don't think IBM ever explicitly changed their business practices. They were sensitive to the things that ADAPSO said, but they never said, "Okay, we're going to change our policies."

Grad: I think you're wrong. I think there was a point in time at which they explicitly issued rules on timing: that they would not give their internal people access to software information that they didn't publish externally. I remember that. I don't know when, but I remember that happening at some point in time.

Keet: I remember them stating in a meeting that we had with them that they were considering doing that, but I do not remember ever seeing a policy issued.

Ceruzzi: In practical terms, what would prevent them from violating that?

Grad: Internal rules. In a big company like that, you publish rules to operate to. A salesman out in the field might do some very, very nasty things. He could violate everything that's in the book and, if he got caught publicly, they'd scream at him. If he made his quota and did well and no one caught him, the issue disappeared.

Ceruzzi: This is the exact same issue that's on the table today with Microsoft releasing the APIs. And at one point Steve Ballmer got up and said, "Well, you know we talk to each other inside the building, you can't make us shut up." That shocked everyone.

Grad: That's Gates and Ballmer. That was part of their stupidity.

Ceruzzi: It was stupidity but they were telling the truth.

System Application Architecture

Martin Campbell-Kelly: How much did the System Application Architecture make the interfaces publicly available?

Grad: They were available.

Campbell-Kelly: Didn't that resolve these kinds of issues?

Grad: It wasn't that simple.

Keet: And it was a lot later.

Grad: The software companies' argument was: We've got the published interface, but meanwhile you're developing more capability, you're adding new functions, you're doing things in your systems programs.

I remember Syncsort complaining to IBM because IBM had added some new hardware feature and was announcing a new sort program that was going to run much, much faster because it was using this feature. But they wouldn't make the function public. IBM said that the reason was that they weren't guaranteeing that they would continue to use the function. It was a terrible argument. So Aso Tavitian, CEO of Syncsort, went after them. First of all, he proved that they were lying in their ads and that, in fact, the sort did not run any faster; the test cases that they used were just flat wrong. He got them to withdraw the statement that this was a faster feature. But he also insisted, "If you're going to put it in, you've got to publish it." Aso won that round.

This may have been the mid-1980s or even later, but Syncsort was on their case over and over again because they kept claiming things about their sort program that he thought weren't true and they couldn't prove.

I don't know if that answered your question. IBM published very high-level interfaces. That's not where we were fighting. The battles were different.

IBM "Re-Bundling" Products

Schachter: Let's go to one of the other battles that happened in the early 1980s which was re-bundling, when IBM decided to bundle fourteen of its products into what was called SSX.

Goetz: Yeah, this ended up being a problem that ADR had because IBM had a lot of small users that had a small operating system. In retrospect, I don't think they did it to hurt ADR, or to hurt Pansophic which had something somewhat similar.

Schachter: You've mellowed a lot. *[Laughter]*

Goetz: Nevertheless, it was hurting our sales significantly. They bundled fourteen products, including the operating system, and sold it as one product to their small users. It was called the Small System Executive/VSE system and was an operating system that was a subset of VSE. We complained because we competed against one of the individual products. ADAPSO was very sympathetic because no one wanted to see re-bundling. We didn't want to see it happen on the bigger machines. So ADAPSO supported our position. That was a case of IBM overtly bundling but for a very limited market.

Keet: What we now call suites. *[Laughter]*

Grad: And everybody does it.

Goetz: But the suite included the operating system, so it's more than an office suite.

Grad: What operating system was included?

Goetz: DOS.

Schachter: IBM did modify the policy, I think.

Goetz: They eventually modified it so that if the user didn't want one of the products, it would be deleted from the tape that they would get, and they would pay less rent. So that was

a very minor victory. I don't think IBM did it to hurt ADR, but it was, in fact, hurting ADR. So we complained and we got IBM to at least listen to our case. It was quite different than the mid to late-1980s when they bundled a mini version of their DB2 database into the OS2 operating system when Microsoft was building IBM OS2. There I think they were concerned about losing a piece of the database marketplace. They knew what they were doing and didn't care that they would perhaps hurt a lot of database companies. But I would say, for the most part, IBM was very hardware-oriented and really wanted to work closely with software companies. It really helped them sell their hardware. Everybody was building software for IBM's computers.

The IBM Relations Committees

Grad: Oscar, you were running the IBM Relations or Manufacturers Relations Committee for quite awhile.

Schachter: Right.

Grad: How many years, do you remember?

Schachter: I think I started in 1976, 1977, sometime around that period. I was chairman until Marty became chairman in 1987. At that point I became president of the Software Products Section and Marty took over what we were then calling the IBM Interface Committee. We kept changing the name from Manufacturers Relations to IBM Relations and then to IBM Interface Committee because the interfaces became a major issue at that point.

Grad: There was a committee that Kim Jones and I worked on. Roger Sisson, an independent consultant, was a third member of that committee. There were a lot of people involved writing papers relating to IBM policies. Kim, do you have any idea what timeframe that was?

Jones: It was probably the late 1980s.

Grad: Was that a specific outgrowth of the IBM Relations Committee?

Jones: It was an outgrowth of the announcement of SAA.

Keet: Wasn't Rich Carpenter of Index Technology on that committee? And Jim Emerson of Pansophic?

Grad: Yes, Jim certainly was. A few of us did the writing but there were a lot of other people involved. We'd have meetings at each of the conferences and there were a lot of comments made.

Jones: I know we reported back to the Software Section board.

The Final ADAPSO IBM Position Paper

Schachter: The last position paper was in September of 1987 and, to some extent, it was a reaffirmation and updating of the 1983 position paper which had the seven points that were first defined in 1973. As you read through the seven points in that paper, you can substitute Microsoft for IBM and make an intelligible statement out of it. For example: To the greatest extent possible each product or service offered should be narrowly defined, unbundled from all other products and services, and separately described, priced and offered to customers. Any product which has ever been offered on a separately-priced basis must continue to be offered on a separately-priced basis. Certainly Microsoft has violated that. Each product or service has to be costed to include all costs of conceiving, constructing, acquiring, packaging, maintaining and supporting the product. And the next point was that, after including all of those costs, it also needs to be fully priced to include a reasonable profit. I don't think we ever really got terribly involved with IBM in that arena.

Goetz: We never challenged them, we just wanted to make sure they fully priced their software because they had all the same salesmen selling hardware and software.

Grad: The way they did pricing, it worked that way mechanically. You couldn't avoid it because the overhead was spread based upon revenue. The only argument you could make is that if the salesman spent a lot of time trying to sell and didn't succeed, he didn't charge it against the project. He charged it on a percentage basis.

Schachter: The next point in the position paper, which we haven't talked about, is: Products or services shall not be announced until there is an operational prototype.

Keet: It would have wiped out our industry if we had to follow that rule. [*Laughter*]

Grad: None of you were going to follow those rules, that's for sure.

Schachter: What's totally operational? It happens all the time that it's announced, it's released, it's put on the machine and it's still not totally operational. [*Laughter*]

Grad: It's interesting, because I remember some of our discussions in our meetings at the Software Section Board and with the IBM Relations Committee when I asked, "Would you be willing to live by the rules you just wrote down?" And, of course, the answer was no.

Goetz: We always felt special rules for special times. *[Laughter]* And that's conventional practice because, for instance, bundling is not illegal unless you monopolize one of the products.

Grad: That was always Marty's answer at the time: that IBM is different. You have to have special rules. We were proposing these rules for all manufacturers at the time, though, not just for IBM, right?

IBM Product Announcements

Goetz: The reason that particular point about an operational prototype is in there was because IBM had taken a position, because of the Control Data suit, that they wouldn't announce a piece of hardware until they had a prototype. So we said, "Fine, if they have to do it for hardware, let them do it for software."

Grad: That's right, I'd forgotten that.

Schachter: Early announcements had the effect of freezing the market at various times. Was that purposeful? Were they trying to let their customers know what was coming down the road? What was their motivation for those early announcements of products?

Goetz: Well, Lee Keet said he was hit hard when CICS/DL1 was announced. IBM's position was always that they wanted to let their customers plan ahead. Lee, what did you think when they announced CICS/DL1?

Keet: Well, I would make a distinction between IBM's public announcements and what its sales force did. This was an account control issue and those were the operative words in IBM: maintain account control. CICS versus Task/Master, or IMS versus another database management system, were account control issues. The salesmen were basically given a license to kill. They were made 007's or 008's, or whatever, and they would do anything. I always thought that IBM, at its core, like Microsoft, thought that they wore the white hats. And they behaved fairly ethically at the core. But at the periphery, depending on which sales guy you were dealing with, they could be the dirtiest, ugliest, most aggressive fighters in the world and they'd use any tool at their disposal. I know. I sold for IBM for three years. *[Laughter]*

Schachter: In the 1970s, were they using that tactic because they were concerned about CDC? Were they using it in the 1980s because they were concerned about Fujitsu?

Keet: In my experience, they were using it because they didn't want a foreign piece of system software in an account because they felt that was a wedge to challenge account control. If a piece of system software of importance could be installed, could be maintained, could host

applications with different standards than those IBM was supporting, then that was a chink in the armor. And from that point on, that account could move aggressively in the direction of independent suppliers. At least, that is what the sales force thought. I'm not complaining about it, it was just that you were fighting a very, very strong competitor who could turn very ugly.

IBM's Use of the FUD (Fear, Uncertainty, Doubt) Factor

Jones: Wasn't it part of the sales culture in a way, Lee? We haven't mentioned the term that I always associated with IBM sales at that time which was FUD—fear, uncertainty and doubt. Cultivating that in the client base was just part of the sales culture.

Keet: Those of us who survived had to fight FUD by making ourselves look larger. What's the animal that puffs itself up? We had to do things to make ourselves more impressive and that's why Larry Welke had such a positive impact. He helped us look more professional and bigger than we were. He would publish reviews of software. It was like the *New Yorker* magazine. If it was not a good restaurant, don't write the review. So we always got good reviews. He gave \$1 million, \$5 million, \$10 million awards on a mechanical calculation basis that let you count your sister-in-law's kids. [Laughter]

Schachter: This is off the record, by the way. [Laughter]

Keet: No, it's not. And we did another thing which a lot of people do. These are the anecdotes that I think should be collected because they are about the business practices that people came up with to succeed. We prepared a checklist which compared Task/Master to CICS. It had almost 200 questions which you could weight yourself and that you could check yes or no. Of course, the questions were very biased, so you could never put a yes next to a CICS question, so it didn't matter what weight you gave them. [Laughter]

A journalist who was in a hurry for a date or a drink picked it up and said, "Would you guys just put in what you think are the important weightings?" So we put in the weights and, of course, checked yes on all for Task/Master. To make it look a little more legitimate, we put in two new questions that we checked yes for CICS. He published that and we had it reprinted and sent it out to everybody along with a blank one saying, "We know this may be a little biased in our favor, so here's a blank one. You fill in what you want." It gave us enough legitimacy that we could actually go up against those IBM guys who were saying things like, "Those are little guys. They're going to go out of business and you're going to have your whole future ruined as a result of making this terrible decision. Besides that, you won't be a friend of IBM and we won't service you as well in the future as we used to in the past because we know you made the decision not to be a friend of IBM." Those were the kinds of pitches the IBM salesmen made.

Grad: I don't know what effect it had on the sales people at IBM, but the 1970s were a terrible period in terms of IBM sales. IBM hardware sales tanked during the 1970s. The stock price tanked. I had some stock options that were so far underwater when I left in 1978, that it wasn't even worth discussing or negotiating. It was a very tough period. I'm sure the sales people were under intense pressure. There was a new growth market in the software area but the IBM salesmen didn't make much money off of that. That was peanuts to them. Their goal was to sell hardware. CICS enabled them to sell hardware and, therefore, that became a gut issue. IMS sold hardware, so that became a gut issue. Most of the other stuff, selling some kind of utility program or something, couldn't have mattered less to the salesman. He wasn't getting any money out of it. He wasn't getting any money out of operating systems. Therefore, IBM was responsive in certain areas in these committee discussions because no one cared. In other areas, you got big stone walls.

Schachter: But it's interesting, Burt, on the interface questions, one of the arguments that IBM used—I remember this expression so clearly at a number of meetings that we had both at ADAPSO and at the IBM headquarters in Armonk—was: We don't want software companies grazing through our source code to see where there are holes so they can develop pieces of software to fill those holes. Do you remember that, Marty? That was an expression that I heard a number of times, "We don't want them grazing through our source code." So evidently they *were* somewhat concerned. Or they may have just used that as an argument.

Jones: That was the OCO argument.

IBM Policy Regarding Operating Systems

Campbell-Kelly: Can I ask a question about operating systems? Marty, around 1977 or 1978, you wrote quite a number of provocative articles about the fact that IBM hadn't unbundled its operating systems and you argued that it was stifling innovation. You, and others, also alleged that it was probably soaking up processing cycles as well, that the operating systems were really inefficient. Around the late 1970s, IBM did, in fact, start to charge for its operating systems, but it didn't open up a market for operating systems.

Goetz: Well, no, because by that time they dominated the market. But their main reason for doing it was that they started having the Japanese and Amdahl plug-compatible computer manufacturers coming in and taking the free operating system.

Ceruzzi: Didn't they steal it? Wasn't one of the Japanese companies convicted?

Goetz: Well, there was a suit against Hitachi and an agreement with Fujitsu. Basically, it was all IBM code. Amdahl was always all IBM code. There was too much code to write to be plug-compatible.

Grad: It was Fujitsu, I believe, which was convicted of stealing the code. IBM and the court came up with this very elaborate process for how they were going to be allowed to use it but only under monitored conditions.

The IBM clones caused big problems for IBM. The minute IBM unbundled system software, anybody could buy it and use it on any of the IBM work-alikes. Was Amdahl the first of the IBM work-alikes?

Several voices: Yes. Yes. Yes.

Grad: Yeah, so it was a pretty complicated situation. The claim Marty used to make was that they were purposely over-building the system software so it would take more machine cycles. I gave a speech after I left IBM when I talked about the totally illogical process by which IBM decided on CICS and IMS. I said that I was never told to slow the machine down, but I was never told to speed it up either. [*Laughter*]

Keet: Do you remember the Series 50 EAM machines? I used to install those things. They'd just change a gear in the machine and the price would change with the gear. It would just run slower or faster.

Grad: You're paying for performance—that seems like a reasonable thing to do. [*Laughter*]

Keet: Their EAM market was pretty well-saturated by that point and they wanted to get to the lower end of the market. They were introducing computers at the high end and they wanted to use this old stuff. So they changed a gear, literally one gear, so that a 407 line printer, instead of going chunk, chunk, chunk, chunk would go ka-chunk, ka-chunk, ka-chunk. And they sold it for less.

Ceruzzi: People must have known that they could swap that gear.

Grad: No, you couldn't touch the equipment. Under the contract, only IBM field engineers could touch the machine.

Ceruzzi: But people did.

Keet: Well, they did it in collusion with their field engineer or something.

Ceruzzi: There was a case where having the floating point option was a lot of extra money but it just involved installing a jumper wire. Word got around and people would just do it.

Jones: That was with the 360, I think.

Ceruzzi: Somebody at a university called a repairman said, "Our floating point option's not working." And he was told, "Well, you haven't paid for floating point for years." [*Laughter*]

Keet: Even in the computer era, the rents were based on meter readings. There were some notorious cases of tampering. There was one case of a branch manager who had been promoted to VP, where they found that the meters had been tampered with, with IBM's assistance, so the customer didn't have to pay the extra charges. It did happen.

Grad: Did we ever end up discussing things such as pricing issues or pricing practices on the IBM Relations Committee?

Schachter: Well, we had those two points I mentioned that the software had to be fully-costed and fully-priced.

Grad: But I don't think IBM would have discussed that with you, did they?

Goetz: We never had anyone talk about that.

Keet: Tommy Spain wouldn't talk about that. Well, he wouldn't talk about anything. He was the best negotiator I ever met in my life. But that was a big issue. He said, "No, we can't talk about pricing issues for very obvious reasons. And we can't talk about unbundling or re-bundling because that's an issue before the courts and we can't... " He had an excuse for every single thing.

Schachter: They pulled the lawyers out of the closet whenever they could. Whenever it wasn't convenient to answer a question, "Well, the lawyers won't let us talk about it."

Grad: Was Ed Kane actively involved? I'm trying to remember some of the people that were actively involved from IBM.

Goetz: Amby Carr.

Grad: But that was later, wasn't it?

Schachter: Grant Leschin was certainly involved during that period.

Keet: Tommy Spain came back for a meeting that John Imlay organized. We'd finally reached the point where we'd gotten their attention and a group of us went to a meeting that

John organized in Atlanta. I can't remember who all was there because one of Tommy's great tactics was to drink everybody else under the table. [Laughter] We had a great party but I can't remember who was there. [Laughter] Tom could do it sequentially, which was really interesting. He could drink you under the table and then the next guy under the table and...

Ceruzzi: I thought they weren't supposed to drink.

Grad: Well, that's what makes Tom so unusual.

Keet: Tom had stepped back and let Ed Kane run the show for those middle years in the 1980s. We didn't see a lot of Tom in the 1980s. He came back for this meeting which was around 1986 or 1987.

Schachter: Is that the love-in you were talking about?

Keet: No, this was a small group.

IBM PC Issues

Grad: Bernie Goldstein raised a question before he left today about the early 1980s. I don't remember the IBM Relations Committee getting involved in the PC issues, do you?

Goetz: Yes. When IBM and Microsoft came out with OS2 in about 1986, it became an ADAPSO issue because IBM said they were going to come out with a special version of OS2 called OS2 Extended which would include a DB2 database. We were fighting against DB2 at the mainframe level and they said, "Well, when you get your PC with OS2 Extended that has DB2 at that end, you will obviously want DB2 on your mainframe." And we said they should sell the database separately. Eventually, they decided they would withdraw OS2 Extended and then OS2 died.

Grad: How long did the Manufacturers Relations Committee continue?

Goetz: It continued into the early 1990s because there was a DEC issue. DEC started bundling. I became chairman about 1987 or 1988 and served until about 1992.

Grad: The level-playing-field issue. Was that specifically related to the Manufacturers Relations Committee, do you remember?

Jones: No, it was originally just a report to the board and then it expanded.

Grad: Wasn't it triggered by the IBM relations issues?

Jones: Yeah, but it was specific to the announcement of SAA and a concern that that was going to blossom into something new.

Grad: IBM had another thing besides SAA, another three initials – was it a communications interface?

Ceruzzi: SNA. System Network Architecture and System Application Architecture.

Grad: SAA came after SNA, didn't it?

Keet: Correct. SNA was part of the seven layer protocol implementation.

Grad: I don't remember how much these things were business-related and how much they were technically-related.

Keet: SAA was a business initiative in my opinion. SNA was a technical initiative.

Jones: My recollection of SAA is that we were concerned that there was going to be some stifling of creativity within the software industry and that IBM was so dominant that SAA would become the standard.

Grad: Was this the too-early standard issue that came up so many times? Don't let your standards get set until the technology has evolved sufficiently?

Jones: Well, yes, to some extent, and it was also very squishy. It was very high level and not well-formed and not even particularly well-thought-out. It was another one of those things that I think was viewed as potentially freezing people out.

Keet: Some of it was very detailed but not thought out, like screen designs.

Jones: Right, right.

Keet: You had to put commands in one spot and you had to put instructions in another and had to use this kind of iconography and blah, blah, blah. It was the rulebook. Everybody's application was going to look the same but they hadn't thought about it very much and, therefore, it would have stifled creativity.

Impact of IBM on the Industry

Grad: That has always been a very tough issue with any of the external standards groups. Those same kinds of issues always come up. The comment we always made about IBM was that it was the sea we swam in. The good news is that it did give us a set of standards that gave us a large market to sell to.

Keet: Well, nobody would dispute the IBM umbrella. I think that we have to acknowledge that without IBM as an established dominant player this industry would not have been as successful.

Schachter: Imagine if there had been ten hardware companies each with 10% of the market.

Keet: Even back when it was IBM and the seven dwarfs, remember that?

Schachter: Right, but IBM still had 80% of the market; the seven dwarfs had 20%.

Grad: The 360 in the middle of the 1960s is what totally shifted the balance.

Goetz: The application people would say it wasn't a big problem because they were building their applications in COBOL which would run on different manufacturers' computers.

Grad: That was fine for a batch program but the minute you moved over to CICS and made an online program out of it, you were into IBM-only because the others didn't have a CICS look-alike.

Jones: Unless you built in a proprietary language.

Keet: Or unless you used Task/Master. Which was written in COBOL.

Grad: It could have happened that way. The database world turned out that way. IMS did not dominate anywhere near the way that CICS did. IMS had maybe 20% of the market at most. IDMS, Adabas, all these others had big chunks of the market.

Keet: I'll take a bet that IMS had over half the market.

Goetz: At one point they had a majority of the market but it went down to about 40%. That's when they started getting concerned that IMS was losing market share and that's when they started coming out with DB2 very intently.

Grad: You're talking about the early 1980s. I'm talking about the 1970s.

Schachter: We need to wrap it up. Thank you all for being here. If everyone made the points you wanted to make, if everyone got their feelings out on the table, I think we've accomplished what we came here to accomplish. Thank you all for participating.