An Interview with

JOSEPH PISCOPO

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Conducted by Thomas Haigh

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Abstract

After attending the University of Illinois at Champaign-Urbana, Joseph A. Piscopo founded Pansophic Systems in 1969 and led it until his retirement in 1987. Pansophic grew rapidly during the 1970s, as its Panvalet source code management system and Easytrieve report generation software ranked among the industry's most successful products. Piscopo discusses his background as a data processing manager, the founding of Pansophic, the development of Panvalet and the acquisition of Easytrieve.

Considerable attention is paid to the strategic elements of Pansophic's growth: customer relations, international expansion, product development, staffing, market position, and stock market offerings. At the conclusion of the interview, Piscopo explains the circumstances behind the firm's stumble in the late 1980s and acquisition by Computer Associates in 1991. He also deals briefly with his subsequent career as an "angel" investor in technology firms. This oral history was sponsored by the Software History Center in conjunction with the Center's ADAPSO reunion (3 May 2002).
Preface

As part of its preservation activities, the Software History Center (SHC) worked with Dr. David Allison of the Smithsonian Institution’s National Museum of American History and Dr. Jeffrey Yost of the Charles Babbage Institute to plan and conduct a number of oral history interviews of early software company founders and other key industry contributors. On May 3, 2002, in conjunction with SHC’s ADAPSO Reunion meeting held in Washington, DC, SHC arranged for 15 individual interviews by historians well qualified by their knowledge and interest in computing history.

The following people were interviewed together with the name of their interviewer:

Bruce Coleman, interviewed by William Aspray
Richard Crandall, interviewed by Paul Ceruzzi
Gary Durbin, interviewed by Philip Frana
Martin Goetz, interviewed by Jeffrey R. Yost
Bernard Goldstein, interviewed by David Allison
John Keane, interviewed by Martin Campbell-Kelly
Ernest E. Keet, interviewed by Philip Frana
Frank Lautenberg, interviewed by Paul Ceruzzi
John Maguire, interviewed by William Aspray
Joseph Piscopo, interviewed by Thomas Haigh
Lawrence Schoenberg, interviewed by Martin Campbell-Kelly
Charles Wang, interviewed by David Allison
Robert E. Weissman, interviewed by Paul Ceruzzi
Lawrence Welke, interviewed by Thomas Haigh.
Sam Wyly, interviewed by David Allison

Each interview was tape recorded, transcribed and edited by SHC, the interviewer and the interviewee to ensure clarity and readability without changing style or flow. The original tapes along with the edited transcripts were donated to CBI, which placed the edited transcripts on the CBI website.
**BACKGROUND**

**Joe Piscopo:** It’s interesting that you note it’s an unusual major, because the program that I and my college roommate Jack Turner graduated from was a precursor of the computer science degree. Our degree was actually in mathematics. My brother, Tony Piscopo, who is a third member of the group, graduated in 1969 and he got the computer science degree, but we were all in the same department and the same division and took all the same courses. So all three of us had essentially the same degree and it was very unusual since the University of Illinois at Urbana-Champaign was, and still is, one of the forefront universities in the field of computing. They are now a site for the super computing network and they have done a great many things in the computing field.

It prepared me for going into software because basically that’s all I knew. I graduated in 1965 and my first job was as a computer programmer at a civilian army ammunition plant near Joliet, Illinois. I was a basic starting computer programmer and the computer center used an RCA computer. I stayed there for about a year and learned programming and wrote a lot of programs. I then moved on to a position at Montgomery Ward in Chicago, again as a programmer, but at Montgomery Ward I got a different variety of work. I was introduced to and became very good in the IBM computer field and IBM was where the bigger commercial installations were and Montgomery Ward was one of the large users in Chicago area. I had a variety of work at Montgomery Ward that related to programming itself, and then I was a lead programmer which made me responsible for ten to twelve regular programmers working under me in order to maintain large inventory control programs for the Montgomery Ward catalogue businesses.

I had the responsibility for keeping those programs running at all times and when they didn’t run I got called in, sometimes in the middle of the night, to figure out what was wrong and get them running correctly. It was a great opportunity for learning how to make decisions. Basically, I had opportunities to save the company a lot of money because the longer the computers weren’t running the more expensive it got, yet I had all of the benefits of getting the pats on the back when I was successful and just trying something else if I wasn’t successful. The causes of the errors could have been the programs having a bug in them, or they could have been in mounting the wrong data files from the week before or somebody could have used a prior version of a program, or the operator could have set some switch on the computer incorrectly. There could have been a lot of reasons why a particular program failed but whatever it was it was my responsibility to get it working. It was a great decision-making and learning environment.
**Haigh:** How directly relevant was the mathematical training you had had at university? How well did it prepare you?

**Piscopo:** The mathematics background was not terribly relevant other than the fact that the computer programming courses at Illinois were all in the Mathematics department. More relevant though was, I learned how to program a variety of different machines at the university as well as preparing me for being able to adapt to any kind of a computer later on and that was really helpful in having to learn RCA computers in my first job and then having to learn IBM equipment in my second job. Neither of those were much of a problem because the computer science degree includes that sort of experience. It also formed the basis for my knowledge about IBM computers because the University of Illinois had an advanced IBM 7094 computer at the time and I got to work on that some. The basic preparation of a computer scientist is well adapted to starting a software company because it basically gives all the ability and skills necessary to be creative at solving obvious or not so obvious machine problems using software. I was able to gain that creativity and learn how to come up with novel and new solutions to existing problems that either did it better, or bypassed a snag in the process, or advanced the state of the art.

**Haigh:** At Montgomery Ward, from what you said, it seemed like you did a lot of different things, switching relatively easily between actually programming, working on the machines themselves when you had to, and managing programming teams. Did data processing require people to be jacks-of-all-trades in those days or was that something about your own personality?

**Piscopo:** During that time which was in 1966-68, that was not a requirement of the position but it was basically an available avenue to pursue for learning experiences as a new programmer in the world and I made use of it as a career advantage to learn how to operate a computer and learn some of those different skills and important components. Basically, it was my interest in learning those kinds of things rather than a requirement at the time.

**STARTING PANSOPHIC**

**Haigh:** How was Pansophic formed, and what were its initial goals and objectives?

**Piscopo:** This is going to be a little bit of a story and I think it will be clear when I get through it how Pansophic came about. It’s probably a bit unusual to have it happen this way, but maybe not. I was at a family occasion back in 1969, about January of 1969 and an uncle of mine and I discussed the opportunities in the computer service business. After I left Montgomery Ward in 1968 I took a position as a technical vice president at a very small computer company and they were involved in doing feasibility studies and developing software for businesses and my uncle asked me some questions about whether there was anything in this business that was worth going after. At the time, in January of 1969, I had already decided to leave that company and was enrolled as a graduate student at the University of Southern California and I was going to start in the fall of 1969 as an MBA student. My uncle and I had this chat at a family wedding and one thing led to another and he ended up arranging for a group of good friends of his that were wealthy potential investors plus my family to have a meeting. I put together a stand up presentation on a flip chart and I gave a presentation of twenty possible business ideas ranging from computer consulting to timesharing to contract programming and down at number thirteen on the list was packaged software, but that wasn’t one of our original intentions. By the end of the meeting, the twenty-five investors left checks...
totaling $150,000 and at age 24 I became the founder and president of a new company as yet
unnamed with an as yet undetermined business direction.

I then proceeded to hire my younger brother, Tony Piscopo, and my former college roommate, Jack
Turner, both of whom had degrees in computer science and were then working for me at the prior
company. We were the first three employees at Pansophic Systems. We searched for an identity
which would be readily distinguishable from the “ABC Computer Company.” The company we had
been working for had a name that was quite similar to that, so you could barely remember who you
worked for. After three days of working on the blackboard we chose Pansophic, which was derived
from two great words meaning “universal knowledge” and the Systems Inc. was simply because that
made the Greek symbol PSI, for Pansophic Systems Incorporated. We wanted to have a name that
would be remembered rather than merely using the jargon of the day. Our first efforts at Pansophic
were focused on contacting the many personal leads that were given to us by the original investors.
As each one gave his check at the meeting he said, contact a certain name at a certain big company,
he’s worth a whole lot of business for you. Well, after about three months all the leads proved to be
worthless with a single exception. We had one contract for $3,000 to write some programs for a
long time friend of my uncle, but we actually had to sue the guy to collect the $3,000!

At that point I thought we needed a specific focus and not being a sales or marketing type person
myself I hired a marketing vice president from outside the computer field and we spent six weeks
with him to determine which of the twenty possible directions that were on my original flip chart
seemed to be the best opportunity. Finally, after six months of operations and almost no revenues,
we decided to pursue software package development and marketing due to the higher leverage from
multiple sales to large-scale computer users. That’s basically how we got started. The initial goals
were to develop a product. Well, I designed a product for the storage and control of computer
programs, in a source language form, on a direct access magnetic disc device. Most programs at that
time, this is 1969, were maintained on standard IBM punched cards. Most people today would not
realize what I’m talking about but basically all programs at that time were maintained on punched
cards. They were very bulky, they were poorly organized and they were difficult to back up and
audit. Our product that solved a lot of those problems was named Panvalet, which stood for
“universal servant”, and it was an instant success. The initial marketing for Panvalet began in January
of 1970 and there have been by now more than seven thousand Panvalets sold over the years. They
were installed in more than 60 countries and the product is still in use.

Our second product was called Easytrieve. Easytrieve is a non-technical report writer that allowed a
non-programmer to prepare a program for accessing existing data on the computer, which at the
time required a computer programmer to write a special program. Easytrieve eliminated the need for
an end user to talk to the programmer and go back and forth and spend a lot of time developing a
program. We’ll talk some more about Easytrieve a little later too. Easytrieve also had seven thousand
users and many of those are still using the software today, which is 30 years later. Pansophic grew
from three employees in 1969 to over 1100 in 1987 when I retired from the company. Revenues
went from $27,000 in 1969 to over $115 million by 1987.

FINANCING PANSOPHIC

Haigh: So the initial confidence of the investors turned out to be well founded, yet the
business plan they were presented with would appear to be rather sketchy. How much do you think
your success in attracting that first funding had to do with the general market conditions and enthusiasm for the software industry that was happening right about that time?

**Piscopo:** Well, I don't personally recall that there was a great deal of rapid financing of software companies in the late 1960s. Pansophic was one of a small group of software companies. I'm not totally familiar with how all of them got funded but the question you've asked about was whether the investors were looking for a rapid boom. No, that was probably not the case. They probably invested despite the unclear original plan of my twenty different areas on my flip chart. They probably invested more specifically because they were my family in some cases and they were friends of my uncle in other cases. In retrospect I would say they really didn't know what they were doing. It did turn out to be very positive and very rewarding for them and I'm very thankful for that but it was not a typical kind of an investment by those people at that time. My uncle was very influential.

**Haigh:** How about the flip side of that issue. Did the increasing reluctance to invest in software in the early 1970s prove damaging to the firm as it tried to raise money later?

**Piscopo:** Pansophic really didn't have any additional money requirement beyond about a fifty thousand dollar stock sale at the end of our first year, about the end of 1970. I actually tried to go through the process of determining whether anyone in the industry would be interested in buying this product that we had just finished developing, because I knew it was big and it was going to be a major success in the industry and I didn't think we had enough abilities and staff available at the time to make the most of it. So I did explore this by sending out some letters to some of the well-known leaders in the software business at the time, including Ross Perot from EDS, and to IBM, and some others that were well known. And as you might expect at the time, out of six I sent out I got responses back from only four and they were virtually the same - every one of them basically said “we thank you for writing to us and your proposal about the sale of a product, but we're not in a position to take advantage of such a thing right now. We have different priorities and thanks but no thanks.”

I went on to the next stage of financing which was about a year later in 1971. I basically put together a plan to try to raise some bank financing from some of our installment contracts, which we had about $150,000 worth, as collateral. I visited all the big banks in Chicago, about seven of them and they basically all said, “you know your contracts don’t give third party recourse to the bank therefore we can’t give you any financing on those, and furthermore we couldn’t give you any financing on anything else.” So I took my contracts and went back and collected all the funds myself. We did raise the $200,000 total I mentioned and that was all the funding we needed for our entire corporate life. When we went public in 1981 one of the reasons for going public was to raise $8 million to pay off the debt that we incurred for the payment of the purchase price for our Easytrieve software product. We first got Easytrieve in 1973 on a marketing license basis. We had exclusive marketing rights first in the US and then for international as well in about 1976. We were paying royalties of about $3 million a year. We made an agreement to purchase the product entirely for $8 million in 1979; we had to borrow the money, then our public offering paid that off, but other than that there was no further need for funding.

**Haigh:** If your products hadn’t been producing positive cash flow from the very beginning, do you think it would have been very difficult for the company?
Piscopo: Yes it would have, particularly since we had depleted virtually all of the funds we started with by the time we finished developing Panvalet and we had no available source of funds at that time other than the fact that we were able to collect from some of the earliest users very quickly. I should interject that the price of a product at that time for the sale of one copy of Panvalet was $2,880 and in a growing company we had to sell quite a few of them to make ends meet and to our good fortune we were able to do that. It was an instant success in the market and for the next couple of years, we had all we could do to install all the sales we had which were many.

**INITIAL ROLES IN PANSOPHIC**

Haigh: As the company grew, how did your own role change - did you remain closely involved with the design of its products?

Piscopo: My own role as CEO was intimately involved in the original design and development of Panvalet because I had personally experienced all of the problems of handling batches of IBM tab cards. I actually went through the process of loading up a bunch of cards, which came in big three foot long trays, carrying them out to my convertible, putting them in the back seat and driving off to a service center in order to do some development work, and I knew the problems of transporting them. I knew the problem that if you put one card through the card reader in the wrong sequence or happened to leave one out, or drop them on the floor and not get them back in the right sequence, you were due to have some major problems with those programs. Also the programs were not easy to back up in case the building burned down, or the computer center burned, or in case somebody somehow destroyed those cards. These were the primary programs of any given company and there were some big ones. I was intimately familiar with all of those problems so the idea that I came up with paved the way for source program management and storage and backup which basically eliminated the cards from the process and allowed you to make a quick tape to take home and put under your pillow.

After the Panvalet product was designed, Jack Turner, my college roommate, and my younger brother Tony, they did the programming for it and tested it and did all of the hands-on development. I stayed with the product as a designer and chief architect for probably three or four years to be sure that it was thriving out in the marketplace but even after the first year I was increasingly pulled away from design and development entirely. I had to turn over those responsibilities to someone else because we were facing needs in marketing and sales areas and I had to learn those fields entirely from scratch because I didn’t know how to sell anything. So by the necessities of the business and in order to keep growing, we needed to further develop our sales and marketing efforts, and therefore I had to go that way and turn over development to others. I basically left it although I was still aware of what was being developed.

Haigh: How difficult did you find it to make the transition into working primarily on management, sales, marketing and finance?

Piscopo: Actually, I found sales and marketing a lot of fun. It was a challenge to learn them in a very short time, that was a difficult factor, but I actually enjoyed it and I enjoyed being the quasi-technical person in the sales organization and talking to sales people, talking to customers and prospects. But it was an adaptation that I had to make to keep the business going. The CEO of a small entrepreneurial type firm has the responsibility of doing anything and everything that is necessary. I can recall, while I was still involved with Panvalet and its original customers, we had to
make a new release of the product in order to adapt to the requirements for a major customer that had thirteen computer centers that they wanted the product for. It was Prudential Insurance Company of America located in Newark, New Jersey. We had to put some new features into the product at the time and we had a deadline that we had to meet. What happened was that my brother Tony and my roommate Jack Turner did all the development and I wrote the technical manuals. My wife, who was a high school teacher, typed the manuals as I dictated them, my mother ran the copying machine to make enough copies for Prudential and then my Dad flew the manuals and the new tape to Prudential in Newark, New Jersey. When we were all finished, we made the sale, and my Dad had lunch with the chairman of the board of Prudential. It was quite a celebration after that, but that’s what the CEO of a new company has to do.

For example, I was the first company financial officer - we didn’t have an accountant. We didn’t have a bookkeeper. I had to do all of the accounting for our first three years. I’m not an accountant other than some courses I’d had in college. I didn’t want be treated like an accountant, but somebody had to do that job. I was delighted when, in 1972, after our third year, we were able to hire a full time chief financial officer and then we were also able to hire Price Waterhouse as our auditors. I hired Price Waterhouse because they were IBM’s auditor and that’s what we were measuring ourselves against. But coming back to your question, I became involved in sales and marketing for about the next six to eight years and Pansophic had by the end of that time one of the largest sales organizations in the software industry which included about 80 salesman by 1980. We had to do that in order to continue to have better than 50% annual growth rates and that’s how we did it.

**Haigh:** It’s interesting that you’d actually been planning to get an MBA. Do you think that the kind of attitude and mindset that made you want one in the first place would set you aside from a lot of people who stumbled into heading software firms?

**Piscopo:** Possibly, but I didn’t have that attitude at the time, in fact I was not what I would call a top rate student. I was not super smart, I had C’s and B’s in college and I was only enrolled in Southern California because I’m a native Californian. I was born out there and I didn’t have anything better to do at the time and I thought that might help my career.

**STAFFING PANSOPHIC**

**Haigh:** As the company grew at this quite impressive rate where did you find the new staff, particularly programmers, and did the core management remain the same?

**Piscopo:** Okay, that’s a very good question. The core management team did remain the same for a good part of the 1970s but that was not necessarily a good occurrence. What I mean by that is coming back to the first part of your question, the programmers that were hired by the company beyond the first three were hired by the gentleman I put in charge of development. His view of what we needed was different, in retrospect, from mine and since he was in charge he was doing the hiring. And we ended up over a number of years not hiring computer science types but rather hiring application programmers from the equivalent of Sears Roebuck and Walgreen’s Drug Stores. What we got were good employees in one sense: that they did what they were told and were able to do what they were asked, but they weren’t creative and they weren’t adaptable to different kinds of equipment. I came to the conclusion in retrospect that we should have hired quite a few more
computer scientists very early on beyond my brother, my college roommate and myself because we were the last three, as well as the first three, computer scientists at Pansophic. The programmers we hired thereafter were not creative and were unable to keep going with new product developments and keep the product basket full of new things to sell in the future and that became one of Pansophic’s negative points. One of the reasons that it was acquired in 1991 by Computer Associates was because we were an acquisition-only strategy company and that wasn’t good enough once you reach a certain size level. To achieve a 30% plus growth rate, you have to have new products, and good ones unrelated to the existing products. Pansophic long before that was no longer internally developing much of anything other than keeping the existing products operable.

**Haigh:** Actually, that’s interesting to me, compared to the model that seemed to have emerged in the 1990s where venture capitalists would come and bring in experienced management people to work with their visionary technology founder and then maybe at some point the founder would be pushed out or leave. The career managers would take over and in some cases they would be accused of taking their eye off the ball by being too focused on numbers and not having a deep appreciation for the products and vision that made the company great in the first place. Is this a case where the founder himself got too wrapped up in managerial processes, and so lost sight of what gave the company its original success?

**Piscopo:** One thing I should interject in the discussion here is that Pansophic from the beginning for sure had no venture capital influence whatever. I guess in one sense I was probably fortunate in not having venture capitalists looking for my skin at some point down the road as my family and people were supportive of my efforts. But I did not have the benefits of venture capital exposure. I didn’t really know what they were. We did in fact come up with some venture capitalist investors around 1980 because they bought some shares from an existing shareholder who was selling out but that was much after this point of needing this help. Basically you are correct in your inference that I genuinely went through the process of taking my eye off the ball. I was not aware, at the time it was happening, that these were unique talents and capabilities in terms of software design. I learned that later on. I thought anybody could do those things. But I was proven to be in error later. I think I could have in retrospect kept my eye on the ball and stayed in fact personally responsible for development if I had elected to do that at the time. But I did not think then that that was a problem so I went on to deal with the more immediate problems of sales and marketing.

**INTERNATIONAL SALES**

**Haigh:** How unusual was Pansophic’s rapid expansion into international sales?

**Piscopo:** Let me back up before I answer that one and put some context around this. Pansophic was a small software company that was growing rapidly from 1970 to 1979. We grew from 3 employees to 228 and our revenues grew from $27,000 to $30 million by 1981. One of the reasons for that growth was a very early decision that we made internally, that I made. I’ll give you a history of international operations because this was a very major decision that proved to be of benefit for a long time. In 1971 and 1972 we set up our first distributors in Canada and France. Canada because obviously it’s in North America where we were located, but France just because we happened to stumble onto a guy I met who was from France. In 1973 and 1974 we set up an additional distributor in Canada succeeding the first one, and an additional distributor in France succeeding the first one there. We also set up distributors in the UK, Netherlands, Germany,
Australia, Japan, Sweden and Belgium. We were on our way using distributors throughout the world outside the United States.

In 1975 and 1976 we changed that decision. For all of the large computer markets around the world, which included Canada, France, United Kingdom, Netherlands, Germany, Brazil and Australia, we set up our own direct subsidiaries. We hired our own employees in each of those countries and when we talk about each country we talk about having to hire an administrative complement. We had to hire technical people that could install and support the products and we had to hire sales people that could make sales. That was expensive and it took us until 1975 to be able to afford it but it also took until then to be able to see that distributors are basically working for somebody else. They are working on their own priorities at their own degree of effectiveness and we knew that we had products that had worldwide strong market opportunities and that we had to go our own way. Our direct subsidiaries were complemented by distributors.

Over the next six years we set up distributors in smaller market countries like Italy, Singapore, Scandinavia, Philippines, South Africa, Spain, Israel, Greece, Mexico, Ireland, Argentina, South Korea and Thailand. I know I rattled those off quickly but those were all smaller markets that didn’t support having our own staff there. But just in two short years from the time we set up our own subsidiaries, by 1977 as an example, our international revenues became 36.5% of our total revenues and they were running at a 75% annual growth rate and those rates continued; the international revenues became ultimately about 45% of our revenues over the next ten years. The growth rate of course came down from 75% a year but even by 1991, at the time Pansophic was acquired by Computer Associates, international still had a higher growth market opportunity than domestic. In 1980 we set up our subsidiaries in Belgium followed by mid-1980s in Italy, Sweden, Denmark, Singapore.

Now I’m not saying that it was easy to do that because each country had to have a separate organization of its own, the laws in each country were different, the currency controls and cash transfers back and forth were tightly controlled in some of those areas. The hiring processes were different. For example, in the European countries if you were to terminate an employee, by law you were required to pay a six month severance, so it was much more significant overseas than it was in the US. We had to have people go from the United States to visit those countries and hire the people there on a local basis. We had laws to deal with, green card and immigration laws, training back and forth; all the employees in foreign countries had to come to the US for weeks at a time for training and it was a great deal of up front costs but it was all worth it. Many of my counterparts in the software industry, I believe, never grasped some of the important benefits from the foreign revenues.

In fact, one of the biggest benefits was the fact that much of the foreign source income was at a tax advantage from a US point of view and it was taxed as an export through a domestic international sales corporation and it put many dollars of profit on my bottom line for merely having made the decision and put in the up front investment in overseas markets. All of the problems that have been talked about by people over the years, and in fact I’m sure this is still true today, they can all be overcome. It’s just a matter of that being part of your process. By 1979 we had 57 employees who were foreign nationals. We didn’t hire US employees and transfer them overseas except for two or three managers. Otherwise, they were all foreign nationals.

**Haigh:** With respect to the international expansion, do you think the fact that the two main products (Panvalet and Easytrieve) were so universally applicable and presumably required relatively
little localization for different markets, made international expansion a much easier strategy for you to pursue than for a lot of other software companies?

**Piscopo:** Oh, I think that's probably true to a point. However I would say that there were many other software companies that were selling systems utilities software packages much like we were and therefore had all of the same factors going. What you say is more true in the application software area where you had to have much more local customs in the product and local factors to take into account. On the other hand I would also say to the contrary that all our documentation and reference manuals and sales literature and supporting information of any kind was all translated into local languages in every country and in Japan it took an entire year from the time we set up our distributor there who was an excellent distributor, who later became a 50/50 joint venture partner with us. But it took a whole year to adapt the product technically to the Japanese marketplace. Now there were Japanese computers that were IBM-compatible that would operate it immediately if you could read English, but the Japanese market required Japanese language documentation and literature and that was an extensive undertaking by that distributor. The language translations in all the other countries other than Japan were all by Pansophic personnel. It took quite some time.

The products themselves were not dramatically changed, except in Japan and in West Germany, which required a special version of Easytrieve. The Japanese had a specific technical problem that had to be dealt with. Pansophic had to send a developer over there for two years to adapt the product to the so-called double-byte requirements in the Japanese market. They used two character positions to represent one character in order to accommodate the large number of Japanese symbols. We had to adapt our products so that the Panvalet product and Easytrieve product would operate in that kind of a mode. It was well worth our while to do that. Basically the answer to your question is that everyone in the systems software arena had the same obstacles to overcome in all of those countries and it was an advantage that our product was pretty much usable as it was technically, without modification, but there were a whole lot of other things that had to be done to adapt to the local situation.

**INITIAL PUBLIC OFFERING**

**Haigh:** Two other important events in the history of the company were the initial public offering in 1981 and then the New York Stock Exchange listing in 1985. At that point were these unusual things for a software company to be doing?

**Piscopo:** Well by 1981 it was less unusual than it had been. I'll go back to the beginning of time. From 1969 when we began, there was no software company of any kind that went public until 1978 when Cullinane Corporation (later Cullinet Software) was the first. Cullinane was a company in Massachusetts that found a way to have an initial public offering in 1978 and opened the gates to subsequent software companies. I believe several were in 1981 and Pansophic was one of those, in August of that year. The gates were opened in 1978 and opened wide in 1981. It was impossible to have a public offering until 1978. Pansophic’s offering in August of 1981 was at a price of $15 a share which turned out to be 34 times our earnings. By the way, in 1981, our revenues were $30 million a year and our profit on that was $3,114,000, which was a growth rate of 55% over 1980. Our sales were up 30% from the prior year. It was a good public offering. We were listed on the national over-the-counter market starting in August of 1981 with the symbol of PANS. We were very proud of that.
We had a second public offering in July of 1983 which was an even better one because we were able to raise lots more money for a lot less number of shares. We raised about $30 million in 1983 at a price of $23 a share. It was a very successful offering and software companies by then were thriving and doing well in the public market arena. Near the end of 1985 Pansophic shares began being traded on the New York Stock Exchange under the symbol PNS and you know at that point we were fairly well known and doing very well in profitability and everything was peachy.

I left the company in 1987. I retired at the age of 42. I had previously given up the position of president and chief operating officer prior to our public offering. That was back in 1980, in order to further professionalize the management and prepare the company to operate as a public company. I relinquished the CEO position and left the company entirely in July of 1987. In case you are interested, my younger brother had previously left the company; he was the chief development person for about ten years. He left in 1981 because he wanted to move with his family to Denver and we didn’t have any development staff in Denver. My college roommate left the company about 1974 after he got his MBA from University of Chicago and wanted to go out on his own. Pansophic itself was acquired by Computer Associates for $300 million in cash in October of 1991. We’ll come back to that in a little bit.

Haigh: So, beyond your own change in involvement, did the demands of shareholders and analysts that come along with being a public company have any influence on the firm’s priorities or the way in which it’s managed?

Piscopo: Well, I take it from your question you’re looking at it from their point of view and I would say no, from their point of view they did not have too much influence on the firm’s priorities. But it did from my personal point of view since I was a shareholder as well. I had a personal philosophy of one for me and one for you and you first - for shareholders. And I respected the shareholder’s point of view and looked after their interests, at least the best way I knew how and they were kept aware of the company’s performance and growth challenges and you know we did well. We had losses our first two years and we were profitable every year thereafter. We gave out dividends in cash from 1972 on. Just to give you an idea of how important, how valuable Pansophic stock was to a stockholder, each thousand shares of Pansophic stock in 1969 was issued at $1.43 a share which was a total of $1,430. In 1991, which was 22 years later, that thousand shares would have equaled 50,000 shares after two 5 for 1 and one 2 for 1 splits. With a market value at the price that CA paid for Pansophic of $16.15 a share, your $1,430 investment would be worth $807,500 or roughly 565 times your investment! In my opinion, that is what an entrepreneurial investment can be like, and that’s why I’ve pursued a career as a venture capitalist since my retirement.

PANVALET AND EASYTRIEVE

Haigh: Lets deal in a little more detail with the products themselves and their relationship to the company’s strategy. I know that people who have read about the history of computing are well aware that punch cards were still widely used even into the 1970s for coding purposes, but they are also aware that disc drives became widely available in the early 1960s and that all third generation computers were shipped, at least after initial delays, with operating systems. So the question is, if you have machines that have disc drives and operating systems, why is it that this niche for keeping source code on a disc was still wide open really until you come along and turned it into a great market in the early 1970s?
Piscopo: First of all let me point out that while disc drives did become widely available with the third generation machines, it wasn’t until the 1970s that source programs were maintained on discs. The early discs in the computer field were used for data storage, not for program storage. I guess your question asks the reason why the problem of having source programs maintained on cards existed at that time. In retrospect I would say because no one solved it. IBM computers came with all kinds of operating systems and software, that had features for distribution of software from IBM to its customers in source form, but they were very rudimentary software systems. They were not designed for the purpose of maintaining all of a customer’s programs in that manner.

Let me give you some benchmarks here to clarify how extensive this problem was. The typical large computer user in 1970 (and I’ll give you some examples of what kinds of companies I’m talking about) would maintain all of their source programs in card form. What I mean by all of their programs, they may have had at that time anywhere from five or ten thousand to a hundred thousand programs and if you take an average size of a program, a small one being five hundred cards to a large one being three thousand cards, you’re talking about well over a million cards and you’re talking about a bulk that took up a huge amount of space. These cards had to be transported from wherever they were stored to the computer center every time they needed to be changed. They could not be backed up. It would take all of your computer time to reproduce the cards to take a copy of them out to some other site. It was very risky to keep no back up, considering things like floods and fires and earthquakes and things like that, as well as sabotage that actually did happen to some companies. You can probably recall any number of occurrences over the years. True, it doesn’t happen to the masses but who knows which is which. Backing up cards was virtually an impossible task. We were talking about programs that in large corporations could bring down the company if they were lost or unavailable for use.

Some of the early Panvalet users, for example, were Allstate Insurance Company, Continental Insurance Company, GM divisions (Chevrolet, Electro-motive, the Fisher-Body Division and the Parts Division), Gulf Oil Corporation, Kraft Co., Michael Reese Research Foundation, Prudential Insurance of America, Sears Roebuck, United Airlines, University of Illinois, Walgreens, and the Yellow Cab Company. Those were some of the earliest Panvalet users. Those companies depended on a computer for a lot of the day-by-day operation of their company. I’m trying to give you a feel for how dramatic the problem was, which is really the reason why Panvalet was an instant success.

But I haven’t really answered satisfactorily the reason why it was that such a major problem was ignored. I didn’t ask why they didn’t solve the problem before, but I suspect that IBM never provided software of this kind, and they never delivered any software to match Pansophic’s software over its existence, because it was of no benefit to them. You know IBM sold software applications, applications that did things like your merchandising business, or your inventory, or your airline or whatever the business you were in. But software to maintain source programs was not considered a duty of IBM at the time. They probably chose internally not to do such a thing that would match an outside company’s design with things like security and efficiency and effectiveness. These features of Panvalet were needed by customers, and customers found great effective use of them, for keeping track of the programs, for organizing them in a single location, for knowing how many they had, for backing them up with tapes or discs. There were a whole bunch of control mechanisms that would provide security to the company for perpetuating their business without any major problems. IBM didn’t have those motivations and probably didn’t have the ability to charge for that kind of software because they had always given away the software that they provided. And even after they announced their unbundling decision in 1969, it wasn’t until about ten years later that most software
was charged for, but the operating software was never charged for, including the library software that they gave away during all that time.

IBM is not one of the companies on the list of competition for Panvalet. I have a list that I will just mention. The principal competitor to Pansophic’s Panvalet product in the source program library area was Applied Data Research (ADR), which was far and away the biggest, and for our internal purposes the only competitor. They had about as many (7,000) user installations around the world as Pansophic did and they were as big a company and they were in business long before Pansophic. They were public all that time. Their Librarian product was a competitive product. A couple of others were Cullinane Corporation, which I mentioned earlier, which had a pretty small, not widely used product called Plus-DA and there was product called Slick which was sold by a company called NCI from Atlanta, which Pansophic acquired in 1982. Of all of the areas of software products that existed over all the years, library systems was probably the only one that had two primary competitors and that was it.

Easytrieve had several competitors, and I’m a little biased obviously, but all of the products that were competitors to Easytrieve were not very good or not very well designed. Easytrieve had quite a few technical features not the least of which was that it was quick. It operated very quickly on a computer so it did not take additional computer power to use it. Other competitors though were a product called CA-Earl from Computer Associates, Culprit from Cullinane, and a product called Dyl-260 from Dylakor Software in California. Sometime competitors were Mark IV from Informatics and Ramis from Mathematica. Those were bigger products that did more things from a technical point of view and they weren’t exactly non-technically oriented. But basically those were the competitors for Easytrieve, none of which had more than a thousand installations compared to Easytrieve’s 7000. Easytrieve was a hands-down winner over those. Panvalet and Librarian basically divided the program library market between the two of them.

SELLING THE PRODUCTS

Haigh: So I am assuming the sales pitch that you would have given to early customers of Panvalet would have included these elements that you’ve been talking about now, that it brings security, it lets you back things up, it makes it easier to work with programs.

Piscopo: Absolutely.

Haigh: How would you go about making that sales pitch to a company? Would you be making it to data processing managers, or to more senior managers?

Piscopo: The pitch would be made to application and technical managers at multiple levels within the data processing organization. It could be the data center manager, or the application group manager or a sub-manager. I’m saying manager, manager, manager to distinguish the fact that it was not sold to programmers. Programmers were not responsible for buying or implementing or doing any of that type of software. In fact, I read earlier today a write-up on the training of our salesmen and the product features that were presented were the control-oriented features, the security features, the back-up features, the elimination of cards, the ability to back it up with tape and the ability to prevent and control access and keep track of who accessed any program in the library. Those were all what we call control and management features. Our competitor which was the Librarian from ADR would present their product primarily from a programming point of view and
they would present goodies that were of benefit for programming purposes – how a programmer
would be interested in making use of a source program system. They would kind of keep in the
background their control features which were obviously less valuable and strong as compared to
Pansophic.

**Haigh:** Did you see any pattern as to the kinds of companies that would respond to the sales
pitch versus the ones that wouldn’t place an order?

**Piscopo:** There was no way of determining what kind of prospect would be more susceptible
to the ADR pitch of programmer-friendly things versus the Pansophic pitch of program control.
There was no way of determining externally which kind of company would be susceptible to the
Pansophic pitch of control. Obviously, if we were the first sales organization to visit the company or
call them on the phone we had the opportunity of impressing them with control and indoctrinating
them in its importance; but in many cases the ADR salesman might have gotten there first and
indoctrinated them in the other direction. Our salesmen were always trained to lead with the control
features although we had very competitive programming capabilities and features that matched the
ADR system, but those were less the flavor of our product than the control features. We were able
to determine prospects simply from the list of computer users of IBM 360 and 370 type computer
systems around the world. Fujitsu and Hitachi had IBM-compatible equipment, as did Siemens in
Germany, and there were a couple of other equivalents. Any of those computer users were
prospects for our products and we treated every one of them as if they should have one or the other,
either our product or ADR’s product, but having none was not an acceptable alternative. To a large
degree our two companies, Pansophic and ADR, made that point around the world. Virtually
everyone ended up with one or the other of the products.

**ACQUIRING EASYTRIEVE**

**Haigh:** Easytrieve, as you’ve already mentioned, was the second highly successful product of
Pansophic, and it was also the first licensed (and ultimately acquired) from a smaller firm. How did
that come about? Was it part of a deliberate strategy to grow by acquisition or was it just something
fortuitous?

**Piscopo:** Easytrieve was a product that was easy to use, permitting the user to obtain access to
computerized data of any form but not having to write a program. Now programming was the way
those things got done at that time. Easytrieve was a very important product; in fact Easytrieve was
patented because it included some technical things that were very efficient. It compiled itself in a
very quick form, and it was very easy to use for non-technical people. We kind of bumped into
Easytrieve. In fact, the gentleman I gave responsibility for the development organization came
across it – it was originally developed by a company called Ribek Corporation. It stood for Robert I.
Beckler who was the company’s owner. It was developed by three or four guys in Silver Spring,
Maryland around 1970-71. It had been already been marketed by the time we got involved with it in
1972. The product impressed our vice president of development and he got to meet the owner and
we found that he had been using distributors in the United States to sell the product, as well as
internationally, and they were getting 50% commission on each sale. It was being sold for, I believe,$6,000 at the time. The owner was unhappy with the level of revenues that he was obtaining out of it
because he had to support three or four high priced technical people to keep the product running
well.
One thing led to another and we took advantage of an opportunity to sign an agreement with him in 1973 for exclusive US marketing rights, which allowed us the opportunity to flush out or hire all of the distributors that he had. I believe there were about twenty different distributors selling the product in the United States and Canada. Our original marketing rights only included North America and we paid him royalties out of every sale of about 33% which, over the years until 1979, provided a very significant stream to him because one of the things we did early on was raise the price of Easytrieve and by the time 1991 came around it was selling for about $50,000 compared to the original $6,000. And on a royalty basis he was getting one third. We wanted international marketing rights at the beginning, but he had a series of international distributors that were doing fairly well. He didn’t want to disturb that relationship, so we waited for a couple of years. By 1976 we were able to persuade him that we could sell more internationally with our own operations. Remember we had set up our own international operations in 1975 and 1976 so we were able to convince him to turn over exclusive international marketing rights to us in 1976 on a similar royalty basis.

We continued on that basis until 1979 when we were anticipating royalties of about $3 million a year and that became prohibitive from our own point of view and the product was becoming much more important to us. We were concerned about it being owned externally to Pansophic so we made an agreement to pay him $8 million cash up front at the end of 1979 for the total ownership rights to the product. We obtained some bank financing at the time, which our public offering in 1981 finally disposed of. But basically the point that I’m making is that it was a fortuitous agreement on a marketing basis originally and acquisition basis eventually but we had exclusive marketing rights already. He could not have removed our ability to sell it but it was a financial acquisition basically. The Easytrieve product has proven to be worth well over $100 million in revenues over those years and it became the largest dollar sales product for Pansophic. Panvalet and Easytrieve had about the same number of installations. They weren’t sold at the same time. They were sometimes, but that wasn’t common. They were sold to different parties within the company. Easytrieve was generally sold to somebody in an application area that was dissatisfied with being told all the time by the technical people that there was no priority to writing programs to solve their problem. Easytrieve gave the applications departments a way of solving their own problems – they didn’t have to have technical people or programmers to make use of Easytrieve.

PANSOPHIC’S ACQUISITION STRATEGY

Haigh: Do you think then it was the success of Easytrieve that pushed the future of the company towards acquisition rather than in-house development?

Piscopo: Only in part. Easytrieve was certainly evidence internally that you could successfully acquire a product. I mean a large volume, large sales product. We had some high aspirations at the time and we were looking at any product internally or otherwise, which would achieve at least a thousand unit sales at a $5,000-$10,000 minimum price on a license basis. And those were fairly high requirements. There were only 35,000 IBM compatible computer sites in existence at the time so selling more than a thousand for starters was a pretty hefty requirement. But as our company grew and became larger in terms of volumes and wanting to continue our sales growth of 30% plus we had an ever-increasing number of products. So basically we were kind of self-indoctrinated that acquisitions were an acceptable way of doing it and an economically viable one. We didn’t know at the time whether our long-range future product opportunities and our requirements would be even met by that process, but we were certainly aware that it could. Meanwhile we had shifted the focus
of our development organization almost entirely away from internal development because we did not recruit any more computer science type people and by the late 1970s we had no development staff capable of creating anything in a new product area. We had some good people that were well attuned to maintaining the products that we had, but new product development was not a significant organizational capability by the late 1970s.

**Haigh:** So even when you discuss the 1970s, you keep coming back to this theme of wanting to have 30% or 50% growth a year. Growth, growth, growth. Now, at a time when the company had no debt and was privately held, two of the reasons that companies might put a huge premium on growth, why was growth always the target to that extent?

**Piscopo:** We were a high-tech firm at the time, we were a high-tech phenomenon. From our public offering forward it was basically one of the requirements for maintaining a high P-E multiple and a high valuation in the public arena to continuously be a 30% plus annual growth rate. It was part of the entry requirement and if our revenues would fall below 30% annual growth rate we fully expected that our P-E multiple would fall down to below the lofty goals which were as high as 30 to 35 times earnings that we became accustomed to. And in fact when they did fall, it was just basically the price of entry. If we were to stay private we would not have had that kind of pressure and we had all of the resources necessary to acquire products and continue short of that. In order to be a public company and valued on the basis of a public company - there were no alternatives. They wouldn’t be satisfied without a 30% growth rate which required new product. By the end of 1980, I won’t say we had exhausted but we had pretty much penetrated the existing opportunity for Panvalet and Easytrieve to be our hallmarks and carry our load. In fact they were more than we could handle for a good many years. The market was vastly bigger than we were, and by the end of the 1970s we were in need of new product from new sources. We did in fact have an internal strategy in place for acquisitions but we hadn’t, other than with Easytrieve, pursued that with a degree of vigor that we were subsequently to pursue.

**EASYTRIEVE COMPETITION**

**Haigh:** Interesting. With respect to Easytrieve you’ve already dealt with its direct competitors but another relevant question is why this remained such a successful niche at the time in which a number of companies had entered the market for database management systems intended to provide complex high-end functions yet apparently not providing the basic reporting requirements that users would need?

**Piscopo:** That’s a good question and it’s one that is actually quite easy to answer. The reason that there was an opportunity for Easytrieve is the one that is probably still true today. Because all those database systems that you mentioned to me, as well as the ones that have come subsequently - IMS and DB2 and Total and IDMS - do in fact have capabilities for preparing reports and producing access to the data. The problem with those tools is that they all require a programmer. They all require you to be intimately familiar with how the data is stored on the disc devices in order to make use of them. They require the writing of a program, and if you are not a programmer you can’t do that. The ones who wrote those products, the database products, wrote them from the programmer’s point of view. In fact, to use those database products you have to be a programmer. They are not user tools at all and there’s basically a fence that you have to cross - users never were able to use those products and to put non-programmer features and components in them would probably be inconsistent with how they were designed in the first place. This is the essence of what
makes an opportunity. Easytrieve is simply something that allows you to avoid having to know all the data structures and how the data files are organized on a computer and, without having to write a program, access the data and have it all happen transparently. When I say a user can do it, a user can do it. We’ve sold Easytrieve to non-programming organizations entirely and they’ve never had to go ask a question of the technical side of the company, and that is what the user needed in order to free himself from having to have a specific programmer assigned to a specific problem and have a cost allocation done. You could actually do the Easytrieve job faster than you could talk about it. And it was basically something that was inconsistent with the way things were done with the database management systems.

PRODUCT EVOLUTION AND SUPPORT

Haigh: In the case of Panvalet it’s clear that the original inspiration came to you because you had essentially been the user that you were aiming to serve. Now as both Panvalet and Easytrieve evolved, how did you stay close to the users and go about deciding what features to add?

Piscopo: Basically, the decisions about what features to add were delegated down in the organization to the customer support and maintenance departments and they were in direct contact with customers all the time. Every once in a while some request for upgrades or for some new features came from the sales organization but mostly they came directly from customers to our technical support people. I was not personally involved after about 1972, after our first three or four years, in much of that, especially the part about which things would be in the release of a product. We always had plenty of candidates, since different lobbies of customers wanted different kinds of things. Some of those we accepted and included in the subsequent release. We of course took it upon ourselves to include anything related to the operability of the product with new computer center equipment, new tape or disc devices, new ways of doing things in software and that was our responsibility. But where numbers of users wanted some new features for programming, for example, or for use of Easytrieve in new database system environments, we used those types of requirements to develop new features or for new separately developed chargeable components for the products. Basically if you needed an IMS database use for Easytrieve we would put that together and sell it to you as a separately priced product option, which you readily paid for and were happy with as long as the price was reasonable, because that was the only way that you could solve your problem. But we made all of those databases transparent and made a specific separately sold product for each one.

In Panvalet we did something similar for all the online programming environments which included timesharing Programming on cards became a dying process over the 1970s. Nowadays you couldn’t even find a cardpunch that would make those kinds of cards and those haven’t existed for about the last 15 years. What’s transpired in place of that is people do programming through online terminals hooked up to a computer, either at a site on premises down the hall or at a site actually off the premises at a remote location. Each one of those remote terminals is connected by some form of software that is designed to control the teleprocessing and telecommunications and the transfer of data from the terminal to the computer. And there are a variety of different kinds of those and Pansophic developed separately charged Panvalet products for each one of those and if you happen to be a TSO user for the timesharing option which was an IBM product, you needed a Panvalet TSO option product; and similarly if you were a CICS user and there were a variety of those types of teleprocessing software components that permitted us to have separately priced options. There were also two major operating systems, actually three, that were IBM’s large-scale MVS, OS and DOS
operating systems so we had different products for each of those. And if you needed more than one of those than you needed more than one product.

**Haigh:** So beyond the various changes necessary to keep up with new hardware and new software, it was not necessary to customize either of those two products?

**Piscopo:** Not only was it not necessary - it was not desirable, even if customers were willing to pay for it. We rejected this. From the day we started our first Panvalet development we had the philosophy in mind that we were not going to make tailored versions of any product that we would have - ever - even if the customer was willing to pay for it. Now we made sure that the products had all the capabilities necessary to operate in the existing operating environments of the day without any need for customization. I mean those features came along free as long as you had paid your annual maintenance fees and we sometimes had to make specific programming changes in order to accommodate some new disc device or some new operating features. But those were always done in combination with new releases of the product every year or two, which included correction of any bugs that had been found over the prior period and implementation of some new features that were highly needed, or highly desired, by some users. We put all those in the same pot and regularly included them in new versions of the product that were distributed to all existing prior users of the product that were on full maintenance which they had to pay for on an annual basis. Panvalet users for example had an annual maintenance fee of $600 per site and Easytrieve users had $750 a site plus there were maintenance fees for each of the database operating versions as well as the Panvalet online versions. Each one of those had a separate maintenance fee. Maintenance revenues, which we’re going to talk about in a little bit, were substantial. By 1991, maintenance revenues at Pansophic were around $100 million a year.

**Haigh:** Would maintenance charges give you a new version or did they just get you the fixes to the existing version?

**Piscopo:** If you wanted full maintenance you would be entitled to all new versions of the product. Separately charged products were not included; they were separately licensed. But Panvalet version 12 would get you all the changes that had been made to Panvalet since the last version which included new features and corrections and new operating capabilities.

**Haigh:** For most of the 1960s customers, when they got IBM system software, had been able to modify it, change it, alter it in non-standard kind of ways. That may have changed by the late 1960s to some extent, but did you find any resistance from the customers when you said: “no, you can’t change it, we’re not going to make it special, that’s how it is?”

**Piscopo:** You are correct that some of the system software previously to Pansophic’s involvement in the 1960s had been changed and modified by users. But by the time Pansophic hit the market it was pretty much on its way out as a capability and the users knew that in order to have a reliable and secure product, and by reliable I mean make it always work without having too many problems, that the users themselves couldn’t keep up with changes they would make. But even more than that they didn’t want the vendors to make all that many changes either, because it rocked the boat. They were running Panvalet and Easytrieve in production version every day and they had no desire to have to do the tasks themselves that were necessary to keep them up in operating form and they also didn’t want us to do that too frequently either. Users were able to realize that Pansophic in its design of its products took far more requirements and needs into account and did a far better job
of design of the product in the first place. We sold Panvalets to many companies who had previously designed and used their own products for that purpose. They knew that we would do a better job and a more encompassing job and provide more capabilities and features and efficiencies than their own people could do – that’s not the business they were in and they needed to use their people for their own business. And we found no problem, no objections. We had no users I could recall that ever complained about not having the ability to customize the product. I should say that application products were much more likely to be involved in an ongoing requirement to do that.

OTHER PANSOPHIC PRODUCTS

Haigh: The success of Panvalet and Easytrieve was followed by a series of products that failed to realize expectations. You suggested previously that the ultimate cause of Pansophic’s eventual slowdown and sale to Computer Associates was that the company did not “do a better job with its product development or just reduce the number of failures.” Why were these products less successful? Were there problems in strategy or execution? Were the products inherently flawed or just out of sync with changing market demands?

Piscopo: Those are all excellent questions. I have to take them apart. From the point of view of Pansophic there are different answers that apply to internal development versus the external development strategy at the time. As you know, Panvalet was internally developed and Easytrieve was externally acquired. By the early 1980s Pansophic’s strategy for new products was entirely an acquisition strategy and an acquisition strategy is inherently dangerous and flawed by the fact that you never know what you’re buying. If somebody is selling there might be something wrong with it. There is a limit as to how far you can exhaustively evaluate something from an external point of view. Easytrieve was an excellent acquisition that paid off in handsome terms but the ability to reproduce Easytrieve was to prove much more difficult than it might seem. Pansophic’s acquisition strategy proceeded over the 1980s to acquire about 10 additional products – some of which were related to existing products and some were not. A couple of those products were excellent products and several of them were not very excellent products but none of them, even the ones that I categorize as excellent, was a 7,000 unit seller, which is what Pansophic needed during those times. A couple of them were very expensive. One, for example, was $19 million. You have to go very far to recover a $19 million software acquisition. In fact, prior to Pansophic’s acquisition by Computer Associates, the year before in fact, the Pansophic management had to absorb the financial impact of writing off $25 million nine months after one acquisition because it wasn’t whatever somebody thought it was. And you can’t afford too many of those kind of mistakes, particularly when you need new products to fill your hopper for new growth.

Now I want to back up a step and talk about the fact that during the 1980s Pansophic had no ability internally for development and it was a conscious determination from that point forward to pursue the acquisition strategy. We had eliminated our internal ability, not realizing how important that was going to be many years later, because we’d stopped adding computer science type people who would be creative and innovative in the new product areas in the future. Basically, I overlooked it and didn’t regard it as a critical factor in the early years when we started to hire less-talented people than we were going to need later on. Many of your questions were whether the problems were in strategy or execution – I think they were in strategy in retrospect, but at the time I couldn’t tell that. I think the acquisition strategy is kind of a loser in principle. But it can be useful; as an example, Easytrieve is probably the most successful acquisition product in the entire industry over all these years. However you can’t count on acquiring an Easytrieve that way. You can’t count on acquiring a
product that's that good. If you can't count on it and you need to have it then the only other solution is to develop it yourself. I say that from learning it over the years and in retrospect. The flaw was in relying solely on an acquisition strategy and not solving the strategy implications of the lack of internal development capability.

ACQUISITION BY COMPUTER ASSOCIATES

Haigh: Like so many other mainframe software companies, Pansophic was ultimately acquired by Computer Associates. What changes in the market triggered this consolidation? Could it have been avoided, and have customers benefited as a result?

Piscopo: You almost understate the question by saying “like so many other mainframe software companies.” For the sake of the reader or listener, whichever it may be, we're talking about Computer Associates being well known for having acquired some 75 software companies over the last 20 years and it’s not just a few. It’s a great many. In fact many of the long ago well-known names in the software business, including Pansophic, but also including University Computing, Applied Data Research, and Cullinane Corporation, Software Products International... I can’t think of them all. Ask Computer Systems was another one. There are so many. Computer Associates acquired those companies for a strategy that I want to go into in a moment, but I want to finish answering the other part of the question. Pansophic was ultimately acquired by Computer Associates because of its lack of new product revenue to continue its growth rates. Computer Associates didn’t have that problem on its own product lines. It didn’t acquire Pansophic’s products for its growth. There were changes in the market that triggered the consolidation because basically Pansophic was unable to continue its then existing growth rate and it’s the same formula that happened to all the other companies that were acquired by Computer Associates. It could have been avoided but only as a result of Pansophic having solved its own development problem.

I don’t know if you could say customers directly benefited or not. Panvalet and Easytrieve are still being used today and still being supported by Computer Associates using the remaining 10 or 20 Pansophic people that it acquired. In 1991, there were 1,600 Pansophic people total worldwide. There are now under twenty and those less than twenty people are still the individuals that keep Panvalet and Easytrieve and some of the other Pansophic products operating today in order to keep Computer Associates’ maintenance revenue stream that it acquired still in viable form even now twelve, eleven years after the acquisition.

I need to go into a little more detail on that because this is a formula that is not well understood by the marketplace and those in the industry, which it ought to be. I don’t know why this sort of analysis hasn’t come out but for posterity’s sake I’d like to put it on the record. This is going to be a little technical and I’m going to go through this kind of quickly but the reader can re-read it and look at it later. In 1991 Pansophic closed its fiscal year ending April 30th with a total in revenues of $230 million. The net income out of that was $20.6 million, which was pretty good. There were outstanding 18 million shares of stock on the New York Stock Exchange selling between $8.50 and $12.75 a share, which was nothing exciting. It had been lingering in that range for several years. I was still a shareholder at the time but I had sold a good deal of my shares prior to that time. The book value per share was $7.53 and the earnings per share was $1.15.

Now we move on to Computer Associates. I’ll remind you of a couple of these numbers as we go. Computer Associates tender offer was for $16.15 a share, which aggregated a total for all the shares
of $291 million. They offered approximately double the previously existing share price as it was after Pansophic had announced a first quarter loss in August of 1991. So it might have been going down further. CA offered 100% premium, from $8.00 to roughly $16.15. Why did they do that? That amounted to 14 times earnings, 2.15 times book value and 1.27 times revenues. Why would they do such a thing? I’ll tell you why, and this reasoning applies, with different numbers of course, to most of the 75 acquisitions by CA.

Out of the Pansophic revenues of $230 million, customer support fee annual revenues were around $103 million. This is from the audited statements from April of 1991. That $103 million consisted of $85.6 million from the systems software products, Easytrieve and Panvalet and a few others. And $17.9 million were from the application software which was acquired and added on to the Pansophic product line in the 1980s. These were annual revenues. CA wanted to basically continue that $103 million in annual revenues, and eliminate all the rest of Pansophic, and eliminate all the other product revenues. Here’s why. I made an estimate, as a software company knowledgeable party, that to maintain those products and earn that $103 million it would cost at the most $18.3 million a year and probably a lot less. That left a margin of $85 million a year. That’s the profit on the maintenance revenue, if that was all you were looking for. Obviously you would have to eliminate all sales and all new product efforts, all marketing, all accounting and staff people, all international people, which is exactly what Computer Associates did in the ensuing six months. For the $85 million gross margin on the maintenance revenues after the cost for supporting the products, at an assumed tax rate of 40%, your net profit would be $51 million after tax. That $51 million after tax would be valued by the public market at Computer Associates’ price-earnings ratio at the time, which was then about 15 times, which is $767 million. As long as it continued, that $767 million was the increase in Computer Associates’ value for having paid $291 million for Pansophic!

**Haigh:** So, to summarize the implications of that then I would see two things: first, because it can be very ruthless about eliminating costs and ceasing development and marketing work, Computer Associates could get more future profits from those revenues than Pansophic would have been able to get.

**Piscopo:** Absolutely correct.

**Haigh:** And the second part is that, because of the way the market was viewing Computer Associates, it was also prepared to pay a much higher multiple of its earnings from that increased profitability than it would pay for Pansophic?

**Piscopo:** That’s also true. However, one implication that thinking about this would tell you is the one thing this does not do for Computer Associates is raise its revenue growth rate. That’s new business and this maintenance revenue and customer support business is on a separate line on the financial report. No matter how big Computer Associates is and no matter how many companies they acquire, the profitability should be clear. Computer Associates was not generous in buying out the Pansophic shareholders for $16.15 a share. They probably could have paid $32.00 a share and still made out but no one else could have. What was necessary for them to realize this value was to eliminate anything that was not productive. You couldn’t attempt to make new sales; all of the product development that was in process was regarded as useless. All new sales, all new Pansophic sales, were not going to contribute to this benefit. The more cost they would keep for anything else other than the support business would detract from this value. They needed other sources of continuing their growth. That was a different problem.
Haigh: You said a minute ago that in general an acquisition strategy was a loser in principle. Now it seems that Computer Associates maybe had hit on a different and more ruthless kind of acquisition strategy than Pansophic was pursuing.

Piscopo: But this was different. This was not Computer Associates’ sole strategy. They did have internal development which continued along the way. In fact, Charles Wang, CEO of Computer Associates who I know quite well because he was a Panvalet user in 1972. Pansophic was selling the product that became his first product when he formed the CA US subsidiary of a Swiss corporation. The product CA-Sort was originally marketed by Pansophic prior to CA having it. CA was the owner of the product but Pansophic was the exclusive marketing distributor in North America. I’ve known Charles for a long time and Charles himself has told me that he has personally tested every product that Computer Associates ever developed and they have something like 450 products. It’s a busy occupation as CEO of a $3.5 billion company or whatever they are now. But CA has maintained their internal development and out of the 75 acquisitions there are a few of them, Cheyenne Software was one a few years ago, but there weren’t more than about two or three of them that were development-type acquisitions. So I can’t totally equate them to Pansophic because this was not their only strategy. They did internal development and still do and they did acquire, but a very small number of their acquisitions were of that type. These types, the type like a Pansophic, out of 1,600 employees, there were under 400 within a year and under 100 within 2 years. It’s brutal. That is the same formula that they applied to all the other acquisitions.

APPLICATIONS SOFTWARE

Haigh: You’ve already dealt to quite some extent about the difference between application and system software. Now later in its history Pansophic did start selling application software. Do you think that it was well equipped to do that in principle?

Piscopo: Yes, I think that Pansophic was capable of selling application software, but I wouldn’t as quickly respond positively as to whether the application software we were able to acquire had the capability, the sales potential that we needed. I don’t know that we could have sold enough of those to solve the problem. They are quite different – application and system software – they are not sold the same way or produced the same way. In fact, Pansophic had them as separate divisions. Even though they began the application divisions while I was still there I was not intimately involved with them at all. I was involved in some of the acquisitions and they were much more expensive to sell and maintain and keep up, and many customers required changing them to be tailored for their installations, and that’s a whole different phenomenon than we were used to in the system software arena. I don’t think the potential customers treated them alike. I think by the 1990s the users were intimately aware that system software and application software were two different kinds of things and, I think, looking back, that they confused that a lot in the 1970s. They still wanted to make some changes but they reluctantly gave up changing system software. All of them continued to want to change application software even though it wasn’t very wise to do that either. I think it is a different market because they don’t sell to the same buyer. We had no leg up selling a customer the PCR software products because they weren’t Panvalet users or Easytrieve users – they were for a different piece of hardware – smaller hardware, more System 34, 36 and 38, which are minicomputers and they are stand alone environments and so there was no advantage sales wise.

ADAPSO
Haigh: How much contact did you have with other software companies and what part did ADAPSO play in these relationships?

Piscopo: Well let me first say that, before 1969, I had no contact with other software companies in the commercial world while I was at Montgomery Ward. I got involved in the early 1970s with a group that was being formed from an organization called the Association of Independent Software Companies. ADAPSO had been an operating association for many years but consisted primarily of service bureau and timesharing kinds of firms and consulting firms – some of the bigger companies like Planning Research Corporation, Electronic Data Systems, you know the big service organizations but no software, no packaged software firms. I got involved with them because there was a group of 12 companies that kind of got together and met a few times and then became a division of ADAPSO when ADAPSO agreed to form an independent sub-group within ADAPSO for independent software companies. It became a viable organization and I participated for a number of years in that. As far as playing a vital role in shaping the software industry – absolutely.

Your question also reflected on IBM. IBM’s unbundling had little to do in my opinion with the software industry per se. IBM software applications or system software in 1969 and later was often not very good. There are a couple of exceptions that are good software products but nothing that Pansophic was involved in. IBM developed software for everybody which became of little value for anybody and IBM maintained the hardware mentality sales-wise and structure-wise and development-wise for about 10 or 15 years until the mid-1980s and frankly they still have some of the hardware-only mentality even today. They never really got it. They never really got what the software business was about.

LESSONS FROM PANSOPHIC EXPERIENCE

Haigh: Other than the areas that we’ve already covered such as its rapid expansion into international sales, its initial strong profitability, its rapid growth and its great fortune in having two products that virtually every large installation needed, are there any other ways in which Pansophic might have been different from its peer software companies?

Piscopo: There are a number of ways but not necessarily as profound as those. Pansophic’s Panvalet and Easytrieve are literally household names to programmers and end users over the last 30 years. They are very well known. There was no independent software product company industry before the 1970s. There were a couple of companies that sold some products but they were few and far between. So, by virtue of being an entrepreneurial firm in a brand new industry, there were any number of things that we had to tackle and overcome that became Pansophicisms or things like that.

For example we had to develop a perpetual license agreement with annual maintenance characteristics; that was a legal contract that needed to be developed. It was a vital thing that had to happen at the time but it was just one of many areas. Internationalizing was another one. There were several things like just a simple set of criteria for new versions and new releases of a product, how to distribute a product on a magnetic tape, what controls to have over who can call in for maintenance, and things like that. There were many policies and practices that became the way of doing business that Pansophic pioneered, but there was no one individual thing that was of great magnitude.
Panvalet and Easytrieve were true innovations in the best manner of describing those words. They changed the way people did things, they changed the way people accessed data on the one hand for Easytrieve and they changed the way people kept track of source programs on the other hand for Panvalet. They are and will remain well known for those purposes and I’m very proud of having played a significant role in those successes. They will not be forgotten for a long time. As far as the pioneer era – do I miss it? Probably some, but not to as great a degree as you might think. I enjoyed the hands-on operation and the challenge of having to come up with things like new contract forms and new advertising gimmicks or new trade show presentations and things like that. It was part of the fun of the era, but I wouldn’t say I terribly miss being a pioneer. I always regarded pioneers as being the guys who got arrows in the back. Pansophic did pioneer any number of things along with many of our counterparts but during that time I didn’t regard myself so much as a pioneer. I was working on the things that had to get done.

LIFE AS AN ANGEL INVESTOR

Haigh: Since retiring from Pansophic your subsequent careers included work as an angel investor in technology firms and as a director of several companies. In what way do you think your time at Pansophic prepared you for these new roles?

Piscopo: Oh, it was invaluable in preparing me for making investments in software companies. Unfortunately no two software companies are alike. I’ve been an angel investor for about 15 years now as a sort of a one-man venture capital firm and the last couple of years have been very stormy and very difficult in venture capital and I have a lot of investments that are not doing very well these days. If I had not had my prior career at Pansophic I probably wouldn’t have gone in that direction. I’ve had two major successes, one being Pansophic and the other being Software Artistry of Indianapolis which was a 1990s investment of mine. I became chairman of the board and then went public and it was almost a microcosm of Pansophic a little bit and they were acquired by IBM for $200 million in cash in 1998 which was very lucrative for me. I have a lot of others that are in the not-so-successful category, I won’t mention any names but it’s been difficult lately and I don’t see any likely improvement in that phenomenon for quite some time. The venture capital field in the software arena has learned it’s not that easy to make a new product that’s an innovation and carry the ball as an entrepreneur to make a success out of it. It’s much more difficult these days. Pansophic was a success based on $200,000 of investment. You need that much these days to open the door. You have to have far more of a plan and a history to get going at all in the software business these days. And it’s gotten more difficult, not less.

OTHER BUSINESS ISSUES

Haigh: So, are there any important lessons you’ve learned at Pansophic that you think are still unappreciated by today’s software entrepreneurs?

Piscopo: I’ve got a few if we’ve got time. I did a presentation to a Northwestern University MBA class long ago and I pulled this out of there. The question was what underlying messages I might have after all of my career and things that I might point out to today’s entrepreneurs. I would say that initial capitalization is crucial to the long-term success of the venture and you’ve got to have it; it’s just not worth the effort of trying to do it on a shoestring. Venture capitalists don’t usually invest in early stage situations and they do more capitalizing that venturing. The next item is executive personnel selections are critical. You should avoid promotions based on friendships and
focus on talent and experience because there is no substitute. Personnel decisions are the most
difficult to predict and implement. The timing of plans becomes a great deal of a problem if you are
unable to fill personnel slots with the capable people you need. If you are not able to be a good
judge of people and talent, you have to reconsider whether you’re suited to be an entrepreneur. It’s
important to focus on a specific product or service opportunity and research the markets and remain
focused on the best choices throughout your entire career. Trying to be all things to all people will
not work. It’s hard enough to do one thing well. You should consider the worldwide markets and
don’t underestimate that long term strategic goals and objectives should be set from the outset.
Even if you are unable to deal with some things for a long time, you should still have them as part of
your plan so that you are growing your company with known future requirements in mind at all
times. The markets are worldwide, at least in the computer software field, and they remained that
way and you shouldn’t accept anything less.

Don’t give away ownership too easily. It does not have the same influence on everyone and it makes
little difference to most people. It made a lot of difference to me. You need good legal counsel and a
strong financial executive. Rewards are well worth the sacrifice and the loneliness at the top but not
everyone can make it. The odds are against a new firm succeeding and those odds are enormous. It’s
not for everybody. Don’t exaggerate your own talents and jump into something where you can’t
possibly succeed. Pansophic was a rare success and it was a pleasure on my part, I enjoyed it. I
would do it again if I had the opportunity but that is not to say that it was easy and that anybody can
do it. Another item on my list – the government is a pain and of little help. That is straight and to
the point. I’m talking about the Department of Commerce and the Small Business Administration
and the General Services Administration and a whole host of other agencies. They talk a good case
but they don’t really help you. Personal growth and achievement are very satisfying if you are of a
mind to defer the personal satisfaction you get from other people. You are your own boss which
means you don’t have anybody around to pat you on the back either. It’s not cut out for everybody.

**Haigh:** Thank you.