



Oral History of Sandra Kurtzig

Interviewed by:
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Hendrie: Well, I want to thank you, Sandy. We're with Sandy Kurtzig and she has very graciously agreed to do an oral history for the Computer History Museum. Thank you very much, Sandy.

Kurtzig: Absolutely my pleasure, Gardner.

Hendrie: What I think I'd like to start with is if you could talk a little bit about your early years, your family, what your family did, where you grew up, any brothers and sisters you had, sort of get some idea of the environment in which you grew up.

Kurtzig: Absolutely. Well, as you know I don't take myself too seriously so I'd have to start with saying I was born at a very early age and grew to be sort of average height and average weight but I was born in Chicago, Illinois. And my mother was-- had-- has a degree in journalism from the University of Illinois. She was a journalist and worked for The Oklahoma City Times. In fact, she worked for a Chicago newspaper as a police-beat reporter, which was very unusual for a woman to be a police-beat reporter and in fact they called her Steve Brody, Steve as opposed-- her-- my maiden name is Brody, B-R-O-D-Y, and they called her Steve because the male environment didn't quite understand how you could have a police reporter who was a woman. My father was born in Omaha and, unfortunately, he didn't know Warren Buffett, also born in Omaha. He came from a family where his father left when he was very early on in his career so he had to work to support his two sisters and mother from a very early age. He met my mother, would you believe, on a Greyhound bus and I think the bus was going from New York to Chicago or Chicago to New York. I'm not exactly sure or Omaha-- somehow or another-- it was somewhere in the Midwest. My dad happened to have the good fortune, or my mother happened to have the good fortune, of sitting next to each other on this Greyhound bus. And by the time that they had arrived, my dad told my mother, "I'm going to marry you someday". To which my mother said, "Nice knowing you. Good-bye" in probably typical Brody cryptic fashion and she was very well educated. My dad did not have a college degree, and my mother was actually the first one in the family to have a college degree. I was probably the second one in the family to have a college degree as a matter of fact. But as obviously fate would luckily have it, my dad prevailed and he ran after my mother and ran after her until he caught her, and so I was raised in a wonderfully happy family with my dad and my mother who loved each other dearly. And my mother just died last year at the age of a hundred;. Unfortunately my dad died earlier at the age of sixty-five of cancer so we didn't have him—

Hendrie: What did your dad do?

Kurtzig: Uh huh. Let me tell you I have a brother also who is six years younger than I am who is fabulous and the two of us are very, very, very close. Remember this was during the war. My dad was in the service and he was actually an instructor during the service. This was a time when everybody went to the service; it was considered to be the patriotic thing to do. He was an instructor in the service, so when

he got out, they didn't have much money, so my dad had three jobs. One of it was being an estimator for I think how do to stucco-- not stucco-- it was lathe and plaster. The other thing I think he worked for the OPA, which was the Office of Price Administration, during the war where my mother I think also worked. But my dad also when-- he would come home from two jobs, he would work on building our house by hand.

So he actually built our house that we lived in in Chicago by hand. He wanted to make sure our family had a house. So, I've always been around somebody who's been very, very mechanically inclined, including my brother who just can look at something that's broken and it gets fixed. Which is something that is very rare, and something that I think makes it very difficult for other men to be around. <laughs> Because I'm used to my family, my brother and my father being so good at mechanical and things. But my dad then decided to go into the building business.

And so he started off by building a few houses in Wilmette, Illinois, and he made a few dollars on building these few houses. He built them mostly by hand although he did have-- obviously he contracted and then he made a few dollars in that. So then he built a few more houses and built a few more and that's-- so he-- so I've always been around parents who were entrepreneurial. I never saw anybody in my family who worked at a nine-to-five job so-- which of course is-- if you think about that, when it became time to be-- for myself to be an entrepreneur that was not a foreign idea to me. I never saw my parents have a job where they went to work and came home at night. My dad would do building-- would do projects; he would usually build, then own them, sometimes sell them. And then in later years he would just keep them. So he developed quite-- a very, very good real-estate-development business in Los Angeles.

When I was growing up, my parents made two or three transcontinental trips from Chicago to California where my-- at the time we had some family who lived out here, and I remember in the car my mother would tutor me and would homeschool me, because they'd take me out of school for a month at a time. And so after the second or third trip that we made across the country when I was 11 years old, my parents decided to move to California with my brother who was now about 4 or 5. And fortunately they took my brother and I with them so that's how we got to California.

And I think, going back to school, I was never a good reader. I think that at some point I remember hearing the story-- I don't think I was there, but hearing the story that a teacher told my parents that well, we need dishwashers in this world and your daughter doesn't test as high as other students in this class. But there'll be a place for her. Of course that was not acceptable to my mother, who always pushed me to do well. But I also think that it's one of the reasons that I went into math and science. My mother being a journalist, she was obviously very good in English. My dad read everything. Even though he wasn't college educated, he read mostly newspapers, magazines; he was always up on the world events. But in school I-- because I was a slow reader -- I liked math and chemistry and sciences because there was a right or wrong answer and I knew-- I studied hard, I got straight A's-- usually got straight A's. Maybe there was a B or two sprinkled in there, but for the most part I was a straight-A student, but I really studied. It

didn't come easy to me to be a good student. I mean it came easy to me to study and to be a good student but not to-- I had to work at it because I had-- I wasn't a fast reader and so I liked the sciences. Because once you figured out how to do it, you knew the answer was right or wrong. Whereas with history or English, you never knew if that composition was enough; you never knew if you had studied enough of the history so that you could do well on the test. I also don't have the greatest memory in the world. I think that turns out to be actually profoundly-- actually exaggerated because of the fact that I've almost always been the only woman in a room in a business meeting, and so men always knew who I was and so I don't think I focused as much on learning people's names. I would know who they were but I wouldn't remember their names and I'm not sure if that was just a memory problem or is that I didn't put my heart and soul into it because I never—

Hendrie: It's hard to figure out which one.

Kurtzig: Well, they would quickly tell me their name, but they knew who I was so I never had the opportunity to repeat it and do what you normally do in a cocktail conversation. I think that's an excuse obviously for me not remembering names but that's.... So memorizing things like history was never something I enjoyed doing or wanted to do, and have never had a particular passion for anything that takes a lot of memorization.

Hendrie: So foreign languages which often--

Kurtzig: Foreign languages, yes.

Hendrie: --take a lot of memory to learn the vocabulary.

Kurtzig: Yes. That was always very difficult. My mother made me take Latin, and I remember because Latin had the derivatives of the words so she thought well, if I learned that I'd be able to learn all these English words. I sat behind this-- in this Latin class for-- I don't know-- two years or whatever it was, three years-- this desk that said, "Latin killed the Romans. Now it's killing well, like--" <laughs> and I looked at that for two years and I think that yes—

Hendrie: That's how you felt about Latin.

Kurtzig: That's how I felt about Latin also. It probably helped me, but I don't really think it did very much good. I did take French and I could read French relatively well. And when I had to negotiate a contract-- when I first started out at ASK we had a distributor in France and contracts had to be in French so... And then we were being hold up in the Plaza Athenee, which is not the worst place in the world to be held up in, for a week working on a French contract-- negotiating a French contract in French. So I can-- if I had to

in business I could read the French enough and I could understand enough to know if they're talking about me, or what they're saying, and if I had to I could communicate. But you're right, languages was definitely not something that came easy to me. Luckily, everybody speaks English now so—

Hendrie: I also have a very bad memory, so languages did not come to me so I figured that you probably had the same problem.

Kurtzig: Yes.

Hendrie: All right. So when you get to high school now you've moved to L.A.--

Kurtzig: Yes.

Hendrie: --to San Francisco-- where have you moved to in California?

Kurtzig: No, moved to Los Angeles into—

Hendrie: Where are you?

Kurtzig: I think we're in-- Baldwin Hills was where my parents first moved into an apartment. And then from there my dad built an apartment building that was in West Hollywood. So he owned the building and we had a relatively-- three-bedroom apartment that my dad built especially for us. I remember that there was these starlets. They would come and go through this apartment, and I was kind of fascinated by it because they all dressed in this makeup and they looked beautiful. And that wasn't on my list at that point of things. I was also very young. But some of them would sort of take me and put makeup on and I would-- you had a little bit of that influence having-- being raised there. I went to Le Conte Junior High School, which was near my house. It was in west Los Angeles, and then-- and I swam at that point. We had a pool; I did laps so that was how I-- my athletic ability was pretty limited to that. I was never a big athlete. Then when it was time for high school, my dad was building a house in Beverly Hills for the-- he was building three, he'd always sort of build them so he could sell a couple, three or four-- I think three. yeah, that's right. So I didn't want to have to disrupt my education by starting in Hollywood and then moving, so I went to University High School but for two years I took the bus from west Los Angeles. And I was pretty young at that point 'cause I graduated high school when I was 16 so I was probably 13 or something like that and I was taking the bus by myself. God, that seems young now that I think about it but—

Hendrie: Yes, really.

Kurtzig: Yeah. Maybe I was 14. Maybe it was the last two-- maybe it was-- well, anyway you get the point, okay, and I would take the bus so I had to change buses a few times. I think all of those things helped my learning to be independent and having to make decisions for myself and growing up, which is something I also instilled in my sons. I set a role model but I also-- I expected them to be able to do things on their own and I think that certainly has served them well that I worked. As a working mother, I think they learned that they had to make decisions and usually made good decisions.

Hendrie: Yeah, that's good. Now were there any teachers at your high school that particularly you remember that influenced you or--

Kurtzig: Well, actually the teacher that influenced me the most was in junior high school and his name was Haas[ph]. And I'm trying to think of his first name now-- but he ran for U.S. Congress and I campaigned for him and this was very exciting. I mean I learned a little about government, and I got to meet Kennedy. Because I think that was the year, and we went door to door. He lost unfortunately, but he was a great teacher and his students got-- I think a lot of his students got very involved in his campaign. So that was probably the most influential teacher that I can think of in my junior high school.

Hendrie: What subject did he teach?

Kurtzig: I think it was history; I'm pretty sure. Well, there you have it, okay, but yeah, I'm pretty sure. Now that I think about it, it had to be history and-- or-- I mean that was what-- okay-- and we were learning history by being out there on the campaign trail, okay.

Hendrie: That's very good. So he was very dynamic.

Kurtzig: He was dynamic and he was-- he should have won. <laughs> Then in high school my chemistry teacher was a woman and I hadn't thought about that. But yes, my chemistry teacher was a woman and she was fabulous and I've always liked chemistry. I always think of chemistry sort of as my version of cooking where you put things together and out comes whatever your experiment is. Unfortunately it never really-- it never really was something that I developed into cooking skills, but did enjoy chemistry and sciences and did have a minor in chemistry and a major in mathematics at UCLA.

Hendrie: Okay. So you graduate. Do you know what you're going to do at this point? What's the path forward--

Kurtzig: Well—

Hendrie: --when you graduate high school I'm talking about.

Kurtzig: I graduated high school, and my high school was sort of right next to UCLA, and so my parents said, "Well, you have to go to UCLA." There was never any option. I mean this is where I went, and except for one year, I lived at home so I never felt I had a high-school education-- or a college education. I lived in the dorms one semester, but I think I got a couple B's, and so my parents made me come home and my parents were very, very strict about my hours. I had a curfew at eleven or maybe even twelve. Maybe when I got to college but I was young-- remember I was young when I was in college and I did graduate pretty much top of my class in high school. I went to a public high school, and only about 50 percent of the high school-- 'cause I lived sort of in Beverly Hills but it was a Beverly Hills-- it was Los Angeles with a Beverly Hills address or something like that. So I went to University High School, which was not a Beverly Hills high school, and I did graduate one of the top in the class. Half the class went to high school-- went to college and half didn't but—

Hendrie: So it wasn't a college prep--

Kurtzig: It wasn't a college prep, no. In fact, there were no counselors. I don't remember ever-- anybody ever asking me the question, "What do you want to do?" When I see my sons and I see my grandchildren now I mean they're worrying about college when they're in kindergarten now. Of course, I know there's only one college they should go to, but that's beside the point. But the-- yeah, there is nothing-- there is never any subject matter. You had to figure that out yourself about what you needed to take for college. And I was in a hurry to get out of high school too so I graduated actually in three and a half years or two and a half years—

Hendrie: Why were you in a hurry? Do you remember why?

Kurtzig: No. I think I had-- I was finished with high school; I just-- okay, done that, time to move on, and not really. I mean I don't know why. I've always sort of been—

Hendrie: So you must have been--

Kurtzig: --needed challenges.

Hendrie: --skipped a couple of grades--

Kurtzig: Yeah, I skipped-- yeah—

Hendrie: --at some point.

Kurtzig: Yeah, six-- I skipped only a half-- I think I started early, was always in accelerated classes, and then I graduated a half a year early so for some reason-- I was 16-- I don't know-- which was why my-- probably the reason why my parents were so protective, okay, and went to UCLA and majored in math. I don't think there was ever any thought about majoring in anything else for some reason. I mean that was what I was good in was math so that was my major, okay.

Hendrie: So you major in what you can do well.

Kurtzig: Right, and I do-- I did work every summer. I worked even when I was in high school; I lied about my age so I could work at Bullock's department store because you had to have a work permit or something if you were under 16 and so I said I was 16 even though I wasn't. So I worked summers from the time I was a junior in high school and then I worked every summer when I was in college; most of it I worked at TRW Systems in Redondo Beach, which was where I worked part time during school and I worked all the summers—

Hendrie: So what were you doing there?

Kurtzig: I was in a department with 14 or 15 Ph.D.'s in aeronautical engineering. They were working on various problems and I-- at that point there was just starting-- there was obviously mainframe computers and these engineers would explain their problem to these-- it was sort of a closed-shop programming where they would explain their problem to a programmer and he would go back and work on it for months and then come back with some answer. And I was basically writing numbers on a piece of paper and trying to do all the analytic work to help them analyze these problems that they were working on. I was a protégée to these engineers that were all-- pretty much all Ph.D.'s, and so that was.... When it came time to graduate school-- So when I was in UCLA I was in math-- as I said a math major -- but it was very theoretical math and the teacher would get up and they would prove the existence and uniqueness of this theorem and that theorem. I found this sort of tedious because I would say, "Well, how would you use that? That's wonderful. I'm glad you proved it but how am I going to use it?" and they would sort of give you this look because we were not here to use it-- apply it. This was just supposed to be beautiful and—

Hendrie: Yes. I had--

Kurtzig: --and so I had-- did you have that same issue?

Hendrie: I understand, yes.

Kurtzig: Okay. So I was able to do what I had to do obviously but I certainly didn't find it particularly rewarding, not knowing how I would ever use this math. So having the experience of working at TRW where I was with these engineers who were solving real aeronautical problems I mean—

Hendrie: Yeah, and there was math involved.

Kurtzig: --and there was math involved but it was really applying the math that I had learned to figuring out where would-- if you had an arc where-- and you had-- propelling a plane where would it land or what-- where a missile would land-- we were actually working on missiles-- where would a missile land if it was directed in this direction or this-- so forth. So I actually saw how the math that I had been learning could be applied and so when it came time to go to graduate school, and I needed a major, what was I going to major in, I knew it wasn't going to be in theoretical math and all these engineers said, "Well, you need to go into aeronautical engineering 'cause that's-- you're going to see real application of math in aeronautical engineering. And why don't you go to Stanford?" And I said, "Okay." My parents would never let me go to Berkeley 'cause there was too many radicals there, not knowing of course that there was just as many radicals at Stanford. So fortunately, I got a fellowship to Stanford, and that's where I went to graduate school and that was my—

Hendrie: Did you apply anywhere else?

Kurtzig: No actually. When I think about it now no, I don't think I applied anywhere else. I think that the interesting thing was that the one thing I didn't-- yeah, I didn't apply anywhere else other than Stanford. I applied for a fellowship that Stanford thought I would definitely get. It was called the Amelia Earhart Fellowship, but I didn't get that fellowship. And it turned out that fellowships then had-- whoever donated the money for the fellowships could stipulate certain terms and you had to be an undergraduate engineering major and I was not; I was a math and science. So even though I was-- there was only two women and two hundred and fifty men at Stanford in aeronautical engineering, I was not qualified for this particular fellowship that had this stipulation. And of course there's nothing around-- you couldn't go around it because the person who had endowed it was dead. So, I had to work all summer to make money to try to afford to go to Stanford. And fortunately Stanford sort of felt a little bit responsible because they had said, "Oh, you're obviously going to get this fellowship so you're-- get this" that they found a fellowship for me so when I got to Stanford I was very fortunate in having a fellowship. And as I said TRW paid for most of my education-- my undergraduate education, which was not very expensive then. I mean at UCLA you were—

Hendrie: Exactly. Tuition was not that--

Kurtzig: --tuition was not very expensive—

Hendrie: --and you lived at home.

Kurtzig: --and I lived at home and I was a California resident so it just-- it was all good.

Hendrie: I was curious. I knew you had switched from math to aeronautical engineering and I—

Kurtzig: --math—

Hendrie: --and I understand what happened--

Kurtzig: Yeah. Well, I will say—

Hendrie: --because it seemed strange but it was all because of the influence of your summer jobs.

Kurtzig: Yeah, and the other two influences which are really important I think for anybody who is viewing this, especially young women, is that one of my summers-- as I said I worked every summer and one summer I was very fortunate to get a job at the UCLA computer center and this UCLA computer center had mainframe computers. The center was down in the dungeon-- I think it was the underground-- it was probably in a basement but there were no windows because the-- at that point they had raised floors for computers; you remember that obviously—

Hendrie: Yes, exactly.

Kurtzig: --raised floors and all this air conditioning or cooling systems-- and because a computer that is not even as powerful as what's on-- well, I don't have my Apple watch on right now-- not as powerful as what's on your watch, would take up a whole mass of rooms air conditioned as the Stratus computers did at that point too I think—

Hendrie: Yes.

Kurtzig: --and there were all these geeks that were working there and they were doing-- working in assembly language and these-- Esoteric and COBOL, these esoteric languages that I said, "There is no way I'd ever go into computers." I mean if this was a course instead of a summer job I probably would have failed out. But luckily, I made it.

Hendrie: What did you do in this computer center?

Kurtzig: Well, I had some job. I don't even remember now what it was, but I was supposed to be doing programming, and I did do programming and I remember programming on-- can you believe that far back-- on punch cards because they were mainframe computers and so I was actually using punch cards. I had to put all my programs onto punch cards and keep punch them myself. I mean sometimes I had keypunch operators who would do it for me, but you'd put it through the machine and you'd get it back and it was-- you'd have an error and you'd start all over again. Okay, and then that would be another hour waiting in line until your program got put through and you could see the results in piles of paper and I—

Hendrie: Yes.

Kurtzig: --solving some sort of blunt-- it was probably a blunt-- a problem that a professor has set out that was an important problem that had to be solved, which I don't even recall now—

Hendrie: Yeah, okay, but you--

Kurtzig: --but I—

Hendrie: --but you were doing some programming there--

Kurtzig: I was doing programming.

Hendrie: So you were--

Kurtzig: Yes, I was introduced—

Hendrie: --you knew how computers worked and how programming worked--

Kurtzig: Yeah, and I hated it.

Hendrie: --you did get that--

Kurtzig: There was no way I was ever going to go into programming.

Hendrie: Yeah, okay. So--

Kurtzig: Okay. So fast forward a little bit—

Hendrie: You didn't like it but you knew it.

Kurtzig: Okay.

Hendrie: Yes, okay. I get it.

Kurtzig: Fast forward to working at TRW Systems where again it was closed-shop programming. The engineers would give the problems to these obviously very talented programmers, and they would work on the problem in the same way I was working on it in the computer lab. And at this time a GE timesharing terminal showed up in the corner somehow and here was like a teletype terminal that you actually can put your program. And it was connected by a telephone somewhere and you can write your program in BASIC language and then later I think in FORTRAN, but BASIC at that point, and you could run it through, and if there is a mistake you can fix it right away. You stored your program on paper tape, all these little-- this paper-tape drive, and you were able to do pretty complex programming -- in this BASIC language. That was my first introduction where I said, "Hey, this is kind of cool. I can write these programs, I can get these answers, and I can solve these problems and"—

Hendrie: And you didn't have any trouble learning BASIC--

Kurtzig: I didn't have any trouble learning it, and it was fun. I was able to solve-- these problems that were taking months to be solved by these programmers in the closed-shop programming I could solve on this terminal. So that was where I started really getting interested in computers, and specifically in the GE timesharing computers so when I graduated. Okay, so I went to-- then I went to graduate school in aeronautical engineering and I did get some very prestigious job offers from Lincoln Labs in Boston and from Bell Laboratories, which was one of the most prestigious research institutions in the world. The ratio of-- I always used to joke the ratio of doctor to patient was like four to one, meaning Ph.D.'s to real people--

Hendrie: Non Ph.D.'s.

Kurtzig: --okay, non Ph.D.'s, and I know you know this but the buildings at the Bell Lab-- at-- Bell Laboratories was one of the most distinguished-- is it still around?

Hendrie: No, they finally closed it--

Kurtzig: Okay. So there—

Hendrie: --but it survived a long time.

Kurtzig: Yeah, Murray Hill and Whippany and-- but there were I think four different Bell Labs, and I had actually an interview with the most prestigious one; it was all a think tank. It was a think tank actually and the-- it was in very cold weather in New Jersey, which is how I-- one of the reasons I got back to New Jersey and these buildings had actually had bars on the windows. I don't know why the windows had bars. Is there some-- you might know—

Hendrie: No, I don't--

Kurtzig: It was weird.

Hendrie: --but you noticed it for sure.

Kurtzig: Yes, I did and they were all brick, which of course to me was very foreign from the stucco environment of California and the free-- the short-sleeved blouses and so forth that I grew up in. And so I had this interview and I-- it was a very old building and these very, very smart engineers were there. I remember walking down the hall-- I think I-- maybe I was going to the bathroom or something, but I was walking down the hall and I saw these-- this one guy in particular walk down the hall, walk into the drinking fountain, say, "Excuse me" and keep walking. And I said, "This is not the place I want to be; this is weird." I mean I think he was just so into him-- into what he was thinking about—

Hendrie: Thinking about what he was doing?

Kurtzig: --whatever he was doing that he just was-- his mind was just trying to get from one point to the other point-- there was-- just didn't even think about it wasn't a person. It was a drinking fountain he just said, "Excuse me" to and sort of said-- I said, "This is not where I want to go," okay.

Hendrie: I mean I don't want to be with these people.

Kurtzig: No. This is not my life calling and so I said, "Well, maybe I should"-- I loved GE; I loved the timesharing environment-- "maybe I can go get a job at GE timesharing". They had an office in Teaneck, New Jersey, on-- and I said, "Maybe I could sell the stuff. I mean I'm really passionate about it. Maybe I could sell it to other people. They must have salesmen. I don't know what they would do but-- okay-- and so I called and he says, "No. I'm sorry we're not hiring." And I said, "Well, that's not an acceptable answer

to me”, and so I drove to Teaneck, New Jersey, and said I wanted to see the district sales manager and the secretary said, “I’m sorry. He’s busy; his calendar’s full”. And I said, “Well, I’ll just sit here and wait just in case he gets a moment or two.” And I remember just sitting outside his office for like three or four hours ‘cause I wanted to meet with this guy and I wanted a job at GE. I felt I had the qualifications. I think having a science background is really important and—

Hendrie: Yeah, because the customer--

Kurtzig: --I had—

Hendrie: --half the customers are going to be--

Kurtzig: That’s right.

Hendrie: --the people that--

Kurtzig: --that I used to—

Hendrie: --the people at TRW that you worked with.

Kurtzig: That’s right. So I had a degree and I think it’s really important to get a background in science, math, computer. You can never tell-- I mean that’s just really an important background and so I had-- and I had-- went to good schools and I got good grades and I looked presentable. I made sure that I dressed appropriately so that there was no doubt that I was there for business, and finally he interviewed me and gave me a job on the spot. So I guess persistence is—

Hendrie: Persistence won.

Kurtzig: --persistence is-- won, okay—

Hendrie: Yeah, it’s very good.

Kurtzig: --and I think that in looking back this is something that I definitely would recommend to women or men that get a very, very solid science background and go into sales. Because at least some experience level, and the reason sales is so good is because it-- one, you have to learn your product so that’s really important, two, you have to learn how to communicate. When you’re selling something, if you

can't understand the product and you can't sell your product and yourself 'cause you sell yourself first and then you sell your product. Okay, it's important that you learn how to communicate and two, you really get a lot of background in the company. You learn about your company, you learn about other people's companies so you could see other companies you like, and I think one of the most significant things I did was take my science and background and go into sales for GE.

Hendrie: Okay. Very good. Wow. I liked the-- yes, the fact that you went all the way across the country to--

Kurtzig: Well, I went across the country because I got married, okay.

Hendrie: Oh. Well, then now we--

Kurtzig: -so--

Hendrie: Okay. Now let's roll back a little bit.

Kurtzig: Let's roll back a little bit, okay. So I met Arie Kurtzig at Stanford; he was working on his Ph.D. He was also young, he got his Ph.D. at 24, and he was working on his Ph.D. under Shockley-- William Shockley who was the-- got the Nobel Prize for the transistor. Shockley was sort of a curmudgeon who went into various avocations later in life that probably are not his most stellar thing, but he had never-- he had students that he never would pass. And Arie was actually the first graduate student who actually achieved a Ph.D. under Shockley. So Arie was finishing up his Ph.D. as I was doing my master's. My intention was to go on for a Ph.D. which-- I will tell that story if you'd like to hear it.

Hendrie: Yes.

Kurtzig: Okay, but-- so we met there and he went off to actually go to Bell Laboratories at Murray Hill and thought-- he was—

Hendrie: What was his field, his--

Kurtzig: His field was solid-state physics.

Hendrie: Solid? Yes, okay. That would--

Kurtzig: Okay, something you would know very well.

Hendrie: -- yes, computes very well with Shockley, yes, okay.

Kurtzig: So I should mention that-- and Shockley was very involved with Bell Labs as well so that's the connection—

Hendrie: Well, that's where he came from.

Kurtzig: --and that's where he came from; I forgot—

Hendrie: Yeah, exactly.

Kurtzig: Of course. Yeah. Thank you for—

Hendrie: Yeah, okay.

Kurtzig: I forgot. I will mention that at the aero engineering at Stanford-- I might have mentioned this-- that there were 250 students in that class 'cause aero engineering was very popular at that point. There was a lot of aerospace work being done. It was right after-- or right before we landed on the moon I guess. No, it was after we came-- after we landed on the moon, I think but everybody was going into that. it was very, very interesting actually-- and so there were 250 people and there were 2 women, myself and one other so-- but—

Hendrie: Okay. Now you said that you had thought about going on so--

Kurtzig: Yes.

Hendrie: Yes. So you met your future husband at Stanford, okay, and he was a Ph.D. student. So tell me about thinking about going on--

Kurtzig: Well, I actually had intended—

Hendrie: --and why didn't you?

Kurtzig: I actually intended to get my Ph.D. in aeronautical engineering and I had-- remember I had to work the summer to make the money to get-- to be able to afford Stanford because I didn't think I was getting a fellowship. So I had this money and I was going to have a summer job right after my-- I got my master's at IBM. This is sort of a knock on IBM but I will tell the story anyway 'cause—

Hendrie: That's okay--

Kurtzig: --I've never gotten paid from IBM. They owe me a day's pay with interest for all these years, okay. You have that on record that I'm still waiting for my paycheck, but on-- I accepted a summer job there with the idea-- excuse me-- I had wanted a summer job with the idea that I could work part time during the school year and continue on with my Ph.D. at Stanford.

Hendrie: Yes. So this way you could finance your study--

Kurtzig: Exactly.

Hendrie: --all the way through your Ph.D.

Kurtzig: Exactly. So—

Hendrie: And they were amenable to this?

Kurtzig: That was the deal--

Hendrie: You had a deal.

Kurtzig: And the deal was that I would go to my training over the summer-- that's right-- I actually took a job with them and I was going to go to my training over the summer with-- in L.A.-- they had a particular program that started at the right time-- and that then I would go back in the fall. You know how classes when you're working on your Ph.D. they're year long. You can't start in the second semester; you have to start a course-- it's usually A, B and C—

Hendrie: Absolutely.

Kurtzig: --and so I was going to do the training that IBM wanted me to do. They had a very good training program, which was one of my interests, and of course IBM was IBM. I mean that's where—

Hendrie: Now what were you going to do with IBM? What was--

Kurtzig: I'm trying to remember what the job actually was. As I said, I worked for them for one day, maybe two days but one day at least, but it was something in science maybe. It was in being an-- probably-- I was probably going to be a systems support person.

Hendrie: Analyst or something.

Kurtzig: Yes, kind of a support to—

Hendrie: To the--

Kurtzig: --engineers or whatever, yeah, a field engineer in some way as-- I was going to be in the field definitely.

Hendrie: It was in the field.

Kurtzig: It was in the field so that's why I already had thought that I wanted to go into the field and to working with customers at that point. So anyway I had done some interviewing and then knew-- so I knew I just didn't want to do that. You're bringing back my memories here but-- so I was supposed to-- they had three things. One is I can go back to school and work part time and go to school part time and two, I can do the training during the summer. And there was a third thing, and I don't remember what it was now, but there was a third strike I remember, and I showed up as I was supposed to in the office in Palo Alto and they said, "Oh, I'm sorry. You're not going to go to the L.A. class. You're going to have to go to the one-- the class in San Francisco and it's not going to start to" a point where I would be going-- I would be missing the first quarter of my-- at Stanford.

Hendrie: Oh, my goodness. They delayed the-- yeah.

Kurtzig: Yeah, that-- somehow or another they-- I don't know why I couldn't do the one in L.A. because that had all been planned. I showed up the very first day and they said that and then I think the assignment-- I was supposed to be on the Lockheed account or some account-- that made sense-- that was the third thing and they said, "Oh, you're not going to be on that account. You're going to be on this account". So it was sort of three strikes and you're out and I just said-- one day I said, "This is not what I want to do. I want to go back to school" and so—

Hendrie: And this is not making it--

Kurtzig: This is—

Hendrie: --easy for it to happen.

Kurtzig: No, so I quit, and after one day. So I probably had one of the longest-- the shortest longevities at IBM. And then because I had the rest of the summer, now, and I had this money, you know, from having worked the summer before--

Hendrie: You'd say, yeah, you'd saved some money.

Kurtzig: I decided to go to Europe. And for the summer, because I'd never been to Eur-- I'd never been outside of, you know, out of the States. And the-- so I went to Europe, and--

Hendrie: On your own, or with friends?

Kurtzig: On my own. I went on a tour. You know, my parents would never let me go by myself <laughter> on a tour. What was wrong with them?

Hendrie: For an independent person, they were incredibly protective of somebody who could--

Kurtzig: That's why I was so independent, but, you know, whatever. I was, you know, independent within these, you know--

Hendrie: Very--

Kurtzig: Opinionated walls, I think, I must say. But I went on-- you know, the group, there was enough flexibility, I could do what I wanted to. And I enjoyed it. It was a tremendously great group. And I think that was much better than going by myself anyway, because there were other people my age.

Hendrie: Yeah, okay.

Kurtzig: So I went on this tour, and when I came back through New York, Ari proposed to me.

Hendrie: Ahh!

Kurtzig: So that was the end of my _____.

Hendrie: Okay, you-- yes, okay, he proposed to you.

Kurtzig: So that's how he proposed.

Hendrie: Now you'd been gone for the summer.

Kurtzig: I'd been gone for the summer.

Hendrie: Yeah, and he's missing you. And he--

Kurtzig: Yeah, he's missing me, yeah.

Hendrie: I get it, okay.

Kurtzig: So that's how I ended up moving at that point to New Jersey, and you know, and interviewing with Bell Labs, which was--

Hendrie: Okay, now, so now you're living with Ari in New Jersey.

Kurtzig: Now we're living at--

Hendrie: Now I get it completely.

Kurtzig: Yes, we're living-- our first apartment was in Short Hills.

Hendrie: Oh, I know Short Hills, yeah.

Kurtzig: Anybody who knows Short Hills, you think of big houses and lots of money.

Hendrie: Absolutely! Right.

Kurtzig: Okay? That's not us. Okay? <laughter> There is the Eerie Lackawanna Train Track. And a train goes from New Jersey to New York.

Hendrie: Yes.

Kurtzig: And it's the commuter train for people living in New Jersey in those nice houses, and I lived literally on the train tracks. Here's all the nice houses. Here's the train tracks and then there's Moore's Turnpike that had apartment buildings. And I lived in an apartment building. The train went right through our apartment. We didn't have to have an alarm clock, because the train would wake us up in the morning.

Hendrie: Oh, wow, okay.

Kurtzig: So that's where we lived.

Hendrie: Okay, cool!

Kurtzig: And we lived there for three years, and I said, "Look, I'm not a New York/New Jersey type of person. I've now been raised in California since I was 11. And I really want to-- that's where I feel comfortable. But I will try it out for three years." And at the end of three years my deal was that, "If I don't like it, you'll look for a job in California!"

Hendrie: Okay!

Kurtzig: And he says, "Okay, that's a good enough deal." So that's where we went. And I think the point here is that when you look at, you know, I've always been very directed. I've always been, first of all, honest with whoever I'm with, because, "These are my priorities." Because I think often people are not honest with their partners, or with their employees, and you know, I said, "I will try this, but this does not feel like it's something I'm going to be comfortable with. Cold weather is not what I like."

Hendrie: Yes.

Kurtzig: "And this environment, you know, with these brick buildings, you know, and living on the train tracks is not really what I think I'm going to enjoy, but I will, you know, obviously, I'm very in love with you, but this is not, you know, we need to have some sort of parameters, okay?"

Hendrie: "And see whether we-- yeah, let's try to--"

Kurtzig: And that's something I've been very [clear on] with what were important to me. Because I felt if I wasn't happy, my partner's not going to be happy, my kids aren't going to be happy. And so I try to really think about what is it that's going to make me happy? And what's going to-- and also what's going to make people around me happy, and to make sure that that worked with them, because I don't think-- I think life is sort of a give and take in a lot of ways.

Hendrie: Yes, a lot of compromise.

Kurtzig: A lot of compromises, you know?

Hendrie: Right, okay.

Kurtzig: I wasn't good in English, so I figured out something I could be good in. And you know.

Hendrie: Okay.

Kurtzig: So we both were in New Jersey, living in this apartment. And had a great job, it's G.E. It's-- really loved it.

Hendrie: Okay, so you did get that job.

Kurtzig: I got that job.

Hendrie: And relatively soon after you got there, yes.

Kurtzig: Yeah, yep.

Hendrie: All right, so you're selling timeshare.

Kurtzig: And it was wonderful. I got to do all kinds of interesting clients. I was very successful. I was usually one of the top producers-- if not the top producer of a quarter. And that's where I got to meet with customers who said, "Well, gee, we really-- we have this problem to solve, can you help us solve it?" And I was selling the raw timesharing, I wasn't selling programming.

Hendrie: I understand.

Kurtzig: Okay? "Here's your terminal. Here's some canned programs. Here's a book of canned programs you can use. And if they don't fit, here's-- you can program it yourself." Okay?

Hendrie: Yeah, yeah.

Kurtzig: And some of them would say, "Well, look, that's all fine, but we don't know how to program, and we don't have the time to do it. Can you--"

Hendrie: A lot of, "We don't have the time to do it."

Kurtzig: "And we don't have the time to do it. Because there's lots of small companies, and you know, I was just carrying a bag. I was a salesperson going, basically, trying to find people that use this new-fangled thing. And they'd say, "Well, if you could--," "Tell me your problems," I would ask them. And they'd say, "Well, this is a problem we really have. If someone can solve this problem for us, you know, we'll buy your services." And there were various problems. There were problems like General Foam, which was a division of-- I forget now. They were a division of a large auto company.

Hendrie: Oh, yes, okay.

Kurtzig: And they made this foam that they then had lasers that cut the foam into various sizes to be used for different applications. And they said, "We need something that would help us figure out how to optimize the cuts on this foam.

Hendrie: Ah, yes, so to get the most pieces.

Kurtzig: The most pieces out of this--

Hendrie: That they could sell out of a given sheet of foam.

Kurtzig: Exactly.

Hendrie: Got it.

Kurtzig: And there were other applications like that. And so I would, on the weekends and at night, I would go home and write these programs for these customers, and they would then, you know...I have to go back a second on this story. Because but that's basic-- so I start writing these programs, and then they would use them Then I would get the more they used it, I got a commission on what they were using.

Hendrie: Yes, you got a cut and they bought the timesharing system.

Kurtzig: They bought the timesharing.

Hendrie: Because it solved their problem now.

Kurtzig: So I have to give you a little story before that. My first assignment with GE Timesharing was, would you believe, as probably you will, was to service the engineers at Bell Laboratories, Murray Hill. <laughter> Okay?

Hendrie: Okay.

Kurtzig: Because G.E. was starting to get just like a TRW, starting to get-- sell these terminals to these engineers. And these engineers-- they'd put them around, and these engineers would start using them. And so with my background, I think, you know, it was very appropriate that they said, "This is the customer you're going to service is Bell Laboratories, Murray Hill."

Hendrie: Yeah, because of your science background, and your math background. You could talk to the customer--

Kurtzig: I could talk to the customer.

Hendrie: -- and actually understand what the customer said.

Kurtzig: Yeah, usually. They were pretty-- they were really over my head, but in theory--

Hendrie: But certainly you could relate to them.

Kurtzig: I had got a job offer from them, so in theory, I could, okay?

Hendrie: Okay.

Kurtzig: And I could fool them enough to listen to their problems, okay? So that was my first assignment was to go and try to get as much G.E. Timesharing in Bell Laboratories Murray Hill.

Hendrie: Okay.

Kurtzig: And I did a very, very good job at that, and I was very excited. Because you know, it was growing, the revenue was growing from this G.E. Timesharing, more terminals were going into the building, more usage by the engineers, and the engineers were happy, because they didn't have to go down into the basement to their closed-shop programming.

Hendrie: Absolutely.

Kurtzig: They could get these answers themselves. And I'd be writing programs to help them, or I would show them how to use the programs, because they had so many scientific issue-- there were scientific galleries of applications that they could use. So you know, everybody was happy. And I was, you know, this actually worked for me! Maybe I wasn't smart enough to be an engineer there, at least I didn't think I was. I think women sometimes don't have the self-confidence that they should. And I must be-- maybe I was one of those. But you know, being able to sell the service, and sell it well, and because I had used it myself, I knew it was pretty good!

Hendrie: Yes!

Kurtzig: And then after-- I don't know how long I was there, but long enough, I got called in by my boss, who name is Dennis Gazaza [ph?]. I remember him being a very, very proactive, wonderful boss. And I thought, "Oh, I am going to get some sort of 'at-a-boys because I've done such a great job," and I was really excited. I think I even dressed, because you know, because I was going to have this meeting with this--

Hendrie: Yeah, because it was scheduled. Yeah, the meeting was scheduled.

Kurtzig: -- with this-- my boss, and I was very excited about it. And he says, "Sit down, close the door." "Really? Okay." He says, "We have a problem here." "What's the problem? I'm giving all this revenue! And everything's great, and everybody loves what we're doing!" He says, "That's the problem!" "What do you mean? How can that be a problem?" And you know, I was sort of getting very tense, "What's going

on here?" It turns out that G.E., big G.E.-- there were two different divisions of G.E., that you'll identify, which sold the big computers.

Hendrie: Yes! Oh, absolutely!

Kurtzig: Okay? And those were the computers that were in the basement--

Hendrie: Oh, oh, oh! <laughs>

Kurtzig: -- at Murray Hill.

Hendrie: Right, and another division of G.E. is compet--

Kurtzig: -- called G.E. Timesharing, sold the terminals.

Hendrie: Of course. Totally different divi--

Kurtzig: And then there was also another division, of course, that sold light bulbs and machinery and everything else.

Hendrie: Yeah, yeah, yeah, but- but, yes.

Kurtzig: Let's focus on these two. And G.E., big G.E. that sold these big computers that cost, you know, millions, hundreds, well, maybe I don't know how much then, tens of millions of dollars for these big machines, you know. They were systematically selling more and more of these big machines for the basement category. That was their job. And here I was with my \$10,000/\$15,000, you know, whatever it was that I was drumming up on the G.E. Timesharing business was eating into them selling more computers, because anything that was offloaded from these big machines onto these timesharing machines, was taking away from their next big machine <inaudible 00:51:32>.

<overlapping conversation>

Hendrie: They're not selling them, yes!

Kurtzig: So, they basically said, "We're taking you off of Bell Labs, because you're being too successful." So you can imagine how I felt. This is my--

Hendrie: Oh, my goodness, yeah.

Kurtzig: This is sort of my really first entre into--

Hendrie: It was your first full-time job.

Kurtzig: My first full-time job, yeah.

Hendrie: As opposed to a summer job, or while in school.

Kurtzig: Yes. Yeah.

Hendrie: Wow.

Kurtzig: I had another job for a very short time that I got fired from. So I got fired from sort of two jobs. Okay?

Hendrie: Okay. I want to hear this story, too.

Kurtzig: Let me finish this G.E. Timesharing, because that was-- that goes back a little bit, okay.

Hendrie: Okay.

Kurtzig: Because that one's sort of interesting, and I don't really even know the name, but I'll tell you about that. Since you wanted-- do you want to hear this stuff?

Hendrie: Absolutely!

Kurtzig: Because I think this stuff sort of, you know, the thing is, you have to keep going. You have to, you know, whatever's worth doing, you need to work at it. So I'm sure-- I don't think I cried, because I'm very good at not crying in business meetings. But I'm sure it was welling up in me, and I was just very-- I

mean, you could just imagine! You know, I knew I was doing well. And I thought I was going to get this, you know, all these 'at-a-boys and accolades, and maybe a raise or whatever. And here he's telling me, "We're taking you off of that, because you're doing too well." How do you compute that?

Hendrie: Yes, yeah, you don't. There's something wrong there.

Kurtzig: You know, a really difficult thing to do. There's something wrong there. But I mean, I picked myself up, and he says, "We're giving you other assignments," and those are the assignments where I actually went out and worked with all these different customers, and I did very well with that. And in fact, I remember, General Foam is the one who had a plant somewhere. They flew me by helicopter, very exciting, to their different plants, to sort of walk around and understand their business and help them write software, and I thought, "This is kind of cool!" I mean, that is, you know--

Hendrie: Yeah, that's very cool!

Kurtzig: That was really cool! I mean--

Hendrie: Probably never been in a helicopter before.

Kurtzig: No, of course not, I mean, you know?

Hendrie: Of course not!

Kurtzig: I didn't tell my parents. They would never have allowed it. But yeah, that was-- so I really had these great experiences. So my job that I-- other job that I got fired from, when I first moved out to New Jersey, I didn't have a job, and there was this company very close to our house, it was just starting up, and they were doing something computers. I actually don't even remember now. It was a startup. And I was supposed to be doing some programming, which was, you know, sort of my background for this startup. And they really didn't have their act together, and I didn't, you know, I sort of spent a lot of time, you know, not doing too much, because they weren't doing too-- I mean, they weren't--

<overlapping conversation>

Hendrie: Yeah, they weren't organized enough, basically.

Kurtzig: It wasn't organized, but it was a start-up. And I think it was sort of whatever I was trying to do probably wasn't that successful, but I remember what happened is that they got around to-- their lawyers must have told them, "You have to have everybody sign--," it was sign a non-disclosure, a non-compete agreement. So they gave me this agreement, and I wasn't, you know, legally savvy, I'd never had to sign one before. And in it, it said that you can't work for another company in the computer field, or whatever. I mean, it was a pretty broad statement. They used to have them very--

Hendrie: They tended then to have very broad statements.

Kurtzig: Very broad statements.

Hendrie: Turns out they didn't tend to be very enforceable. But, boy, were they--

Kurtzig: They did not turn out to be enforceable, in most states.

Hendrie: Yeah, they were not-- huh?

Kurtzig: In most states, yeah, later on I realized, in most states they were not enforceable.

Hendrie: Yeah, yeah, but how do you know?

Kurtzig: I didn't know that. I was young, and I'm reading this thing, and my first job, really, and it says, you know, you can't-- all what you couldn't do. And I'm saying, "Gee, what if this-- this is a startup? What if this doesn't work, and I, you know, this doesn't seem right!" And so I said, "I really have a hard time signing this." And they said, "If you don't sign it, you're fired." For some reason I chose the route of, "I can't sign this. I don't feel comfortable with it." You know, I didn't think of going to a lawyer. You know, at that point--

Hendrie: Yeah, yeah, yeah, you just made up your mind.

Kurtzig: They just said, you know, "Everybody has to sign this, otherwise, they can't work here." And you know, it was-- I know the company's out of business, so it didn't last very long. And you know, their lawyers probably said, "You have to get everybody to sign this." And I don't even know what they were trying to develop, but whatever it was, it was not successful. But I just decided, "Look, this is not how I want to start my career, and this doesn't sit well with me." So I did have that experience before the G.E.

Hendrie: Before the G.E.

Kurtzig: Now I had G.E., and then I just now had this bad experience at G.E., where I had done well, very excited, and but, full coming around, I know ended up with a territory, and started meeting with all these different customers. One of my customers was the pharmaceutical company, oh, god-- Lidekson [ph?].

Hendrie: Well, Johnson and Johnson is very close to there.

Kurtzig: Yeah, but it wasn't Johnson and Johnson. It was Merck!

Hendrie: Oh, okay.

Kurtzig: And there was a person there named Lidekson, god, I'm bringing back these memories from so many year, okay, who was vice-president, and for some reason I was doing work with his department. And again, my chemistry, too, so and that was really successful. And then I had this other-- a lot of other companies where I started writing programs for them. Even though that wasn't part of my job.

Hendrie: Yes, right.

Kurtzig: And I did become one of the top salespeople for all of G.E. Timesharing, and was the national speaker for them.

Hendrie: Wow.

Kurtzig: One year, which was really for-- which was really exciting. That was a great beginning for me.

Hendrie: That was! And you figure out that you knew how to program and that helping them solve their problems would make more sales!

Kurtzig: That's exactly right!

Hendrie: And so--

Kurtzig: That's what I did!

Hendrie: That's what you did, and it worked!

Kurtzig: Yep, yep.

Hendrie: Very good, all right, good!

Kurtzig: So how did I get to California? So--

Hendrie: Yeah, so, now you're working for G.E. still. Okay.

Kurtzig: Yes. And remember I said three years I would give the East Coast.

Hendrie: Right.

Kurtzig: And it was three years. It was time to consider moving back to California. Told my husband that, you know, I want to go back to California, and he, at first, was very resistant. But finally decided he would try to find a job. And there wasn't a good job market, but he did find a job. And so he had the job, and I just asked to be transferred with G.E. So I actually stayed with G.E., and came back out here and selling in the Palo Alto office.

Hendrie: Okay, yeah, so okay, so that worked.

Kurtzig: So I did that, and continued sort of the same, you know, way that I was doing, and would work with customers and help them program and so forth. And I came across a couple customers that said, "You know, we have this problem. There's nothing here that would help us with that problem, and we-- it's inventory control, we need to have a better way of keeping track of what goes into our product, our inventory. Could you write a program?" And so I wrote a program for them on the G.E. Timesharing, and that worked, you know, pretty well. And I'm trying to think of the transition here for a second, because somehow-- okay, so I did that on the G.E. Timesharing. And then I started doing that, and then it was time to-- I thought, "Okay, it's time to have a baby. I want to have some children. My priority has always been family first, business second, and the rest next."

Hendrie: Okay, and your husband's fine with it.

Kurtzig: Yep.

Hendrie: What was he doing now?

Kurtzig: At that point, he was at iTel for a while, and then he went to Hewlett-Packard. So he was at Hewlett-Packard at that time.

Hendrie: Oh, okay, so eventually he did get a good job at a good company.

Kurtzig: Oh, yeah, before-- he had a job at a good company before we moved out.

Hendrie: Oh, he had the iTe--

Kurtzig: He had the iTel. iTel, remember that--

Hendrie: Yes, I remember that. Okay, good. All right, good. Okay.

Kurtzig: <laughs> Not the greatest company, but anyway.

Hendrie: Yeah, I was going to say. But Hewlett Packard is-- that one was okay.

Kurtzig: Hewlett-Packard. He went to Hewlett-Packard after a year. iTel didn't live very long. Anyway, he-- so he had a job. And it was time, you know, to have a family, and I wanted to have a family. And so I thought, "Well, gee, maybe I could quit, and go into writing programs for these companies that are asking me write programs."

Hendrie: Because you could do that at home.

Kurtzig: Because I could do that at home.

Hendrie: Don't have to be on the road.

Kurtzig: Okay? Timesharing terminal, could put that in my second bedroom, can do that. And so I decided to leave. I guess one of the reasons I decided to leave is sort of an interesting story. I was, you know, again, probably the top producer in the office. And we had to fill out an expense report, and it was the end of a quarter, and I'd go and do my whole quarter expense report, you know, a whole month expense report in one day, because I didn't even spend enough time doing it.

Hendrie: Yeah, right. <laughs> I know that.

Kurtzig: I'd, you know, finished the quarter. I got it done, or finished the month, whatever it was, and went and filled out this book with what I had to do.

Hendrie: Yeah, all the stuff you had to do.

Kurtzig: And I turned it in. And it turned out, I had put the numbers in the wrong column or something. And so my boss, you know, called me in and says, "You know, your numbers are in the wrong column in this expense report." It wasn't like, "Gee, thank you very much. You just made, you know, the whole divi-- the whole district's quarter for the--," it was, "Hey, go rewrite your whole expense report." And I just said, "Okay." That was it. That was sort of the straw that broke the camel's back, and that's when I decided to go off on my own.

Hendrie: Okay, yeah, "I don't need this aggravation!"

Kurtzig: "I don't need this," yeah. You got it right. So I guess I'm a little rebellious sometimes. So-- or often, but that was just the time I was ready to leave, and this was what threw me over, I think.

Hendrie: Yeah, yeah, pushed you over the edge. It wasn't like it would have made a fundamental decision. It was just--

Kurtzig: It was just, you know?

Hendrie: Yeah, it was the trigger.

Kurtzig: I'd obviously thought about it. It was the trigger. So I started, and I decided, "Okay, I'm going to find work to do as a programmer." And so I put toge-- I got my lavender briefcase-- excuse me, pink briefcase--

Hendrie: Had you always had a pink briefcase?

Kurtzig: No, I just-- I don't know if I had one at G.E., but I'd always felt--

Hendrie: I was going to say, G.E. wouldn't have-- they wouldn't care.

Kurtzig: I've always felt that, you know, "I'm a woman! And men understand how to deal with their sisters and their wives and their daughters, you know, as women, and this is who I am. I have the background and the skills and the technical education to be on your level, but I'm also still a woman, and I like having men open the doors for me," and I've always felt that way.

Hendrie: Okay, good!

Kurtzig: And--

Hendrie: So you had your pink briefcase.

Kurtzig: That's just me. So I had my pink briefcase. I don't think I was necessarily making a statement, but you know, in sales, you need to stand out. Often there's multiple people pitching the same product. And who is that guy going to remember who-- you're usually pitching to a man-- and he's probably-- you know, all the men are dressed the same way. They have their dress for success uniform on. At that point, men dressed in a suit.

Hendrie: Right, of course!

Kurtzig: So if you can do anything to stand out, but also you needed to have-- you had to be smart, you had to know your product, and you had to be on the same level with everybody else. But then when everybody else is on the same level, and everybody else has a competent product they're selling, if you can do something to stand out, that's to your advantage. And so I've always felt, you know, being a woman has been an advantage. Because maybe at the beginning, they were sort of surprised that I knew my stuff. But once they got over the being surprised, if they were, then when I showed that not only did I know my stuff, but you know, it worked, you know, I would get the sale.

Hendrie: You'd get re-- yes, you'd get respect. Yes.

Kurtzig: And I think, you know, there's been so much these days about discrimination, and I think there's always obstacles. If you're a salesperson, and you're short, it's been proven by a lot of studies that tall salesmen do better than short salesmen. But there's certainly some very, very exceptionally good short salesmen, or shorter salesmen. And I think there's always an obstacle. No matter what you're doing, there's obstacles to achievement. I mean, there's obstacles when you started Stratus, you know, and you had big competitors. There's always things you could say, "This is an obstacle, and I can't figure out how to get over it." Or you could say, "Okay, well, now I know what my obstacle is, now let me figure out how to deal with that."

Hendrie: Yeah, yeah, yeah.

Kurtzig: So I've always been myself. I've never felt that being myself was a disadvantage.

Hendrie: Was not the right-- was not the best thing you could do.

Kurtzig: That's right.

Hendrie: The most advantageous. Okay, good! So how's this go? You--

Kurtzig: So I send out a flyer, and I had my mother help me, because remember my mother has this journalistic thing.

Hendrie: She's a journalist, oh, yeah.

Kurtzig: And the flyer, I could show you. Actually says, "Have you seen this woman?" And it was like a "Wanted" flyer. It had my picture, and it said, "She was dangerous to any less than optimum computer program you might have," or whatever. I forget now exactly. I can show you if you like.

Hendrie: Yeah, I'd love to see that!

Kurtzig: Okay, okay, we can do that. So where were we?

Hendrie: So you had this printed up.

Kurtzig: Oh, so I printed this out--

Hendrie: And what are you going to do with it?

Kurtzig: And then in the end-- at the outside of the envelope it had in red, "Dangerous Woman Loose."

Hendrie: Okay, I love it.

Kurtzig: With no return address.

Hendrie: Very good.

Kurtzig: And I went through, and of course, you didn't have computers that had everything on the computer. So I had to get all these industrial directories, and I had to go through by hand all these industrial directories. And I sent this poster in an envelope to, you know, hundreds and hundreds of places hoping to get some business.

Hendrie: Okay, but focused in the area, yeah.

Kurtzig: In the area, but you know, yes, I looked at it by geography, so it was, yeah, all in the area. And I was just actually at that point just doing general programming. It wasn't designed just for the manufacturing or for the inventory.

Hendrie: Now you're in L.A.?

Kurtzig: No, I'm here.

Hendrie: Oh, you're here.

Kurtzig: Yeah, in San Francisco. Yeah.

Hendrie: Okay, yeah, I forgot a sec.

Kurtzig: In Palo Alto is where, you know, okay?

Hendrie: Okay.

Kurtzig: And we had an apartment in Mountain View.

Hendrie: Okay.

Kurtzig: And I didn't-- it was not very successful, except for one of the newspapers who called and said, "We'd like to hire you to write for us as a journalist!"

Hendrie: <laughs>

Kurtzig: And I said, "No, no. You're confused."

Hendrie: "You're confused. You want to hire my mom."

Kurtzig: That's right. "Wrong person, okay?" But I talked to them and they said, "You know, we do have this problem we need to figure out. We have all these carrier boys. These little carrier boys that go off, and we have to package up the newspapers for them, and we have to keep track of the pennies they get per newspaper that they deliver. And could you write a program for doing that?" So I went back to my G.E. Timesharing service, and I wrote the program, and then I serviced it. I charged them. Every week, I would print up all the labels that they would put on these packages of newspapers, they would de-- you know, deliver it to the boys who would go around. And then they had to go around-- the boys went around and collected door-to-door. Remember they used to collect door-to-door?

Hendrie: Oh, yes, absolutely. Once a week.

Kurtzig: And kept track of that, and so I did all that for one newspaper. And that was a syndicate, they'd have a number of newspapers. It was the *Sunnyvale Newspaper*, and the *Cupertino Courier*, and--

Hendrie: Yes, okay, yeah. There were all these town newspapers.

Kurtzig: All these little local town-- *Town Crier*, *Los Angeles Town Crier*. And then I-- based on that other newspapers called me. So I started having this business of handling all of the carrier, and all the subscription services for all these little newspapers, and I also serviced them, so I was actually a service bureau. And then when the timesharing thing--

Hendrie: Yeah, you didn't just write the program. You wrote the program and then you turned it into a service business.

Kurtzig: I turned it into a service business.

Hendrie: Okay.

Kurtzig: Okay?

Hendrie: All right.

Kurtzig: And so that was great, and I was making money. So now I had some money, but this was-- I also then got an opportunity from that company who I had written that first inventory control program for when I was at G.E. And it was Larry Whitaker was the founder of a company called Halcyon. And he says, "You know, this inventory program, I'm still using it with G.E., it's great. Can you sort of expand on it?" He said, "I know what goes into building our product. And it has these parts in it. Can't you do a bill of materials? Or can't you put what the parts are that go into it on the computer? So that we-- as we make engineering changes, we can just change on the computer, and we have an actual printed computer form of what goes into building our product."

Hendrie: Right!

Kurtzig: So I said, "Yeah, I can do that!" So I did that.

Hendrie: And it ties to the inventory program.

Kurtzig: It ties to the inventory. And then he said, "Well, now, you know, we also have to order the parts after we get, you know, if we get an order for X-number of this product, we have to multiply it out, so that multiply out all the items on our bill so that we know what to order. Can't you do a purchasing system for us?" So I said, "Well, let me see. I have to learn who the vendors are and all that stuff. Yeah, I can do that!" So now I developed a purchasing system for him. And he said, "Well, you know, somebody's--"

Hendrie: And you're doing this at the same time you're still doing the newspaper service bureau?

Kurtzig: Yes. Yeah, by this point I had hired somebody who-- because-- but we--

Hendrie: The service thing was so routine. I mean--

Kurtzig: It became routine, yes.

Hendrie: Because you didn't have to write any new software.

Kurtzig: Yep.

Hendrie: So why not have somebody--

Kurtzig: Well, I actually did. What I did, though, it became very expensive to use the timesharing terminal, because, you know, they charge you per hour. And this was not an unlimited type of thing. So what I did was I actually converted it over to run on a service bureau that was local, on an IBM Mainframe computer. I translated the program over so that I can run it in batch, and run it much cheaper at nighttime, because the hours they charge to do it at night for the service are cheaper, so I actually did do that. So I went from the timesharing back to that.

<overlapping conversation>

Hendrie: Yeah, that makes sense. Yeah, yeah, right, right.

Kurtzig: And then I hired somebody just to sort or run it and service it and do the-- and they had to keypunch in, you had to punch in all the different carrier boys and how much they got to figure out how much-- they got a percentage of what they brought in. So that was a lot of data entry. I didn't want to store their data entry on the terminal. So it was much easier to have a keypuncher at that time to keypunch this all in. So I had that as sort of separate. And that business was making a little bit of money. And I hired someone to-- you know, probably my first hiree. It was my first hiree, the keypunch person.

Hendrie: Okay, very good.

Kurtzig: But now I'm working on this manufacturing thing with this company, and then he said, "Well, now, we know it's-- we know what's in our inventory. We know how to build our product. We know what we've ordered." He says, "Now, you know, some of these things on this order like screws and nuts and bolts and transistors -- they're used across all of our product line. And they're not very expensive. But some of the things in our product are very, very expensive. So we don't want to order those expensive things the minute we get an order. Because some of these things from our customers that they're ordering, we don't ship them for three months. So I don't want to pay--," they didn't want to pay ten thousand dollars for some of the bigger items that were more expensive and have it sit in inventory for three months until they're ready to assemble it. But the screws, they didn't care if they bought that in bulk. And he says, "So can't you write us a program that said how long it typ-- but we also don't want to get in the situation where we can't ship a twenty thousand dollar item because it's missing a screw that cost us a penny." Right? "So can't you--," because some of these-- maybe some of these specialty screws were very inexpensive, but they have long lead times. Meaning that from the time you order them to the time you get it could be a long time.

Hendrie: Right.

Kurtzig: Okay, "So can't you write us a program that allows us to put all our orders in as we get them. And we know when we have to deliver it, so we have the due date. And we know what goes in it, because

we have these bill of materials. We know we already have in inventory that could fulfill that order. And we know what we have left that we have to order. And to look at how long it takes to get that item, the lead time, from the manufacturer that we buy from. Or if we have any assembly operations, how long it takes to assemble these things. And tell us when to order it, so that we don't have to order everything the day one when we get the order in." And I said, "Yeah, I guess I could figure out how to do that." So I wrote that program. And of course, later I learned that that's called MRP, Materials, Requirements, Planning.

Hendrie: Yes, exactly. <laughs> I'm saying--

Kurtzig: I met this guy called George Plossl. remember George Plossl? He wrote the book on MRP?

Hendrie: No, I don't.

Kurtzig: Okay, but I didn't even remember-- I didn't know that that there's a name for this at the time. I was just listening to the problem. And I think, that's where my training in-- I was never the best programmer. You know, there was always better people who could program better than I could, I'm sure. But what I was really good at was listening to the problems.

Hendrie: That's what I'm hearing. That you could listen to the problem, and translate it into a program.

Kurtzig: And translate it, exactly. So I'd hear the problems, and I would think it through. And I knew enough about programming, because I can program myself. But I knew enough about it to realize what you could do with a computer, and what you couldn't do with a computer, so that I could translate what the customers' problems were. Whether it was at G.E., whether it was my own business later on, into a solution. And I knew what was realistic and what wasn't realistic to do.

Hendrie: Yes, okay.

Kurtzig: And I think that's probably the thing that I would say is the key to what, you know, made me successful in business.

Hendrie: Yes, okay. Is having enough technical expertise, you know, in the case of this as programming, but it could be some other technology. And the customer's problem, and being able to put the two together, and know what works.

Kurtzig: Yeah, and also because I had this technical background, I couldn't get BS'd. And employee couldn't BS me in saying, "Oh, I can't do this. This is not solvable." Or, you know, and the customer couldn't really tell me something. I could tell him, "You can't do this, or you *can* do this," okay?

Hendrie: Yeah, yeah, right!

Kurtzig: And so I think I had a lot of credibility with the customer. And I had a lot of credibility with the employees, because I could get in there and really understand what they were doing. And they didn't feel that I was from outer space.

Hendrie: Well, yeah. Well, you could, you know, I found the best managers are people who could-- you know, you can't always do this-- but who could do the jobs of their employees if they had to.

Kurtzig: Exactly.

Hendrie: Because they understood it, and they could then empathize with what's going on. They didn't give instructions that are totally ridiculous. There're lots of advantages.

Kurtzig: Yeah!

Hendrie: To understanding what they--

Kurtzig: And I think they also-- you know, I worked hard, and I felt if you can't stand the heat, you shouldn't be in the kitchen. And if my employees were going to work hard, I should be working hard alongside them. And so, as you said, I was always willing to pitch in. And even if the pitching in meant that they're working hard, go out and get lunch for them, or dinner for them, you know, and bring it back, so that they got fed. But I think what a lot of us who started out, were really very much started out was teams.

Hendrie: Yeah, so let's go-- can we go back to-- so you figure, you know, you've been asked to do these different pieces of program. Let's go on with the chronology of what happens then.

Kurtzig: So I developed these different things for Halcyon, and then I go to the next company, and I said, "You know, I think you're very similar to Halcyon. You have-- you're building a product," and maybe it was Seagate, "And you have inventory, and you know what goes into building your product, and purchasing." You know, "Can I develop software for you?" And they said, "Oh, we're *totally* different from Halcyon. Or we're *totally* different from this company, or that company." And he says, "But yes, we do have that same

problem. We have a problem. Can you develop a software for us?" And I said, "Yeah, I think so." But since they thought they were totally different, I charged them as if I had started from scratch! <laughter> So, but I was obviously able to use a lot of what I had done for the previous company. I mean, I had to--

Hendrie: There was always something you had to change.

Kurtzig: There was always something. You know, if you ever stopped developing, then somebody could catch up. So there was always something. But now I had a backbone product. Okay? And I could use that. And I'd go to the next company and I would use that as my beginning, but I would add a lot of things. So I was now improving the product. And of course, I would charge a service fee, even-- I would charge a service fee to the first customer in order to be able to get these updates on what they had. So they were always happy, because they were getting updates. This new company was happy, because they were getting all the things they wanted. And so, I went from customer to customer in Silicon Valley with all these startups that were starting: the Convergent Technologies, Seagate, Cisco. I was right at the beginning when all these technology companies were starting. And I then went to the East Coast where there was Stratus and Apollo, and all those wonderful companies in the Boston area. They were also technology companies, and thank you very much! You obviously were a founder of Stratus.

Hendrie: Yeah, but I didn't make that decision. But yes. It mattered. It worked.

Kurtzig: But it did! And you remember using it for your bill of materials or something, okay?

Hendrie: Absolutely, of course!

Kurtzig: And yeah, it worked. And I think it also became sort of... The venture capitalists were very fond of it, because they understood how to look at the reports. So it became sort of like, "Here's your venture cap-- here's your money now." They would give it to me to go buy a computer. Because we were-- by this point, we were working with Hewlett-Packard. And I should say that we never were able-- we never had venture capital. I started with two thousand dollars in the second bedroom at my apartment, as I said. And along the way, I did have a child named Andy Kurtzig.

Hendrie: Yeah, so where-- tell me about where the pregnancy is in the timeline of the story. That's pretty interesting.

Kurtzig: So, I left GE, and my focus was on having something I could do part time. I thought that children just take part time and that I could do some work to keep my mind stimulated. But I thought that I would probably quit when I had a baby because, you know, I was going to be-- all my-- everything would say that I wanted to stay home a hundred percent of the time with my wonderful baby. And I had my

wonderful baby, Andy, but I also wanted to have intellectual stimulation. So, I really didn't feel that I wanted to quit. I had started this business. It was now, at this point, generating a little bit of revenue. At least I was breaking even. And I thought that my-- I thought that kids slept a little bit more than they do. But I did manage to have the baby and work part time. And then that became more full time. And eventually I had to hire somebody to take care-- daycare and the night care to take-- because I was working very long hours, to take care of Andy.

Hendrie: Now, did Andy come along-- you know, was he--

Kurtzig: Oh, he was planned. He was very planned, yeah.

Hendrie: Yeah, he was clearly planned. But he was planned--were you-- had you done the-- had you done the first manufacturing systems yet?

Kurtzig: Yes.

Hendrie: Do you remember sort of where you were?

Kurtzig: Yes because I have a picture of Andy sitting in my lap at six months when I'm on the terminal working on that. So, yes, I was working on that at that point.

Hendrie: Okay. Okay.

Kurtzig: So, I think I was-- you know it takes nine months to have a child.

Hendrie: Yes, yes.

Kurtzig: First of all. And I was not pregnant when I left GE. And I don't-- I think a lot of people try to figure out how to do it in one month with nine women. But it really does take-- they haven't figured that one out yet. So, it does take nine months to have a child. So, I think Andy was born in '73.

Hendrie: Okay.

Kurtzig: I technically-- yeah, I probably left six months-- I left-- I got pregnant right away with both my children. I was very fortunate, very lucky. That first time, that was it, okay. So, I think Andy was probably born maybe nine months after I left GE because my intention was to have a child and to do--

Hendrie: And you did.

Kurtzig: To start something. Yeah, so I did. And I had this beautiful baby. And I continued to work. And then I did need to have help. And--

Hendrie: Of course--

Kurtzig: My husband helped at night because I was working really long hours and not making too much money, but enough to sort of break even. And then I started going into the man-- focusing on manufacturing. I still had the service bureau business, which I eventually sold to the employee that I had hired to service that.

Hendrie: Ah, yes.

Kurtzig: Because I realized that this was sort of a dead end. And the manufacturing was--

Hendrie: A growth-- was clearly a growth business.

Kurtzig: Much more of a growth.

Hendrie: Yeah.

Kurtzig: And I did work with-- I had a couple of false starts, though. My first customer where I really had a full-blown manufacturing system was a company down in LA.

Hendrie: Okay.

Kurtzig: And that was on the Hewlett-Packard computer, the first Hewlett-Packard one. I had time-sharing. I actually went from GE to Tymshare.

Hendrie: Yeah talk to me about your trans--

Kurtzig: Yeah, the transitions, okay.

Hendrie: Yeah, the transition from Tymshare and how that happened. What was it that made you decide you needed to do it? I understand the subscription business going to a service bureau because-- the circulation business. But talk to me about how you got that.

Kurtzig: Yeah, good, very good question. So, I was using GE time-sharing. And then for some reason I switched over to using-- Tymshare, at the time, was another company that competed with GE.

Hendrie: Yes, I know Tymshare.

Kurtzig: And I think it was because they must have been less expensive. I don't remember why I ended up switching over. But I think also they made me a deal where anybody who used my program, I got a percentage of it. Okay? Now, I don't think GE did that. Or maybe I didn't even try. I don't remember now why.

Hendrie: Yeah, yeah but okay. But that one makes sense.

Kurtzig: But definitely GE did. They must have been more friendly to people developing programs and giving them a percentage.

Hendrie: Yes.

Kurtzig: So, I moved it over to Tymshare. And I don't think there was much of a move there because it was both the same--

Hendrie: They had BASIC also?

Kurtzig: Yeah, I think it was the same language.

Hendrie: Okay.

Kurtzig: So, I was getting a percentage of the revenue on the Tymshare. But some of those customers were starting to spend a lot of money. The more the program worked, the more they were using it. And they were willing to pay five, ten, fifteen, twenty thousand dollars a month to be using that because their alternative was to go to a mainframe.

Hendrie: Right.

Kurtzig: Which they couldn't afford a mainframe.

Hendrie: Yes, exactly.

Kurtzig: And so, about this time, HP had computers that they used for instrumentation. They were not business computers. They were the 2100--

Hendrie: The 2100 series, yes, yes.

Kurtzig: Yeah, remember that?

Hendrie: Yes, they were-- yeah, exactly. They were sixteen-bit minicomputers that were designed for real-time-- real-time control--

Kurtzig: Absolutely.

Hendrie: Computers.

Kurtzig: But they were a computer.

Hendrie: Yes, they were.

Kurtzig: And you can program them. And--

Hendrie: Now, did they have a BASIC language?

Kurtzig: And they had a BASIC language on it. And I said I don't understand why here's a computer that, even though it was used for industrial automation and things that were-- that it couldn't be used for--

Hendrie: For those things, why it still can't do this job too.

Kurtzig: Excuse me?

Hendrie: Yeah, okay. No, I understand.

Kurtzig: Yeah, why can't they-- yeah, but they weren't being used there. They were being used for-- as OEM products built into other things.

Hendrie: Yes.

Kurtzig: And so, I somehow or another started developing on the 2100. Oh, and they also came out with IMAGE, which was a database software. So, once they ended up with a database software and BASIC language and Fortran-- and I knew Fortran. So, I think-- I never did use BASIC on that. I used Fortran, by the way. So, I rewrote all the software in Fortran, which was the scientific language that ran these-- the computers that were used for technical usage.

Hendrie: Well, and Fortran has the advantage that it's a compiler as opposed to running interpretively like BASIC.

Kurtzig: Yes, exactly.

Hendrie: So, if you really have a lot of volume of computation, it's going to use a lot less computer time.

Kurtzig: It did have a problem for dates, by the way. When we got year 2000, it didn't have that problem, which was interesting-- which, of course, that comes later. So, yeah-- and I knew Fortran from school because I had Fortran classes in school. So, besides learning the BASIC, I knew Fortran.

Hendrie: Okay.

Kurtzig: And so, we started rewriting it all for this computer, which was a little bit-- within 16k of memory and a disk drive that held I think it was 5k disk drive. That's all we had. Our first programs were big computer, 5k of disk drive, and 16k-- or 8k at first, I think. I think we had 16k by the time we--

Hendrie: Yeah, most minicomputers you could buy--

Kurtzig: Yeah, were about sixteen.

Hendrie: Up to 16k.

Kurtzig: So, I think maybe it was 16k. And then I think 32k. And, you know, then we had a tape drive.

Hendrie: Did you buy this computer, or--

Kurtzig: No, we could not afford to buy a computer. I mean this computer, even the cheapest one, was like thirty or forty thousand dollars, at that point.

Hendrie: Exactly.

Kurtzig: And so, we couldn't afford to buy it. So, we convinced Hewlett-Packard because employees worked nine to five, or maybe six, or seven, or whatever. But they had a sales office. And I was always good with the sales people. And they had a sales office. And they saw that this was kind of interesting that maybe this computer could be used other places besides just selling them as an OEM product.

Hendrie: Right.

Kurtzig: And so, I convinced the Hewlett-Packard office. And there was Bill Richion, who was the sales manager at the time there, to let me use the computers at night.

Hendrie: Yeah, the computers that they had, the demo machines--

Kurtzig: The demo computer that they had at nighttime when they went home. And then-- and we would bring our sleeping bags, and we would sort of sleep, take sleeping breaks in the closets at Hewlett-Packard, while-- because we were working all night. And then during the day, we'd go back and sort of debug our stuff as much as we could without a computer. And it worked pretty well except for one problem. Computers were new, certainly computers being used in an application like I was trying to do. And we were in the demo room where they had this big computer. And every once in a while, the computer would just crash. It would crash especially bad when-- during the morning hours when we were sort of there. And if they weren't using the computer, they'd let us stay for a while until they needed it. And it would just crash randomly. And we'd have to reboot it again. I mean I guess it's-- at that point-- now, if your computer crashes, it's pretty fast to reboot it. But then you had to go through. You had to take a paper tape and read it in to get it up. I mean it was--

Hendrie: Oh, absolutely, you had to do the loader.

Kurtzig: You had a loader.

Hendrie: Key it in on the console.

Kurtzig: It was an hour to get-- at least, to get the computer up. And there was always a problem. And it was like we're in the middle of something. We lost everything because you couldn't save it. To save something, you had to run it off on a paper tape.

Hendrie: Right.

Kurtzig: Okay? So, this was not for the faint of heart. And every time it crashed, we were already tired, as you can imagine. This was just not very good. And the service guys would come in and try to figure out why it was crashing and could not figure it out. They would try everything. And of course, it would never crash when they came in.

Hendrie: Of course not.

Kurtzig: And this went on for weeks. And of course, we were behind schedule because they had allowed us to just use the computer for a certain length of time. And then we had to be out of there. And they were at a point now, we want you out of there. We don't want you using this computer at nighttime. You've either got to buy a computer or something. And of course, we couldn't buy it because we hadn't finished the work that we were doing for the customers to get paid.

Hendrie: Yes.

Kurtzig: So, we had a little bit of problem. And it turned out, finally someone figured out what was happening. It's the computer. This demo computer was in a new building. And it was right on the wall where on the other side of the wall was the Xerox machine. And every time they would use the Xerox machine, the surge of power would kill our computer.

Hendrie: Wow.

Kurtzig: Or at least most of the time, it would kill our computer.

Hendrie: Wow.

Kurtzig: And finally, what happened is one day-- I would sometimes go and-- they had showers-- go wash my hair in the morning to get ready for work. And I'd bring in a hairdryer. And so, one day, the service guy came in with a hair dryer. And I was saying, "What are you doing with a hair dryer? I mean isn't--" He asked me, "Do you have a hair dryer?" I said, "Yeah, here I have a hair dryer." He says, "Let

me try something.” And he plugged the hair dryer into the plug. And of course, the computer went down. He turned on the hair dryer. So, he figured that was what was go-- there was a surge.

Hendrie: Oh, my goodness.

Kurtzig: So, these are the types of things that you have when you're starting a company.

Hendrie: Yes.

Kurtzig: And we got by that one. And we got the program developed - and a happy customer. And our first really successful customer was Hughes Aircraft division down in Los Angeles. They made an OEM product. I forget now exactly what they did. It was a division that made an OEM product for cutting-- I forgot exactly. But it was in San Diego. I know that.

Hendrie: Yeah.

Kurtzig: And it was a division of--

Hendrie: Of Hughes.

Kurtzig: Of Hughes Aircraft, yeah, yeah.

Hendrie: Yeah, yeah it as a division of Hughes. Okay.

Kurtzig: So, that's how we got on to Hewlett-Packard.

Hendrie: Oh, my goodness.

Kurtzig: And then you know--

Hendrie: Now-- No, so this was the first successful one.

Kurtzig: Yeah.

Hendrie: You said that the first customer--

Kurtzig: Yes.

Hendrie: Was not Hughes. You said it was somebody else.

Kurtzig: Company called Powertech down in LA.

Hendrie: Yeah.

Kurtzig: And--

Hendrie: That you had some trouble with that one.

Kurtzig: We had trouble. We couldn't quite get it to work. We had worked on it. They'd given us a deposit. And I finally had to go back and say, "Look I just can't-- I can't get this to work. And we're pretty close, but we're not there. And you guys keep changing. And so, we're going to give you your money back," which I think. Excuse me, I'm not sure. I think what happened there, going back -- I think we were just late.

Hendrie: Yes, okay.

Kurtzig: Okay, and they got frustrated with us. And I think they may have canceled the contract.

Hendrie: Yeah, okay.

Kurtzig: I think that's what happened, because we got to keep the money. I think because we were so far along. I'm pretty sure.

Hendrie: Okay. Okay.

Kurtzig: But that's right. I said, "Oh, we're-- just a little more. We need a little more time. We'll get her working." But I think they canceled on us. That's right because they-- I think in hindsight, later on, many, many years later, after I was very successful, I had heard somebody who was on the team came and told

me that, "You know, we just really didn't think a woman could do this." And they didn't tell me that, okay. So, I never knew that.

Hendrie: Okay, that was good.

Kurtzig: I never knew that. And then, of course, years later when we were successful someone said, "By the way, you know--" That was their problem, okay, if they didn't think it. But we obviously didn't perform. So--

Hendrie: Yeah, yeah, yeah. So, you got it.

Kurtzig: Whether I was a woman or a man, I mean they were right in saying, "Hey, look we have to move on. This is not working." But whether they would have given a man more time than they gave me, it doesn't matter because it turned out that it was probably a very successful thing that we got to move on. That company had problems. The guy who was the VP ended up, I think, leaving. So, it wasn't the greatest situation anyway.

Hendrie: Yeah.

Kurtzig: And then we ended up being very successful at Hughes Aircraft, which turned out to be our turning point.

Hendrie: That was your-- okay, and so, that was your reference customer.

Kurtzig: That was our reference customer. And it was a big name. Everybody knew Hughes. And so, that-- and a guy there--

Hendrie: That makes a huge difference--

Kurtzig: Jack McNamee, who was the manufacturing manager there told everybody how fabulous we were. And you always have to have that one reference customer or two or three.

Hendrie: One is the start.

Kurtzig: One is the start. And that was it. And that turned out to be a very, very successful implementation.

Hendrie: Very good. Now, was that a-- was that on time-sharing or was that--

Kurtzig: No, that was on HP.

Hendrie: That was on an HP. Was it a 3000 or a 2100?

Kurtzig: No. Thanks for asking. So, that was on a 2100. And we went on--

Hendrie: Yes, I was going to say. The 3000 was a business computer.

Kurtzig: Well--

Hendrie: It was designed later.

Kurtzig: We went on, and we got a number of customers on the HP 2100. And they were all very, very successful. And then the HP 3000 came out. And that was supposedly supposed to be a business computer. And I had all this work. We had all these years, and we had finally been successful. We had paying customers that were happy on the HP 2100, which was a computer like any other computer. But HP came out with an HP 3000 that they anointed their business computer. And we weren't the business computer. So, what do you do?

Hendrie: They wouldn't sell it to you?

Kurtzig: Oh, no, no. They would sell it to us, of course. But I already had all this time. The HP 3000 was a totally different architecture, totally different computer.

Hendrie: Exactly. Exactly, why are you going to switch?

Kurtzig: Why would I switch? Okay? And you know these are the tough pivot points where you get out your little checklist, and you say okay, these are all the issues. These are the pros for staying with the 2100, starting with the fact that we already have it done.

Hendrie: Yeah.

Kurtzig: And here's the 3000. And here's-- you know. Hey, who knows when we would get it? And what about the time? And this is-- here we've been in this business. And we're not making money. And you know I now have-- I delivered my second child and delivered the successful installation to Hughes. After we were using these HP computers at their place, what we did next with the next customers is we would take delivery of their computer to our facility. And so, we would use their computer to do the programming. And then when it was all done, we'd ship their computer to them.

Hendrie: Hopefully you had another customer, so you still had another computer coming in.

Kurtzig: So, we had another computer coming in.

Hendrie: So, you always had a computer, yes.

Kurtzig: And then finally we had enough money to buy our own computer. So, we bought our own 2100 computer in our little space. And Roger Bottarini put it together at night. One day, we came-- all these boxes showed up. And we didn't want to wait for the service guy to put it together. And so, he went in there. He was just this fabulous guy who's like my father, my brother, who could put anything together. And his background, interestingly enough, was that his father owned a gas station in San Francisco. And he worked every summer at the gas station. And he went to Berkeley. We hired a lot of people from Stanford because it was close. But we moseyed off to be equal opportunity employers and went as far as Berkeley, which was, of course, an hour away, and hired him. And he was fabulous. But he was really mechanically inclined. He was not only a great programmer. We'd all discuss how to solve something, and by the time we were finished discussing how to do it, he had it done. So, he-- we finally got our own computer. We could put together the money. I think HP gave us a nice discount. But--

Hendrie: Yeah, well they should.

Kurtzig: On our first computer.

Hendrie: Because you're writing programs so that your customers are going to go buy an HP computer.

Kurtzig: Which then brings us to the 3000.

Hendrie: Yes, now we're at the 3000.

Kurtzig: So, now we're at the 3000. And HP comes out with this 3000, which, if you recall, had lots of misses. But they--

Hendrie: It was a troubled program.

Kurtzig: At first, okay.

Hendrie: At HP, yes.

Kurtzig: Yes. But there were some major customers that wanted to look at it, like Boeing. And Boeing said, "Hmm, this is an interesting computer. But we're not going to buy a piece of iron without software on it."

Hendrie: Okay.

Kurtzig: And so, HP said, "Well, what about this manufacturing software that was-- that ASK had developed?" And so, here I am with this big Boeing. And they look at what we were doing. And they say, "Hmm, yeah, we'll buy some computers from you, HP, if you get-- if ASK has their software on the computer." So, Boeing gave us a deposit check for, I don't know, maybe it might have been \$50,000. That was big money at that time.

Hendrie: Oh, that's a lot of money.

Kurtzig: That's a lot of money. I actually could go and buy-- you could go to Neiman Marcus and buy a pair of shoes with that. And so, they gave us a deposit. And they said, "Well, what you have is okay. But we need all of these different features. Like we need a--" I don't know, "Fourteen or sixteen character part number."

Hendrie: Yes.

Kurtzig: This was Boeing. They make planes with lots of parts.

Hendrie: Right, right, right.

Kurtzig: And so, they had--

Hendrie: They have long numbers.

Kurtzig: They have long, long numbers. And we need all of these other things. And so, this is all the things you had to put into your program when you also convert it over to run on the HP, which was a whole different computer.

Hendrie: And a whole other piece of, yes, work.

Kurtzig: But Boeing is a big name.

Hendrie: Yeah.

Kurtzig: Like Hughes. And so, success at Boeing would have been big time. And so, we said-- got very wrapped up in this name. And there was a very, very nice guy who was in charge. But nice doesn't necessarily mean it was a great fit for us. And he had all these people. Boeing has lots and lots of employees. They did then, and they still do now. And so, we would work on the program during the day. And then each day, there would be-- they didn't have Federal Express, but they had some sort of courier service that came from like a Seattle, right, from Washington down to California with all these changes that they wanted to see. So, as fast as we can start doing-- developing programs, they were coming back with changes they wanted. And they had-- for every one programmer we had, they probably had five people working on giving us changes.

Hendrie: Yeah, so now maybe how big are you, at this time? You're working on the Boeing. How many--

Kurtzig: Maybe we have seven, or eight, or nine, or ten, maybe twelve employees.

Hendrie: Yeah, yeah, yeah, yeah.

Kurtzig: Really big.

Hendrie: Yes, I see, in the single digits or barely beyond.

Kurtzig: Yeah, yeah, we didn't have maybe twelve, maybe fifteen. But we're definitely not into the twenties yet.

Hendrie: Yes, yes.

Kurtzig: And--

Hendrie: And you're not doing the programming anymore.

Kurtzig: No, I'm not doing the program anymore. I'm doing the selling. But I-- you know, I-- no, they took the program away from me, because I would get programs as they're all happy to say, just to about the ninety-ninth percentile finished. And then I would give it to somebody else. And they'd look at it, and they'd have to start all over again. So, yeah, they didn't want me to do the programming. Okay? They were better programmers than me.

Hendrie: I understand.

Kurtzig: You have to figure out what you're good at.

Hendrie: Yes.

Kurtzig: And so, we worked on this Boeing thing. And of course, HP was very, very thrilled with it and brought us into a lot of other cases-- clients, too, who wanted this business computer. And we also had a lot of other people. DEC, Digital Equipment came after us. And Data General came after us because they all saw that what we were doing was really a way to sell hardware, and computers, and that. So, we were being wined, and dined, and courted by all of the major computer companies.

Hendrie: Okay.

Kurtzig: But we stayed loyal to Hewlett-Packard for quite a long time because, one, Hewlett-Packard had-- was the company. Every engineer who graduated wanted to go work at HP. I mean I shouldn't say every. That's a pretty big statement.

Hendrie: But certainly, the on the West Coast they did.

Kurtzig: On the West Coast, yes. If you got out of school here, this was sort of the epitome of a really great company. They gave-- they had donuts in the morning. And management walking around was the style of the managers. And they were very, very fair to employees. They were one of the first companies that, when times got rough, they didn't just fire somebody. They put everybody on like a four day week or a nine out of ten day week.

Hendrie: Yes.

Kurtzig: Nine out of ten. And so, they were really considered to be-- everybody I did was-- I shouldn't say everybody. That's a bad thing to say. But a lot of us startup companies wanted to emulate the way HP--

Hendrie: Ran their company.

Kurtzig: Ran their company.

Hendrie: And their culture.

Kurtzig: And their culture.

Hendrie: Yes.

Kurtzig: And, you know, in fact down to when I had to figure out a business plan and figure out how much should I be spending on marketing, how much should I be spending on engineering, how much should I be spending on cost of goods and so forth, I looked at these financial statements from companies like Hewlett-Packard, even IBM. And you know, except for the fact that it says times a million, or times a thousand--

Hendrie: Yeah, you could say the ratio. These are the right ratios.

Kurtzig: These are the ratios. And so, that's how-- I mean I didn't have a business degree. So, I looked at the stuff and I said well, the ratios, you know, would be the same or pretty much the same. And this would be the goal. I mean obviously, being a small company, you had a lot of overhead and so forth. But--

Hendrie: Yeah.

Kurtzig: Not overhead, but you had a lot of-- you had more engineering then you would have other things, okay.

Hendrie: Of course, you always have more engineering when you're starting.

Kurtzig: But I could use this as a goal for what was the ratios. And that's how I got my first look at how this business should run as a business.

Hendrie: Okay. So, thinking about it as a business.

Kurtzig: And started thinking about it as a business, absolutely.

Hendrie: Okay, okay. Now, let me get the timeframe correct. So, you are now working with Boeing and the 3000 and converting it.

Kurtzig: Which year?

Hendrie: What year is that? Can you figure that out?

Kurtzig: Let's see.

Hendrie: How old was Andy when-- you know?

Kurtzig: Yeah.

Hendrie: You know you can always relate it back to your kids.

Kurtzig: Yeah, I can relate back to--

Hendrie: You probably weren't living in the apartment either.

Kurtzig: No, no, we were living in a house in Los Altos Hills.

Hendrie: Yeah, you bought a house.

Kurtzig: In fact, there's another story, but I won't go into that one. The-- I'm probably going to say '78 to '79 maybe.

Hendrie: Yeah, okay.

Kurtzig: Is that right? You probably can equate that to when Data General-- you were at Data General, weren't you?

Hendrie: Yes, I was at Data General.

Kurtzig: And what years were you there?

Hendrie: Through to '80. That's when we started Stratus.

Kurtzig: In 1980.

Hendrie: Yeah.

Kurtzig: Okay, and you were one of our first customers I think in Boston.

Hendrie: Really? I didn't know that.

Kurtzig: I think so, at Apollo.

Hendrie: Apollo, okay.

Kurtzig: Stratus, I think you were one of-- then we got all the technology companies in Boston. So, but you started in '80. And most companies bought our system near the start of the business.

Hendrie: Yeah, we used time-sharing. We were cheap. We used the time-sharing services.

Kurtzig: Yeah but we had time-sharing service, too. We ran it on our own things.

Hendrie: So, we started on that service.

Kurtzig: Okay but that was us that you were started on.

Hendrie: Yes, absolutely.

Kurtzig: I think we were your first thing. So, yes, I forgot to tell you about that. I'll come back to that in a second because that's important. That's very good for you reminding me. My guess-- but the whole

program worked at that time. So, Boeing did not work. We failed at Boeing. Let me tell you what happened.

Hendrie: Really?

Kurtzig: Yes.

Hendrie: Okay.

Kurtzig: So, we failed mainly because they had five people for every one of us. And they kept giving us changes and changes. And it was just a-- it was an untenable situation.

Hendrie: Yeah.

Kurtzig: And they were just not a very good company, I have to say, to work with.

Hendrie: Okay.

Kurtzig: And so, we finally decided that we could not-- we could work. You have to make sure that you have to cut your losses. When you make-- there's not a problem with making mistakes. The problem is not learning from those mistakes.

Hendrie: Yes.

Kurtzig: And Boeing got us a name. And we got wrapped up in the name. But that's not the most important thing. We didn't see how we could be successful with-- what they were trying to do was everything they did on a mainframe on this computer that was-- had lots of problems in itself. And I'm not sure now, in hindsight, that I think about it whether the problems were us, or whether the computer wasn't working, the HP computer. The 3000 had lots of problems, too.

Hendrie: It also-- yes.

Kurtzig: So, it-- whether it was that-- the combination--

Hendrie: Was not good.

Kurtzig: Was just not working.

Hendrie: Yes.

Kurtzig: Okay?

Hendrie: Yes, becoming-- yeah, going and trying to do something new with your software and doing it on a new computer is maybe taking too many risks.

Kurtzig: And having a company as big as Boeing thinking that they had unlimited control of us was just not a good match.

Hendrie: And you had no way. You weren't big enough to go to them and say, "Okay, this is the spec. This is what it has-- you know. Sign off on the spec. Changes are going to cost this much each change."

Kurtzig: Yeah, we definitely-- we were--

Hendrie: You weren't there yet.

Kurtzig: We weren't there yet, absolutely not. And-- but we were far enough along that everybody realized we could do it. I think that's-- so, it could have been more of the computer. I'm not sure now. But it doesn't matter because we were far enough along that it was pretty clear that what we were doing was going to work.

Hendrie: Yeah.

Kurtzig: And I think we just ended up having a lot of customers right about that time also that were closer whether it was Convergent Technologies or Seagate or-- that were just in our backyard that saw enough about what we did that went with us.

Hendrie: And were not as institutionally huge and bureaucratic.

Kurtzig: They were small-- They were startups.

Hendrie: Yeah.

Kurtzig: Okay, Compaq, we were the first-- every single one of these companies were starting up and needed a system. And we ended up being the go-to company for all of these companies and technology. And so, we got a few that were successful. And I remember that we were sort of like down to our last couple weeks of money because we never had any venture capital because, remember, software was-- everybody was into hardware. Stratus can get a lot of money. Intel can get a lot of money. Convergent can get a lot of money. Cisco can get a lot of money. But software, are you kidding? That's women's underwear. So, they-- software was just not anything that a venture capitalist saw as an any value, luckily, because I think we're really lucky that we didn't have venture capital in hindsight. I think we would have been a-- it would not have worked if we had venture capital. Their motivation is very different.

Hendrie: Their motivation and their, at that stage, their understanding of a software business--

Kurtzig: Yeah, they-- absolutely.

Hendrie: And you needed to be in charge of your business model. You didn't need--

Kurtzig: To make all the mistakes because you-- it's not the mistakes. It's learning and going to the next thing. So, by this point, it was obvious to HP that what we were doing was going to work. They needed to sell their 3000s. So, they started bringing us into a lot of different deals. And we ended up being successful.

Hendrie: Yeah.

Kurtzig: And we started getting these computers being bought and installed. And then what happened is the economy went south.

Hendrie: Oh, okay.

Kurtzig: Remember that?

Hendrie: Yes.

Kurtzig: That probably was '79/'80, about the time you must have started, I think or a little after that. Maybe it was a little after that.

Hendrie: Yeah, I think it was a little after that.

Kurtzig: Could have been more in the '80s.

Hendrie: The economy-- the big downturn was in end of '83 and '84. I know there was one.

Kurtzig: Okay. So, it-- I'm not sure exactly the dates. But I think--

Hendrie: But anyway, you had an economic downturn. It doesn't matter which one it was.

Kurtzig: And we were trying to sell a system, by this point, with our software and our hardware was in the hundred and fifty, two hundred, two hundred-fifty, three hundred thousand dollars, which was real money at that point.

Hendrie: Yes.

Kurtzig: And companies couldn't afford that. So, what we did was we became a service bureau again. And we took our computers because, at this point, we had some money. And we had the raised floor. We had a big-- we had a service bureau-- a service center that we used to do our programming ourselves. And we had some small companies that were accessing our computers. Maybe you were one of them. The other one was that was actually our first company in Boston-- oh--

Hendrie: Not Apollo.

Kurtzig: Not Apollo, no. It was-- they went on, and they-- they were the company who started spinning off-- no, they were doing g-- I forget.

Hendrie: What were they doing?

Kurtzig: I'm trying to remember now exactly. That's sort of-- I can go look it up if you want.

Hendrie: No, no, no.

Kurtzig: I can't remember the name now. But I remember that he said, "I'll make you a deal. If we can use your software, you can use our space. You can-- we have a big building here. And you need an office space. We'll let you use office space in return for using your software." And that was the first company that we had in Boston. And he was accessing our software long distance.

Hendrie: Over the--

Kurtzig: Yes.

Hendrie: Okay.

Kurtzig: And-- boy, it's going to come to me. But I can't-- I'm embarrassed now.

Hendrie: Don't worry.

Kurtzig: That I can't remember his name because I remember him. He was a great guy. But that was how we got into Boston.

Hendrie: Ah ha. That was your first-- yeah, entrant.

Kurtzig: That was how we got into Boston. And then he loved what we were doing. And you were very-- it was very close knit-- technology companies were very, very close knit. Even though they were competitors, they were-- you got into one, it was a word of mouth thing. Okay? And so, we started getting all the technology companies in Boston. So, now we had both coasts, the East Coast and the West Coast. We just had to fill in all the middle. Okay?

Hendrie: <laughs>

Kurtzig: But we were--

Hendrie: So, tell me about the-- tell me about the time you said that you really almost got down to the last paycheck. You hadn't taken any venture capital. I understand that. So, what--

Kurtzig: Well, it was about the time about the Boeing thing.

Hendrie: Where was that in the--

Kurtzig: I think that was about the time of the Boeing thing, where here we had this client. We were saying we can't do it. They were bread and butter for us at that time. We hadn't made it on the HP 3000, but we were far enough along that they-- HP saw that we could make it. And then we started getting

these clients. So, it was-- I mean we were really down to-- no one-- the employees didn't know that because I never told them. And--

Hendrie: And you were getting progress payments from Boeing, right?

Kurtzig: We-- no, I don't think we were actually.

Hendrie: Really, you just--

Kurtzig: I think we got one payment. But so that money was getting down to the end.

Hendrie: Got it, okay.

Kurtzig: Okay? And we still had, I think, at that point, the service bureau for the little-- the newspaper. And we had, from those seven or eight or nine 2100 customers, we had annual contracts for service for updates. So, they paid us annually something for the updates. So, we were getting money from that. But we had a payroll and so forth. But then we started getting customers. And I think the first ones were using us as a service bureau. And then that's sort of like the way Stratus was. And they started using five, ten, fifteen, twenty thousand dollars a month as they grew. So, we were growing with the Compaqs, and with the Stratuses, and with the Apollos, and with Convergent, with the Seagate. And as their bills started getting to twenty, thirty, forty thousand dollars, we were making a lot of money on that.

Hendrie: Yes, exactly.

Kurtzig: And then they decided they needed a computer. So, then they would buy a computer. And that's when we decided, "wait a second now, why can't we sell the computer to the customer as well". And HP said no, no. Why can't we be an OEM? And why can't we take their, HP's, computer and put our software on it and sell it as a package to the customer and give us a discount on the hardware, call it an OEM? And they said no that OEM is only for hardware. And I said, "Wait a second, now. It doesn't say hardware only. It says an OEM is anybody, original equipment manufacturer, who takes this equipment and modifies it in anyway and resells it as a pack-- as part of their product."

Hendrie: Yes.

Kurtzig: And this is where I think the HP sense of fairness, which I'm not sure that every other company would have had the same feeling about, but that was why we were so lucky in having mentoring and sort of having HP as our partner. Because they said, "Well, I guess you're right. There's nothing wrong with

doing it.” So, we packaged our computer, the HP computer, with the software. And Bill Richion was the regional sales manager. He had gone up the organization by this point. And Jim Arthur was, I think, the national sales manager at HP. And they and Paul Ely ran the computer division. And they said okay, let’s go with them and do that, which was a very lucky move for them and for us, because we became the largest purchaser of Hewlett-Packard computers in the world.

Hendrie: Really?

Kurtzig: Yeah, yeah.

Hendrie: Because you--

Kurtzig: Because what we did. You go through their factories, and these computers all say, “For ASK.” And at the end of the quarter, they say, “Okay, what do you need shipped by the end of the quarter?” And we-- they would work their schedule with our schedule. And so-- because we were shipping so much computers.

Hendrie: Really?

Kurtzig: That-- and they were obviously-- our computers were full blown. I mean they weren’t-- so, they were making a lot of money. And we were making a lot of money. And we got a discount. And the more we sold, the more the discount was. And at that point, when you bought a computer, it would probably take you a couple months to three months before you would get it.

Hendrie: Yes.

Kurtzig: So, we took twenty percent down payment when a customer ordered a system from us.

Hendrie: Oh.

Kurtzig: And that twenty percent was on the software and the hardware.

Hendrie: Yes.

Kurtzig: So, if it was a two hundred thousand, three hundred thousand dollar computer, we were getting sixty thousand dollars up front with a check when they order it.

Hendrie: Before they even delivered it.

Kurtzig: Before they delivered.

Hendrie: All right.

Kurtzig: Okay?

Hendrie: And before you had to pay Hewlett-Packard for the computer, please notice. Please notice.

Kurtzig: Before we had to pay Hewlett-Packard until thirty or sixty days later after it was delivered.

Hendrie: Yes.

Kurtzig: So, that's where we got the money to fund the company. So, our working capital was really the float on the difference between the order when we took twenty percent down-- I mean we started that trend, the twenty percent down. I mean the customer didn't know. Okay, that's-- I guess that must be what the standard--

Hendrie: That's how the business works because they wanted your software.

Kurtzig: They want our software.

Hendrie: That's what happens when you're the leader in a category.

Kurtzig: Our software became--

Hendrie: What you had to have.

Kurtzig: Yeah. And the venture capitalists certainly helped us that time because they-- because everybody had our software and technology. So, if you didn't have our software--

Hendrie: They never complained.

Kurtzig: Yeah, they didn't-- no one complained.

Hendrie: That their companies were buying yours.

Kurtzig: So, and the companies were growing. Remember, these were the high growth times. So, we would ship-- so then we get the twenty percent. And that's how we funded the growth of the company totally from retained earnings and never having to have any VC money.

Hendrie: Very good.

Kurtzig: Because we didn't make hardware. So, we didn't have that hardware cost. All we had was the-- you know.

Hendrie: Yeah, yeah, were the people, yeah exactly.

Kurtzig: With software--

Hendrie: Now, had you transitioned to the 3000 by then? You'd gotten the 3000 working?

Kurtzig: We transitioned to the 3000. We were able to buy 3000s. And we had the service bureau going that was chunking out a lot of money.

Hendrie: Yes.

Kurtzig: Because these companies were growing. They would first go on like Stratus. Stratus had their computers eventually. They bought the computers, many.

Hendrie: I'm sure they did.

Kurtzig: And as they grew, they would buy more computers. And it became very easy to just okay, ship another computer to us. And ship the software. And, you know, it was all standard and you know. So--

Hendrie: Okay. So, we're going to get to the IPO point. We've got to do that. But I'd like to go back and ask just a couple of other questions because I'm always curious about where things come from. So, where--

Kurtzig: That's an NPR, isn't it, an NPR program, where things come from, how things are made?

Hendrie: Is that right? There is one?

Kurtzig: Yeah, it's very good, a podcast.

Hendrie: Yeah, okay. The-- how did you get the name-- when did you think of the name ASK? Where did that come from?

Kurtzig: Well, let's see.

Hendrie: Or if you can remember, it may have just--

Kurtzig: No, I remember that.

Hendrie: Yes? Okay.

Kurtzig: So, ASK actually was at first Andy and Sandy Kurtzig. But-- excuse me, Ari and Sandy Kurtzig. But my husband was never involved in the company at all. He was at HP, remember?

Hendrie: Yeah.

Kurtzig: In research, he was a PhD and doing research. So, he wasn't even involved in computer division. So, no one even knew that there was a connection.

Hendrie: Yeah, he was a semiconductor guy, yeah, okay.

Kurtzig: So, that was the first thing. When we got divorced, I always joked that ASK is actually Andy, Sandy, and Kenny, because my son's names are Andy and Ken. So, ASK. And then people didn't even realize that ASK had any initials. At first, it was ASK. But ASK was what everybody called us. So, it was never--

Hendrie: So, everybody-- yeah, it's like DEC was Digital. But then everybody called it DEC. They pronounced it.

Kurtzig: Exactly.

Hendrie: Got it.

Kurtzig: Same thing.

Hendrie: Same thing happened to you.

Kurtzig: Yeah, it was-- ASK was easy. And as we grew, people liked the word. And so-- and I chose it particularly because it was the word ask. And because it was early in the dictionary-- early in a phonebook because I thought people looked in the phonebook for people. What did I know?

Hendrie: Oh no, you're absolutely right.

Kurtzig: There was this thing you want to start early.

Hendrie: You can start with A. Yes, okay.

Kurtzig: So, that's where ASK came from. And the name of our program was MANMAN.

Hendrie: Right.

Kurtzig: For manufacturing management. And that actually started off, I had to have a name, especially when I had it on time-share. You had to have a name to call the program up, right? So, I decided to call it MAMA for manufacturing management because, by this point, I was a mama.

Hendrie: I think that's sort of cute. Yeah, a little bit of-- it's a two way--

Kurtzig: And I went to these austere executives like you, okay. And I said, "Well, I want a hundred thousand dollars for the MAMA program." And that didn't quite fly. I think that was a little bit of a stretch for them to give us money for the MAMA program.

Hendrie: Okay so, the joke did not go over well.

Kurtzig: Yeah, well it wasn't a joke. I mean it was--

Hendrie: But I mean, no, it was sort of that it's MAMA.

Kurtzig: It was MAMA, manufacturing management, okay?

Hendrie: I get it, yes.

Kurtzig: So, I changed it to MANMAN, which also meant manufacturing management. And men had no problem with buying the MANMAN program. And we doubled the price, of course, because, you know, if these guys thought they needed to have it, we would just double the price of the software.

Hendrie: Yes.

Kurtzig: To make them happy. And--

Hendrie: And make you happy too.

Kurtzig: It made me real happy. And so, that's how MANMAN became the name of the program.

Hendrie: So, before you--

Kurtzig: Which I mean, I sort of joke about it. It sometimes takes two men to do what one mama could do.

Hendrie: That's a good line, too. I like that one. Okay, good, good. The--

Kurtzig: So, that's how we got the name.

Hendrie: That's how you got the name, very good, very good. So, you're growing nicely. Now-- oh, I wanted another ask. So, when did the-- when did you become a single mom?

Kurtzig: Single mom.

Hendrie: In this.

Kurtzig: In 1982.

Hendrie: Oh, in the 1980s. It was not during this--

Kurtzig: No, no.

Hendrie: This growth period.

Kurtzig: It was-- right, yes.

Hendrie: Everything was working fine. You just moved and eventually got a house to-- after the apartment.

Kurtzig: Yeah.

Hendrie: All right, good. Well, let's go and talk about the next steps in the company. You're funding it. It's growing nicely. Now eventually, you decide to go public. Why bother doing that?

Kurtzig: Well--

Hendrie: Nobody wants to do that anymore.

Kurtzig: Well, that's right. And at that time, there were very few companies that went public, especially s-- I mean software was just-- it's very few. So, I actually wanted to put a board together. I had a board of advisors who I had-- were really people from my customers that would advise me. And we would have meetings every couple of months. Then I'd buy them a nice dinner. And I guess I should say picked their brain, although that's not very nice. But they were very, very--

Hendrie: But that's what you're-- that's what the purpose is. Yeah, you want to get educated.

Kurtzig: And that's what-- and they knew that. They knew that. I-- and so-- and I'd have an agenda. And they didn't have any responsibility for the company. And they didn't have any legal liabilities. Remember, we had no venture capitalists. So, we had no one who was really on the hook. So, these guys were there

to really help me. And I chose somebody in finance. And I chose somebody who was in manufacturing. And I chose-- actually the company that we were unsuccessful with, Powertech down in LA. I asked him to be on the board for manufacturing. So, I kept good relationships with these companies. And we would meet periodically. And they would help and--

Hendrie: Where did you get the idea to go and do this, you know?

Kurtzig: I was always never scared to ask people for help. And I think that--

Hendrie: Or ideas.

Kurtzig: And I think, obviously, I was a very in a unique situation being a woman. And I actually never saw discrimination. But I shouldn't say I never saw it. I never looked for it. I think it's interesting. If you don't look for it, sometimes you don't find it.

Hendrie: Yes.

Kurtzig: Okay? And I mean it was there. I had some experiences. It was there. But it wasn't a defining thing for me.

Hendrie: Yes.

Kurtzig: And men like-- people, it doesn't matter if it's a man or a woman, like to be asked for help and for their opinion.

Hendrie: Yes, they do.

Kurtzig: And you ask somebody, "Gee, I don't understand this. Could you help me with this? How do you do a financial statement?" Whatever it was, "What do you think--" I just asked people to help me, and I gave them a nice-- we got together, and they liked the social interaction of each other. And they got a good dinner and some nice wines that someone chose because I don't know anything about wine. And everybody was happy.

Hendrie: So, it became, in some sense, a substitute for what the best of the venture capital firms do, which is give wise counsel to people who--

Kurtzig: Well, I'm not sure how wise counsel because remember--

Hendrie: Well, some of them do.

Kurtzig: Some of them do. But I think the issue is that everybody has a business, whether it's the press, or whether it's a venture capitalist. Their business is to make money for their investors as fast as possible.

Hendrie: Right.

Kurtzig: And so, when they're in a board meeting, they're not necessarily looking at what's best. They're looking at how do we-- what do we do to make the most amount of money? And what is the exit? The people I asked didn't have any money in the company. They did have-- maybe they had some stock options. But they really were not motivated by doing anything other than seeing the company successful, because, in most cases, they were customers.

Hendrie: okay.

Kurtzig: And they understood the product. They understood the business. They understood what was needed. They-- I just think I was just so fortunate in that I chose that route. It also got chosen for me, because no one was going to invest in a software [company]. But I don't think there's any chance that I would have been as successful, if it was in a market where-- in a different type of situation.

Hendrie: Well, I have to-- I'm just going to take one--

Kurtzig: You're a venture capitalist, I forget.

Hendrie: That's true. And I'm going to take one piece of exception. I agree that many, and maybe most, venture capitalists aren't thinking about what's the exit all the time. However, some of the most successful ones that I've met on boards or know... they think about making the company successful. And they understand if they can build a really successful company, they don't need to worry about the exit. They'll be so many possible exits, it's ridiculous.

Kurtzig: I think it's irresponsible of me to have made the comment in the way I did. And I take it back. Okay? All right?

Hendrie: Well, you didn't have to do that.

Kurtzig: Because I think that you came from a background where you had experience, hands on experience. I think there are a lot of very, very good venture capitalists. And there are a lot that I totally agree epitomize ... the Burt McMurtrys of the world, the Sequoias of the world, the Kleiner Perkins of the world. I have the most respect for them.

Hendrie: And so, I'm just-- okay.

Kurtzig: And John Doerr, and Ray Lane, and Don Valentine, who's a good friend I love. I think you're absolutely right. I think today's market, there's probably too much venture capital money being thrown at some of these deals.

Hendrie: I couldn't agree with you more.

Kurtzig: And I think that in my-- in the time I was in the Intel, Convergent, Sequoia time, where you start down a path. If it doesn't work, like it didn't work for us at Boeing, and it didn't work for us the first couple times we did different things, you pivot. And you try something else.

Hendrie: Yeah, right.

Kurtzig: I think that there's a lot of feelings today that if it doesn't work, you go on to the next thing. You stop. So, I am making the statement in the context of what I've been seeing lately, which is not-- in some cases, again, probably not the prevalent ones.

Hendrie: Fine, fine, fine, fine. Yeah, okay good. Okay.

Kurtzig: Okay?

Hendrie: I couldn't agree with you more.

Kurtzig: And I apologize. I apologize. I know what worked for us. When I look at what's going on today, if we had that then, I don't think I would be successful.

Hendrie: Yeah, yeah, I agree.

Kurtzig: Okay?

Hendrie: I agree. Okay. Let's now talk about-- so, you have this board.

Kurtzig: Yes.

Hendrie: Or it's acting--

Kurtzig: They're advisors.

Hendrie: Advisors. It's acting--

Kurtzig: They're not on any board.

Hendrie: They're not a board. They have no fiduciary responsibility. So, let's continue the story.

Kurtzig: So, now it's time to think about making this a real company. All right? I had said that I was going to-- if I didn't break even-- if the company didn't start to grow at a certain point that I was going to go back to medical school because I never-- go to medical school, excuse me. I had wanted to be a doctor, but I had nobody in my family who were doctors. So, I had-- I just had no idea what to do. So, I didn't do that. And I, all of a sudden, got enough self-confidence that I realized hey, I could have been a doctor. I don't even know if this story is anything important. But I--

Hendrie: No, this is very interesting.

Kurtzig: I'm going to give it one more year. And if this company doesn't do something, I put so many hours into it, I'm probably making a penny an hour at this point, maybe that much, maybe even two cents an hour if you look at all the hours I spent to what I've taken out of the company. If it doesn't make it this year, one more year, and then I'm going to-- I'm going to go back to medical school-- or go to medical school. I'd never even gone.

Hendrie: Yeah, okay.

Kurtzig: And so, as part of making this a real company and really thinking about this in every aspect of the company was starting to look at what is a balance sheet supposed to look like. What should I be spending on these things? How do I really monetize some of the things that we're doing? Making sure that we have better direction when we're doing customization? Is this customization important to the base

product? What company's people do I need to hire? And then I said I really need to have-- I should probably have a professional board.

Hendrie: Okay.

Kurtzig: Now, I should mention part of that conversation about VCs, I didn't really know what a VC was.

Hendrie: Okay.

Kurtzig: So, in all fairness, because VCs were not interested in me, in software, I didn't even know what a VC was. And I did not come from a background, a business background that any--

Hendrie: Yeah, so you didn't learn about that at any point in your career.

Kurtzig: That's right. So, and I didn't have business school. So, I decided I needed to get a professional board. So, I asked around, and somebody said, "You know, you really should see if you could get Burt McMurtry to go on your board because he's just-- he's on the board of TriNet," I think.

Hendrie: Could have been, yes.

Kurtzig: Not TriNet. I'm saying the wrong name.

Hendrie: I can't remember all of Burt's boards.

Kurtzig: But he was on the board of a company that was very similar to mine.

Hendrie: Okay.

Kurtzig: And so, I called him and told him this is-- somebody introduced me. I know. I don't remember who. I think it was Ken Oshman.

Hendrie: Okay, yes.

Kurtzig: Somehow or another I got to know Ken Oshman. And Ken Oshman called because he was on this other board. And he said, "Burt, I think this is an interesting company. It's run by Sandy Kurtzig. Maybe you should talk to them." And so, he came over to my offices. And I had put together a business-- I had a business plan at this point. And I put together financials. And I showed it to him. And we were making about two million in after tax profit and had a couple million in the bank at this point.

Hendrie: Okay.

Kurtzig: So, we were doing pretty well.

Hendrie: You were doing okay, yes, yes. You'd gotten past the I'm going to medical school point.

Kurtzig: Yeah, I think so at that point. Yes, we were a real company then. We were almost a company. And so, I asked him to go on the board. And he said yes, he would like to go on the board. But he would like to put money in the company.

Hendrie: He said he would?

Kurtzig: He wanted to put money in the company. This is just--

Hendrie: Yeah because that's his business.

Kurtzig: That's his-- well, I didn't know that. Okay. I didn't understand-- remember, I didn't understand what a venture capitalist is. That's why I said it. So, I think that has to go back to the conversation before, too.

Hendrie: Yes, okay.

Kurtzig: Because I'm doing a little revisionary history here because now, I've put the framework of some of the mentality into there. But--

Hendrie: Yeah, okay, okay.

Kurtzig: So, I want to be fair about that. So, he said, "I'd like to invest in the company." And I said, "Really?" I said, "Really? How much would you like to invest?" And he says, "Well, I'd like to put at least a half a million dollars. But I would really prefer to put a million dollars in." And I said, "Wow." I said, "Gee,

you know, what do I-- what do I give you for that? I mean obviously stock." And he says, "Well--" I think he said something like the order of, "Well, give me probably twice as much stock as you would if you were to go public." And I said, "What does that mean?"

Hendrie: Yes, exactly.

Kurtzig: And so, he explains, "Well you have to have so many years of revenue. And you have to have so much, you know, after tax profit. And this is what you have to do." And I mean, I-- my parents didn't own any stock. So, I had no stock. I didn't know what the stock market was all about.

Hendrie: Okay.

Kurtzig: Seriously. I know it sounds a little crazy now. But I do know what the stock market is now, thank you very much. But at that point, I barely--

Hendrie: I mean you're just bare-- you're just barely beyond thirty. You're still a young woman.

Kurtzig: I am. And I'm-- and I just-- I never had that in my background. So, my dad had a small business, and you know-- he didn't particularly think that--

Hendrie: He didn't have a board of directors and all that.

Kurtzig: He didn't have a board of directors. And he certainly did not think-- he believed everything he read. And he didn't think that big companies-- he was sort of negative about big companies.

Hendrie: Yeah.

Kurtzig: So, I said, "Well, gee, that's interesting." And so, we had-- he was just-- he's such a gentleman. Burt is just the epitome of the best of the best of venture capitalists. So, I just want to make sure that I actually, at that point, got to see the best of the best.

Hendrie: Yes.

Kurtzig: And he would have been a fabulous board member, absolutely fabulous board member. And there's no doubt about that.

Hendrie: Okay, good.

Kurtzig: So, I have to be-- you know him, obviously.

Hendrie: Yes, I do. I know-- I know Burge Jamieson who was one of his partners very well because that's how I got into venture ca-- and I know Reid Dennis quite well.

Kurtzig: Yes.

Hendrie: And Burt is the one I know the least of those three that were all in business together.

Kurtzig: Yeah and the other-- and then there was a whole other one, Mayfield, who took me under his wing. Who was the founder of Mayfield? I forgot. He died.

Hendrie: Oh, there are a bunch of people in Mayfield.

Kurtzig: And I like them all. But there was the one who founded it.

Hendrie: Yes.

Kurtzig: Now, I can't remember his name.

Hendrie: I can't either.

Kurtzig: Okay but anyway, I think-- I should say all the venture capitalists of that time were fabulous that I knew, because there wasn't much venture capital. Remember, we're talking about a period, besides on an issue of software, only like five hundred million dollars of total venture capital available.

Hendrie: Yeah, right.

Kurtzig: So, this was not-- everybody in the business at that time, I can't think of anybody who wasn't just-- would have been-- would have had the same motivation to grow the company and create a great company.

Hendrie: And would do it that way, yeah.

Kurtzig: And would do it that way.

Hendrie: Yes, okay.

Kurtzig: So, we need to clean this up a little bit, but you're absolutely right. And so, I went back and realized that gee, maybe I should go public. And at this point, I guess I did have-- I asked-- excuse me, there are some things out of order there that I'm not remembering quite right. But I do know that Ken Oshman was on my board at that point, who was fabulous. He was the founder of ROLM Corporation.

Hendrie: I know ROLM. I know-- I--

Kurtzig: And Ken is who got me in touch with--

Hendrie: McMurtry.

Kurtzig: With Burt McMurtry. And--

Hendrie: Who else did you have on your board. So, you had a board--

Kurtzig: Craig Johnson was on my board. And when we went public, Larry went on the board instead of Craig. So, I had Larry Sonsini, who is the most fantastic lawyer ever made, as far as I'm concerned. Who was just--- been through thick and thin for everything with me with going public. I've never had to worry about legal issues or anything. And he's certainly been the guiding light and my mentor for so many things. And Ken Oshman, who equally really kept me on the straight and narrow. But these guys were not venture capitalists although they were in private funds.

Hendrie: Yes.

Kurtzig: And they did have stock. And then there was-- who else was on the board at that point? Oh, and then Tom Unterberg went on the board before we went public. And he was an investment banker.

Hendrie: Yes, right.

Kurtzig: So-- and then myself. I think that's it.

Hendrie: Okay. When did you start having a board other than--

Kurtzig: Right before we went public, actually. Okay, a year before because-- so we-- what happened is after I think Burt said-- I was going to ask Burt to go on the board, and then he said, "Well, you know I don't-- I'm a venture capitalist. And I can't go on the board because I have limited amount of time. And unless I can buy stock in the company, I can't go on your board."

Hendrie: Yes, and I understand that.

Kurtzig: And I totally understand that because that's when I started understanding what a venture capitalist was, that they invest in these companies with the hope that they will make some money.

Hendrie: Right.

Kurtzig: Because up to that, everybody else on the board was there to help. And some were still the advisors. We sort of had a transition.

Hendrie: The advisors were all there to help, yeah.

Kurtzig: Yeah so, that we had this transition from advisors to a real board.

Hendrie: Yeah, okay.

Kurtzig: And then-- and they had stock. But they didn't-- they were there really to help more than the payoff on the stock. Because, at that time, stock-- remember, there were very few companies that went public. And this wasn't like today, where everybody's so focused on stock options and stock. I mean if I went to an employee and tried to give them stock, they weren't interested in stock. They were interested in a raise. And it was much easier for me to give them stock than to give them a raise because I had no money. I mean I didn't have venture capital money. But so-- and they would use the-- they would use the dartboard. They would use stock options for dart practice. You'd go into a room, and they would be using darts. And they'd put holes and circles around the stock options that they were given. So, employees were not there because of the stock options because the chance--

Hendrie: This was very early--

Kurtzig: Very early. And the chance of making any money on a stock option-- we had a great team and everybody worked together. And I owned a lot of the stock. But no one-- that wasn't even an issue, because there wasn't any value in the stock at that point as far as they were concerned, as far as I was concerned. We were having fun. We were making money. We could afford to have parties, which we had great parties. And we took the whole company, all employees, to Las Vegas one year, to Mexico another year.

Hendrie: Really?

Kurtzig: Everybody.

Hendrie: Oh, that's wonderful.

Kurtzig: Everybody, not just the sales people. Everybody and their spouses went. So, this is how we were spending our money that-- any leftover that we had. It wasn't to build it up with the intention of having it. But everybody worked really hard and really long hours and loved it. Ninety percent of the employees were right out of school. We were all out of our twenties and thirties.

Hendrie: Yes.

Kurtzig: So, there was like a few-- my secretary at the time, he was probably the one-- was the oldest.

Hendrie: Really? Okay.

Kurtzig: But everybody else was young. There were no-- none of us had any experience. We were growing together.

Hendrie: Yeah.

Kurtzig: So, then the Burt thing happened. And at that time, I said, "Well, what about going public?" And of course, as you said at that time, there were some investment bankers starting out.

Hendrie: Yes.

Kurtzig: And Tom Untergberg, and Hambrecht and Quist, and those came to us and said, "Yeah, we can do an offering here."

Hendrie: Okay.

Kurtzig: And so, I read a book. I went to the library, and I copied-- there was one book on an IPO.

Hendrie: Really?

Kurtzig: One book on how to do an IPO, and that it was. And I remember going and copying the whole book and reading it from page to page probably twenty-five times. And it wasn't even a real book. It was sort of like somebody's notebook that they had put together that you could get at a library.

Hendrie: Oh, my god.

Kurtzig: It was not even a-- I remember it was not even a real book.

Hendrie: Okay.

Kurtzig: And I said, "Gee, you know look. These are the things you need to do. We can do this."

Hendrie: Okay.

Kurtzig: And Tom Unterberg, LF Rothschild, Unterberg and Towbin, who had taken Intel public and Convergent and a lot of other companies like that, and so he made us-- I went to New York. And at that point, going public was a really interesting thing.

Hendrie: That must have been so exciting.

Kurtzig: That was amazing. I mean you'd go. And they had their buildings. And you'd go to the fiftieth floor. And they had this fabulous lunch that would be brought in. It would be catered. And they would wine and dine you.

Hendrie: They knew how to work you.

Kurtzig: And-- yeah, they-- what theater-- what tickets would you like theater tickets to? I mean you got to go to any theater you wanted to see. I mean this was--

Hendrie: It was pretty nice.

Kurtzig: This was pretty heady stuff.

Hendrie: Yes.

Kurtzig: And so, we were going to go public. And I went to the board. Now, at this point I had Ken Oshman and-- I don't think Larry was-- Craig Johnson, I think at that point still on the board from Wilson Sonsini.

Hendrie: Oh, Craig J-- ah, and then Larry because you didn't meet Larry during those early years before?

Kurtzig: I think I did. I mean--

Hendrie: But he wasn't an advisor in the early years?

Kurtzig: No, he was when we went-- remember, they were very small, too. Larry and I grew up together. Larry was not even probably a partner at that point. Maybe he was a partner.

Hendrie: I think he was--

Kurtzig: He was a partner, yeah. But he was-- the firm maybe had ten lawyers. I mean this was not-- twenty, I mean-- going from a non-corporate lawyer to their law firm was a big thing because they weren't the name in the industry at that point either.

Hendrie: Yeah, right.

Kurtzig: So, and then when we started making a real firm out of it, then we had Larry go on the board. Not that--Craig was a great lawyer, but Larry was the one that did the I-- did the--

Hendrie: Did the IPOs.

Kurtzig: Public offerings, yeah.

Hendrie: And did that sort of thing.

Kurtzig: So, we were going to go public, present it to the board. And I remember this like it was yesterday. Ken Oshman said, and a man of few words, "You're not ready." Look, we-- the investment bankers want to go public. They were there to make a presentation. They made a presentation to the board. Everything was set up. Okay? "You're not ready. You can't handle-- you don't have enough people. You don't have enough to take-- to be a public company." I remember that was the one time that I went to the bathroom and cried. Okay? I didn't do it in front of anybody. But I did it-- because I was thinking I can go and actually buy some shoes or something at Neiman Marcus if we went public.

Hendrie: Yeah, yeah, right.

Kurtzig: This was real money.

Hendrie: You're-- they sell-- you could offer five percent of your stock, and that would be worth real money.

Kurtzig: Real money, I mean you know. And I just didn't have money, at that point. We-- I was taking some money home, but it wasn't--

Hendrie: It wasn't the kind where you could go splurge on anything.

Kurtzig: That I could splurge on anything, okay. And didn't even quite comprehend it totally, but I sort of did by this point. So, he says, "Nope, you're not ready." He says, "You can go public if you want. But if-- then I'm off the board," he said.

Hendrie: We were talking about the process of going public. And somebody had told you that you weren't ready. And that was immensely disappointing. Is that a good word?

Kurtzig: Yes.

Hendrie: And so, what happens next?

Kurtzig: Well, you pick yourself off. And you say okay. You have this board of advisors. There's a board of directors. And I respected Ken a lot. And I was going to heed his advice. And there's-- for a good company, there's never a good or bad time to go public. There is some. But I think, in general, I think he

had a very valid point. We weren't big enough. We didn't have all of the-- we hadn't worked together as a team. I had a hired a CFO by that point. I had hired a very, very good VP of engineering, although I had a good engineering [manager] before. But I had gotten a much more professional team.

Hendrie: Yes, okay.

Kurtzig: But the team had been together for a few months, six months maybe. And we were becoming professional. But we needed more time to really gel.

Hendrie: Okay, so what-- do you remember what year this would be, or when this would be?

Kurtzig: Well, we went public in '81.

Hendrie: Okay.

Kurtzig: October '81, I believe. Okay?

Hendrie: Okay.

Kurtzig: So, this was a year before that. It was almost exactly a year before.

Hendrie: My-- October '80. Yeah.

Kurtzig: So, yes. And as a fact, when we finally did go public, we were sort of one of the last deals to go out before the market crashed. So, even though I said there's never a good or bad time, as it turned out, Seagate and us were the two companies that went public. And then the market pretty much closed for quite a while. What year did Stratus go public?

Hendrie: It didn't-- it went public in the fall of '83.

Kurtzig: Okay, so a couple years later.

Hendrie: In, I think, September of '83. Yes, a couple of years later.

Kurtzig: When the market opened up again.

Hendrie: Yeah, which opened up for a short time, and then it closed again.

Kurtzig: Yeah. And what happened to Stratus, as a matter of fact? I forgot.

Hendrie: It went public, and it continued to grow on its own for almost ten years and then got to about, I don't know, seven or eight hundred million in revenue. And then the-- we replaced the-- our founding CEO was ready to retire. We got a new CEO--

Kurtzig: Who was the founding CEO?

Hendrie: Hmm?

Kurtzig: Who was the founding CEO?

Hendrie: Bill Foster.

Kurtzig: Oh yeah, okay.

Hendrie: He was actually in charge of software at HP, and--

Kurtzig: Uh huh, I remember Bill.

Hendrie: The software for the 3000 program.

Kurtzig: Yeah, I knew Bill. Yeah.

Hendrie: And he was-- worked with all the people that left to start Tandem. And--

Kurtzig: Jimmy.

Hendrie: And he didn't-- they didn't ask him. So, I think he was a little--

Kurtzig: Miffed?

Hendrie: Well, a little, you know. So, anyway. But that's a whole other story, which we don't need probably need to go--

Kurtzig: Okay.

Hendrie: That'll end up you asking me questions and me telling the story.

Kurtzig: All right, no I want to hear. I have to go-- mine, yes. Okay. All right, sure.

Hendrie: Okay so, it was too early. So, now, you just hunkered down--

Kurtzig: I went back to doing what we were doing and spent that year getting-- selling more, growing faster. We were growing fast at that point anyway, growing and just developing as a company. And a year later, Ken Oshman said, "Okay, you're ready now." And we went public which was just very, very exciting. I mean it was-- I can't imagine a more exciting thing other than having, of course, my children, which trumps everything possible, I think. My children are first in everything. And everything else is a very far second or third or fourth, but it's a really-- it was a really exciting experience. I mean at that point, you work on trying to tell the company's story as best you can in what's called an IPO. Everybody knows what that is. And then you would-- before you go public, everybody goes to the printers and works on redlining this document.

Hendrie: This document, yes.

Kurtzig: This document. And you-- the investment bankers wine and dine you. And they bring in steak. And you work through the night. And then you have to do your presentation before the investors. And at this point, you travel to you invest--

Hendrie: You do a road show, yes.

Kurtzig: You do a road show. And you've prepared for it. You do these slides. I mean each individual slide, it wasn't like you could do it on PowerPoint and correct it easily. You had to make a slide and have it professionally made. And I remember-- and I was the first woman to take a technology company public. I mean there were not that many public offerings. But I was the first woman. So, this was really-- half the people who were showing up for these road shows were showing up because they wanted to see ASK. And the other half were coming to see the freak show. A woman, are you kidding me?

Hendrie: <laughs>

Kurtzig: We go public. And in fact, it was a problem because in San Francisco, where we were doing our presentation was in a male only place, the Bohemian--

Hendrie: The Bohemian Club, yes.

Kurtzig: Yeah. And so, we had to do it in the basement I think, if I recall. I forgot the exact story, but I think we had to do it in the basement because they didn't allow women upstairs or something. Something funny. I want to make sure I don't have it totally wrong, but something like that. But I remember that was a problem. And so, we were going public at the same time that Seagate was going public. And you do your road trip in the U.S. and then in certain select cities in Europe. And so, we started off in Europe. And they started off in the U.S. And then we flipped. But I remember a couple of interesting stories on that. First of all, one these slides-- I mean there are so many funny things that happen that I remember so vividly now. But the slides, as I said, each one was like a slide you made. It was a hard slide. And so, we took them to New York to show them to our investment banker because they wanted to see everything and make sure that--

Hendrie: Everything was done just the right way.

Kurtzig: Everything was going to be just right, because they knew that this was going to be a very, very highly over-attended road show. Not necessarily people buying, as I said, but people wanting to come. And when you go do a road show, it's either breakfast, lunch, or dinner. In fact, sometimes, it's breakfast, lunch, and dinner in the same day. And the lunches were magnificent. I remember we opened in Geneva. And they had the dessert. What is a spun bird cage. And I mean it had little birds in it. And I mean little-- it was just amazing. Did you go on the road show with Stratus?

Hendrie: Yeah, of course.

Kurtzig: Okay, so you remember this, don't you? At the time same time-- it was just amazing. And you got private jets. I'd never been in a private jet before because you had to get to these places that were-- and for the breakfast, lunch, and dinner. And once you started the road show, you had to finish it pretty quickly. And so, we went to New York first to sort of do our trial run. And the head of marketing, Mel Lavitt, who was head of marketing for—Unterberg Towbin looked at our slides and said, "These slides are terrible." And he turns to all these people who are lining up the room and said, "Don't you agree?" And of course, they all worked for him. So, they all agreed. He says, "The white is not white on these slides." How could the white not be white? But I remember they were just really very, very precise about what they wanted to see. And my nails at that point-- I used to have my nails long. And they used to be red. And he says, "Your nails can't be long and red. Cut them down and make them a very unobtrusive color."

And he-- they were very sensitive to the fact that this was the first time a woman had ever taken the company public. And it wasn't a sexist type of thing, although I guess it does come across that way when I tell the story now.

Hendrie: Yes, it does.

Kurtzig: But it was a sensitivity type of thing.

Hendrie: Yes, okay.

Kurtzig: Okay? And I never took offense to the sensitivity. Okay? This is a situation where men are out there. They're not saying they didn't like women. They're not saying they don't want to invest in women. They're just saying that this was unusual.

Hendrie: Right.

Kurtzig: Again, men were not used to seeing women be the CEO of a company. And I think that sort of-- a big message to be careful about getting confused between sexism and sensitivity of what people are used to. If you pour cold water over their head all at once, it's just not going to work, okay? So, he was very sensitive to make sure everything was just precisely right. And I-- we started off in Europe in Geneva. And I remember the night before doing my presentation, which I, of course, I had practiced for days and weeks and whatever and thought I had everything down, and I knew my story. I knew the company. But I was just beside myself. I remember like at midnight calling Tommy Unterberg, who is an investment banker, and freaking out because this was-- I could see my whole life. I mean not my whole life, but I knew that my performance--

Hendrie: Was going to be a big deal.

Kurtzig: A big deal. But also, I knew that if I'm successful, I was going to make a lot of money.

Hendrie: Yes.

Kurtzig: Okay? This was the difference between becoming a millionaire and not, okay? And so, there was a lot of pressure, and the standards were high. There were a lot of good companies out there. And fortunately, most of our customers, the other-- the investors knew. So, the fact that we can say we were in Stratus and that we were at Apollo and that we were in Convergent, we were in Cisco and that we were in-- all these companies that they had been investing in, was obviously very important to our success. So,

we did Geneva. Then we did-- well, London of course. And we didn't do Brussels, which most other companies did do Brussels. But we did three or four or five other--

Hendrie: You probably did Edinburgh, too.

Kurtzig: We did not do Edinburgh. For some reason, we did not do Edinburgh or that. But what happened is-- what happens in the way it used to be is that invest-- all of the mutual funds, like the Fidelitys, would tell them how much stock, would tell the investment banker how much they wanted. And it was called circling the stock. They'd say soft circle for how many hundreds of thousands of shares that they want. And the investment bankers kept a book that they knew who was going to buy what at this point. Now, that's assuming that the pricing was such, they would buy so much. And so, they knew exactly. And they wanted to balance, with some investors who'd flip the stock, meaning that they'd buy it, hope it goes up a dollar or two because it didn't go up like it goes now, twenty, thirty, forty percent in a day or double in a day. It would go up a dollar or two. That was considered very successful if you went up ten or fifteen percent. And so, they knew some guys would just take their dollar and flip it. And some guys were long term investors, like the Fidelitys of the world. And so they want to balance it, so the investment banker has a big job and they get well paid for it. Okay? So we did Europe and by the time we finished Europe, I remember Bobby Towbin calling me and saying, "The deal's done." So we had everything sold before we got to Boston.

Hendrie: Well, okay.

Kurtzig: Which was, you know, made us a little excited.

Hendrie: Which was wonderful.

Kurtzig: Because I also could relax, because I didn't have to, you know, now I'm in my own territory. I mean, remember in Europe they were asking questions and they all had an accent-- they sometimes had an accent, so not only was I up against everything, but I was up against Europeans who are very-- most European companies at that point would not invest in a company that wasn't on the New York Stock Exchange, and I was NASDAQ. So by having this deal sold-- and it wasn't necessarily all sold to the Europeans. It was companies in the US who wanted to get in on it. They had heard.

Hendrie: Yeah, they heard about it, right.

Kurtzig: And so the deal was basically done. So that certainly took the pressure off. Funny story, again, it just shows a little bit of, I guess, stupidity on my part. But I did not realize that you couldn't take-- can I

tell the story? I guess I can tell the story. I didn't realize you couldn't take Cuban cigars into the US, okay? I didn't know that. I don't think the customs will come after me at this point because it's so long ago.

Hendrie: Yeah, but anyway.

Kurtzig: But I knew that all the investment bankers then used to smoke cigars, okay?

Hendrie: Okay.

Kurtzig: And if you remember that, it was..

Hendrie: Yeah.

Kurtzig: Okay? And I guess that was part of their..

Hendrie: Their thing.

Kurtzig: Their image. And so I thought well, I have to bring something back for these investment bankers who really went out of their way to make sure that our deal was done right. Like they always did, but in our case we were a little special. And so I decided I'd get a box of Cuban cigars, okay? And so I got this box, I'd put it in my suitcase. I only carry carry-on. I never check suitcases. I haven't checked suitcases probably for-- never.

Hendrie: Never?

Kurtzig: I don't remember the last time I ever checked a suitcase. Unless they make me check it. So I had my carry on, with my box of cigars in it, and I'm on the plane with one of the investment bankers and I'm telling him I'm so excited and I'm going to give these cigars and he said, "You can't bring Cuban cigars into the US."

Hendrie: Oh my goodness.

Kurtzig: I think you still can't, right? Maybe you can now, but you can then.

Hendrie: Maybe now, yeah, but for years and years and years you couldn't.

Kurtzig: So what do I do with this very expensive, in my time, box of cigars? So I had to take all of the cigars out of the wrappers and put them in my lingerie hoping that..

Hendrie: Really? That's what you did?

Kurtzig: Yes, yeah. We have to cut this out. I can't say I smuggled cigars, the Cuban cigars into the US.

Hendrie: No, that's all right. But you got them in, right?

Kurtzig: I got them in.

Hendrie: You can say that. Nobody cares. I guarantee you.

Kurtzig: Yeah, probably no one cares at this point. It was so long ago.

Hendrie: That is funny.

Kurtzig: And they loved the cigars. So then we went to Boston, and I remember a very funny situation and I won't even name the fund, the mutual fund that's still around. But software was still very, very unique. And the analysts would-- you'd have the actual investors and then you have the analysts who were in this big amphitheater asking you questions, basically interrogating you. You have the CEO, CFO or one or two other officers with you.

Hendrie: Yeah, people on the stage, yeah.

Kurtzig: You're onstage and there would probably be-- there could be 20 people at one of these mutual funds who are interrogating you. And they usually had a leader, but still, you were certainly in the spotlight. One of the first questions I got in Boston from one of these institutional investors was, "Well, how much does the software weigh?" I said, "What?" Okay. And he said, "How much does it weigh?" Because they had this calculation that they use when they were analyzing these hardware companies, and the shipping weight of the cost of shipping was one of the factors. So when we were shipping software, they needed to know how much to fill in their little square or how much it weighed.

Hendrie: On their chart.

Kurtzig: On their chart, okay. So this was really how little that the investors at that point really understood the software or the power. And today, of course, the world runs by software. So to think about how different it was back then is..

Hendrie: That is very interesting. Yeah, people thought about it.

Kurtzig: I won't name the company, but it's somebody you know.

Hendrie: Okay, all right.

Kurtzig: You know, again, that was a sign of the times. And so at that point I said, "I don't want them to have any of our stock." So I was getting a little bit arrogant about this because I knew the deal was done. And so we had what they call one-on-ones, and one-on-ones means-- I don't know how you define one-on-one when it's us against 20.

Hendrie: One on 20, yeah.

Kurtzig: Yeah, or whatever, but you did these big lunches and big dinners for a group of investors and then you do these side meetings, which were called then one-on-ones-- I assume they still are-- with a big institution to buy up the stock and then 70 or 80 percent of the stock is all bought by institutions, maybe higher than that.

Hendrie: Yes ,of course.

Kurtzig: Same today. So it was very, very heady. We came out to California and did our roadshow in San Francisco and Los Angeles and a lot of the ASK employees came to greet us as we got off our private plane, and then I guess about a week later, or maybe less than that, you go public. Then they call you at six in the morning because it's nine o'clock in New York and say, "Okay, you're effective." It was a very, very successful offering. The stock went up.

Hendrie: Okay. How much money did you raise? Do you remember?

Kurtzig: Oh God, good question. I don't remember, but it wasn't that much. I mean, we probably raised, you know, 20, 25 million dollars, which at that point was a lot of money, okay?

Hendrie: That still is a lot.

Kurtzig: You know, the total value of the company probably wasn't more than \$50 million. Maybe we sold 10 or 15 percent of the company, of which most of it-- I sold some stock myself, so-- and I think I got five or six or seven or eight million dollars, which was..

Hendrie: Oh, that's a big one!

Kurtzig: ...this was not tens or hundreds of thousands, this was millions. I went and bought a house, this house. Yeah, I bought this house.

Hendrie: Really?

Kurtzig: Yeah.

Hendrie: Okay.

Kurtzig: I bought this house.

Hendrie: Very cool. That's excellent.

Kurtzig: At an auction, actually.

Hendrie: Oh really?

Kurtzig: Because it was a down market. It was a down time for people, and so I bought it and it wasn't finished. I had to finish the house, yeah. Yeah.

Hendrie: Okay, well that's very cool. So do you remember how, you know, what the revenue was? How big ASK was at the time it went public?

Kurtzig: You know, I don't remember exactly what it was now in hindsight, because it's been a long time ago and I didn't freshen up on my numbers last night.

Hendrie: It's okay. That's okay.

Kurtzig: But my guess is we weren't doing much more than \$20 or \$30 million in revenue.

Hendrie: Yeah, okay, that's reasonable.

Kurtzig: But we were making-- we were bringing 10 percent. We were making at least 10 or 12 percent of the bottom line, so after tax, we were making..

Hendrie: Really? Okay, so you are quite profitable.

Kurtzig: Yeah, unlike now a lot of these companies, we were very profitable. Well, I mean, most companies were making, before they went public, 10 or 12 percent at that point.

Hendrie: That's what it took to go public.

Kurtzig: That's what it took to go public then. It wasn't the revenues and the growth, it was profit.

Hendrie: You were valued on your profit.

Kurtzig: Yes. It was..

Hendrie: I know those days will return, mark my words.

Kurtzig: Yes. It was a P/E ratio, which meant price times earnings.

Hendrie: Of course, profit earnings. Price times earnings, yes.

Kurtzig: That's right. And now, you have all these companies that you couldn't do a price times earnings. They don't have any earnings.

Hendrie: Correct.

Kurtzig: And, you know, a lot of it is because of the mode of the cloud software, the way it's sold, okay? There's a lot of front-end costs, and so they're looking at the losses. And then we went through that whole computer time where all these computer vendors in the internet age were how much you lost. I mean,

you're basically PL, you know, price times losses. And the more you lost, which was a really hard time for me, the more you lost the more valuable you were. And that ended, so we'll see what happens now. I think most of the companies out there now that have gone public, though, are real companies.

Hendrie: I think so, too. So you mentioned that you wanted to come back to your pricing and how you did pricing. I'm very interested in that, so tell me the story. You clearly changed-- you came up with another idea at some point. Tell me about it.

Kurtzig: Well, you have to remember, okay, going back a step, is that I didn't have a business school degree, so I didn't know..

Hendrie: You don't learn anything anyways. I'd better not say that.

Kurtzig: Well, a practical thing, but that's, you know, I did go to Harvard advanced management, to the smaller company. And that was one of the most influential things I've done. We'll come back to that in a second, okay?

Hendrie: Yes, okay. Let's come back.

Kurtzig: Let's finish pricing. So I didn't have a lot of these things that you have on paper as far as doing business. I really had to learn some from experience, and some from asking people and some from watching and dissecting. I read all the public offerings. I read the IPO, the S1s of a lot of companies, so I understood how they looked at the market and I really studied the stuff, and that's how I got my education. One of the things I didn't know in the early days is how do you price software? I mean, when you're pricing a computer, you're pricing hardware, you know what the cost of goods are. You know what your labor is, and you know you have to add something to the price of the labor, and the price of the materials to make a profit, right? In software, you have people who are developing the software, but once you do it, you can duplicate it for very little. And there isn't even a weight you have to worry about, which we determined. And the cost of the media that you put your software on is negligible, so how do you price a product that has basically no cost of goods? And the labor is also not per each computer, it's spread out, because you can-- you know. So I did it by the flinch method of pricing. The first time really started getting a standard-- by the way, remember ASK was the first company that actually came out with the standard software that ran on the minicomputer. Nowadays, everything is sort of standard software, but then most stuff was being run on a mainframe computer. Most stuff was being customized for particular companies. We were one of the first ones that actually took a product and said, "We're going to keep adding to this product and improving it, but the product itself is going to be pretty standard, and we're going to develop it by just adding features. Okay?"

Hendrie: Yes, okay.

Kurtzig: So that was unusual. That was one of our firsts. And so we didn't know how to price this thing, and so the customer said, "Well, how much is the software?" And so I said, "Ten thousand dollars," and he just looked at me like you're looking at me right now and I said, "per module." And he still looked at me and he's counting the modules in his head, and I said, "Then there's the annual services for getting the updates. And that's X number of dollars." And then I said, "per module." And the first time he flinched, I knew I'd hit a point. Okay? And so I backed up and I said, "But for you only, we're going to give you a special. We'll give you all the updates per year for one price." So I basically, you know, I called it the flinch method of pricing, which now Harvard business school now uses it as one of their pricing methods, this flinch method. But, I mean, how else do you figure out how to price something where it's sort of, you know, you can't do it by any of the standard terms, the standard ways of pricing? I guess you could call it value pricing, you know? What is the value? How much is it worth to this customer to have this product?

Hendrie: Yeah. And that's hard to do, especially when you're new, you know? If you have competitors and you're coming into the market, then you could look at them.

Kurtzig: And so everybody else, we've said a lot of things. The 20 percent down payment was something new, and so sometimes there is an advantage and not knowing what you can't do. And I knew I needed money and so getting 20 percent down payment from the customer was certainly a way to make good money, without having working capital money.

Hendrie: Yes. Very good. Good, okay. Let's go back, you mentioned..

Kurtzig: Yes, Harvard school.

Hendrie: Yeah, so how did that happen?

Kurtzig: I heard about this thing at Harvard business school. At the time, it was called Small Company Management Program. It was one of their courses where you went three weeks or a month a summer, a month a year for three years. It was a three-year program, and I think it's now called Owner President-- OPM I think. Owner Partner-- I'm not sure what it stands for. It's one of their programs for small, growing family businesses. Family businesses are businesses that are, in general, not Fortune 500.

Hendrie: Yeah, not corporate. Not corporate.

Kurtzig: And they had this and it had all the different things. It was like a compressed MBA into three years, and when I first applied for it, you had to have a minimum of two million dollars in revenue, and you had to have been in business-- you had to have certain parameters. At that point, 2 million was a lot of money, actually, and we weren't quite there. We were almost at that point. And so I applied-- and you had

to have references-- and got in. And that was probably one of the most influential training that I had, that I can pinpoint. The reason was, first of all, you're in the heady environment of Harvard, even though I went to Stanford graduate school, but Harvard is Harvard. Number two, you're with other people from around the world who are also really, really smart. And of course it's all done by business school cases. So you get a case and then you would study it at night. You'd read it, you'd study it and then there were questions. "What do you think this company should do? These are the problems they have, what should you do?" You to think through it and think how you would solve that problem, and then you would get together with the other students in the morning, which was called "in the can," because we all lived on campus, and so there was a living room that we would get together. And we would discuss it among yourselves. And it gave me the opportunity to hear how other very smart people would solve this problem. And to be able to see would they solve it like I did or not? What do I think of their ideas and so forth? Then, you would go to class, and these brilliant professors would put you on the spot, and would ask you questions, and you would work the case through with them. And then you thought about, "Gee-- " Their ideas and whether you thought they would work, and then they would tell you what happened and how the problem got solved or didn't get solved. And it was just this amazing self-confidence boost to be able to feel that, gee, the way I analyzed this problem, and the way I thought through the solution, a majority of the time was the way that would have worked, or didn't work, in the company. Against my fellow students, against the professor, and against how they really solved it and what the issues were, that I saw the guts of the issue, and it gave me great confidence in my ability when I had problems and had those things that I felt like..

Hendrie: Yeah, did not-- had no idea what to do, that if you could think through them and come out with a good solution.

Kurtzig: Yeah, so I really thought that was just a-- I never got an MBA, but I think..

Hendrie: In some sense.

Kurtzig: ...In some sense, this was really the best possible education.

Hendrie: Yeah, yeah. Well, it's the education and the confidence-building that your own analytic abilities were actually pretty good.

Kurtzig: Right.

Hendrie: Okay, that's very interesting.

Kurtzig: So that's-- and Boston.

Hendrie: In Boston, yes. Okay. So you did that in the summers for..

Kurtzig: Well, I think it turned out -- I think they do them year-round, but they have three sessions. You come to the first, the second or third, and when I started I was clearly the smallest company in the session. And by three years later, we had gone public in between, and so we were one of the largest companies of the group.

Hendrie: In the group, okay.

Kurtzig: So it was kind of an interesting transition.

Hendrie: Yeah, very good, very good. All right, so let's move on in the story. Now you've gone public. What happens? You now have cash in the bank. You can go to wherever you choose to go to get your shoes.

Kurtzig: Well from that point, you know, we really continued to develop the product, continued to expand on it. Our customers were all growing with us. We were hiring, we were growing. I did get divorced a couple years later and we did another offering, but mostly to sell my ex-husband's stock.

Hendrie: Oh, yeah, you split the stock.

Kurtzig: Yeah, the board didn't think that it was good to have an overhang of his stock in the company.

Hendrie: Yeah, right. I understand.

Kurtzig: So we did that. And we continued to grow very well and very profitably and we grew in the US and then we had growth in Europe. International was becoming more of an important part, and that was the next step where I didn't feel really comfortable in that. But that was becoming more of a focus, as well. Not a big focus, but-- and I got to a point where, you remember I started this company to have a part-time job in the second bedroom my apartment. And my children were growing up.

Hendrie: Yes, and you were probably 24 years old or something like that.

Kurtzig: At the time I started, yes.

Hendrie: When you started it, yeah.

Kurtzig: Now, you know, my children were getting older and I wanted to have time, and I had this money, and so I decided I really wanted to spend time with my children, so I retired in '84/'85, something like that. You know, we were public maybe four or five years. And the company continued to do well, the stock continued to do well and Tommy actually sold one percent of stock that I could sell every quarter. So I was in good shape, financially. I couldn't imagine how I could spend it and that was certainly a different thing for me, being in that position. And so I decided I wanted to do other things.

Hendrie: Yeah, I understand.

Kurtzig: I wanted to go out and play and play with my children, especially. And so I did. I hired a replacement and thought, you know, like you need to, that this wasn't somebody who was going to continue it on and that didn't quite work.

Hendrie: Yeah, this was somebody you had a lot of confidence in, yes, okay.

Kurtzig: So after three years, after I had replaced myself, the board asked me to come back, so I did go back.

Hendrie: And so what happened that caused them to do that?

Kurtzig: He was into developing new products. He wasn't continuing on with the new products. We got such a big part of HP that we had a lot of our eggs in one basket, so we did go at that time and we put our product on DEC, on Digital Equipment, in your neck of the woods. And so we became one of the top three, I think the third-largest DEC as well as far as reselling the hardware.

Hendrie: Yeah, and DEC had some very good machines.

Kurtzig: They had very good machines.

Hendrie: Perfect machines for you.

Kurtzig: And so we wrote it again for DEC, so that was one of the things. So we had it for HP and DEC. We did start putting it on IBM. We never could get our act together on IBM machines. That's our fault. Not IBM machines, but I think that by that point, one of the problems was we had done it very successfully at HP, we had done a very successfully at DEC, and so we thought, "Okay, we need to put everything possible we ever thought of in the world into this new software for IBM." And we didn't start rough-and-tumble and start with a basic product and then just keep adding on to it. We were so far along at this point

that we knew that the product had to meet this minimum level of functionality, otherwise-- because everybody knew what was in the HP and the DEC version. And even though we put the best people on the product, we never really got the IBM version working. I forgot at what point that happened. That happened, I think, after I had left, but I can't really fault my successor for that. I think that it was a project that I'm not sure I would have run any better than he did. But he didn't develop new products in general, didn't add on features. And you can't be a technology company without new products..

Hendrie: Yes, exactly.

Kurtzig: ...because then you get stagnant, so the company hit a wall as far as growth. I think other competitors were coming in. So the board asked me to come back, and at that point I had three years and that I had spent with my family and enjoy life. And so I went back and turned the company around. I bought Ingres. We owned Ingres Database Company and that was a wonderful company. And I said I'd stay for three years and I stayed three years exactly. Then I went back. I was really, you know, I had sort of done it the first time. The second time was sort of the same thing again.

Hendrie: Yes, exactly.

Kurtzig: And it wasn't as much fun.

Hendrie: Yeah, it's the same story again.

Kurtzig: Yeah, it wasn't much fun.

Hendrie: Okay, all right. And then you said, "All right, this is enough."

Kurtzig: Yeah. I brought somebody else in who was European, and that didn't work out very well either. So I'm not very good at..

Hendrie: At hiring..

Kurtzig: ...at hiring my successor.

Hendrie: At hiring people that are as successful as you.

Kurtzig: I've failed three times at that, and I don't know that I know how to do it right, so I failed Successor 101, that's for sure.

Hendrie: Okay. Well, hey, you can't be good at everything.

Kurtzig: Well, there's a lot of things I'm not good at, but that's one I know I'm not good at.

Hendrie: Okay, very good. All right, now the-- something tells me in the back of my mind, I didn't read it anywhere, but something tells me that at some point you got remarried during that time.

Kurtzig: No, I've never gotten remarried.

Hendrie: Oh, you didn't?

Kurtzig: But I have been with somebody for a long time, Carl.

Hendrie: Oh, Carl. Were you ever with Jim Treybig at all?

Kurtzig: I dated a lot of people.

Hendrie: Okay, so you dated Jim.

Kurtzig: Yeah, he's such a great guy.

Hendrie: Okay, good.

Kurtzig: That's actually one of the names that I'm surprised you brought up, that you would know. There is a lot of people that..

Hendrie: Well, of course I know Jim Treybig, but I remember reading somewhere years ago about that.

Kurtzig: There's a lot of other people that I'm surprised you haven't brought up, but yes, Jimmy, we were close friends, okay?

Hendrie: Okay, good.

Kurtzig: Yeah, he's such a great guy. He's living in Texas now and I really have lost track of what he's doing.

Hendrie: I know. I was asking where he was, because we probably should do an oral history. Maybe we should talk to Jim.

Kurtzig: Yeah, I'm pretty sure he's still-- yes, absolutely. He's somebody you really need to do an oral history on. I can't imagine anybody more interesting and the things he did, and he's such a maverick. I think he does teach. I think he's-- he's probably not that hard to locate.

Hendrie: Yeah, okay. Okay.

Kurtzig: Yeah, he'd be fun.

Hendrie: That it be a fun interview.

Kurtzig: With his southern accent and his, you know, he's just-- yeah, he's smarter than a-- he's just so smart.

Hendrie: Okay. So let's keep rolling through the story. At some point... you're not done. You thought you were done doing this, and then you're not done, so tell me all about that.

Kurtzig: Well, so I started a company with my son that we sold and I think that it was one of the-- yeah. You know, I want to sort of stop the story here in a way.

Hendrie: What?

Kurtzig: I want to sort of stop the story if that's okay, because I think that ASK is really the story, and I started a company with my son. It was a situation where venture capitalists threw money, and then we got a great offer from ADP, and just a wonderful thing, and then the venture capitalists said, "Who's ADP?" and, you know, Mrs. Kurtzig, this is a different world." And this is a different world with these companies going public with no revenues and no earnings and, again, we do enterprise software. We do software that runs businesses. It's not consumer, and the software has to work. And it's not something that you just-- I think that it has become very much of, in some way, a consumer environment in that a company

that takes investment and takes a company like an ADP to work with, or we were working with, was a fabulous partner. So we've had some bad experiences with venture capitalists, and I think that-- so I'd rather not talk about it.

Hendrie: Okay, all right. Now, is that the-- can you-- is that the company that you..

Kurtzig: No, the company that I started with my son was called eBenefits.

Hendrie: Oh, all right, I just needed to know. That's not Kenandy.

Kurtzig: No.

Hendrie: Ah, okay.

Kurtzig: Kenandy I started by accident.

Hendrie: It's hard to start a company by accident.

Kurtzig: Well, it was by accident. I started it. I had done a lot of traveling and enjoyed myself and then I built a house. I built a grandchild-magnet house in Hawaii and that..

Hendrie: I like the term "grandchild-magnet."

Kurtzig: Yes, we'd outgrown-- I've had a house in Hawaii for-- I'm actually legally a resident of Hawaii, by the way.

Hendrie: Okay.

Kurtzig: And so we had a house in Honolulu and we knew that the kids-- the kids grew up there with-- I went back and forth, but I knew they were going to be coming back with wives and children, and so I decided to build a place where we could all congregate, that was big enough for all of us. So I did that. I was a general contractor. And it's really unusual and a lot of fun. I have a great house and the kids love it. It's totally worked. And then one day I sort of finished with that and moved in and I always have to have some project going. I was talking to Marc Benioff and I said, "The cloud is clearly the new domain, the new horizon." It's the very first time, really, that there's been a total transition. If you think about it, we went from minicomputer, or from timesharing to minicomputer or mainframe, to timesharing and

minicomputer and we really could have the software all running on the same thing. I mean, Manman, or was written in Fortran, okay?

Hendrie: Yeah.

Kurtzig: So you had different operating systems, but basically-- and the computers got more powerful and smaller, but the software still runs. I mean, Manman is still out there. There's still hundreds of thousands, or thousands, of customers using it. It's still being used at Philips, it's still being ...a lot of companies that we're converting over with our software, so I asked Marc, I said, "Who is going to win in having ERP on the cloud?" He said without missing a beat, "You are." And I said, "No, no Marc."

Hendrie: No, that isn't where I'm going.

Kurtzig: "That's not happening. I'm retired, enjoying life in Hawaii and I'm not doing that." And so he said, "You have to go do that. And you have to go look at it." So I looked at, it and I did start a company to do Kenandy, which is named after my sons, Ken and Andy, to do ERP in the cloud. We very successfully got it off the ground. It was venture capital financed. I grew it from zero to \$350 million in market value. We installed at Del Monte and Philips and Johnson Controls and Becton Dickinson and so forth. And then I decided that two years ago -- I said I would stay for two and a half years, contractually said, so..

Hendrie: But you actually stayed longer, right?

Kurtzig: What?

Hendrie: You actually stayed longer, because you..

Kurtzig: I stayed four years, yeah.

Hendrie: Yeah, I was going to say, you started in 2010.

Kurtzig: In 2015, I said, "Okay, look--" I replaced myself in 2015, so I started in 2011, so '11, '12, yeah I stayed four years and built it to having the product out and having-- it's a great product and it's really doing very well for customers, and I brought my successor in, and we'll see how it goes.

Hendrie: Okay, exactly. All right, all right. But you had to do one more.

Kurtzig: Well, I didn't have to do one more.

Hendrie: Well, you didn't have to, but somebody talked you into it.

Kurtzig: Yes, and that's just sort of me, I guess.

Hendrie: I think what we should say then is your conscious mind didn't have to do one more, but your psyche may have talked you into it.

Kurtzig: I started doing it and then Marc said, "Okay, keep quiet." I said, "The deal is yet to stay quiet for a year." That was my biggest achievement is having Marc not talk about it for a year. And then we announced it together at Dreamforce, which is in the big Salesforce conference.

Hendrie: Yeah, that's his big..

Kurtzig: Yeah, in 2011. He's a great guy. Have you done him?

Hendrie: No, we have not.

Kurtzig: Okay.

Hendrie: We will get to all of those people, yeah.

Kurtzig: Because he's great. And he's such a, you know, he's bigger than life, but he's also bigger than life in his giving and his, you know. I know you're really keen on philanthropic endeavors and he, of course, is right up there.

Hendrie: Right up there, yeah.

Kurtzig: With Hewlett Packard and Intel.

Hendrie: I know, and that's wonderful. A really great guy.

Kurtzig: He's not only wonderful in how he treats women, and how he treats his employees, in fairness, but he and Lynn have done wonderful things charity-wise, and of course Salesforce is the preeminent company in the cloud.

Hendrie: I know they've done wonderful, too.

Kurtzig: Yeah, the company has done great, and I can't say enough good things about Marc, and so I really hope you do..

Hendrie: Yeah, yeah. Okay. All right, good. All right, I promised that I would give you-- that we'd talk a little bit about-- just a few minutes about people's-- maybe we should talk about women's attitudes toward work, and various kinds of discrimination or harassment. I mean, I don't know. There is a sort of a line there, and there's a fuzzy line there. You know, way over here it's clearly harassment. Way over here, you know, it's just so subtle that you can almost-- you want to just say, "Now it's over here, there isn't any."

Kurtzig: Yeah.

Hendrie: So talk to me about your views on that, because I know you have developed some strong views about that.

Kurtzig: Well, I think that, you know, I started ASK in 19-- we incorporated in '74, but I technically started in '72, so this was a long time ago. This subject about women in business has been a subject that's been around forever.

Hendrie: Yeah, literally forever.

Kurtzig: Forever, okay. And of course, to the young people coming out of school right now are coming out of school 10 years ago or 20 years ago, it's a new subject to them. So they reopen it and say, "Oh, there's this discrimination. We're not getting ahead. We need to network and women have to help women." I mean, the subject keeps repeating itself, and we're not getting any better. I think that women are 50 percent of the population and with the internet, you know, it's so much easier to start a company at home today than it was, because you don't need a thirty-five or hundred thousand dollar computer. You need a thousand-dollar computer, maybe not even that. And so there's just so many opportunities for women to excel. I think that it does take self-confidence and it does take the fortitude to pick yourself up when obstacles are thrown in your way. But I feel that we've tried everything else in telling companies they have to have more women, and we have to do this, we have to do that. We can have the press talk about it until we're tired of seeing it. You know, we've tried all those other things, and I think the one thing I would say is that, you know, for a woman, just go do it. Don't wait for somebody to throw a roadmap in

front of you and say "These are the steps you have to go through to be successful, because if you wait, the world will pass you by and we'll still be talking about this subject." And sure, I can go back and say, "Well, there's discrimination, there's this, there's that, men have to be part of the equation," we can-- anything you want to say, I'll say "Yes, that's true." But the fact of the matter is, I think the most important thing is for women to realize that 50 percent of the population are women, that women are buying more things on the internet now than men are. Women are getting more wealth than men, because men, unfortunately, die younger than women for some reason, and we have everything going for us. There's more degrees at the universities going to women. In every way you look at the statistics, women are equal or if not the predominant number in the equation. And we should be able to pick ourselves up and just go for it. Okay? And if there is overt discrimination, you look and say, "That's his problem," and walk away.

I'm saying this in a generic way. This isn't always the case, so I'm sensitive there are always situations that are not that way. But I think more so than not, women just need to go for it. They need to say, "Look-- figure out where they want to go and if you get in a situation where men don't want you to play, you can't win. If you're not in the game, you can't win. So if men are uncomfortable because you're saying, "You can't tell that raunchy joke, or you shouldn't do that," and they get to the point where they don't even know what's right and what's wrong anymore, then they know it's wrong. But in a heated moment, they bring out locker room conversation that's not appropriate and you take offense to it, and you make a big deal about it and they get uncomfortable, they're not going to want you in the game. And if you're not in the game you can't win. So I think some of these things you have to let pass. Unfortunately, it's not right but you do. You just have to say, "Look, this is where I want to go, and if I want to go there, I have to put up with some of this stuff." I'm not saying it's the right thing, but I'm saying choose what-- choose your battles, okay? I guess is what I'm saying. And I think you have to do that also at home. You have to make it-- you have to have an understanding with your husband or your partner. What's important to you? Because if you're not unhappy, if you're not happy, no one around you is going to be happy.

And I, from a very early stage said, "Look, I have a degree. I want to use that. I want to work. This is fulfilling to me to have both. I want to have my family, which is always number one, but I also want to have a career and I want to be financially independent." That was really important, that I could be in a position where I made the money and I knew that I could spend it how I wanted to spend it and I wasn't beholden to anybody else. You know, so I think if that's not important to a woman, then that's fine. I think the hardest job in the world is to raise children. You don't get paid very much for raising children and you can't give them back. A job, you can always quit and go somewhere else, but children are forever. That's your legacy is your children. And so doing a good job of raising children is something I really respect. I think that's, you know, very, very important and my proudest achievement is Andy and Kenny, who are both, by the way, entrepreneurs. Andy is the CEO of Just Answer and Ken is the CEO of IOUs, and so they're both entrepreneurs. They're both very successful and we're both very, very close. In fact, I was supposed to go have dinner with Andy tonight and I said, "I can't deal with the traffic, okay?" I saw him last night, actually, and I stayed overnight at my other son's house the night before, so..

Hendrie: Okay. You're really close then, yeah.

Kurtzig: Yeah, so I'm really close. We travel together and we had great trips with the three of us and with all of our family, there's all the family right there in that picture. Okay? I think that women just really have to just go for it. Does that make sense?

Hendrie: Yeah. Okay, good. All right. Well, I want to thank you so much for taking the time to do..

Kurtzig: You're so welcome.

Hendrie: ...oral history for the Computer History Museum. Thank you.

Kurtzig: I look forward to it and I hope that it inspires other men and women to know that they can start with nothing. I had a very middle-class background, by the way. I went to public schools.

Hendrie: Right. So that's what's happened in many is you were-- there's nothing wrong with that. I don't think you need to have a special background to be successful. Fortunately, the United States is a little different than England, our English-speaking neighbors where there's much more class distinction about where your background comes from.

Kurtzig: Absolutely.

Hendrie: So let's look at the lucky side.

Kurtzig: There's lots of things that work really well here.

Hendrie: Yeah, exactly.

END OF THE INTERVIEW