



Oral History of Frank Dodge

Interviewed by:
Luanne Johnson

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Frank Dodge

Conducted by Luanne Johnson

Abstract: Frank Dodge describes founding McCormack & Dodge in 1969 with his partner Jim McCormack and how their decision to attempt to sell their Fixed Assets software product through direct mail advertising enabled them to become profitable after an initial struggle to find a market niche during a recession. He talks about their gradual internally-financed growth and how their decision to provide training classes to their customers at their Boston location allowed them to avoid the expense of on-site installation support. He describes the role that their customers played in encouraging them to offer annual maintenance services for a fee. He states that IBM's unbundling of software costs from hardware costs had virtually no impact on their business and that the biggest challenge they had to overcome in the early years was the resistance of data processing managers to software that wasn't developed in-house.

[Editor's Note: This interview was conducted in the McCormack & Dodge corporate headquarters.]

Founding of McCormack & Dodge

Luanne Johnson: I'm doing interviews with people who founded early software companies because what I've learned is that nobody's aware of what was happening in the software industry in the late 1960s, early 1970s. So far I've found at least three books on microcomputer software entrepreneurs and those guys have become folk heroes.

Frank Dodge: I know.

Johnson: You see Bill Gates on the cover of Time Magazine.

Dodge: Yes, right.

Johnson: And there's no public perception of the fact that while those guys have done some really outstanding things they were really building on the backs of the people like you, John Cullinane, Tom Nies, all the guys that were out there struggling in the 1960s and 1970s when nobody even knew what software was let alone that it could be a product and so on.

Dodge: They sure didn't.

Johnson: So I kind of have a mission. And I'd like you to talk about the beginnings of McCormack & Dodge. I have talked to Jim [McCormack] by the way. What were you were doing at the time, how the whole idea came about, whatever possessed you to start a software company and start selling software products? What was the whole process that caused that to occur?

Dodge: Okay. You want really the gory details?

Johnson: Sure. I seem to remember a write up on the origins of McCormack & Dodge at one point.

Dodge: That's an old, old story. It was in *Datamation*. It was called the Jim and Frank story. Jim and I met at IBM and worked together on some accounts and kind of got entrepreneurial, thinking about leaving and starting a company.

Johnson: When you say worked together, in what capacity?

Dodge: He was a salesman and I was a systems engineer so we worked together on a lot of accounts. We were actually going to be consultants. That was the first thing we wanted to do. There's a company named John Keane & Associates, it's local here in Massachusetts. John Keane had worked for IBM and we knew that we were running into them at some of our accounts and they were growing and being successful. We felt like we could really compete very successfully with them. So that's what we were going to do originally.

But we talked about a lot of other stuff. At that time, IBM had libraries of programs that they would distribute that were called Type III programs.

Johnson: What was the time frame on this?

Dodge: This is 1969. A couple of our customers were looking for a set of programs that did fixed assets depreciation. IBM had libraries of Type III programs that were programs that customers would write or IBMers would write. They'd be in a general library and IBM would distribute them. We couldn't find one that performed that function, the fixed assets function. So it was in our mind that people needed this.

So we went off to be consultants. That was June of 1969 when we left IBM. And, boy, our timing couldn't have been worse. Because there was a real slow down, particularly here in eastern Massachusetts. A lot of the businesses on Route 128 were defense-oriented and government contract-oriented. And there was a real slow down. So we really ran into a stone wall.

To show the kind of quality work we could do because we had no track record as consultants, we decided we'd develop programs that performed the fixed assets function. Basically Jim designed them because he had the accounting background and I wrote them. We really didn't know what we were going to do with these programs. But, anyway, we developed them.

And then we took them around and tried to sell them to some of the customers we had known at IBM. We actually presented them to 20 different companies here in the eastern Massachusetts area. We had no idea how to price it. There was no market at all. So we priced it at \$3,600.

Johnson: How'd you come up with that?

Dodge: I have no idea. It was interesting. There was a fair amount of interest but there wasn't a lot of sense of urgency. It wasn't a real high priority thing with people. And we were really struggling to survive and we needed cash bad. We had thrown in \$2,500 each and gone through that and then borrowed, I think, up to \$10,000 from the bank. We had run out of that and weren't sure what we were going to do. We had tried to get a service bureau going. So we had a little consulting going, a little service bureau business going, but not enough to really sustain us.

Johnson: What was your computer resource for the service bureau?

Dodge: We had ordered a machine from IBM and we were using the free installation time to develop. If we landed a couple of large clients we were then going to be able to afford to have a machine. We had some customers where they were letting us use the machine, second and third shift for free, that kind of stuff.

So anyway, we developed a fixed assets program, went around and tried to sell it at \$3,600. Nobody was real interested. Well, they were interested but there was no urgency. So we went back and lowered the price to \$595 for two weeks. And we actually sold 10 out of the 20. So we generated about \$6,000 which was a tremendous amount of money, survivor money.

So that kind of helped us a little bit understand a couple of things. First of all, we could sell a set of programs repetitively. Then you could also change people's sense of urgency based on a pricing technique. But we still didn't think that we were going to make it.

Selling Software Via Mail Order

Then we happened to somehow run across a guy who had a mailing list of 8,000 IBM sites in the United States. And so we decided we would try to make an offer through the mail to sell this set of programs. And we priced it real low. I think we did the test mailing to a thousand and priced it at \$385 or \$475, something like that. And the guy that had the list just said, "No way. You're not going to get anything out of this. It's just not going to work."

We actually ended up selling 18, I think, out of 1,000 which is a pretty high rate. And this was like: Send us a check. Although we did offer to run a little test for them. They could elect that as well. We would send them back a little deck of cards. It was the object code. We dated them and they could run it on their machine and it would print out a report, a decision report. Some of them wanted that test and then they bought. Others just sent in a check. So we sold 18 out of 1,000.

But we still didn't feel like we had it going. We were running out of cash. And it was still a pretty tough time here. So we decided that we would try to pursue this mailing thing to see if we could raise some more cash and, in essence, pay back the bank what we owed them.

I being the more technical of the two, I was more employable. So I interviewed around and I actually took a job at Texas Instruments. This is like July of 1970 after we'd been out for about a year. And Jim stayed on to kind of just close it down in and pursue this mailing. I came back nights and weekends and did some more programming and finished it off. And we really were going to close the doors.

Anyway, over a period of about four or five months, we generated \$90,000 through the mail like that. And that really narrowed our focus to saying, "Gee, this is a business." It really funded the company. It narrowed our focus to forget the consulting, forget the service bureau stuff. Selling of a set of software on a repetitive basis is a business and funded us.

Johnson: That experience explodes another myth that people keep telling me over and over again which is that there's no price elasticity for software. It doesn't matter what the price is, it doesn't effect the demand. Well, clearly your experience was if the price went down enough it did effect the demand substantially.

Dodge: Oh, yes. In that mailing, where the price came from is just something we picked out of the air. But we've heard since then is that the mailing list was data processing managers. And they apparently had budget approval to go ahead and on their own spend \$500 or \$1,000 without any approval. So it was something where they could take a look at it and no exposure, no visibility, no decision, no committees, no approval, no nothing. And then if it died it was just, hey, there's \$400 gone out of my budget. And it was that kind of lucky pricing that was below their threshold of approval that got people to move on it.

I'll tell you something. That was a good little set of programs. They ran. They worked. And we had about 100 pages of documentation. People literally couldn't believe that they were getting that kind of a product for that amount of money. That really this was something.

I was a high school math teacher before so I had a mathematics orientation. So I wrote all the depreciation routines. I wrote those programs in RPG originally because we were working on a 360 model 20. And I got those programs running with four depreciation methods in an 8k model 20. Now, that was really tough.

Johnson: They were packed in there.

Dodge: They were packed in. So those routines were really efficient. And they worked. I went down about a year ago and looked at the listings, program listings of our current depreciation programs, the 6000 system. They're using the same calculation routines that I wrote. In fact, even the same names of the fields and everything. So once it works...

Johnson: I'll tell you a little story about those programs. It must have been 1971 when you did that.

Dodge: Yes, it was very early. We actually made our first mailing in July of 1970.

Johnson: That was just prior to when I started Argonaut. At the time I was working for a predecessor company and we were doing a joint development of an accounts payable system with a customer, so I was spending a lot of time with this particular customer.

They bought the M&D fixed asset system for \$500, something like that. The DP manager's reasoning was that he was having difficulty getting his accountants to explain to him how the depreciation schedules worked and what they had to have for fixed asset reporting. They couldn't define it.

He said, "I could pay somebody to come in here as a consultant and sit down with these guys and design what they need. It would cost me \$1,000 to get that done. Instead, I've bought these programs. I'm going to tell my accountants, 'This is your fixed asset system.'" They're going to come back and tell me what they don't like about it. Then I'll have my system design done."

Dodge: That's interesting. As a prototype.

Johnson: As it turned out they liked it so much that they ran it for years. But his reasoning was he was going to use it to get them to tell him what they needed. He assumed it wasn't going to give them what they wanted.

Dodge: Similar to that, we were told by people that some of them bought it just to get the documentation. Same idea. That there was some kind of structure to it that would be a basis for developing that kind of a system.

Johnson: So it was very successful.

Dodge: Yes, yes. So ever since then it's been a piece of cake.

[Laughter]

Johnson: So what happened after that? You didn't end up being strictly a mail order house.

Dodge: No, we continued to work on fixed assets and then that big tax change came in about 1972. Isn't that amazing? I've forgotten the name of it. It required a real different treatment on the tax side. So we put in a lot of research on that.

It was interesting that Jim broke his leg skiing – a really bad break. He was in a cast for damn near a year and on crutches for a year. So he couldn't do anything other than sit in his office and read the tax regulations. And he was really way ahead of anybody for awhile there. And he

knew people. He had worked for Coopers or one of those companies. He was calling up all these tax guys and he was way ahead of them in terms of knowledge of what this new set of tax laws meant. So he figured out what kind of depreciation routines we needed to address this new set of tax rules. And we programmed that in. And we were way ahead.

Transitioning to Use of a Sales Force

This was about 1972. We were still selling through the mail and we were raising the price. I think we got the price up to about a couple of thousand dollars. And then a couple of situations came where companies wanted to buy multiple versions. So now they were talking about spending say \$20,000 at our price and so they wouldn't buy through the mail anymore. They said, "Come and explain the system to me." So Jim went out crutches and all and started to make some sales calls.

Johnson: This was with the new version?

Dodge: Yes, this is 1972, 1973. ADR was the name of that new regulation. Asset Depreciation Rating, ADR.

So that was a whole new level of visibility that meant that we could raise the price. But in order to do that we had to make sales calls and get out and explain it. So we did raise the price and it kept going up. It got up to about \$5,000 by 1974.

Jim spent about two years literally traveling all over the country selling the fixed asset system. At that time we also were developing an accounts payable system. So I pretty much took the burden of that. And I designed it and wrote about two-thirds of the programs and wrote all the documentation.

When we got that ready to go, I became the salesman for that. So for a period of about three years, we were a two product company. Jim and I were literally traveling four days a week all over the United States, with him selling fixed assets and me selling accounts payable.

We just continued to bootstrap along and develop internally and grow slowly. We never had any outside financing. We were profitable all along and just made it. We never did any marketing. We did our first advertising in ICP in mid-1977 almost ten years after we got started. It was all word of mouth and the mailings.

Johnson: 1977.

Dodge: Yes. But you know what was interesting, and it's something that I continue to this day. I mean, this is hokey. Why is M&D successful? It's nothing very exciting or super creative. It's very basic stuff. Jim and I obviously became very customer oriented. We weren't advertising. So nobody knew who we were. But if we could get our foot in the door, we would win an awful lot of times. We developed tremendous expertise in the product. We had to have a better product by necessity. Because literally we were selling it with one sales call. And we were a one man sales force.

Johnson: And at that price you couldn't afford to do more.

Dodge: We were still small. In 1976 we only had probably 25, 30 employees. So we didn't have a lot of resources. We didn't have offices all over the place. The first sales person outside of Jim and me was in 1977 in California. And then our territory became not the West Coast but Chicago and Dallas and Atlanta. So we cut down our travel.

Anyway, we had to have a better product. In essence it was a one product sale. It had to be clearly superior. And because we, the two principals of the company, were out there so much calling on prospects it was real easy to understand what the system was missing and then come back and design it in. So it was very easy to get the product way ahead of competition. And it involved no advertising.

I can recall a couple of sales, one in New York in particular where the guy, a typical New York guy, said, "Who the hell is McCormack & Dodge? Why should I buy from you?" I gave him the brochure. And on the back of the brochure there were about 50 companies that were using the system, all blue chip, Fortune 500. I said, "Call any one of those and they will tell you who McCormack & Dodge is." He was just blown away. He didn't even listen to my presentation. He just kept looking at this thing, looking at this thing. After about 20 minutes he said, "If this is true, if these are your customers and I can call them and they say that they use this, I don't need anything else."

So we really leveraged that. The first thing we would do is we would drop a list of customers. We'd use that as a tool. Our major competitor at that time was MSA. I don't want to take any shots at anybody but they weren't in a position then to be able to respond to that. And we would just beat them again and again and again. In fact, today we're still beating them a little bit on that. I shouldn't talk about that. You know the business.

Johnson: Where were you getting all your prospects if you weren't advertising?

Dodge: Mailing.

Johnson: So you would do a direct mailing and they would respond to your mailing. Did you follow up only the ones that responded?

Dodge: Well, with the size of the sales force we had, the ones who responded were enough. We still do a lot of direct mail. We started doing seminars in 1978 but that comes off of direct mailing. So it's almost the same thing. We, to this day, don't do a lot of cold calling. We still do lead generation.

Johnson: Through direct mail.

Dodge: We're evolving to needing to do more cold calling. It's funny how the things that you kind of do by accident become your standard ways of practice, standard methods of operating. But we do a tremendous amount of direct mailing still trying to get people to seminars. And the salesmen are pretty much presented with an active set of leads.

Strategies for Customer Support and Training

Johnson: Let's go back to the point where you were selling the fixed asset system for a couple hundred dollars. What did people really expect? Were people then satisfied just to get the code and the documentation? Or did they start calling up and saying they had questions. At what point did you start having to wrap support and services into the sale?

Dodge: Well, we were very small, and pretty much Jim or I would answer all the questions. And there were some. I mean, there were bugs in the program.

That's another thing that just blew people's minds. I had written the depreciation routines – this was 1969-1970. I had not anticipated an asset life that would have an ending depreciation date beyond the year 2,000. The depreciation routines didn't handle that at all. So when people put in assets with 40 year lives, it didn't work. So they called me.

And sure enough as soon as the guy mentioned it, I said, "Yeah, you're right. It has to be a bug because I didn't even think about that." The testing I had done had been with assets of five, six, eight, nine years. And the depreciation routines were in about four or five programs.

So I went in there and put in some 40 year lives and fooled around and got it to work. Then I sent out these little decks of cards through the mail with a letter that said there was a bug and told them to replace line number this with that and insert these and all this stuff. These are people who paid something like \$385 for a set of programs. And I had more people tell me at

big user meetings over the years that that just blew them away. They could not believe that for that amount of money that not only was the system pretty good but they were getting fixes to programs. And I did that probably two or three times over the life of that package. I think a lot of people bought from us over the years because I gave them such a good deal.

Anyway, we just kind of evolved slowly. With Jim traveling all the time and me working on the accounts payable system, I couldn't handle the phone calls. So we hired a person to work on the programs and then Jim would come back and say that there was a bug in the programs or that we need to add this capability. We got a couple of people who were the programmers. And then they would get on the phone and answer questions when people would call. You know, it just kind of evolved.

And then when I started selling accounts payable at the end of the accounts payable package development, we got a programmer who helped me. She stayed behind and answered the questions while I was out in the field. And we just started to slowly evolve into it.

In 1977 we were still lean and mean. We never did do on-site installations. We sent it out through the mail and then answered over the telephone. But we saw a need to train. And we saw that we could help people a lot with implementation and a lot of these questions that they were asking us were all the same. So we decided that what we could do was we could run classes, implementation classes, and get them all together and take them through the system. And save having to answer the same questions over and over.

So we started to run schools. This was 1977. I think we were ahead of everybody else on that. I was an ex-high school math teacher so I knew how to put a curriculum together. It was pretty easy. We had schools on fixed assets and accounts payable.

And we'd get them to come into our offices. The reason we did it in Boston was so that they actually could use the system. Like when you're teaching algebra, the greatest way to teach algebra or any math is you work at it. You show the students how to do something. Here's a couple of problems. Work them. And they work them. You go around and help them. They make mistakes. And you help them. That's how you teach.

So the same thing with teaching them how to use the system. We teach them a little bit and then we'd give them coding forms and they'd actually work on the implementation in the class, four or five in a class. We had them prepare data, build files, and code up transmittal forms and then we'd take them at night, keypunch them, and then run them through the programs. And the next morning they'd get printed out. So in two, three, four days we'd take them through, in essence, the implementation of a system.

They'd make mistakes and we would give them the error reports and show them how to look it up in the manuals. And they'd go back home having implemented the system. They not only would have made some mistakes and learned how to use the manuals, but they were seeing the system work. So they would know that something was not a bug in the programs because they saw it work in Boston. So they'd be more likely to stick to the problem when something went wrong rather than calling us and saying, "Hey, you've got a bug in the program." So it really worked well.

Johnson: I assume that this training was an optional extra.

Dodge: We did that about the time when we were kind of being pushed into offering support, if you will, as part of the basic part of the package. The guy would say, "All right, I'll pay you \$8,000 for your accounts payable system. But I want somebody here with me for two weeks to help me install it." We didn't want to do that because we didn't have enough people. We weren't staffed for it. I mean, we just barely had a salesman in California. We had a salesman in Atlanta. But we didn't have anybody to do installations. We were in this little hole in the wall with a secretary. So we didn't want to staff that way.

So we said, "Instead of that, you come to Boston. Come to our class. We'll teach you how to install the system." So we wrapped that in. We had what were called support meetings. We pushed them towards going to school instead of getting people to come on-site.

We still don't do that to this day. We don't install the system. We train the hell out of them. And then we mail the system out to them. And they install it. There are local support people now. They get called and will go on-site. We're getting a little more proactive in that.

Johnson: Well, in essence, though, what you established was the model that the micro people used.

Dodge: I guess so. But see what was interesting was it was all out of necessity. Why did we make the school so good? Because we had to send them away so they'd be self sufficient. So we developed real comprehensive schools.

I mean, you do these things out of necessity for survival and then you can turn it to your competitive advantage. Like for years we could make the school something that was a differentiator. And there were a lot of good reasons for them to come to the school as opposed to on-site support.

And then you use the school availability as a closer. They all agreed that they had to go to school. And then you say that the schools are getting filled up. And that the next available school -- this is January -- is in April. And we don't let people come to the schools unless they're a customer so if they're going to get into the next school, they'd better get going and sign the contract. We were able to use the availability of schools to close the sales. It's amazing.

Initiating Annual Maintenance Fees

Johnson: What were your policies in terms of annual maintenance and enhancements and so on. How did that evolve?

Dodge: I'm going to have to think about that. I think it was with our first major release of fixed assets, about 1974.

Johnson: Was that the upgrade to the new tax regulations?

Dodge: Yes. And I don't think there was a prototype. I don't think anybody else was doing that. But we perceived that, from a support point of view, we wanted all the customers on the new version. Again, it's amazing how you do things to solve your own problems internally. We were very thinly staffed. We wanted everybody on the current version. How the hell were we going to get them on the current version? By giving it to them? So we had to make programs available that would convert their files and we'd put on a push to get them into the current version. And even though we invested a tremendous amount for us in developing that thing, we gave it to them.

Johnson: Was that a Cobol version?

Dodge: Yes. We had both Cobol and RPG. That was in about 1975. Then it was all Cobol.

Johnson: So you were going to give it to them free but you were going to give them a Cobol version to replace their RPG version?

Dodge: We had developed the original fixed assets in Cobol about 1972 or 1973. And the larger shops, the OS shops, would pay more. So we realized that by having a Cobol version just automatically we could increase the price. I don't know where we got the idea to charge them for that. I don't think anybody else was doing it.

Johnson: Well, you said a minute ago that with that first bug correction you just sent it out to everybody free. So at some point, you started charging for it.

Dodge: At some point we decided that we could charge for that. It may have even been suggested to us by a customer. It may have even come from Jim and me out in the field calling on people and us understanding that it was not going to be just a one-time sale. That they wanted to stay with us and they had interest in what we were doing with the system. And that they were willing to pay for that.

I think Jim and I came back from a trip at the same time with the idea. You know how these ideas kind of are there and you talk about them and then all of a sudden, it was like, geez, if we provide an easy way for them to get the new versions, which is in our interest from a support point of view, they'll actually pay us an ongoing fee. In fact, they've said that. They've said that they want to stay with us, particularly on fixed assets. They needed us because as the tax laws changed the system became obsolete. So it was in their interest to pay for that service. I think it came from customers. I think we started it in 1974, 1975.

Johnson: And then it probably turned became a significant revenue source.

Dodge: Oh, yes, right. But the motive was the support issue. We didn't have our first support outside of Boston until 1979, 1980. All the schools and all the support was out of Boston. Think about that now. The field was just sales and administrative, okay? Every bit of support came out of Boston which is very different than any of the other companies in the country. I'm not saying it's right or wrong but it was just a different model.

It came from the fact that the schools were so strong and we forced people to go to school. The only way we could support them was if they went to school. But then there was not much of a need. They met people from Boston at the school. The people in Boston knew them. The customers would go back and they'd install. They'd call Boston and we could do it over the telephone.

Very, very, very rarely did we have to go on-site. We could do it over the phone if they would go to the schools. We never developed a need to have local support people. We didn't start that until about 1980.

Developing the Concept of a Generalized Product

Johnson: Let me ask about something a little bit different. One of the things that's become very clear in my research is that a software product is not at all the same thing as code.

Dodge: Right.

Johnson: There were a number of companies that were formed in the late 1960s where people got the idea that they were going to broker programs. They were going to go to companies that invested hundreds of thousands of dollars in developing software and tell them that they were going to resell the software so they could recoup their investment. It turned out to be a disaster because code that had been written for a particular user did not turn out to be usable in another environment.

But somehow the fixed assets programs that you wrote when you first started M&D you then sold through the mail to hundreds of different places it worked fine. What do you think made that possible? I mean, why were you able to write those programs from that point of view?

Dodge: Well, we weren't developing them for a particular client. So they weren't customized. I'm not sure if that's an answer to your question.

Johnson: The idea that you had in your mind when you wrote them was that they were going to have general use.

Dodge: Yes.

Johnson: And you had the concept.

Dodge: Yes, we did. That's an interesting question. For example, the depreciation method allowed for all the popular depreciation methods and if we had been doing it for one client we would not have done that.

We had about four or five report programs in there and we allowed for different sequences of the reports and different names of various organizational units. We were developing it as something to be used by multiple companies. That's really clear.

That's interesting. I hadn't even thought of that. It was such a natural way of thinking. But somehow we had that concept. We were not developing for one client. We had the idea we were going to take it around.

Johnson: That's an interesting contrast to Informatics. It started in 1962 as a contract programming firm. Walt Bauer had the concept of proprietary programs but he thought of them as a tool to be used to make them more effective contract programmers. It wasn't until John Postley came in in 1964 that he saw that a proprietary project was something that could be sold off the shelf.

So it's a very different way of thinking about things. And it's self evident now because we've been living with it. But it really wasn't self evident at the time.

Dodge: That's interesting. I never even thought of that to be honest. I guess it was that we had had interest expressed by two or three different parties. And we had in our minds that there was enough interest that there would be multiple purchases of this thing by different companies.

We were really going to use it, though, to go around and show to people that here was the kind of work we could do to get our consulting business going. It was going to have general visibility of a sort. And so there never was the thought that we were doing it for one client. If we had, we probably would have developed a customized product and we would left out a lot of stuff. But we weren't.

So we were fortunate in the fact that we couldn't get a client.

[Laughter]

We couldn't. So we kind of had to design it generally. Because we didn't know who the client would be.

Johnson: Well, it is amazing how many things happen because of a combination of circumstances and how many people were making decisions without really understanding the implications which then turn out to become standard for the industry.

Dodge: Exactly. You live it. I think anybody who says they had it all figured out is crazy. Who could have foreseen anything?

Johnson: Of course.

Dodge: You do it out of necessity, survival. And then it works.

Johnson: The other thing I think that's really interesting about the way we were doing it and the way that the micro people are doing it, is that they don't have the face-to-face contact with the customers in terms of going out and selling and really being so responsive to the market needs. Because you were right there talking to the customers and they were telling you what's wrong with your product and how it doesn't do what they need. The micro guys never have that opportunity. With the distribution methods they use, they don't get that face-to-face feedback.

Dodge: It's a very different business, totally different.

Johnson: There's an awful lot of really good micro products out there.

Dodge: Right.

Johnson: People have done a real good job of figuring out what the market needed. But they certainly went about it in a very different way.

Dodge: Yes.

Impact of IBM Unbundling

Johnson: Let's talk a little bit about the question of the IBM impact. I got involved in this because of a project I was working on with Burt Grad. I don't know if you're aware that Burt was working for IBM at the time of the unbundling. And he was on the task force that did the strategic planning for the new pricing.

Dodge: Okay.

Johnson: And for years he's wanted to write about the impact of the unbundling. He's kind of defensive about it because, at the time, if you recall, there was this incredible negative reaction. And there are still people walking around saying IBM did it strictly to raise prices. Whereas what was really happening, at least from Burt's perspective, was that it was a very defensive action because they were trying to avoid the antitrust suit from the Justice Department. And that they really very conscientiously worked out the pricing scheme which, if you recall, resulted in a 3% drop in the hardware price.

One of the things I did was I went back and I researched the business and trade press from the late 1960s, early 1970s. And everybody was anticipating a 10% to 15% drop in the hardware

price because everybody figured that was the embedded cost of the software and the support. And then IBM they came out with a 3% drop in the prices and there was just this incredible negative reaction.

Dodge: Right.

Johnson: And since I've started researching this, I have seen at least five or six times in print the statement that when IBM unbundled it created the software industry.

Dodge: Right.

Johnson: Which I have come now to disbelieve. It was an important event, but it did not create the industry. I'd for you to talk about that a little bit and what impact, if any, it had on what you were doing. Somebody looking at the fact that M&D was formed in June of 1969 could say that here was a company that was formed because IBM announced unbundling in June of 1969. So I'd like you to talk about that a little bit.

Dodge: First of all, we had no visibility of that happening. Total accidental luck. I think the actual unbundling occurred in October.

Johnson: The announcement was in June of '69 and it took effect on January 1, 1970.

Dodge: Oh, was it really?

Johnson: Yes, the announcement was in June.

Dodge: I can recall Jim and I talking when we found out about it. And it was after we had started our company. We were trying to understand what it would mean to us and not really understanding what it would mean – whether it would have a positive or negative impact on us. We certainly didn't have any foresight that it was going to happen.

In terms of the impact on us, I don't think it had any impact whatsoever on us at all. I would imagine that it would have had more impact on a company like Cullinet. Or ultimately did. Or ADR. Although ADR didn't get Datacomm until later on.

Johnson: Well, Marty Goetz of ADR is one of the people who believes it was a very significant event.

Dodge: For companies like M&D, it was very clear the only reason you were in there was because the DP guy just couldn't do it in-house, just didn't have the resources to do it. It wasn't his preference at all. So he was negative and really very judgmental about bugs in your program, quality control, methods of development. They asked all these great devil's advocate questions. Like you're not as good as me. Not only that but no way can your software meet my standards and meet the needs of my company. But that's what it was all about. Once again, I don't think the IBM pricing issue had much to do with it. It wasn't visible to me.

Customer Resistance to Packaged Software

Johnson: If you don't see the IBM presence as a serious problem for the beginnings of the software industry, what would you say were some of the things that were really major obstacles that had to be overcome?

Dodge: Well, as I say, the DP guy, the resistance.

Johnson: What about finding resources, human resources, financial resources?

Dodge: Well, in our case we felt very strongly... you know, we were just like the DP guys. We were pretty confident of our own ability and pretty damn fussy. This is back on the support issue. We had to know that code and it had to be real good code. And based on how Jim and I were selling it, it had to have superior functionality. Jim and I stayed involved – me longer than Jim – in the design of the system for a long, long time. M&D was a pretty small company for a long time. We didn't believe in throwing armies, or we didn't have the resources to throw armies, at development. We never wanted to go and look for outside funding. We never wanted to go after venture capital and sell part of the company. We just didn't want to do that. So we had to grow slowly because we had to run it off the profits and the cash flow that we generated. So I guess it was because of that kind of slow growth and the idea that had to be real quality, that we weren't in any hurry. So we were able to find people when we could afford them.

We just released our accounts receivable system last July, July of 1985. We looked to acquire an accounts receivable system back in 1982, 1983 and couldn't find anything that really looked good. So we went on to develop it from scratch in-house at M&D with a team of about 20 people and it took 2-1/2 years in this day and age. Because we've always believed in doing that. And we now have a product that we can sell with confidence.

Johnson: Is your entire product line developed in-house?

Dodge: No. We acquired the payroll personnel system in about 1981. And we acquired the manufacturing system in 1985. But other than that we have developed everything.

Johnson: Did you do a lot of reworking on the ones you acquired?

Dodge: Yes, both. We're really in the process of doing a lot of reworking on manufacturing. Payroll we did a lot of rework on. So it's now a really good product. But it took us two years to do that.

I think our standards are such and have been around us a long time that I still would prefer to develop a product that we're really going to support ourselves. We're better off to develop our own. Because we feel like we really know what the market needs. And we just do things differently here. I sound like a DP manager, don't I?

[Laughter]

Johnson: That's right. You do. But I can identify with that.

I've run through all the questions and the ideas I wanted to talk about. But I'd sure love to listen if you have any other comments that you want to make about the industry, any ideas that you have about what makes this industry special or different or not special and different that you'd like to get on the tape for posterity.

Future Industry Trends

Dodge: Oh, boy. I could go on and on forever.

It's become much more complex than it was. I do feel that IBM is going to be a monster over the next five years. I mean you and I and all of us all read the same stuff. The cost of hardware's coming down. IBM has ambitious growth plans. They've got to maintain a certain amount of revenue. It's got to come from somewhere. It's not going to come from the hardware. They've been very explicit about getting into the software. We know some high level people at IBM and they're reasonably open about the fact that a much larger percentage of the revenue's going to come from software.

I see that as a major impact. I'll be honest with you. I'm glad that we're as away from IBM as we are. I think we're at the remote end of their area of interest. I do think that some of the

DBMS companies will survive certainly and there are some good companies there. But I think that their ability to sell to new customers is going to be severely restricted as DB2 comes in. And the only way we're going to continue to survive overall is to expand our application product line.

I know Marty Goetz and he's a very, very quality person. I have immense respect for him. I've talked with him over the years. But I think he has to widen his set of products to go around this DBMS or else he's going to be real vulnerable. Cullinet has done that although I think they're learning that in terms of resources it's much different than the data base financial market. I think Software AG will make it and some of the smaller ones or the new ones like Oracle.

But it's going to be a real consolidation effort. And I think that IBM with DB2 will end up with absolutely the lion's share of the market. Almost all the new sales up to a certain point.

The other thing I've felt for some time now is that we've all got to stay close to technology. We've got artificial intelligence, we've got data base management systems, we got distributed processing and all this other stuff all happening at once.

But the users... You have the bell shape curve of people who buy new stuff, right? And I think the bell is getting much wider. In other words, you still have the 5% or whatever it is on the front end that will buy the new stuff.

So I think what's building up is a tremendous backlog of uninstalled package software. I think an awful lot of stuff has been sold. I'm not speaking about ours so much. More like some of the DBMS, like at Cullinet, or maybe some of the MSA stuff. M&D is not into as large a unit sale at all as MSA and Cullinet. But I think what that causes is a tremendous backlog of uninstalled package software.

Johnson: Wait a minute. You're saying that this is software which has been sold but not installed.

Dodge: Yes, right. Users haven't used it. They bought the full product line from MSA but they're not using it all. That's going to slow it down some. And then, let's face it, they get disillusioned when the product doesn't do perhaps what they bought it for. And if it takes them three years to install the whole set, then the stuff at they're installing at the end is not technologically up to date. Maybe in the meantime they'll buy DB2. It's a product they bought four years ago and it doesn't work with DB2.

So what do they do now? It's not designed for relational data base. So it's obsolete. You've still got the front end of the bell shape curve that's going to buy new stuff. But I think that curve's getting much wider and people are going to kind of wait.

I think for software vendors in general we've got to continue to focus on technological state of the art stuff. But we want to be sure that we don't focus so much on that that we forget that the customer wants something that works. The guy's buying a general ledger system. He's buying an accounts payable. He's buying a payroll system. He wants it to work. He wants the basic stuff. It does what he wants. It doesn't have bugs. It's well supported. It's well documented. I think that over the last three years there's been so much excitement over technology that that basic idea has been obscured. When the guy goes to install it and it doesn't work, he's going to be disillusioned. He's not going to implement.

I think the replacement market is going to really explode. We've seen it a lot over the last few years. We've seen situations where people have bought applications from a competitor and never installed them or tried and failed or it doesn't work anymore. It doesn't do what they want. Or they need a change of technology. So they never install the thing. They throw it away and buy it again. So I think the replacement market is really good.

Johnson: The trend that I saw in the late 1970s was the replacement of code that they had written themselves and wasn't written to be easily maintained. And they began replacing with packages. So now what you're saying is there's a new replacement market coming in where they're replacing packages that they were never successfully implemented.

Dodge: Or they've become obsolete. There's about a six or seven year life I think to a product, even a good one. And if it's not enhanced by the vendor, the user is going to switch. And we're seeing, as I say, an increasing number of our sales from replacements of package software from competitors.

I'm also real concerned, I don't know if I really want to say this, but I'm really concerned about the Big Eight. I mean, you know, users are buying a solution, right? And the Big Eight has been pretty impressive about forming relationships with software vendors. And I think more and more our revenue mix will come from some consulting, some assistance as opposed to just package sales. It's happening now. The users want it.

And we have to be careful that we don't sell our future to the Big Eight. I mean, it's a short term solution. If you make an affiliation with an Arthur Anderson or one of the others, you get the recommendation and a contract this month. But I think you could be selling your future. Because they're going to start supporting our products and get into our products and know our products. They're going to develop training classes around our products and CBT around our

products. And if we're going to grow our need is to develop those same things and then here's the Big Eight coming out the other way and squeezing us. So we've got to be real careful, real careful. I'll stop with that.

Johnson: Well, thank you very much. It's been fascinating and I appreciate the time you've spent.