



PC Software Workshop: Personal Productivity Software

Moderator:
Doug Jerger

Recorded: November 19, 2004
Mountain View, California

CHM Reference number: X4601.2008

© 2004 Computer History Museum

Table of Contents

INTRODUCTIONS	4
A HISTORY OF <i>T/MAKER</i>	5
AN ASIDE ABOUT ROYAL MCBEE'S LGP-30	10
BACK TO T/MAKER	11
THE SOFTWARE PUBLISHERS ASSOCIATION (SPA) AND INDUSTRY GROWING PAINS	14
BRØDERBUND SOFTWARE	16
LIFETREE SOFTWARE	22
NEED FOR VENTURE CAPITAL	26

PC Software Workshop: Personal Productivity Software

Conducted by Software History Center—Oral History Project

Abstract: The participants examined Personal Productivity Software from the perspective of software vendors and developers; historians and members of the Museum community also participated. The practitioners represented firms which created and sold computer games, word processing software and spreadsheets. Peter Roizen, Heidi Roizen and Royal Farros discussed the development of *T/Maker*, *ClickArt* and *PFS :First Publisher*. Doug Carlston explained the evolution of Broderbund as a “software publisher” of *Bank Street Writer*, *For Comment*, and *PrintShop*. Camilo Wilson of Lifetree discussed the history of *Volkswriter*.

Participants:

<u>Name</u>	<u>Affiliation</u>
Doug Jerger	Fortex Data Corporation
Tim Bergin	American University, historian
Nathan Ensmenger	University of Pennsylvania, historian
David Grier	<i>IEEE Annals of the History of Computing</i> , historian
Michael Williams	Historian
Royal Farros	T/Maker
Bernard Peuto	Computer History Museum
Oscar Schachter	Advanced Computer Techniques Corp.
Doug Carlston	Broderbund Software
George Glaser	Charles Babbage Foundation
Ed LaHay	
Heidi Roizen	T/Maker
Peter Roizen	T/Maker
Camilo Wilson	Volkswriter

Introductions

Doug Jerger: Let's briefly introduce ourselves and identify what company we're representing for this historical perspective.

Tim Bergin: I'm a retired professor of computer science at American University, and I was the previous Editor-in-Chief of the *IEEE Annals of the History of Computing*.

Bernard Peuto: I'm a trustee of the Computer History Museum and chairman of the Software Collection Committee. I have been involved with several software companies, but my claim to fame is I designed the Z-80 architecture.

Royal Farros: I was with T/Maker Company. I think we're probably the best represented company here today, and today I run a company called MessageCast.

George Glaser: I'm currently a trustee of the Charles Babbage Foundation, and have been since its inception. I was its President at one point. I spend a lot of my time on Charles Babbage Foundation matters. [Note: George Glaser died March 17, 2006.]

Ed LaHay: I may have been in the software business as long as Doug has, but it's mostly in the mainframe business. And I work with Burt Grad and help him with software history.

David Grier: I'm the current Editor-in-Chief of the *IEEE Annals of the History of Computing*. I got my start as a systems programmer on the Burroughs 8800 -- the Burroughs Scientific Processor Project back in the 1970s.

Nathan Ensmenger: I'm a history professor at the University of Pennsylvania.

Heidi Roizen: I had the good fortune to be born as the younger sister of Peter Roizen, who is a brilliant programmer. I have no computer skills whatsoever, at least I didn't back at the time we started T/Maker. But luckily, Peter didn't want to run a company; he let me start the company out here in California, and then he moved out here a few years later. I'm currently a venture capitalist with Mobius Venture Capital.

Camilo Wilson: Since we're going back into history, I used to program an IBM 1620 for a living when I was working my way through college. And in the 1980s I began Lifetree Software, to develop and market the first commercial word processing program for the IBM PC, called Volkswriter.

Doug Carlston: My brother and I started Broderbund Software. I also programmed an IBM1620; although I started on an IBM 1401 -- in Autocoder -- a bit before that.

Peter Roizen: I wrote this little program in 1979, called T/Maker, which went on to do reasonably well. Now I have invented a board game that I'm trying to sell, and I must say the one good thing about it is there is no tech support!

Oscar Schachter: I'm an attorney by profession. I helped a fellow by the name of Charlie Lecht found a company called Advanced Computer Techniques back in 1962. I joined the company in 1966, subsequently ran it in the 1980s, went into private practice with worldwide clients, and now work with software companies of one nature or another. I'm on the board of the Software History Center.

Michael Williams: I've been in the computer history game for a long time—I'm actually retired. Been involved with *Annals of the History of Computing* since volume seven—technically I suppose I'm still involved in it. So, it's been about 18 years. Eventually I took a job as head curator (at the Computer Museum), and I do that part time.

Heidi Roizen: I did take programming at Stanford as a freshman on punch cards. I walked into the class the first day and they said, "You know, you shouldn't take this class if you're not a senior because next year we're going to have these terminals. And it'll be so much easier." Maybe that's why I never became a programmer.

Doug Jerger: Ours was a large mainframe software company writing software for big companies like Hershey and Exxon Chemical Company. In the early 1980s I thought I ought to know something about these little things, so we bought an Osborne-1 for the home. My son, who was about 11 or 12 at that point, actually read the manuals. Whenever we'd get stuck, we say, "Dan, I can't do (something)" hit and he'd say, "Control J" or whatever the answer was. Anyway, today we have the most representatives from T/Maker. Let's start with that story.

A History of T/Maker

[Editor's note: In the material below, T/Maker is used to indicate the company and *T/Maker* (italic) is used to indicate the software product.]

Peter Roizen: I'll talk largely from where the product came from. At the time I was working with the World Bank, and they did enormous spreadsheets of departmental budgets. I used to put it into some kind of mainframe program, and it would go off to the typist or word processing. Their process was very time-consuming because somebody would change a number, and everything had to go back and be keyed all over again. At the time, we had just gotten the first DEC system with *UNIX*. I was very impressed with the concept of the *UNIX* filter: you have a file, you run a filter on it, you get a new file. This is the principle that I used in *T/Maker*. I thought, the guys at World Bank are not really doing any complicated math. All they're really doing is subtotals, divisions, that kind of thing. Could I give

them a syntax that would continue the equations necessary to produce a table, run it as a filter, and then print the table directly (to eliminate additional steps)?

Basically what I came up with, which is a classic *T/Maker* equation, you get a table like this, Roizen column entries. Nothing complicated; it works just like you would explain it to somebody: Add this number, add this number, the total goes here. What would happen is they would change these numbers, we would reissue the compute filter, and everything would be recalculated. Then there was that filter called *Clean* that would strip all the equations out of the file, and you could print that. I thought this idea was really cool in 1979, I still think it's extremely cool. I haven't lost enthusiasm for it.

At the time, I said to the powers that be, "These microcomputers are coming out, why don't we buy a couple?" The answer was, "No. We're not interested." I thought what the heck. So I got a Vector Graphics microcomputer, Lear-Siegler ADM-3A terminal, and an NEC Spinwriter printer -- which was absolutely fabulous, but it must have weighed 80 or 90 pounds. And I started writing with this. The first thing I used was Gordon Eubanks' CBASIC. Since I didn't have a screen editor, which was the first thing I needed, that was the first thing I had to write—using a line editor to write the screen editor. As soon as the screen editor seemed to work a little bit, I could use that. I'd say the software work was very well debugged by the mere fact that I was constantly using it myself.

And to do the word processing, I had to write *alignment* and *print* commands to work on the saved file. Same idea: every command was a filter, and every file had instructions in it to which each of the commands would respond. So the *compute* command would look for equations and do calculations. The *align* command would justify things; the *print* command would print things. It went on; I just kept adding, and adding, and adding. I took it to a company in New York called Lifeboat Associates, which was distributing *CP/M* software. Within about two months I was making more on *T/Maker* than I was making on my job. That's how everything got started.

I must say when I first heard about *VisiCalc* -- which of course went on to be a much bigger thing -- I was very worried it was the same idea, because this was essentially a visual sort of calculation. Of course it wasn't at all—it was putting formulas into cells in standard algebra. Originally, I had database communications, graphics and encryption capabilities — there were commands to pretty much do everything. Eventually Microsoft's *Windows* came out, and then people didn't want commands and files anymore. So *T/Maker* lasted until about 1992 — it did pretty well overseas with the Japanese and the Taiwanese. We sold a fair number in the US.

Heidi Roizen: Peter was living in Washington, D.C., and he was selling the software to Lifeboat; he began to get really dissatisfied with Lifeboat and their performance. In the meantime, I had taken my first job after college (in 1979) at Tandem Computers and got very excited about computing. Having been an English major, I wasn't naturally suited for the computing world. But living in Silicon Valley -- having been born here -- what else would you do at that time? I remember sitting at Tandem working on the manual doing my job and things like that; I went back to Stanford and got an MBA. While I was

in business school—class of 1983—I was one of only three people to own a personal computer! I had my own printer, which was especially exciting. I was very popular at study groups.

Anyway, I was talking to Peter during all this and told him, “You know, I really think you should get serious about this *T/Maker* idea. You ought to start a company.” He said, “I don’t want to start a company.” I said, “Well, how about I start one in California?” And he said, “Okay.” Now, a friend at Tandem said, “I’ll be the CEO and you be the vice president of sales” or something. Another friend at Tandem told me, “No, you’ve got to say you’re not doing it unless *you’re* the CEO.” This friend said, “There are so few women in this industry that if you’re the CEO, your company will get more attention.” So that’s what I did. We started in 1982 unofficially, because I was still in school, and I was using the Jackson Library at Stanford Business School as our first production facility. I’d go in at night and make files. The librarian stopped me once and said, “You’re illegally copying software.” Luckily I had the little copyright labels with Peter’s last name on it, which was the same as my last name, so that’s how I got away with that. But anyway, we started a company then, bootstrapped it really up to about \$3 million in revenue. Then we had a difference of opinion about the direction of the company, and in 1985 we negotiated a split.

Jerger: Brother and sister had a difference?

Heidi Roizen: We often have a different perspective. Anyway, I was grousing about it, and one evening I was at a dinner event, and Bill Gates was at the dinner, and I was grousing to him. Bill said, “I’ll help you out,” and he wrote me this napkin—napkins are always an important part of Silicon Valley lore. On the napkin he wrote, “Hey guy, she’s in touch with reality. You’re not. If you don’t cut her in for at least 40 percent, she should leave. Bill Gates.”

I looked at the napkin—and Bill by the way, had great respect for Peter—and I said, “Bill I can’t take this home, you know. That’s not very nice.” And so he wrote, “You are a great programmer, but ...” and then he gave it back to me and said I should give this to my brother. So, I never did give it to you, but [holds up the napkin].

Peter Roizen: I don’t think I’ve ever seen that before now.

Heidi Roizen: Yes, this is my proof that you should have cut me in for more. So, anyway, we had a very cordial splitting of the company, and I bought Peter out. By the way, Royal Farros was also sort of a co-founder – as employee number one or two. Royal and I went on to take the piece of *T/Maker* that was the Macintosh business and did a number of products: *WriteNow*, *ClickArt*, and *PFS: First Publisher*. Peter continued to go into the *T/Maker* vein doing *I Hate Algebra* [a shareware spreadsheet written in 1981], and a number of other products.

Peter Roizen: When I did the first one it was so easy to just work in my basement for a year, then come up, all of a sudden making tons of money. I thought, “You know, I can repeat that experience,” every couple of years. Didn’t quite work out that way. So now I’m going to try board games.

Heidi Roizen: T/Maker Company was incorporated in 1983; Peter started his sole proprietorship in 1979. We split in 1986, and the remaining T/Maker Company -- with Royal and I – was sold in 1994. At the time we sold it, we were doing about \$15 million in revenue, with about a hundred people.

Farros: One of the great things about *T/Maker* was that for every single buzzword that came along, this metaphor actually fit. Our industry is great for buzzwords. If you remember, there were things called electronic spreadsheets, and this was certainly an electronic spreadsheet. And it is my recollection, that every time Peter didn’t like a function in the industry, he just wrote it himself. He didn’t like the line editors out there, so he just threw in a word processor. Now the next thing that happened was integrated software—certainly Lotus 1-2-3 made a big splash with it. And all of a sudden, we (T/Maker Company) had integrated software as well.

One of the most memorable things for me is that what Peter created way back in 1979 still stayed fairly contemporary, for at least the next five years, if not longer. Had we learned that you’re supposed to be on the forefront of buzzwords and not actually kind of trailing, we probably would have had a little more success. But that was one of the things that I think was just a tribute to what Peter created.

Jerger: Did you ever program anything at work or did you do that at home?

Farros: Help files—

Peter Roizen: Help files, he finally convinced me we needed them. I was not much of a fan of help myself: I always thought you should figure it out yourself.

Heidi Roizen: Peter once told me they shouldn’t need help files because “we should only be selling to smart people.” And I said, “If we only sell software to smart people, we are going to go out of business.” We needed to sell to more than just the top five percent of the intellectual population.

Peter Roizen: I’ve always designed a product that I would use myself, really. And the spec for almost anything I ever programmed in my life pretty much had to be for something I would like to use. That has certain disadvantages. I don’t mind reading the manual; I just like to be efficient. In exchange, I have certainly sacrificed a certain amount of what might be called user-friendliness to achieve something that you could really work with, and work quickly with, once you knew how to use it.

Farros: One more anecdote: I was very fortunate to be kind of an unofficial member of the Roizen clan. As startups so often go, when I started I didn't really have much of a salary. I had left my job at HP—as my mother kept reminding me, my “nice paying job at HP”—to take a risk on this little startup. Whenever there was any training to be had, I would take the training, and I would get paid for it. There were only a few of us, and here we were, selling the program on the phone, and – you remember SoftSel – we got our first SoftSel agreement, and all of a sudden we said, “We made the big time. That's it.”

Heidi Roizen: Sixty units.

Farros: That's it—bam, zoom, to the moon type of thing. So there we were, waiting for the orders to just pour in. We were making calls, and we were referred to some customers. I finally talked to this guy for probably 20 minutes; he's very excited about it—just wrote a review—and we were always fortunate to get great reviews, thank God in *InfoWorld* back then; you don't really have product reviews today. And this guy said, “I'm going to buy it.” Five minutes later he called me back and said, “I just talked to SoftSel; they don't know who you are, they tried to sell me *Lotus 1-2-3* and *WordStar*.” Now we had labored hard and long over selling direct, and this poor guy—what I put him through. I finally said, “We'll sell it to you, but I can't give you a discount, we can't compete against our channel.” He said, “That's fine.” And I said, “And not only that, I've got to send this out COD.” And he said, “That's fine.”

At that point, I approached Peter because I'd always thought Peter was the one in the company who said we're not going to sell direct. I said, “Peter, I think we could sell some of this stuff direct.” Peter said, “Sounds great to me.” When I was first hired, I remember that Heidi had said to me, “We can't afford you.” And I'd said “That's okay, I'm going to get creative here.” So we went on a little commission plan for a month, and Heidi sat me down 30 days later --I had done quite well during that month – and said, “I'm going to have the same talk with you again: You know, we can't afford you.”

Heidi Roizen: Because you made more money than anyone else in the company the first month.

Bergin: Exactly. So, that was actually how we started selling direct, and it was one of the things that brought some revenue to the company. But more than that, it got the product in people's hands.

Peter Roizen: If you've seen *Ghostbusters*, do you remember when the lady pushes the buzzer and says, “Got one!” when they finally got an order? I remember that we'd put down the phone sometimes and we'd say, “That's another \$450” or whatever. It was in that same spirit: “Got one!”

Farros: Peter and Heidi's mother also worked at the company. What was her official position?

Heidi Roizen: She worked in the shipping department, but the joke around T/Maker—because she used to always come in my office complaining about stuff—was that this is the only company where the shipping department reports directly to the CEO.

Farros: And she was probably the best sales manager I ever had, because she would always come up and said, “You know, we need two of these a day. Where’s your second one?”

Carlston: That’s great. I thought we were the only company that had our mom working there.

Heidi Roizen: We had seven Roizens in the company at one point, and it was the topic at any Christmas event, any family event. Our Dad consulted to the company, our brother read the manual, our Mom was shipping, our niece and nephew were working there. I got to the point where I said there were too many Roizens in this company because you just couldn’t get away from it. How many Carlstons were in your company?

Carlston: My mom was our first product manager, and Gary and me and, Kathy of course, but my sister was a cofounder too. We had another brother who came in and we had a short-lived board game division, and he ran that. It still makes board games to this day. So I guess the maximum number was five.

Heidi Roizen: One little funny story: Zoe was talking to somebody on the phone who was complaining. And the person said, “I want to talk to the president of the company.” And Zoe said, “All right. The president of the company is Heidi Roizen, R-O-I-Z-E-N. My name is Zoe Roizen, R-O-I-Z-E-N.” And the reason we knew this was because we all sat in one room. And I heard her on the phone, so as soon as she hung up—she was 19 at the time—I said, “Can I see you”—not in my office because I didn’t have one—“Can I see you in my corner please?” And I told her, “Don’t ever do that again.” It was a very effective way to manage people because we could hear everything that everybody else was saying.

Jerger: How many people did you have then?

Heidi Roizen: At that point we had about 13 people.

An Aside about Royal McBee’s LGP-30

George Glaser: Can I tell you a short story? It’s about the Royal McBee LGP-30, and doesn’t that date me! Paper tape in and out, Frieden Flexowriter out, paper tape in. Around 1958, I had two good friends who were doing engineering kinds of computing work for people in New Jersey, like “cut and fill” (civil engineering calculation) and stuff like that, probably on an LGP-30. Anyway, these other guys approached one of my friends and said, “Look, if you can do something that’s really cute on that computer thing, we’ll get you a centerfold in *Parade Magazine* which has the single largest

readership of anything in the United States of America.” That’s the one that comes out in the Sunday paper. Everybody gets that, no matter where they live or what the paper is. So my friend, a wonderful man named Tony Finelli—he’s now gone—decided we should try to do something in the sports field, because everybody loves sports; everybody wants to know what the scores are for baseball games. Tony Finelli went down to the library in Princeton and literally copied the results of every single baseball game from 1950 to 1957. Now you understand that this was a lot of data, and it had to be punched on paper tape. It took hours to fill up the drum. It wasn’t a very large drum but it took a lot of paper tape to do it anyway. It was late, something like three in the morning. The reason we were doing all this was that these friends of mine wanted to do a trick in the baseball game. We said we’ll predict the results of the 1958 major league baseball season. At that time, there were only eight teams in each league, so it was not quite as big and difficult as it is today.

So we had all that data in there, and I walked around behind the machine to get something or whatever, and I accidentally kicked the plug out. So then we had to reload all the data. We decided to try to predict the results of the season. And we predicted each league separately, the American League and the National League. And we ran this program on it. We invented a term for it called “negative entropy.” Now what did negative entropy mean? By the way, we invented that term on the spot. Entropy is a term used in thermodynamics—but negative entropy—the flip side of that—is nonsense. Anyway, it worked. We printed out these results on some kind of a wide printer, which had more than 80 columns, and I don’t remember exactly what it was. But in the American League, we got it absolutely right—except every pair was inverted. The seventh and eighth teams were inverted, and the five and six, and the four, three, and the two, one. Not bad, right? No team was out of place by more than one position. So we were real pleased with that. But the National League was a total disaster. Our top team wound up at the bottom of the list.

Anyway, we took this printout to the fellows who’d originally talked to my friends, and the guys said, “Well, this has all been paid for by Royal McBee,” and they gave us a thousand dollars to split three ways for this nonsense. Of course, they didn’t view it as nonsense, it was science: negative entropy. These guys had negative entropy in their files. And it ran in the Sunday supplements like they promised. They got us a centerfold, and I have pictures of this. I mean I have the real thing; the pages from that issue. After the season was over, they ran the actual finishes of the two leagues. We had to roll all this stuff out, like we got that two-page spread, and then we had gotten the fall-out story, which appeared in the newspaper. I retired at that point. But anyway, it’s a true story. The principals were Don Pierson and Anthony James Finelli, and myself.

Back to T/Maker

Jerger: Thanks George—that was nice. Lifeboat: I heard about Lifeboat somewhere, but then you were talking about direct sales. What was your mode of sales?

Heidi Roizen: Any way we could get a customer to buy. One of the things you have to remember is that, at that time, we were selling *CP/M* software, which meant we supported 60 different formats. We

had one of those disk makers—we'd get our orders during the day and actually sit at night and craft these things for whatever the order was.

Peter Roizen: There was no off-the-shelf, actually.

Heidi Roizen: No, no off-the-shelf. We had our shrink-wrap machine, and we had three different manuals. Luckily, at least the manuals were more or less the same. But, we'd sell to SoftSel and we'd sell direct. At that time we'd also go to trade shows and actually sell out of the back of our car. I remember driving to Comdex in 1983. We put the computer in the car—because we were too afraid that our computer would break if we shipped it—brought all the software, and sold off the show floor there. And you guys, probably same thing, right?

Wilson: Of course.

Grier: Could you talk a little about the transition from being a family-dominated company to a more traditional company where the family isn't part of it?

Heidi Roizen: In spite of all our ribbing we're actually still very close friends. I'm the lead investor in Royal's company; Peter actually worked for Royal's last company doing some consulting on his products. So we spend a lot of time together still. In fact, one of the things I really appreciate about T/Maker is that a lot of us worked there together for 10, 12 years, and we're really close friends. We still stay in touch—that's something that I don't see a lot of times in the companies that we back today as venture capitalists, that same sense of "we're out to change the world" and all excited about what we're going to accomplish together, which is unfortunate.

I think that the split at T/Maker occurred when, in 1983, in the fall, we were invited over to Apple to look at an early prototype of the Macintosh. To develop on the Mac at that time, you had to purchase a Lisa. And they wanted us to do *T/Maker* for the Macintosh, and the Lisa was like \$10,000. I showed it to Peter, who said, "I don't like this computer, and I think this is just Apple's way of trying to unload Lisa's, by making you buy one." He didn't like the Mac, and I really liked the Mac. We all got into the whole Macintosh thing and saw an opportunity. We really viewed *T/Maker* as a business. From my perspective, not being the programmer, I viewed *T/Maker* like this: We took Visa, we took MasterCard, we had distributor relationships, we knew how to package software; we knew how to do all this stuff. Give us more product to sell—which is why I'm sure that for most of us, our companies started with a single product but then we became publishers of other people's products.

From Peter's perspective, we were a company founded to sell *T/Maker*, and that was where he and I had some differences of opinion about investments. We were making money; we were profitable from day one because we had already presold the product—bootstrapped the company. So, every year we were making money. We really wanted to do the Macintosh product, and Peter said, "I'll let you blow \$25,000 on the project to see if you can do this Macintosh." We started this product called

ClickArt—all it is, you know, are data files, and yet it became the fourth product to ship for the Mac, and it became a money-making product, which is still today owned and sold by Brøderbund. What happened then is we split up the company, used some of the capital from products we were shipping to do a leveraged buyout of the company, and we brought in some new products. We raised venture capital in 1989, and that was really when we had to get more formal. This is what I tell entrepreneurs all the time: If you take money from venture capitalists, some day you have to give the money back, and you have to give a multiple of it back. So you have to get very formal about it—

Jerger: —in a really short time.

Heidi Roizen: Well, yes, but it wasn't as short back then. We were Hummer Winblad's (Venture Partners) first investment when they formed their fund, and then the second round was done by Draper Fisher Jurvetson back before it was DFJ.

Carlston: They used to give you 10 years.

Heidi Roizen: Yes, they used to give you 10 years, but there was a lot of formality. I remember the first board meeting where Ann Winblad said, "Well if this division's not profitable, we need to lop it off." And I was thinking Oh my God! You know, these products are like your children. You don't just say "it's not profitable, we'll lop it off." So we did a lot of growing and learning through that period when we had to adjust to the realities of running a legitimate business as opposed to a kind of "group hobby" or something. As Peter said, probably the most profitable year ever was before he hired me.

Peter Roizen: I can remember a \$17,000 ad in one major magazine that produced almost nothing. I can think of one case where the product didn't work very well. The guy had extremely high demands for advanced paid royalties, and basically it was causing me a certain amount of grief. In fact, and I don't mean this as any offense to Heidi, it took me 17 years to figure out I didn't want to work for anybody else, but it only took me three years to figure out I didn't want anybody else working for me! There's just something about when you can do something by yourself, and put it out there, and you don't really have that vision of being superbig or something—it's just a heck of a lot of fun. For me, when more people got into it, and when you had real employees, you had to think about them. Sometimes it's like having kids in your family, really. None of those things really interested me, and I wasn't very good at it. And Heidi was interested in it, so we just divided it up, and I went my engineering way, and Heidi took this rather small company and built it up with the kinds of things you should do if you want to build a bigger company.

Farros: You know, Broderbund helped us. When we did the transition, we didn't have a lot of co-ownership. Remember the term you coined: "value-added publisher"? So we started publishing. The problem was in the venture world and in the markets: Nobody really valued people. If you didn't own your own code, you would not get value. I think Brøderbund was probably the first company that ever got valued for not owning code. And all of a sudden a switch flipped. Then it was absolutely

okay not to own your code. So thank you for that; that helped us in 1989 when we were raising money.

Jerger: But it almost became a better thing: folks didn't have to write their own code, you just sell others folks' code. I remember that attitude change.

Farros: But we were swimming upstream for a while.

The Software Publishers Association (SPA) and Industry Growing Pains

Heidi Roizen: It was a very collegial industry because there were so few of us. Other than your direct competitor, if you were in the word processor space you probably didn't really like the other word processor people; if you were in the spreadsheet space, you kind of worried about what they were doing. But we were very collegial because there were just so few of us. We had to band together, and all three of us—in the early years of the Software Publishers Association (SPA)—served on the board and worked together to do things, like worrying about the Software Rental Act, copyright protection, and looking at what was going to happen in the future in the international markets where the copyright laws were not up to the level in the U.S.. We spent a lot of time thinking about standards, how to do things so that our industry could move forward. We helped each other out. I remember a lot of calls, to Doug in particular, asking "How did you get through this? How did you do that? How different is this contract with SoftSel from your contract with SoftSel?" And we talked to each other about which distributors were paying their bills.

Carlston: We just sent our stuff straight out to one another. It was enormously helpful.

Heidi Roizen: And we'd know who was paying their bills or who wasn't, because you had something like seven distributors, right? Ingram and Micro D

Carlston: —Computerland—

Heidi Roizen: —SDS. When one of them would go under, they would owe us so much money, we would just be out of business. Remember one time, you [Farros] told us that—it might have been First Software that was going to go under—and they owed us \$70K. You went to the lobby with a briefcase and said, "I want to see the CEO. They owe me," and you told the receptionist, "They owe me this much money." And she said, "He's not here." And Royal said, "I will just sit here." After about four hours, they came out and paid him, and I think about six weeks later they went under.

Jerger: Did these companies know that you were doing this?

Carlston: That we were talking to one another? It should have been obvious. We didn't keep it a secret or anything.

Heidi Roizen: We weren't talking about price fixing. We were still competitors but we were helping each other, especially when we weren't direct competitors.

Carlston: These guys were enormously constructive with their active role in the early days of the SPA. A lot of people who tried to solve problems on an industry wide basis -- while still wearing the hats of hard competitors -- did a lot of really good things over the years. There was a 10-year period where that association was not only the center of everybody's social life—because we organized things from white water rafting trips to softball games—but it also was where we figured out philosophically what we wanted this industry to be and how we wanted it to work.

Jerger: It really did benefit the industry, the collegiality of it, which is not as evident anymore. One illustration of it, which Oscar can corroborate: We had the meeting in the spring, Conference on PC Software: The First Decade [Needham, MA, May 6, 2004], and the *VisiCalc*, VisiCorp folks were there. (Dan) Bricklin and (Daniel) Fylstra had not talked together for 17 years. Before the meeting, they'd each written 17 to 20-page perspectives on what it was all about. They came to the meeting, and in one session I was running they argued right in the session, talking over each other. We made a transcription and can't tell who was saying what! It was just amazing. What happened, of course, was they had lost the market while they argued among themselves, played dirty tricks with each other, and then *Lotus 1-2-3* wiped them out.

Carlston: Dan [Bricklin] and Bob [Frankston] were getting a 38 percent royalty on the product but believed that the rest was pure profit -- going to somebody who hadn't contributed to making the code. Kind of an unsophisticated approach. But Dan was the world's worst complainer, you know. He just couldn't get past that and it was a train wreck. Incidentally, this is why we dropped accounting software which was 31 percent of our sales in 1981; the author was getting a 45 percent royalty, and the guy couldn't understand why we needed to go to 20.

Jerger: Did he understand then, when you dropped him?

Carlston: I don't know. I think he went out and sold the software to a few of his friends, and that's probably the last anybody ever heard. Also it was written for the Apple II, which wasn't going to be around much longer, as a serious business machine.

Grier: Well, you talk about cooperating: At the ADAPSO meeting, four years ago, attendees talked about getting together on legislation, on tax issues, on hiring issues— Editor's note: David is referring to the ADAPSO Reunion sponsored by the Software History Center, May 3-4, 2002 in Washington, D.C.

Bergin: Piracy.

Schachter: Copyright protection.

Grier: Yes. Was that sort of activity the kind of issues that you worked on?

Heidi Roizen: I remember specifically working on things like sales tax, where you were not charged on the sales tax if you transferred code electronically. If you handed someone a diskette, it was considered a taxable transaction. I remember the laws with respect to hiring a consultant as a programmer: who owned that code and how was that going to be.

Carlston: We were having a whole bunch of issues about taxes. Many of the companies were very small, and the idea of actually having to file tax reports in 50 states would have killed many of them. That's the sort of thing that came up all the time.

Heidi Roizen: In fact, in one of the handouts today, the *Soft-Letter 100* from 1985—we were number 90 by the way, you guys [referring to Doug Carlston of Broderbund and Camilo Wilson of Lifetree] were like number five and number 20—you only needed sales of a million dollars to be on that list. Back then the whole industry was so tiny; you had to worry about every little thing. [Editor's note: according to *Soft*letter: Trends and Strategies in Software Publishing*, Vol 2, Number 24 (April 4, 1985): T/Maker was tied at #90 with two other firms, Brøderbund was number #14 and Lifetree was #46 based on 1984 revenues.]

Brøderbund Software

Carlston: Brøderbund started very much like you, as a family operation. My brother and I started it. I had been a coder earlier, but we actually started with legal software that I had written when I was an attorney in Chicago. And we couldn't sell the stuff. We'd go in the store, but we couldn't give it away. The store guys would say, "If you wrote games we could sell them because if a game doesn't work, people just come back and want their money back. But if you give them some legal software that doesn't work, a lawyer's gonna sue us." That's not viable. But we actually launched in 1980 with six products, three which I wrote, and three which were done by other people. From early on, our model was not Peter's, but to be a publisher: to try to emulate book publishing. We went for as many decent products as we could find that weren't copycat. We had long battles about not being a copy-cat company; everything we were going to do was going to be totally new. And here we were putting out another word processor: Bank Street Writer. My argument was that this was enormously easier to use. But my brother had never heard of them [Bank Street College of Education in New York], and couldn't see why that would mean anything to anybody out there. He was probably right. But it was very easy to use. At the time, we sold over a million copies at \$50 each. So this is a \$50 million business.

Jerger: Did they compete with you, Camilo?

Wilson: Not directly, they didn't; the market was big enough

Carlston: And it was priced different. If you're selling a \$50 package, you don't compete with \$200 word processors in the eyes of retailers or anybody else.

Heidi Roizen: And also by machine and operating system.

Carlston: That's right. We started with an Apple II, but they [Lifetree] were equipped with PC, Atari, Commodore, whatever. Partly because they were an ambitious organization, they quickly came out with a whole series of things. Spelling Checker was a separate product at the time—Mail Merge, Simple Database that worked with the Mail Merge and so on. These all sold in the neighborhood of 200,000 to 600,000 copies during their lifetime at that same \$50 price point. So they were decent businesses at the time. Sold in what I think people would find laughable packaging today, but you have to remember the channel you were selling it to, cared about how much money they could make per linear foot. They're going to position them a certain way so the titles had to be visible from the side. If you went over a certain size, they wouldn't rack them and so on. You were constantly fighting between the rackers and the regular retail specialty channels that would take something big and clunky like this [shows early packaging], almost as heavy as *T/Maker* stuff. I think the heaviest package I ever saw was your 250,000 graphics-in-a-box thing, with a 12-pound book inside.

Farros: That product hit just before CDs. At one point, all those graphics were all on floppies in there.

Jerger: What is *For Comment*?

[Editor's note: "*For Comment*...created an audit trail for group documents, showing who made what changes and when; this was particularly useful for legal contracts and the like. Not the sort of thing that a game company probably should have been publishing. On the other hand, it was coded by a professor of religion at Harvard, and one could have made the argument that that wasn't what he was supposed to be doing with his time either."]

Carlston: This product was typical of the same way VisiCorp was selling *MicroChess* and Microsoft was selling *Zork*. We didn't have any sense of parameters as to what you could or couldn't do. This was a \$300 product that essentially did the same thing as is now incorporated in *Microsoft Word* under Track Changes: Essentially, it allowed a group of people to work on a common document and create an audit trail of what people have said, and when and where. [Editor's note: according to Wikipedia, *Zork* was sold by Personal Software.]

Jerger: Is that as close you ever got back to the legal business kind of thing?

Carlston: Probably, yes. This was the pre-LAN version; this involved physical porting from person to person. There was a network version that I didn't bring, although I found it, because it's three times the size, and weighs almost as much as ClickArt, which has 250,000 graphics.

Schachter: I'm curious about the legal software. What kind of legal software were you writing and trying to sell?

Carlston: I wrote things that were useful to me. I did a lot of things like bargain sales to charitable nonprofits where there's some fairly complicated analyses that have to be done between the developers and offer, which is typically payable over time and a share of revenues and so forth. There got to be a real problem with the development model as it went away from being one person, one product, to being development teams. When it started costing a million dollars to do a product, you just eliminated 90 percent of the potential sources for a development model. Anyway, that was the end of that. We were not looking for venture capital

Jerger: So you didn't care. But you were wildly successful.

Carlston: I remember that my wife, Mary Crowley, who a lot of people didn't know was my wife because she had a different last name, was sitting in the back of the room when we were doing our road show when we went public in 1991. My CFO at the time, Bill McDonough, and I are both what I'd guess you'd call low-affect people. At one point we'd gone through our pitch, and were explaining why Brøderbund was a good investment and so forth. And a guy leans across to my wife, and said, "They're sure not flogging the stock." We weren't the best salesmen in the world.

I think that in the early days, you built around family in part because these were kind of wild-eyed adventures. You typically didn't have any money to start with, so you'd need people that would work for cheap or nothing. You had to have really smart, talented people who had a chance of succeeding, and family is a good place to go if you have a lot of confidence in yourself and your family. And in our case, we didn't have a clue what we were doing. My brother had been running March of Dimes up in Oregon, so he had the business skills, but before that he was a basketball coach. My sister was a fashion buyer for Morgan Taylor in New York City. So she knew a lot about women's accessories and we never did any software in that arena. Although I had coded, I had coded basically for mainframes back in college to pay for college. None of us really had any relevant skills, so, we were feeling our way. The nice thing is we ran into people like Heidi [Roizen], Camilo [Wilson], and others, and whether they had real skills or not, they all said the same thing: we're feeling our way around, we're going to get there together. It gives you confidence that if you keep slogging, and if you adhere to what you believe in, you'll eventually figure out most of the other stuff.

As for the products, basically we tried to be open to anything that looked innovative and different. They all had different stories because we didn't feel we had to own them internally. *Print Shop*, which became our most famous product, sold about \$300 million over 20 years. I guess it's still selling in some formats. Originally there was David Balsam and Martin Kahn; Marty worked at Broderbund, and when he came, he said, "Well I'm working with my partner on something, and I want to hold it out." He called it *Perfect Occasion*, and it was a software product that you throw up on a screen and add a birthday greeting. And so you'd send the disk to somebody, they'd stick it in, and if they had a computer on at the right time it would pop up.

Nobody at the time had printers. Our thought was to get a printer capability, which was an enormous task—you have to think pre-*Windows* and you had to, essentially, had to write for every single combination of hardware and printer out there and make it work. We thought if we could do that, we could go to the printer manufacturers and they'd be looking for something to sell to people buying printers, and that's in fact what caused that particular product to take off. It was probably a very bad idea to do what so clearly was a bitmap graphic on the package cover. But people weren't thinking vector graphics yet. The box became an embarrassment about four years later when everybody was doing smooth graphics, and having little dots there didn't seem like such a good idea.

This was somewhere in the early 1980s-1984. [Editor's note: At this point, Carlston held up the documentation for *On Balance*]. This was one of the two first checkbook balancing programs; Sierra Online had the other one. *Quicken* was not yet out. And this was a very good product, but it was a market where, unlike with games, you couldn't necessarily just throw it out there. Or, and this was our typical marketing strategy, just put it on the shelf and see if anybody takes it away. This sold a fairly small number of units, 20,000 or 25,000. Eventually it was pushed off, originally by Ken's product on a price comparison basis, or maybe it had a prettier box, I don't remember. Then eventually Scott came along, gave me real marketing support, and that was the end of that product. [Editor's note: Carlston identified "Ken" as Ken Williams of Sierra and "Scott" as Scott Cook of Intuit which did *Quicken*].

But you never got too much in love with any one product. Much as in book publishing, you look at the author and say, "You're the guy that's invested. If you really want this to sell, go out and do a book tour." We would say to our guys that we'll put marketing dollars behind it, but we have no idea what's going to stick and what isn't. Sometimes it led to very good ideas that didn't sell at all, like *For Comment*. Or really bad ideas that didn't sell at all, like *Food Cost Explosion System* which we tried to sell for \$295. If you want to know what that is, it had to do with portion control in fast-food restaurants.

Jerger: *Food Cost Explosion System?*

Carlston: I liked the name -- that was probably the main reason. It's the cost. One of my favorites that got killed was a flat file database, very fast search retrieval that actually was very useful. That, incidentally, was a classic example of freeware for which we scouted a freeware marketplace, found it, converted it, sold 100,000 copies, and paid the guy, who was shocked. We did that one other time with a product called Kid Pix. A music professor at the University of Oregon was essentially giving it away for free on bulletin board systems (this was still pre-Internet and so forth). We had a couple of people trolling those, found it, brought it in, and added sound effects and a few other things. With *Music Professor*, we had a lot of sound effects. I think we didn't know how to do them at the time, and brought it in. So that was a publishing model. It was a little different, and that, as Camilo said, didn't work for a lot of people, and it didn't work forever for us. But it did work for 20 years. And eventually the company got up to \$300 million in sales and 1,500 people, and it was no fun at all.

Ensmenger: How did you deal with the problem of service and support in that model, which is different from say a book publishing model?

Carlston: It is, and it was, a large department, and we felt that as a consumer products company, it had to be free. We did invest heavily, early on, in a fairly elaborate help desk system, which meant we didn't need a lot of training for our service and support people because if they could type the question, they could piggy-back on the answers that had gone before. We trained them in sales so that, in fact, it was a revenue center rather than a cost center for us. Typically we had something like 0.8 sales per complaint call, which is pretty good. [Editor's note: Carlston clarified this by saying that about 80% of the time they converted a call to a sale.]

We also gave the customer service people complete authority to do whatever they thought was right, which meant if they wanted to give the guy their money back, or replace it with a new product, they could do that. I think the freedom made a big difference. The other advantage with the help desk system is that we could hire people who couldn't come in to the office physically. We could both monitor their work and train them to work out of their own homes. So, because that, we lowered our customer service costs substantially. It was about a \$10,000-per-unit cost for setup in an office, and we were able to take that out. Because there's good monitoring software, looking at how many calls people made, and how well they do with that—you can do back-checking on it and so forth; we were able to supervise the entire group, which got up to almost 70 people at one point.

Heidi Roizen: Did you ever man those phone lines? I'm sure you did. What was the funniest question you ever got?

Carlston: I do remember one. The guy was calling to complain that his son had used our *Science Toolkit* product, which came with probes and so forth. And every time he held the metal thermometer to a light bulb, he got burned. And he blamed it on the software. So, we agreed that if he would send it back, we'd be happy to refund his money, but he never sent it back.

Heidi Roizen: We had that same policy, by the way. I remember calling a guy and saying, "You've cost us so much money in support that we're just going to send you back your money." And he said, "But then I'd have to stop using the product. I don't want to stop." And I said, "OK, but you can't call us anymore." He was so apologetic, and he never called us again.

Farros: He was really upset because we had a little tutorial file called *Leonard*—and this customer's name really was Leonard. So he said, "I can't write any more letters because I have this file called Leonard." We said, "Well, that's just a name. You could rename it, Leonard 1, Leonard 2." He said, "But I call everything Leonard."

Heidi Roizen: The toughest one we ever had was the guy whose spreadsheet kept not computing. And you said, "Read it to me," and he would read it to you. And you'd say, "It sounds right." Turns out he was using lowercase ell's and uppercase oh's for his zeros and ones.

Farros: The hardest one was when it just didn't work. There was a bug in the manual: We used to say, "Put in the disk," but we never said, "Take out the first disk." So this particular customer actually had two disks in there at once.

Carlston: In our very early days, we got some of our products from Japan because we happened to set up at the first West Coast Computer Faire next to a Japanese trading company. They had products they were trying to sell, but they had no computers. So we let them show the products on our computers, and eventually we got publishing rights for those products. Because televisions in Japan have to be very small, and since they were all rip-offs of coin-operated arcade games, they had to be played with a television set on their side so that they would fit. We'd get calls from Americans saying, "I booted your game up, and it's playing sideways." And the customer service people said that was for ease of use when lying on your side.

And, at one point the guy did a project for us called *Karoteka*. And he came in one day and said, "You know, there's a one-byte change I can make in the program that flips the whole screen, the whole game plays upside down." And I said, "Great. I'm going to record it on the back side of a disk." And he said, "Why would you want to do that?" I said, "Just so that when customers call and say, "Hey the game's playing upside down," customer service can handle the calls and tell them to take the disk out and turn it over. [Editor's note: *Karoteka* was the precursor to *Prince of Persia* by Jordan Mechner]

Ensmenger: This is probably not as funny. How did you work with your developers in terms of getting them to fix bugs or to enhance the programs? Did you have any agreement with them in that area?

Carlston: Oh yes, standard language in every agreement that we had control over. If they refused to make the change, we could have other people change it and charge the cost of that against their advances or and/or royalties. They were financially liable for it if they either were unwilling or unable or too slow to fix it in time, then we had the ability to make those changes. And we always had the option, of course, of walking away if something just wasn't right.

Farros: That's the good formal answer, right? And the informal answer was you pleaded a lot, especially for successful products.

Wilson: You dined them, you winned them.

Farros: But the authors would go away and play. Sometimes you'd literally have to track them down and say, "Please, there's a big bug in the software," and they would say, "But I have a Margarita in my hand."

Carlston: There are two critical skills that have made software successful or unsuccessful, and I think Royal's just touched on one. The truth is, most creatives have a bit of a prima donna in them. And most people who are on the inside -- looking at those people getting rich on the outside with their royalties -- have a certain amount of resentment: "How come I do all the work and they get all the reward?" You have to work very hard at developing staff that knows how to respect the seed of inspiration, because that's really what you're paying for. Not all the slogging but the fact that you're dealing with something nobody else ever thought of before, and developing people who are generous enough of spirit that they can recognize that that deserves to be rewarded, and unstintingly rewarding people like that makes you successful.

I think the second rule of thumb is that the vast majority of acquisitions fail for similar reasons. People have an "it's my way or the highway" attitude. The truth is you're typically buying companies because whoever has those companies is ready to part with them. You know they're tired, they see obstacles coming along the road, or they see bad things happening. Or it's just not the right time for them. I do want to say *T/Maker* was one of -- I think, out of 12 or 13 -- really successful acquisitions. We were left a very good company. And it continued to be very profitable for a long time after that, and we really appreciated that. There were no hidden landmines in that one. There were real, specific problems, and we did have to deal with them, but there was still a lot of value there, and that value didn't just disappear or dry up.

Heidi Roizen: Which is good to know, by the way, because, you know, we were both out of it by the time you bought it. So we didn't know.

Carlston: The other thing, of course, is that if in fact you've got a product line that's not expanding and growing, you sometimes have to do things that don't make employees totally happy. There's consolidations and so forth. But that's probably even harder than dealing with creatives, because organizations that pass through lots of editing hands tend to get defensive, they lose their creative spark. It's very hard for them to take risks and so forth.

Lifetree Software

Jerger: Camilo, why don't you tell us the story of Lifetree?

Wilson: Having the benefit of being last, I can put some comparisons together for you. In 1978 I returned to the computer business after being away from it for 10 years, became curious about it, and began reading *Byte* magazine, and I saw all these ads. I realized that with Bill Gates back in New Mexico and with everybody else in the industry, I said, "Forget it, it's too late. I've missed

my chance.” So I went back and consulted in mainframes for a while. Then in 1981, having moved to the Carmel Valley, California, which was neighboring Digital Research, I went to an ISV (Independent Software Vendor) seminar. They had a very compelling case for becoming a successful ISV developing software. There was a very clear blueprint for how to do it, and you could ask questions - - What are your margins? -- and get straight answers. Now, the rumors were beginning to fly around that IBM was going to do something with a PC, and I didn't have to be a genius to figure out that that was going to make the difference.

So, the IBM PC came out, I went to the bank and borrowed \$3,000, mortgaged myself up to my eyeballs, and I bought the biggest PC in California -- number 10 off the manufacturing line -- with 128K and two 160K floppy drives. My objective was to write a book telling people why the PC was a good thing for them -- and to become a famous author; that's what I wanted to do. So I bought all the software and took the PC home. You could only buy *PC DOS*, *Pascal*, *EasyWriter*, and *VisiCalc*— that's all there was. So I bought all the software with my computer, took it home, tried it out, and sat down with *EasyWriter* to write my book. Two hours later, having written the preface to my book, the damn thing crashed, and I lost all of my work. I was very pissed off. I tried it again on a Saturday morning and the same thing happened.

For the next two hours, somehow I was on the phone talking to IBM, and -- on a Saturday -- I managed to actually get a human being when I called and asked, “Why doesn't the damn thing work?” And they said, “Well, we don't know.” And I said, “So, what can I do about it?” They replied, “We don't know.” I asked, “So, when am I going to write my book?” Reply, “We don't know.” So I figured I had a problem -- what was I going to do? I remembered that back in my college days, I had written myself sort of a word processor, and turned papers in with that, so I thought I'd write myself a word processor again. Then I thought, “Wait a minute, if I'm having this problem, so is everybody else.” So that was my way of getting into the business. Fortunately enough, approximately four months later, there was an event, West Coast Computer Faire (1983), and I'd finished the word processor, more or less, the week before that. I went to the PC Faire, had a little booth, and began selling *Volkswriter* right there for \$110 apiece.

Now, some interesting things about those days: I had been doing a lot of reading. One of Steve Jobs' favorite sayings was, “Try to give the appearance that you're a big company.” Nobody knew it was one guy doing this. So I did that, and sold this product. Sure enough, next thing you know, there's a big camera right on my face from *Byte* magazine taking my picture. The press was extremely useful in those days. For example, I remember Andrew Fluegelman from *PC Magazine*, who's long gone, God bless his soul [Editor's note: Andrew Fluegelman died in 1985]; he was enormously helpful, and we had a four-page spread in *PC Magazine*, which at the time was read by everyone. That did it for us. From that day on, we were profitable every single day thereafter. Those things happened in those days because the industry and the universe were so small. Another big event we always went to was the PC Forum. Esther Dyson deserves a lot of credit for being a mentor to many, many, many of us, both individually and personally. She was a big, big formative influence on all of us in those days, and continues to this day, but especially in those days.

So we got into it kind of by accident -- I have zero management background. Like everybody else we slogged along and learned about receivables, payables, and distribution. Distribution was interesting because it was kind of embryonic, and we learned immediately about adjusting cost. Eventually, all that paid off.

What was different from my business compared to your businesses (T/Maker and Brøderbund) was the competitors. I used to get in my car with *VolksWriter* in the trunk and go visit local computer stores, especially ComputerLand. And people would say to me, "*WordStar* is coming out." Eventually, *WordStar* came out. And guess what? People kept on ordering our product because they were learning about product differentiation. *WordStar* was \$500, and impossible to use; *Volkswriter* was \$195 by then, and really simple to use, and the reviews backed it up. So I guessed we could carry two products. Remember, there were few computer stores in that day. By 1982 there might have been maybe 100 around the country, if that many.

So, we went through all of that, and we grew. The competitive picture became interesting. We were the number six ranking in the word processing list of 79 competitors for nine years. We stayed at number six forever. Meanwhile, the rest of it just churned, churned, churned. According to the guys at *PC Magazine*, we were one of the six surviving word processors until *Windows* came out and changed the whole ball game; then everybody went out of business. We were lucky enough to begin selling on day one at the PC Faire, and we had tons of exposure. We sold direct for a long, long, long time. We began to figure out that maybe we should be carrying this product or carrying that game. So we never went back to distribution, and ours is a classic case of marketing the product through the press, which was pretty much all we did except for some minor advertising, because really there were only two magazines where you should advertise at the time: *PC Magazine* and *PC World*, and that was pretty much all the universe for a long time.

Time goes by and then we were up to about 50 people and about five million dollars a year in revenue. Then these guys called Microsoft were actually beginning to look a little more dangerous. Not just me, but to everybody. We could all see the writing on the wall: Microsoft was looming larger, larger -- which was a problem unless you happened to have something that was heavily differentiated like T/Maker. So I saw all of this, and I said, "It's time to start thinking about an exit strategy. Since any reasonable buyer can see the same thing, we're not likely to be selling the company." I concluded there was really only one potential buyer for this product, my own employees. We did a nice leveraged buyout where the employees bought the company. I moved on with a different company, and my employees kept Lifetree, and sure enough, two years later they were out of business.

But meantime we had taken the Lifetree money and got with Houghton Mifflin Company, which had a very interesting technology called *Correct Text*, and it formed the basis of what we put on the market then. Spelling checkers were universal, but grammar checking had not yet been marketed, so we took that idea and called the product *Correct Grammar*, which now was a companion product to *WordPerfect*, *WordStar*, and so on. And we had a whole new set of relationships, and we took that—

plus direct mail that I learned about and did very well with -- and we turned a direct mail business, based on this *Current Grammar* checker, into a \$4 million business with only startup capital in 18 months, and I sold the company to *WordStar*. That's the story of Lifetree in a nutshell. [Editor's note: Due to declining sales, Wilson sold the rights to Volkswriter (in 1989) to Vicki Williams and Ned Boddie who were minority partners in Lifetree Software. Ned was the head of Volkswriter development and Vicki managed customer service. The new company was known as Volkswriter Inc. Lifetree continued to market the *Correct Grammar* software.]

Heidi Roizen: It's funny you talk about trying to make yourself "look bigger." Because I think that's when our office was on the second floor, but our shipping department was on the first floor. When I say department, it's a room about this size, where you went to ship stuff at night. And we had somebody coming for a meeting, and we just had this bullpen of an office. So Royal went downstairs (during the meeting) and -- he didn't tell me at the time because I would have told him not to do it, and he knew that -- repeatedly called the number so it would appear that we were getting sales calls all the time.

The other thing about "looking bigger" that I recall is that we were in some negotiation with somebody about a product, and Royal wrote all this stuff on the whiteboard that made it appear that we were in this big negotiation with Microsoft. It said that Microsoft will do the following, T/Maker will do the following, and he had all these arrows pointing to things. And then when the person we were meeting with sat down in the conference area, Royal said, "Oh, let me erase that," and he erased it. And it was like some big secret thing. To this day, when I have entrepreneurs present business plans to me, it's inevitable how many of them boot up their machine, and they always have *Exchange* up, or *Outlook*, so you can see who all their email is from. And they usually leave that little thing on so that even when you're in *PowerPoint*, it pops up with the "from" line and the "subject," as they're giving presentations. Sometimes it's quite embarrassing stuff that they've got, especially when it also includes emails from other venture capitalists, so you can tell who they're talking to. Sometimes I wonder if they've actually got somebody back at the home office, emailing: You know, "Bill Gates is trying to reach you. He says it's urgent."

Jerger: Camilo, You said you had four family members in the company. Somehow I didn't hear you mention who they were, when they were involved, what they did, that kind of thing. I mean is it mom and dad, or brothers, or sisters?

Wilson: No, this was what my family calls my -- we never quite got married -- my non-ex ex, Vicki Williams. And two members of her family, including her mom, Cynthia Williams, provided some early capital, for printing.

Jerger: So you never did need financing?

Wilson: We were self-funding from the loan, at a fairly high level. We were able to ramp up pretty quickly. In some ways I wish we didn't have that much money, we would have been more careful about how to spend it.

Need for Venture Capital

Farros: I think venture capital was much less accessible to smaller companies in the late 1970s and early 1980s.

Carlston: All three of us started without venture capital, and I don't think we could do that today with the same kind of resources as we all had back then.

Heidi Roizen: To answer questions like "What were the big successes during our era?" and "What were the big failures?" I could think about the big success and the big failure that happened with venture capital. There was Lotus, which I think had, what was it, \$51 million revenue in the first four months or something? The number was just astounding; we couldn't believe it. We were in the market ahead of them, but we didn't have any money, and we didn't have the professional management team. We ought to say, "Thank God, we couldn't get venture capital because the first thing they would have done is fire us." And then I think of Ovation. Ovation had big money, and they went out of business halfway through the TRS-80 road show. It was a five-city road tour and in the third city, they didn't show up at their booth, and the company actually had gone out of business. So we took their sign and brought it home and had it hanging upside down in the shipping department for a long time. It was sort of our cautionary tale about how things could go one way or the other.

Farros: What did we learn about advertising from Lotus? Remember, Heidi, you used to always say, "Can't spend one percent." So there we were, Lotus had come out, and we were feeling pretty comfortable with what we had. And we said, "You know, if they're spending a hundred percent on something, if we spend one or two percent on advertising, then we'll get one or two percent of sales." You actually had zero percent.

Heidi Roizen: There was a great ad -- well actually, we got an advertising department and they came up with a poor ad. Peter came up with the first ad which I think was a highly creative ad. It said "Buy *T/Maker* for \$1,275,000 and get this Cray-1 absolutely free." And "Cray-1 is good for particle-by-particle simulation of nuclear war, this kind of thing and *T/Maker* is good for managing your finances and writing letters." We had a little coupon you could clip out and it said: "Yes, send me my Cray-1 and *T/Maker*, enclosed is my check for \$1,275,000." And then underneath it, it said, "No, I already have a Cray-1."

Peter Roizen: We did get a letter from Cray.

Heidi Roizen: Yes, we had a cease and desist letter.

Peter Roizen: “We worked hard on our reputation.”

Farros: Ta-ta, no sense of humor. Peter did a follow-up product called *I Hate Algebra*. He was very excited about it, and it was for teaching kids algebra. And Peter, what sports season did you write this product in? It said, “move this result through *the calculation goal post*.”

Heidi Roizen: He’s a big football fan.

Jerger: Good, good. You know, right now it seems anybody who’s starting, the first thing they think about is, “How do I get somebody to do this?” They sometimes don’t even show any passion for what they think they want to do. Is it impossible now?

Wilson: No, it’s not impossible. Take for example -- I forget their names -- but blogging was started pretty much by two guys in a garage with no capital whatsoever, just from their credit cards. They were just about ready to give it up when sure enough Google bought it this past year. So they got a great package from Google, and hopefully they’re doing okay. But that was a good example of something fairly big, and they started fairly reasonably.

Jerger: So they need the Web things and so on, but can’t do what you guys did?

Heidi Roizen: I think you can.

Farros: Actually, I don’t even know that you can blog things any longer. Look at the guys that started the big site, you know, Jobs Blog. And one of the first things they did is they went out and got a lot of zeros.

Carlston: One that actually did take venture capital this summer was Keyhole, a nice little software application for people in the games industry. I knew them somewhat. They actually did go for money; money came to them because they were doing such a beautiful job with a nice little application. They were generating revenue, they were cash flow positive, when Wingblad ended up putting in some money and then Google just bought them. So it does sometimes happen.

If you’re a good VC, you’re looking for people who aren’t necessarily looking for you; you’re looking for people that have got it right in some fundamental way. Another company I ran across is a spin-off out of Autodesk, which spends no money, and they’re up to \$6 million in sales. They sell only from their Web site; they do fabulous presentations—you know, as a tool for doing all kinds of wireframe illustrations and so on in architecture. But you can also do 3D game development and things like that. They finally took money this summer, but not because they needed it -- it was because people were hammering on the door, and they thought, “We’re just engineers, we don’t know anything about that world. Maybe if we can get somebody with a small share in this, they can help educate us, and people will stop hounding us.”

And that's a very current motivation, you know—people are trying to essentially cash out while going in. Which I think was the weakness of the dot.com boom, you know.

Heidi Roizen: That's what we as venture capitalists do every day. And, you know, a lot of the companies that we have funded, Royal's included, Royal bootstrapped it himself, and built it; the product was already shipping, and he had many customers before he ever took on venture capital. We have another example in Joe Keene and Chris McKibbin from EA that we funded. They put a million dollars of their own money in. They basically bankrolled their own business and built a team and paid salaries and all that before they ever raised venture capital.