Oral History of John J. Cullinane

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Table of Contents

John J. Cullinane

Conducted by Luanne Johnson

Abstract: In this interview, John Cullinane, the founder of Cullinet Software in 1968, describes his background prior to founding Cullinet and the events that led him to decide to start his own company. He discusses the challenges to his company and the nascent software industry resulting from the recession in the early 1970s and the competitive environment for selling the database management system IDMS. He covers decisions on pricing the software, policies on annual maintenance agreements and how Cullinet's IPO changed the financial industry's view of the software industry.

Origins of Cullinet Software

Luanne Johnson: I'm interviewing people who started software companies in the 1960s because I got involved in a small project that turned into a much larger project. As I got into it, I realized that nobody that I have been able to find has collected the information about the early days of the software product companies. There's been a lot of work done about the microcomputer software companies. And those guys have become folk heroes.

John Cullinane: Absolutely.

Johnson: But there's an awful lot of work that was done before that, that they built on. And so I found myself with a new mission. My background is in the software products business myself. I founded a company in 1971 and sold it to the employees a couple of years ago.

Cullinane: What sort of product?

Johnson: Accounting applications: payroll, general ledger, accounts payable, very bread and butter stuff.

Cullinane: So you know this business. There isn't anything I can tell you about this industry that you don't already know.

Johnson: Well, I thought I knew a lot until I started talking to people. And there's a lot of different opinions. But what I would like to hear is the beginnings of Cullinet Software [originally called Cullinane Corporation]. What motivated you to start it in the first place, what you were doing at the time and where did you get the idea that software products were going to be a viable business?

Cullinane: Well, the idea of software products as a business came to me when I was working with a traditional computer contract programming company in the 1960s. We designed and implemented a generalized payroll system for a bank in Rhode Island. I think we charged them $10,000. And we overran that contract. And then we designed and implemented a similar generalized payroll system for a bank in Connecticut for $17,000. And we overran that contract. And then we received a contract from Marine Midland Bank in Buffalo for $35,000 for another generalized payroll system.

Johnson: That was the payroll system that Philip Hankins, Inc. had.

Cullinane: That's right. It was my idea. And we overran that contract. And about the same time that we finished that payroll system, a bank in New Jersey called up and wanted a similar payroll system for the same computer configuration. And the thought occurred to me why not sell them a system that we had just recently completed rather than reinventing the wheel? So we negotiated an agreement with Marine Midland that allowed us to do that by paying them a royalty. We sold the system to the bank in New Jersey for $20,000. They were up and running payrolls with a system far superior than they could ever develop from scratch in two weeks with the expenditure of ten man-days of effort. We sent them an invoice for $20,000 and they were so delighted they paid the invoice right away. So that experience made a big impact on me as opposed to the way traditional programming houses were operating at that time.

So I kept that idea in the back of my head for a few years saying that if I ever formed a company of my own then maybe specializing in computer software products would be a good business. So in 1968 I undertook to form a company called Cullinet Software to specialize in computer software products exclusively.

Johnson: It was formed specifically for that purpose?

Cullinane: Right. And it was the first company that I know of that was formed for that purpose.

Johnson: Yes, I've been trying to trace that down. Everybody else started in the contract programming business and got into products.

Cullinane: Cullinet was the first that I knew of. People said that it couldn't be done. Others had tried and failed and we would too. And I raised a half a million dollars on Wall Street to...

Johnson: This was in 1968?

Cullinane: Yes. To finance the company. My wife typed the proposal one finger at a time. And it wasn't easy. In fact, there was a point in time where we had $500 left in the bank from that $500,000. And I remember a payroll was due on a given day and a check came in for $8,500 on that day literally. So that will give you an idea of it how it was touch-and-go in the early days. There was a point in time when we were a one-product company, namely the Culprit report generator. And we had no time left, no technical resources to speak of left and no financial resources.

Johnson: Where did Culprit come from? Did you acquire that?

Repositioning Culprit for EDP Auditors

Cullinane: No, no. We built that. In fact, the same people that designed and built the PHI payroll system joined me and the first product was Culprit. I had noticed that some of our Culprit users were using it for EDP auditing purposes. So I got hold of a manual from one of the Big Eight audit firms as to what an audit software package should do and compared it with what Culprit did and found out that in reality we had a really powerful audit package that, if packaged properly, might address a new market. So what I came up with was a new version which we called EDP Auditor which was really Culprit with a different name. But it also included separate training geared to auditors that was longer and more explicit. For example, what's a file? What's a field? What's a record? And so on. And we also provided separate support. From this whole relationship, they gained independence from the data processing department. And by that they gained...

Johnson: And the target market for this was auditors?

Cullinane: Yes, they gained integrity of the audit. That's what they wanted. I also formed the first EDP auditors user group that I know of to give them a vehicle, a forum to compare notes. Because there was no right way or wrong way to do EDP audits. So all of that, plus a

library of audit routines for statistical sampling, all of that comprised really an attractive package to a new market, EDP auditing. And we started to sell there effectively.

Johnson: First vertical market.

Cullinane: Yes, right. And the auditors would use the product so effectively many times it would embarrass the data processing department. Because the controller or the vice president of finance would say, "How is it the auditors can do in one or two days what you people in data processing say will take three months to do?" So the data processing people would then acquire the Culprit version. In the early days we had a hard time selling the Culprit version at $10,000. Now, we were selling combinations of EDP Auditor and Culprit very effectively for $20,000. So that was the point where we went from downhill to turning the corner and started to prosper.

Acquisition of IDMS

Johnson: When you went out to Wall Street to get your half a million dollars, did you tell them that the product you were going to produce was Culprit?

Cullinane: No, that we were going to specialize in computer software products and in some cases we'd acquire those products from companies that weren't in the software business. That was really our initial thrust – to acquire products from companies not in the software business, take them and repackage them and resell them and support them. But the number of salable packages really didn't seem to exist, at least the ones that we found. So we were forced to change horses in midstream and develop our own software. But interesting enough in 1973 we had the opportunity to acquire the database management system called IDMS from B.F. Goodrich and I saw that as a foundation product on which we could build a whole integrated set of products. And that's exactly what we've done.

Johnson: Did that come out of GE originally?

Cullinane: Yes. It's sort of a long, long story. It has its origins as IDS from GE and then B.F. Goodrich had the right to convert it from GE to IBM including a whole lot of enhancements. So that's the background on that.

Johnson: So then you finally did acquire a product at that point.

Cullinane: Yes. So since that time we've built most of our own software products. But at the same time, if a good product came along we wouldn't be adverse to acquiring a product if it fit into our overall strategy.

Johnson: When you decided you were going to have to build a product because you weren't able to find one out there, why did you decide on the report writer?

Cullinane: Well, because our technical people at that time knew that and that's what they wanted to build. And there seemed to be a market there.

Johnson: Mark IV was out there then.

Cullinane: Right. They were a major competitor. But that was a file management and report generating system. And Culprit was the first load-and-go report generator that I knew of that was on the market. Most of the report generators at that time were Cobol pre-processers like Score and things like that.

But it was a very hard, difficult sell. Because it meant that programmers would have to change their ways from being Cobol programmers or assembly language programmers where they saw a long-term career path as opposed to becoming familiar in the procedures of a report generator.

Pricing of Culprit

Johnson: What was the price of Culprit?

Cullinane: Initially it was $10,000 and then it went to $15,000 and then $20,000.

Johnson: How'd you come up with the $10,000?

Cullinane: Well, it was basically what we thought it might sell for.

Johnson: It was just a sense of what you thought customers would be willing to pay.

Cullinane: Right, right. Exactly.

Johnson: There have been some interesting discussions as to how people came up with prices back in the 1960s. It was all over the board.

Cullinane: Yes, right. What you sometimes found in the 1960s and 1970s because of that, was that the price for a very complex product might be a lot less than a not-so-powerful different type of system.

Origins of Cullinet Software (cont.)

So going back to the origins of the company, after I had left the contract programming firm, I was at the airport one day and I ran into a fellow that had worked with me at that company. He was a good guy and he said, "If you ever do anything on your own, gee, I wouldn't mind doing it with you." So that made a big impact on me.

Number two, I had worked for firms where I really, I thought, helped them grow and become very successful. But, you know, I never really got much of a financial reward out of it. And I said, "Well, I had helped make other people very wealthy. And maybe I ought to try to do that myself." But I didn't have the confidence or the push or whatever until 1968. At that time I was working with a traditional computer consulting firm and I opened up the Boston office and we were budgeted to lose $20,000. Instead we made a $20,000 profit in the first six months. So that was a swing of $40,000 and I was selected for an outstanding performance award. And I mused about how large that award would be, whether it would be $10,000, $5,000. I kept moving it down because the management was a little bit on the tight side. And then the day for the big award came. And the president flew up and shook my hand and told me he was delighted to give me this award in the amount of $500. And that it would be payable over three years. And not vested, as well. So it was at that moment in time when that experience...

Johnson: That provided the push.

Cullinane: Pushed me over the line to form a company and I set that in motion. At exactly the same time I was contacted about becoming the president of an information services subsidiary of a major bank. So they offered me that job and on the drive home from Rhode Island, I was wondering whether I should take the presidency of this existing operation or start a company from scratch. I felt there were a lot of problems in that opportunity that I was offered. The management of the bank didn't really appreciate it. So rather than correct somebody else's problems, why not start clean? And so I made the decision to go the Cullinet route. So that's why we're here today.

Johnson: So you started out in 1968 with Culprit.

Cullinane: It was about 1969 or 1970 before the product was first out.

Johnson: When did you say you picked up IDMS?

Cullinane: IDMS was 1973. But we didn't bring it to the marketplace until January of 1974.

Developing a Product Line

Johnson: Okay. But that really changed your orientation then with a different product line and gave you a basis for building a product line.

Cullinane: We interfaced Culprit and we built an integrated data dictionary, an online query facility. We built a fourth-generation language. We built IDMS data communications, IDMS distributed database system, etc., etc., etc.. And then in 1981 when our fourth-generation language came on stream, we now were in a position to address the applications business like it had never been addressed before. And since you had a lot of experience with applications, you know exactly what I'm talking about. By that I mean that applications are very difficult to tailor and change to accommodate different clients' requirements. And I felt by using database as the foundation and using the dictionary and the query and the fourth-generation language, we could deliver an application to a given client with the same foundation, the same engine, plus the tools to modify that easily. Then that modification could be done by the user. And that we would have licked the maintenance problem, which has been true. These are referred to fourth-generation applications.

All the applications I know on the market today are what are called third-generation because they use generalized interfaces to any database management system of your choice. They don't use the whole tools to build a system which is the way we did it. It was not easy to do. But if you look at the buying preference now as shown on the surveys, all of our applications have shot to the number one position. They've been out more than two years.

Personal Background Prior to Cullinet

Johnson: Obviously from what you just told me at the time that you made the decision you were in a management position with the other company. But did you go into the management through technical end or from the sales end?

Cullinane: Sales end. I started in 1961, I guess it was, as a sales trainee for a firm called CEIR. It stood for Corporation for Economic and Industrial Research. And then within about a

year and a half or two years, I was in charge of all CEIR operations in the northeast which included a large data center and 75 people and so on.

Johnson: They were doing what was then called contract programming.

Cullinane: Well, we were like a service bureau. We were like an EDS or Computer Sciences. We were the first. CEIR was the forerunner of all those firms, what you'd call computer consulting and services.

Johnson: Yes, they now call them professional services.

Cullinane: Yes, but there was a big data center quotient to CEIR. And then I went with Philip Hankins, Inc. And I went there on an equity situation, for a percentage of their company and helped build that company. The Marine Midland payroll system was one of those things.

Johnson: That was the payroll that ultimately ended up at Wang, isn't it?

Cullinane: Well, they've spun it off from Wang and it's now called Genesis. When I left Hankins I think they had sold five or ten, just to give you an idea how early that was. I don't know. It was very small number. And then I worked for Auerbach Corporation for three years. And then Cullinet Software. Each of those was a sort of a marketing/management position.

Mandatory Annual Support Policy

Johnson: When you came out with Culprit and you decided on the price of it, what did you include in that? How much did you include in the way of support and training? How did you define the parameters of the product as opposed to just a set of code?

Cullinane: Well, one of the things which I think we initiated was mandatory annual support.

Johnson: Mandatory?

Cullinane: Mandatory. I think we initiated it. That means that anybody that acquired our products had to pay an annual renewal fee.

Johnson: Did you give them the first year free?

Cullinane: Well, they paid up front, say, the $15,000. And each year thereafter they paid ten percent of that amount. Or else they couldn't use the product any more.

Johnson: Okay. So they didn't just drop off support. They actually couldn't use it anymore.

Cullinane: Up until that time I didn't know anybody that did it that way. And it wasn't just maintenance, it was full support. Maintenance is fixing bugs. The annual renewal fee included new releases, enhancements, consulting services, documentation, training, as well as bug fixing.

Johnson: They got so many days of training every year with that?

Cullinane: Well, as part of the initial installation. But most importantly they got new releases. So when we came out with a new version of the product they didn't have to pay another upgrade fee.

Johnson: Where did you come up with that idea?

Cullinane: A member of my board said to me one day, "Where's the recurring income here?" Well, there wasn't any. And I said. "That's a very good question." Because we were going to have to keep selling more and more to keep the income coming in. So the annual renewal income that we receive is a very, very significant part of our revenue.

Johnson: Yes, but a lot of people dealt with the need to have recurring income by saying, "Okay, we're going to charge this fee if you want our support. But if you stop paying it you can go on using the software forever, you just don't get any more support." It's a very different distinction that you said, "If you stop paying the fee, you can't use the software anymore."

Cullinane: I'm glad you see it that way. And we had to battle with that.

Johnson: Did you ever have to go in and take it out? What did you do if they stopped?

Cullinane: There are people that have stopped using a product, you know, for reasons like the company gets acquired or something like that. But most people are still paying. In some cases they've been paying 12 years. And they get a lot for it. If you look at that figure now that's close to 15 percent of our gross revenue every year.

Johnson: Did you get any resistance to that idea from your customers?

Cullinane: Yes. Oh, definitely. Very definitely. It was a new thing. But I felt that it was in their best interest to have a strong financially-sound firm behind their software. And that costs a certain amount of money.

Johnson: Do you think you ever lost a sale because of that policy?

Cullinane: Probably. It's interesting because every year, it's worked out that that the profits equaled that amount of aggregate annual renewal income.

Competitors to IDMS

Johnson: Oh, really? That's interesting. Who were your competitors once you got IDMS out?

Cullinane: Well, IBM was a big competitor. Cincom certainly was very strong at that time, Software AG, MRI Corporation.

Johnson: Did you see IBM as a competitor that really had a substantial impact on your market?

Cullinane: Well, I think that when we decided to get into database in 1973 we knew we would be taking IBM on head-to-head. And we were only a 15-man company. That was a pretty awesome kind of competitor to be taking on. Most people are afraid to do that. It turned out that IDMS turned out to be a much better product than I think we had a right to expect because it was a really superior product to Cincom's TOTAL. TOTAL was like a subset of IDMS. It was very solid, excellent product. But we used to lose four out of five situations in head-to-head competition with IBM. We would win the technical evaluation but we'd lose the sale.

Effect of IBM Unbundling

Johnson: At that time they hadn't unbundled the price of their competitive product. When did they?

Cullinane: Well, they unbundled somewhere in 1969 or 1970.

Johnson: June of 1969 is when they initially announced unbundling and it went into effect in January of 1970. But they initially unbundled just very pure applications products. And they held back a lot of the other stuff.

Cullinane: Yes, people talk about unbundling. But I mean, that really wasn't a significant factor.

Johnson: Okay, that's what I wanted to find out.

Cullinane: A lot of people would like to assign more importance to that than it really warranted.

Johnson: Well, there's a very strong belief that exists that unbundling created the software industry.

Cullinane: That's a myth. It helped that IBM legitimized to some degree or another that software was a product and you could buy it. But on a scale of 10, I'd give it a 1 or 2 and nowhere near the significance that a lot of people like to give it.

Johnson: Since I started this project I've seen that in print at least five or six times.

Cullinane: You know what really legitimized the software industry is that in the early 1970s and mid-1970s there was a tremendous economic crunch. And for the first time in the history of data processing, economic considerations started to take precedence. This was always true overseas, but in the United States it started to come home that companies didn't have unlimited budgets for computers. The bloom was off the rose. Companies couldn't hire all the people they wanted. They had to get the job done and were trying to figure out how to do it better and faster. Buying software was a way of doing it. So that was more in that timeframe of 1972 to 1976. It was a much bigger factor than IBM's unbundling.

Johnson: It's interesting. Because I've tried to get several people to substantiate the claim that IBM unbundling started it initially. For example, ADAPSO put out a research report a couple of years ago, "History of the Industry". It says, "And then in 1969 sales surged forward because of the unbundling." The next page is a chart, right? And here's this flat line of sales until about 1972. What surge? And so when I try to get people to give me some substantiation of that, they say, "Well, it would have happened if it hadn't been for that recession that hit right then."

Cullinane: Oh, is that right?

Impact of the 1970 Recession

Johnson: Yes. But what you're saying is that the recession really had more responsibility for the growth in software sales.

Cullinane: Absolutely, absolutely. Because it was the first time that economic factors were introduced. Up until that time the computer departments had basically unlimited budgets, and that's really the first time they started to get serious about buying things.

Johnson: I got into the business in 1971 there was still a lot of resistance to the idea of buying a software product, particularly with applications programs.

Cullinane: "We built all our own. We have the best. We always built our own." You know you've heard that a hundred times.

Johnson: Oh, yes.

Cullinane: And that was a gradual process. That's what I meant selling the software in the early days was very difficult.

Johnson: It was about 1973 when I became aware that I was selling against other vendors as opposed to selling against the customer's belief they could do it better themselves. And I felt that was a major breakthrough.

Cullinane: So your experiences then are very analogous to my own. So you can draw on your own experiences as being valid, in my opinion.

Johnson: Well, I hope I can. That's what makes this interesting to me. In a lot of ways, I was very naive about what it took to build a software company.

Cullinane: Well, I was very naive. This is just learn while you earn. And between 1968 and 1972, 3,000 software companies went out of business.

Johnson: Including one that was the predecessor of my company. The way I got into the business, I was working for a software company that was selling a payroll and an accounts payable system. And it went out of business. And I said, "You know, I think there's something going on here that could be interesting." And so I formed another company and negotiated the right to go on selling those packages. It worked out fine.

When I first started investigating the effect of the unbundling I became right away very suspicious that this really was a myth and that it had to be seen in a context. And that a thing such as the recession...

Cullinane: I can't tell you how many times that has come up when people have asked questions about the unbundling. They didn't know the industry. And you just had to groan. Or take the time to argue the case and they don't really understand what you're talking about anyhow.

Impact of the Lack of Capital

Johnson: Other people have told me that they felt that a much more important factor was the inability to go out and get financial resources to get started.

Cullinane: Started, what do you mean?

Johnson: Well, the start-up money. That the banks, the financial institutions didn't understand what these companies were doing and that they really didn't have the money to support the kind of growth that they could have done.

Cullinane: Oh, you mean they couldn't get investing.

Johnson: Yes, they couldn't get investing at the beginning.

Cullinane: Oh, there's a certain amount of truth to that. Because in 1969 the window came down on Wall Street. And through the 1970s, the investing rules were changed such that it didn't encourage people to invest in new ventures. It wasn't until the late 1970s where there was a turnaround on that. And we were the first software company in 1978 to go public in ten years in the industry. And it was just only around 1978 that the window started to open again. So, yes, there was a certain amount of lack of capital.

Johnson: Do you think it was just timing that you were able to get that initial half million, that you just happened to get there just before the window closed?

Cullinane: Yes. I went down to Wall Street with good support and we climbed right through that window because the people behind us were respected by the people on Wall Street. If we had come along six months later there wouldn't have been any window open.

Johnson: Yes, it was still touch-and-go for a long time.

Cullinane: You better believe it. I had to stretch out accounts payable.

Johnson: What were you doing in terms of computer resource?

Cullinane: Well, we're buying those from different time-sharing service bureaus and so on. I don't think we got our own computer until 1978 or so.

Johnson: Oh, really? That late?

Cullinane: Even then we had the facilities managed for us by Avco Computer Services. But if you go down the street now we've got the biggest data center you ever saw.

Johnson: There was a lot of machine time that was cribbed and stolen and paid for in the early 1970s by people developing software.

Cullinane: We paid for all that we used. But I think one of the big things, one of the big improvements, with when we first went into online development of software. It was a big change.

Finding Qualified People

Johnson: Did you have difficulty finding people, technical people that you needed to do that, both to support the products that were out there and to do grow the product line? Has that ever been a problem?

Cullinane: Well, no. Not really. We've been very fortunate that way. The other thing is that we've kept the people. They've stayed. Some people have gone off and retired or they've gone

into getting Ph.D.s But not really gone to competitors. So we've had a very stable development force. And that's very important because integration of our product line has been one of Cullinet's keys to success.

Now, what's more difficult, very difficult, is to build a sales organization that can sell software. That was a long time coming. And very difficult to develop over the years. The first success we came from was having technicians become sales people.

Johnson: How successful was that?

Cullinane: Well, I think we found some that were really outstanding and some not so good. But you don't really build a professional sales organization that way.

Advertising and Expansion of Sales Offices

Johnson: How were you dealing with advertising? What were you doing in terms of getting the word out?

Cullinane: Well, the advertising and positioning of products and all that sort of thing, I did a lot of that personally. A large number of Cullinet's ads down through the years I literally wrote the headlines.

Johnson: Initially were they directed toward like DP managers?

Cullinane: Oh, sure. Most of our advertising historically has been to technicians and DP managers. The kind of people who read *ComputerWorld*.

Johnson: When did you start putting in branch sales offices?

Cullinane: Well, once we get into database we had to hire people in 1974. And we had guys working out of their houses in different places.

Johnson: Were those combinations sales support offices?

Cullinane: Yes.

Johnson: There was one right next door to my office in Berkeley.

Cullinane: John Nackerud?

Johnson: Yes.

Cullinane: That's a classic.

Johnson: Oh, really?

Cullinane: Yes, John's a good friend of mine.

Johnson: Oh, is he? Yes, it was the same building, the Wells Fargo Building.

Cullinane: Yes, sure. So you got to know John.

Johnson: Yes, used to see him in the hallway.

Cullinane: Funny. But if you know John Nackerud you ought to interview John Nackerud. John Nackerud knows as much about Cullinet Software as I do.

Johnson: That's a good idea. That would be fun. I haven't seen him for years. We moved out there. We grew out of that office very quickly.

Cullinane: Yes, he's a consultant with Cullinet. But I met John when he worked for TransAmerica Corporation. And I remember going to make the presentation there. It was a very technical audience. And they were asking questions which nobody else asked. John kept answering the questions. It drove some of his contemporaries crazy that he was doing that. I always appreciated that. Then he went off and formed his own little one-man consulting firm. And then I retained him to represent us on the West Coast. And then he came on as a full time employee, built up the West Coast, and became a vice president. That's a classic ad hoc kind of way this is all done. Somehow you meet these people along the way and get together and get going and everyone prospers. They did good for us and they all came out of it wealthy. I could go down a list of guys in Chicago and Atlanta . Bill Linn started in Atlanta and the southeast just like John did the West Coast.

Software Pricing

Johnson: I've had some discussions with various people about pricing. And almost everybody says they started out pricing their product too low. And tells me that their conclusion is that there really isn't any elasticity in the price for software. Most of them felt that they could have raised their prices considerably and still sold it.

And I've sort of taken that as gospel because that's what everybody has told me. Until this morning when I interviewed Jim McCormack [of McCormack & Dodge] who told me a story about when they couldn't sell their fixed asset system at $3,600 so they did a direct mailing and sold it for $500. And sold $90,000 worth in six months when they hadn't been able to sell one at $3,600. So clearly there is some price elasticity in software. And maybe it takes a big drop in price before there's a big change in demand.

Cullinane: Well, not really, no. Because while we were trying to sell Culprit at $15,000 we were losing to Informatics and Mark IV who were selling...

Johnson: At $30,000.

Cullinane: $80,000.

Johnson: $80,000?

Cullinane: $80,000. They'd sell a file management report generating system and the customers would only use it as a report generator. Culprit started out as $10,000 and I increased it to $15,000. It didn't make any difference at all. And I think one of the things that we have tried to do as a company is to charge a good price for software consistent with its value and convince people that we as a company and our products are sufficiently superior for them to pay the price. Because often the price of our software would be ten percent of the project. Maybe the software from us cost $100,000. But they may have a million dollars budgeted for this system that they were going to be building. And if you look at all the surveys, price of the software is always like fifth on the list. So people realize that buying good software from a good company that was getting behind you to provide adequate support was worth it. And it was up to us to convince people of that. So we never low-balled. We've increased the prices of our software, I think, for almost ten years in a row.

Johnson: That's one of the mistakes I made initially without knowing what I was doing and not really having any business background or even any old boy network to tie into is that I priced the software too low. I lost sales because they assumed that...

Cullinane: Yes, if it's too cheap they don't believe it can do the job. You're charging $2,500 and this guy's charging $25,000. You're charging $25,000 and that guy is charging $250,000. You're naive to be doing that. You know it's going to take more. And you do it and you work harder. So you lose business. It's funny. It's a double negative. You lose business and then the business you get you kill yourself delivering. You can't make money on it.

In running a software company, it's not only good products. It's not only selling the products. But it's also pricing and making the annual support fee mandatory, and the right prices. And also if you attempt to set up a higher price, the renewal fee is higher at the end of the year than it would be otherwise. There are a lot of issues that have to do with running a good company and being strong in every category. And that's what we tried to be.

And then we went public in 1978. It was spectacularly successful. Then we continued that success for seven years straight. And that created a very favorable impression of software companies for other companies to follow us. Whereas when we got started in 1968, the software industry was a disaster because so many publicly-held companies went down the tubes in 1968, 1969.

Software Industry Image

Johnson: One of the things I did in the beginning in trying to evaluate the effect of the unbundling was to go back and research the business and trade press from that era.

Cullinane: You did?

Johnson: Yes. And, boy, the software industry was not well spoken of in 1968 and 1969.

Cullinane: No, there was a whole long list of companies that went under: Programming Sciences, Computer Applications, Computer Usage, etc. So it's a delight to talk to somebody that's done a little bit of research and has a little historical perspective on this industry.

Johnson: Oh, yes. You look the *Wall Street Journal*, at *Barrons* in 1966, 1967, the greatest thing going is the software industry. And, boy, then when you get to 1968, 1969, it's another story all together.

Cullinane: The people that follow us on Wall Street, so many of them are so young and their perspective is the era from 1982 to 1985. And they feel that everything started in 1983 or whenever it is they joined some particular Wall Street firm. It's interesting going back to the historical industry. I think there was really a pent-up interest in software and what it was but nobody quite could understand it so nobody really wrote about it. And then the PC burst on the scene. So all that pent-up interest sort of enveloped these people. I saw large articles, front page articles in the *Times*. And there wouldn't be a single mention of mainframe software let alone any recognition of an individual company. They wouldn't even mention that the mainframe software industry exists. All software was Lotus 1-2-3 or dBase or something like that.

Johnson: The perception is that the software industry started with Visicalc.

Cullinane: Visicalc, yes. Forget about all the rest of it which is far more significant in my opinion.

Johnson: Well, there's a general public awareness about all the millionaires that have come out of the software industry, meaning the microcomputer software industry. But if you look at the number of people that have made big money in that business compared to the number who made big money in the mainframe software business, it doesn't compare. Everybody that got in there early and really hung in there and built a company of any size made a lot of money out of it.

Cullinane: Yes.

Johnson: And I think that story should be told.

Cullinane: It hasn't been told. I read a book on important people in the software industry which listed a lot of people and half of them I had never even heard of. And not a single mention of anybody in the mainframe software business. It's one thing for *Time, Business Week*, those publications not to cover the industry – it just goes over their heads. But for a guy who's supposed to know the industry not to include the names of people in the mainframe software business...

Johnson: You or Tom Nies or Joe Piscopo or Walt Bauer or any of those people.

Cullinane: There's a whole long list of those guys, John Imlay and a lot of other guys. You don't mind if you're crowded into one page in the back of the book somewhere. But at least you ought to be there.

Johnson: One of the things that amazes me is the decisions that had to be made at that time, dealing with a new type of product. Like these pricing decisions, and the decision on maintenance. A lot of people didn't provide maintenance at the beginning because it never occurred to them until the phone started ringing. The first reaction was that the phone was ringing, uh-oh, this is a problem. Then there was a secondary reaction which is that this is an opportunity to make some revenue.

Cullinane: Well, you know it's funny. Because I was just reading a year or so ago, that what Lotus wants is to be another Cullinet. They use that expression. I was out at Hambrecht & Quist last week. When they go and talk to new software companies that are in the works, Cullinet is used as a verb. Well, we want to Cullinet this. And let's Cullinize that.

Johnson: That must make you feel good.

Cullinane: Well, but I mean that's the perspective that we are held in.

Johnson: But Bill Gates was on the cover of *Time* magazine and you weren't.

Cullinane: Well, I don't mean that it matters in those publications. But you'd think that at least in a 350-page book on the industry, there would be one recognition of at least the company.

I really didn't want that kind of publicity. I changed the name of Cullinane Corporation to Cullinet Software and the purpose of that was a lower visibility. Because I had children, too much visibility is not such a good thing in this day and age. So there are ways to get visibility. And I know what it is and how to do it. But I chose basically not to do it. So that's another factor.

Johnson: But an interesting corollary to that is John Imlay, who is certainly not shy, has invested a lot of time and energy in promotion. But he's really devoted more to promoting the industry than his company. Sure, he's put a lot of time into promoting MSA but still not to the point of making it a household word.

Cullinane: Well, I think there's no question about that. I could see a big magazine spread on John Imlay and that would be recognition of the mainframe software industry. And even that hasn't taken place.

Johnson: Well, maybe I can do a little bit about getting the mainframe software industry some of the recognition it deserves.

Cullinane: Are you going to write a book?

Johnson: Maybe, but I'm not going to commit to that. I'm just gathering a lot of data and I hope to find a way to put it into a structure that will be interesting to somebody besides those of us who already know we're here.

Future of the Software Industry

Cullinane: Well, let's talk about futures for a moment. Because I think that the industry is getting much more complex than it used to be because people are looking for a systems solution and not just components of a solution. Because it's more complex, there's a greater opportunity for any organization that understands that complexity and knows how to work within it to prosper even more so than in the past. It always did seem complex. But in retrospect it seems simpler than what it is now.

And I'm very excited about it. I feel we've just sort of begun to scratch the surface. We've reached a plateau which makes us, I guess, the largest mainframe software company in the world. Lotus has become the largest software company in the world. I think we were the largest software company in the world for like a month. But that's okay. That doesn't make any difference.

But I think as a mainframe company we have much more long-term stability, growth potential and all that sort of thing. Because we're building on a solid customer base, starting with the database, working out to the end users and applications, too, as well as personal computer software. So we're a very product-rich company. You know, our first product was $10,000. We now have a product value when you add the banking group in excess of $4 million. We haven't even really tapped the potential of that. But we're in the process of doing it.

But I really think we've just scratched the surface. There's great potential in this business but the theme is integration, integration, integration. Some day in the future everything's going to work with everything else in a fully integrated, sophisticated way from CAD/CAM to bar coding,

mainframe, personal computers, everything from financials through manufacturering, distribution throughout the world. Everything's going to be terminal to terminal. And it's all there, technically feasible today. And it's more a case of rubbing out all these artificial barriers for communication like incompatibility.

So it's interesting. Because when I started this company in 1968, I met with some local gurus and they said there's no future in software. Hardware was the future. And now there's an article on the front page of the *Wall Street Journal* including a quote from the President of Nippon Electric, who said, "He who controls software controls the world." What a difference between today and when I formed the corporation where software was a poor relation of the hardware industry and there was a great hardware myopia. And today there's a recognition of the importance of software.

Johnson: Do you think that evolution towards complete integration is going to make it harder or easier for people to get started coming into the industry.

Cullinane: Harder. Any company, including IBM, can build a good product. IBM and others will agree that building a series of integrated products that work together in a very elegant way and perform well is very, very difficult. And that's been our field of expertise for a long time. It's very difficult to do.

Johnson: Well, I think I've run out of questions.

Cullinane: I've run out of answers. So that's a good place to quit I guess.

Johnson: Thanks so much for your time, John.

Cullinane: You're very welcome.