

# Hasso Plattner Oral History

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COMPUTERWORLD HONORS PROGRAM  
INTERNATIONAL ARCHIVES

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Transcript of a Video History Interview with Hasso Plattner  
CEO, Co-Chairman and Co-founder, SAP AG

Recipient of the 1997 Ernst & Young Leadership Award for Global  
Integration

*Interviewer: Daniel S. Morrow (DSM)  
Executive Director, Computerworld Honors Program  
Location: SAP Corporate Headquarters, Walldorf, Germany  
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DSM: Let's begin at the beginning and talk about your birthplace, your family, and your early education before you went to Karlsruhe.

HP: I'm a big city kid. I was born in Berlin. My father was and is a medical doctor, and I spent the first fifteen years in Berlin. Then I went to Bavaria, which is quite a move. This is like from New York to Houston, Texas, and spent some time in Bavaria. Went to school in Switzerland for three years. Started my studies in electro-technique in Karlsruhe, close to here, and after I finished with a degree in electro-technique, I joined IBM.

DSM: Now, electro-technique has been translated in English as communications engineering. Is it more an equivalent of an electrical engineering degree?

HP: In those days, it was in between and I think it split now back into electrical engineering and computer technology. When I started studying in 1963, in 1965, all what I did between—sorry, between 1965 and 1968—was digital communication. And there was for a short period of time, I got a different title. Nowadays, it is a mixture of hardware and software, so the last two years I did software only.

DSM: When you were a very young man, before you went to University, who were some of the greatest influences on your life and career? Parents? Special teachers?

HP: Oh, perhaps my grandpa. For eleven years I was not able to communicate with him because he remained a prisoner of war. He had a funny name. It happened to be he had the same name like the German Minister for Work, who was responsible for some of the atrocities of this government. He had the same name, Funk. And they gave him eleven years of trouble. And he was an engineer for Flor & Otis, and he was a director—technical director. So from him I got perhaps this engineering attitude, what engineering is about, and kind of perfectionism. And the other one, perhaps, my father is a medical doctor. Again, perfectionism was perhaps one of my worse habits.

DSM: Some of your colleagues who have been winners of this award have told us stories of things they did in their youth that were sort of giveaways as to their future career. Steve Jobs, for example, said that he had a teacher who actually motivated him to do his coursework by paying him \$5 to finish his math homework. And John Warnock at Adobe Systems was actually flunking, failing, at mathematics until one of his teachers actually transformed his whole attitude toward math and made his career. Was there a teacher, a formal teacher, who was an inspiration to you early on?

HP: Two. One was in my time in Berlin, and he just came over from Eastern Berlin and lived now in the Western part of the city, West Berlin. He was a teacher for arts. He made a statement that whenever you detect that you don't change your mind anymore, you know you're old. And that really—that stuck. And I'm still thinking about this. If I get very conservative, if I get stuck in a specific situation, this comes to my mind. And so far, that motivated me to find the loophole and get out of it and change your mind.

And the other one was a teacher in Constance, at Lake Constance, where I went to school the last three years. I lived in Switzerland—my mother lived in Switzerland—and he was my math and physics teacher. And the kind of way, he was a seaman before. For ten years he was a seaman, came back, and started to teach math and physics. So that was an unusual combination.

But the story you might want to hear is totally different. I was very commercial. I was a relatively good student with some flaws. I had a very bad mark in French, so I told my French teacher: “It’s over. I don’t talk to you anymore; don’t ask me anything. I ignore the marks you give to me, even if it’s the worst. I have compensation in other subjects.” And then I went to all the other teachers, and I told the Arts teacher: “I am good. You have to give a ‘1’,” which is best. And I went to the other ones and negotiated my marks, and left over only the course subjects where I couldn’t do that. So I had to write the test in math and physics and German and English, but the other ones I negotiated. And I came out pretty well.

DSM: It sounds like. Did IBM seek you out after hearing this, or did you seek them out?

HP: Oh, there is another—I don’t know whether you know or not, but there is another story of some commercialism when I applied for IBM. There was a big test going on close to the headquarters in Stuttgart, and all these young assistants were Czechs, and they had what is called the multiple choice test. And the multiple-choice principle is that you have not enough time to do it. So in the end you start guessing. And I nearly made it and I ran a little bit out of time, and the last three questions I applied multiple choices. I put in multiple crosses, because I saw the secretary checking the first batch before I started. She had a kind of mask, which she put on top, and I knew if the cross was in the right position, I get the points.

DSM: That’s a great story.

HP: So the psychologist checking me later was totally surprised about my high score. And I said, “So what? What’s the problem?”

DSM: That’s a great story. Now you said your teacher in Constance was a seaman?

HP: Was a seaman, yeah, working on a boat.

DSM: Is that the origins of your interest in sailing?

HP: Oh, that’s a good question. No. No, no, no. My father was a—we were sailing in Berlin already. We had no money, no nothing. Even in the deepest depression at the time when Berlin was a real island and we had the airlift, the big airlift, we had a sailboat.

DSM: So you remember the airlift of 1948?

HP: Yes. I was very little, but I remember the seaplanes coming in, landing close to the boat—the British seaplanes.

DSM: Marvelous. So we talked about parents and teachers. Would you say that there was a person in your life who has been a role model, a hero for you?

HP: Very difficult question. I have to distinguish in different disciplines or subjects. When we talk about a political hero, then certainly there are some. When we talk about sports, then there are some.

DSM: Let's talk about sports. Who's your sports hero when you were a young man? I won't put you on the spot for now.

HP: You might be surprised, but it's perhaps Jesse Owens.

DSM: Why?

HP: To win the four classic disciplines of field and track. And that was in a time when nobody really was supporting that and promoting that, because it was this kind of awkward situation. There were politically correct promoters, but you might remember he was not so welcome in Germany in 1936. No, he was clearly the superior athlete of the former generation.

DSM: What about politically?

HP: Now, it looks a little bit strange, but it's a recent one. I have personal ties into South Africa. My mother migrated to South Africa twenty-seven years ago, and I spent more than two years (two-and-a-half years total time) in South Africa. So I was there from 1997 on—sorry, 1970 on. “Seven” is a little early. Basically, I accompanied the history of the last twenty-seven years. And I spent most of my time in Capetown, and there was a Robin Island. There was much talk about Prisoner Mandela, and how he's President. The way he behaved after they released him after twenty-seven years; I think that's one of the first class reactions and actions of a professional politician.

DSM: A man of his times. So you've lived through this.

HP: I saw this Robin Island. I heard the stories from the other side. And just last week I have—that's a private thing—I have a golf course in South Africa, a hotel and golf estate in George. We got a visitor from the Parliament, and he is seventy-one years old and plays off an eleven handicap. This is not that bad. But if you learn that he didn't play golf for forty years because he was in prison for twenty-six years. He is one of Mandela's friends and he is number “12” in prison. Mandela was number “1”. And so that just happened last week. That you are a part of history and you can see, touch, and talk to these people. That's really an unusual experience. And that they made it without a major turmoil; I think that's an achievement, and they are very proud of that.

DSM: Now I understand much more about you naming your boat *Morning Glory*.

HP: Yes, morning glory is a creeper and very popular in Capetown and the area where I have a home. It's full of morning glories.

DSM: That's a wonderful story. One of your colleagues here at SAP asked me to ask you this question, which I think is a very good one. You obviously love teaching. You teach young people. You've been honored with an honorary doctorate and professorship. Why, given your intellectual achievement, did you choose to go to IBM rather than stay in the university track and become an academic?

HP: A very good point. I struggled with that decision for quite awhile. The story was I started in Karlsruhe, and we had a very—for Germany—very famous professor, Professor Steinbugh, who worked for Standard Electric Lawrence. He was the first one in Germany to build a professional computer with transistors. And that was the contact in Karlsruhe, how I came into digital systems.

I gave three students lessons. I tried to improve their score. And they all scored "A", and I scored "B-minus", because I had an argument in the test with Professor Steinbugh. He asked me what would happen if a ferret core becomes smaller and smaller and smaller; what happens to the [????], and I said it gets smaller, smaller, smaller. And he wanted to hear that it gets sharper edges, and I disagreed. And I got a "B-minus". That was my selected institute and I wanted to become an assistant there and work on my thesis. I was so—I don't use the right English word at this place here—I was so disappointed that I left the University immediately and never went back for ten years to Karlsruhe. I joined IBM and I still had to do some finishing work at the school, so I joined IBM at the age of twenty-four, which was unusual. I think that was the right move. So I always had an advantage, being much younger than all my other colleagues.

DSM: Tell me about your first job at IBM and your impressions of that IBM culture. It was a very special time for that firm.

HP: I had an appointment in Böblingen in the research lab, and unfortunately the person I wanted to meet, the lab manager, was in Poughkeepsie. He was not available. So they handed me over to this Stuttgart event where they just recruited people for the field. And then somebody told me: "Oh no, in the lab they lie on their chaise lounge there and they just relax and think. No, the real action is in the field. You have to come to the field." And I don't know why, this guy convinced me to go to the field, and I joined IBM in the field. So university was over, science was over, and I became a consultant, in now modern terms a consultant, for hardware and software at IBM.

DSM: The legend was that in IBM in those days, people in the field were told this isn't necessarily the best computer in the world, but it is the most expensive. Go sell it. So you went through the classic IBM sales consulting training?

HP: And it was a terrible situation. In Karlsruhe we had the second-fastest control data computer, and I was working—the last year I was working on this computer, and at nighttime I had a 1-million instructions per second computer. Then I went to IBM. In the field, the field they had computers of 30,000 instructions per second. I nearly lost it. It was a difficult time to get adjusted to this commercial world. Very good for the education.

DSM: Yes, I should say so. Their strength was then definitely their sales training.

HP: And the achievements at the customer site. So clearly in those days, IBM was customer focused. It was before IBM was forced to charge for services. We were taught, and we lived this idea, that we have to serve customers and do the best. And if we do the best for them in their job, it will help them and they will buy more computers.

DSM: This will be an introduction, I think, to an interesting story about the founding of SAP. You met your colleagues who founded SAP while you were at IBM. You were raised, educated in Europe, in Switzerland. How did being raised and educated in Europe and being European (and German especially), how did that shape your view of information technology. How do you think it makes your perspective different from some of the American leaders like Ellison or Scott McNealy at Sun?

HP: In IBM, within IBM, we were very local. There was IBM Germany and IBM Europe, and Paris or IBM USA was so far away. But when we left IBM and started SAP, our first customer was ICI—Imperial Chemical Industry—and it started the first day that I had to speak twenty percent of my time English. The first presentation I gave at ICI was in English because any serious manager in ICI was English, or not German at least. So that helped a lot from zero to fifty, to accelerate from zero to fifty on a hundred scale towards international business. I think that was very important for SAP that ICI was a multinational company, and broadened our view immediately.

DSM: Your very first sale was an exercise in global integration.

HP: Yes. And that's how it started. Already in the first year, we learned how difficult it is that the French have totally different views. The Brits have particular views on how to conduct business and how to run their computer systems. And then we had the large contribution from the Netherlands, because they had major operations in the Netherlands, had their European headquarters in Brussels. So the first customer was totally international, and we got involved in all these deals and negotiations. It took many, many years until we could sell our software to the non-German parts of ICI, but I think ICI is the mother of the idea of integration and international software we pursued.

DSM: Perfect. I couldn't think of a more perfect first client.

HP: Yes. That was—tomorrow or Friday I have to talk about our products and the luck we had. So we always had this kind of favor somebody did to us.

DSM: And Friday is the celebration of the 25<sup>th</sup> anniversary.

HP: Yes, of the 25<sup>th</sup>.

DSM: How did you meet your fellow founders, and could you describe your early relationship with them?

HP: Yes. We worked at the IBM local office in Mannheim, and I was sitting face to face with Ditmar Hopp, and we did the first real-time order processing system for ICI in our IBM times. And another colleague, Dr. Klaus VanReuter, he was writing already financial software and had a little batch program installed fifteen times. He wanted IBM to take over and make this a major initiative. Then we came together, we three, and asked IBM whether we can do this within IBM. Then IBM denied and said: “No, no, no,. We have other labs in the world and you go selling computers or help to install computers and other people will take care of that.” We were not allowed, sitting in an office, to do this. And I’m not so sure whether SAP would allow people sitting in an office in Marseilles to develop a new version of the SAP system. So we decided we will leave IBM, and then we took two other guys and asked them whether they will join us. so we started as five people with three employees.

DSM: Who were the other two?

HP: Klaus Tschira and Hans Van Hector. Tschira brought the OS operating system knowledge. We were all DOS people, D-O-S people, and he had the OS, the big operating system experience He was serving the large implementations here.

DSM: Were you married in those days?

HP: No.

DSM: No. Was founding a new company in—in 1972, no one left IBM.

HP: Oh, some. Some did.

DSM: IBM was going to last forever, though.

HP: Yes. Well, some people left, and that was the time when people started consulting companies. We left with the sole goal to develop standard software. So that was the number one goal, and we kept that goal the focus of all our undertaking in the future. That was very important and despite the first project was an individual software development, we only had standard software in our minds. And only one-and-a-half years later, after we started in 1972, we had our first issue of standard software.

DSM: I’d like to talk a little now about your role in the early history of SAP, say from 1972 to around 1977, 1978, 1979. From Mannheim to Walldorf and from GMBH to SAP AG.

HP: That came later. First, we were all programmers. All five did programs. And we all consulted and we all sold software.

DSM? All five?

HP: All five. That's perhaps totally different to some of the U.S. startups. Some were more successful in selling than others, but in the first three years we did everything. Everybody worked at night and we had to write the software at night and test at night. We had to consult in the daytime and we had to travel to sell the product.

DSM: So this was R/1, the legendary R/1?

HP: This is R/1. We called it System R. We didn't know in those days that there will be an R/2 and an R/3. I remember in the second year, I think it was in the second year, we were traveling in Switzerland, and Klaus Van Reuter said we might reach 100 to 200 implementations. That's perhaps what we can achieve. I said, "Wow, that's a large number," knowing that we were struggling to get customer number six. And this System R I think achieved something between seventy and eighty installations at the end of the 1970s.

DSM: I gather that is the first year you nearly doubled the size of your staff from five to nine employees.

HP: To ten, yes. something like this. We were growing pretty slowly, not as aggressive as the young startups in the Bay area, but we had a great time in the mid-1970s. We had years where we had fifty percent before tax profit. And perhaps more interesting from an entrepreneurial point of view, is that we self-financed the whole company in the first fifteen years. We never went to a bank and asked for money. We always financed ourselves. So we were the sole owners when we decided that we would go public.

DSM: The advantages of having everybody able to sell as well as programming, you never had to tap the venture capital community.

HP: Never. Never. I'm not against venture capital. I think it's great infrastructure you have in the U.S. because it really accelerated the rebound of the economy in the 1990s, and especially in high tech industry. When I thought it had lost to Japan, then all of a sudden semiconductor technology and then software was back. We didn't have this in Germany. We made it by careful growth, wise spending, and we still had enough money to buy perhaps not the fanciest car, but still good cars.

DSM: Yes. Now by 1975, 1976, 1977, somewhere in that period, you began getting ready to develop what is now known as R/2.

HP: No. First we got another international company. John Deere in Mannheim. And they came up with the idea that our software should run on one computer and serve several countries—legal entities with different legislation, with different language. John Deere had in those days the world divided in, I think it was Division I (that was Americas) and Division II (that was Europe and Africa). So it was German, French, and English as a minimum. In 1975, 1975-1976, we changed the system from a one language only system to a multilingual system. One of our trademarks later on: not only that we have different versions of the system, that one computer system can run and serve users in France, in South Africa, in Germany, and in England.

DSM: You had a story you were going to tell about the early days.

HP: I'll first finish John Deere. They asked us to internationalize the software, and we did this. That was the beginning of our international version of SAP Systems. That was a big step in those days. That was actually already the end of the System R, was when we integrated IMS and we had three large companies. Now the customers got bigger and bigger and bigger. We got Freudenberg and Grundig Television Systems and they were large IMS customers. The integration of IMS was painful, and we had three installations of that type. They were very expensive to support from our point of view. That was a starting point for the development of the next generation software, and that was 1979.

DSM: So how big were you at that time, in 1978, 1979? This was just before you moved here to Walldorf.

HP: That's—when we moved to Walldorf, I would say eighty people.

DSM: And were most of the new hires people who could service existing businesses, or at that time had already begun—you dedicate a lot of energy and resources to research.

HP: Most of them were developers. I think in those days, we didn't hire any consultants. We hired developers, and they had to do the same as we did as much as possible. That means design, code, test, and sell, consult the system.

DSM: And you had a funny story you were going to tell.

HP: Yes. We had some of the critical situations in our history in the twenty-five years. In 1973, very early beginning of the development of our standard software product, not the first version we installed at ICI. In those days we had the programs on punch cards. And punch cards were in these iron boxes: 2,000 punch cards in one box. We developed the computers of our customers on these computers. Now, we had to carry the punch cards from one computer to the other. It happened one day that I took the iron box out of my car. It was a rainy day like usual in Germany. I walked over the parking lot, I stumbled, and I lost it. There were all the 2,000 punch cards of one of the core portions of our system!

DSM: Oh no! So what did you do?

HP: It took me two days to reconstruct all of that. This is a standard joke at SAP, when I'm carrying cards, how dangerous this is. The company could have been dead.!

DSM: That is a great story. So why did you move to Walldorf of all the places in Germany?

HP: Actually, that was not my favorite decision, but my partner Dietmar Hopp, he lived in Weislock. He spoke to the mayor here and we had another alternative to go to Schletzingen, which is close to Heidelberg. I prefer that one. And then we talked. In those days, we still had our headquarters in Weinheim, which is a nice town north of Heidelberg. I lived there and VanReuter lived there and Hector lived there. So three of the five lived there. And then Dietmar and Klaus went to the mayor, and the mayor in Weinheim told them: "No. We have Freudenberg and we have another big company, [??]. We don't need another company, so I can't give you any special terms." And Walldorf, they had no industry in those days, just the little construction companies there, and some repair shops. So they were keen. They offered us a huge property for very little money. We couldn't beat that. So I had to drive, and Dietmar had the short five-minute drive from his home.

DSM: So how many employees were there when you first came here to Walldorf?

HP: I think it was about eighty.

DSM: And now?

HP: But they were not all here. Most of them were stationed at a customer site. We had in our headquarters in Walldorf permanently, perhaps ten people, not more.

DSM: So the move here was not only a corporate step upward, but also a centralization of functions.

HP: Centralization, and soon after that we got our first computer here, which is a real milestone in our history.

DSM: This was 1986?

HP: No, no, no, no. This is 1980. We got our first computer, a Siemens computer, over on the other side of this building.

DSM: I hear also that the largest investment—by 1986—the largest investment that you'd made in this company in terms of capital heavy-duty investment, I suppose besides the building, was an IBM mainframe that you bought.

HP: Yes. Well, first of all, the buildings. It's unusual for software companies, even in our day, we paid for all the buildings we built. We built them. We didn't rent buildings anymore. When we made some money in the late 1970s and the early 1980s, we built our own buildings. So we owned everything we used for production of software. And then we bought computers. So we got an IBM mainframe. From then on we grew bigger and bigger and the friendship with IBM got better again. We became a customer, and then we became a large customer. We are already in the days of R/2, which started in the early 1980s. We started the development in 1979, as I said, when we struggled with final phase of our System R, and the System R/2 at its peak had 2200 implementations.

DSM: So I would say the R/2 era, then, is from 1978 to about 1992, when R/3...

HP: But we are still developing R/2. We still have 200 people in development and maintenance of the software, because it's still installed 2000 times in the world. We provide the changes for the Euros; we adopt two new IBM mainframe releases for the system; and I think, we will celebrate the twentieth anniversary in the R/2 development team pretty soon. There is still some software Dietmar, Klaus, and I have written that is still in use.

DSM: We talked about this when the cameras were off, but I'd like to have you talk about it on camera, if you would. You did a lot of financial applications.

HP: Yes. For seventeen years I was responsible for the financial applications, wrote a significant amount of code.

DSM: How did you get into that?

HP: Just by chance. When we started to develop our first standard system we had to split up, and I wanted to do the sales part of the system. Dietmar said, "I do purchasing," and Klaus Van Reuter said, "I do financials." And then it happened that we couldn't sell sales and distribution systems because they were nonstandard systems. You couldn't standardize in those days the sales and distribution system of a company. And we concentrated on financials and the purchasing part. Then it happened that I did the financials and Klaus Van Reuter continued with a small system. That was a first crack in the company a little bit.

So we had this System R part of the company then had the System F, which is—I assume you are unaware of that we had a little F-system. System F lived until the end of the 1970s. Then in 1980 Klaus Van Reuter left and continued on the [inaudible] separately of SAP. Now, that just happened one afternoon. I had to learn financials, and that's how it started.

DSM: And just did it.

HP: Yes, but I still did some parts of the technology, and especially in the R/2 System I did more technology than applications.

DSM: You are credited with being among the principal leaders who moved SAP from mainframe applications to client server.

HP: Yes. In the last of the 1980s, IBM announced SAA—System Application Architecture—and that was the day, or the next day, where we started the project to develop our third generation of software. The equation was pretty simple. IBM said its programming language “C”, its cooperative processing, we used the presentation manager as the front end and SQL as the database. So basically there was a well-defined set of ingredients and infrastructure, and we started the project. I collected a bunch of people and got rid of all my other duties and started the R/3 project. It was a wonderful time from 1988 until 1992. I didn’t travel at all. I just sat here in the lab and developed. Meetings every day, walking around...

DSM: You enjoyed that?

HP: Yes. I think it was a great time—and knowing that this development is not allowed to fail. Then learning in the early 1990s that IBM won’t make it—that SAA is perhaps a trap. Then again, that was one of the critical parts in SAP’s history. We had a situation, which was—and this is how it really happens. It’s not that we are so bright and that we think and we have this great strategy.

I think in 1988 already, we decided that we’d develop the new software, the foundation of the new software, on Unix computers—silently, because we got all the ingredients: SQL, C, and distributed computing on Unix computers. OS2 was still not running. And mainframe, no way to do this on mainframes. So we developed all the infrastructure software. We had our fourth generation language RBAP 4. We redeveloped this language, re-implemented everything in C running on Unix. We developed the application, the new application, sitting on a DB2 system on a mainframe using, again, our language. So the application developers didn’t know that the system is not running on future computers. It was running on an old mainframe. And I think it was a clever idea.

Then we wanted to marry the two systems and bring the so-called C code basis system together with the ABAP 4-based application. That happened late 1990, early 1991. And we were struggling. The reasons was very, very, funny. C was running on a mainframe. So we got our C-based system converted to the mainframe because that was the number one goal for SAA, IBM system—to be portable. They didn’t think about Unix, but the thought of OS2, and OS2 was much closer to Unix than anything else. The system ran under IMS, but we couldn’t debug it. On our super large mainframe in those days, a four-processor mainframe, the first program I am asked for a debugger. So I put together a Unix developer responsible for the C code, and a seasoned IBM mainframe developer, and they should start debugging. Okay, they switch on TSO, start a debugger and what happens? One processor of the four stalls, and is working only for this problem. That was software in 1990.

Then the second programmer runs into a problem—switches on the debugger. Now, two processors fall down. Our CFO complains already. Terminals are not working. What's going on? Something is wrong. Two hundred R/2 developers complain. No, this is a bad day today. I think we'd better leave the office and go home. Now the third and the fourth R/3 developer switches on the debugger, because they all had to debug. We wanted to go to the Hanover Fair in six weeks and, for the first time, unveil the system. A big, big, big target.

DSM: And all four?

HP: All four processors dead, only debugging. Every single Unix developer was used to multiple vendors on the screen in those days, and they started multiple windows. In one they monitor their own test. In another one they run a new compile run. We have a meeting in the evening. It's so critical that nobody sits. We're all standing, walking around. Fifteen people in a room half of the size here and I declare the project formally over. We failed. It's not working. The experts say there's no way we can fix the mainframe. There's no we can fix TSO, NVS, IMS. Either we go back to assembly programming after three years of C-programming and then we test differently or, there's no frame.

DM: You actually declared it over.

HP: I formally, like in a Shakespearian speech, I declared it over. And then partner and project manager, Peter [???], today a member of the board, said: "I totally agree," in best Shakespearian English. "I totally agree with you. Your assessment is absolutely correct." But we had this little digital workstation 5000 there with 25MPs, the same computing power of one or more processors on a mainframe. IBM always ignored that, but they got the bill for that ignorance. He said perhaps we should try to migrate the application from the mainframe down to this workstation. Perhaps it works, because it worked the other way. Why shouldn't it work?

DSM: And it frees up the four?

HP: And then go to the Hanover Fair with this little computer, a single workstation. I said: "But this is not what we want to sell." "I totally agree with you," he said, "but we can make the Hanover Fair." I said: "Okay, do what you want. I'm going home now. It's late, but give it a try." Fifteen people—fourteen, I was leaving the room—fourteen people jumped on this workstation, and everybody opened a window. We had only one keyboard. They were working simultaneously. I have never seen people more eager to do it the other way around, because they were so frustrated during the time I pushed them to go back to the mainframe. They immediately started to migrate the software down. We made the Hanover Fair, and now it happens. This is the new system. We run on a Unix workstation and we couldn't deny anymore that we develop everything on Unix. So basically they lured it out of us that R/3 is a Unix system. We still maintain the image that R/3 is running on a mainframe. It wasn't.

DSM: It wasn't.

HP: It wasn't. Next day, I got an invitation from HP and HP told me we should look—we should look at workstations, and they had a prototype workstation twice the speed of the digital workstation. I said I am so impressed. Twice the speed, and more to come. I bought instantly two hundred workstations. HP said that's impossible. And I said: "Okay, we are an IBM shop. Our second supplier is Digital. If you want to have a deal with SAP, jump." Within six weeks, we got two hundred workstations. We installed them in this building over there, our other development center, and now we had fifty times the computing power of our large mainframe. Fifty times the computing power.

Within another six weeks we solved the distribution problem, and you might have heard of three-tier client server architecture. This is when we invented three-tier client server architecture. How do we exploit the computing power of two hundred computers? And synchronize a central repository? That is all what R/3 is about: a centralized repository with distributed computing power. And from day one that these machines started running, and HP helped us to get this distribution done, we had a totally different system.

Now, this was how it happened. From one day to another, we had no shortage in computing power. Every single developer had a machine nearly twice as fast as one of our mainframes, or at least as fast as one of our mainframe processors for himself, multiple vendors. So tests went on. Our development speed leap-frogged forward times, and that's a breakthrough for R/3. Actually, that was the day R/3 got born. Before that, we built it with new technology and R/2.5.

DSM: So R/3 really owes its birth to the necessity of getting to the Hanover Fair?

HP: Yes. This is how—this is the true story.

DSM: So Imperial Chemicals, incredibly perfect first customer.

HP: Yes.

DSM: John Deere, incredibly perfect...

HP: For internationalization.

DSM: ...customer for internationalization. You run into a crisis and have to get to the fair, and are forced by necessity to use the digital 5000, and then R/3 emerges.

HP: And then all of a sudden we're on workstations, and then we get the process workstation in those days. We get two hundred of those.

DSM: Was there a pivotal first customer for the R/3?

HP: Yes. The idea of R/3 was to build a system for the AS 400. AS 400, small computers, so we wanted to cover the low end of the market, because R/2 was well established on the high end. We had no intention to shut down the R/2. So R/3 was meant to cover the low end of the market. Now we can't run on the AS 400. It didn't work, physically didn't work. C was not there, and all the ingredients of SAA never arrived in those days on the AS 400. Now it was obvious that SAA will collapse. The Whitewater Project collapsed in IBM, Advanced Manufacturing Project in Atlanta. They shut this project down. Two thousand people working on a manufacturing system. Our biggest threat ever. And Office Vision was struggling, and later abandoned. We said now we have to move on Unix and we go for the low end of the market. Despite we had this experience of nearly unlimited computing power, we were only limited by the database, a simple database computer. The capacity of the database computer.

The first prospect in Germany for R/3 we thought is a so-called medium sized market company dealing with screws. They are a large screw dealer. When we learned more about the company, the company had two billion in revenues in 1991. The company was operating in eighty countries in the world. So this mid-sized market customer all of a sudden had one of the largest warehouses in Germany, was—as far as transaction rate is concerned—larger than the largest R/2 customer in operation. That means from day one all these ideas how we go for the low end of the market got stalled.

DSM: Who found this screw manufacturer? Who was the person who discovered this?

HP: A sales rep, a sales rep, who found out that this company was very modern. They said: "We will not install a mainframe product; we will go Unix." the sales rep was clever enough, aren't we working on a Unix system here? And so the first customer we got in Germany was a large internationally operating company and here we are again.

The first production customer was a small company, subsidiary of a Finnish Company, Kamura, in Denmark. A very small company. We had a fantastic relationship, remote implementation, and we did this implementation because our R/2 implementation was a painful company. The company was a Unix company. We did a computer center implementation of a R/2 system, and they were not happy. So I made the promise, as soon as we have Unix system, we'll replace your system. So they were our first production customer mid-1992. Now we reached the climax of the fun stories.

DSM: Oh heavens. They say sometimes when God's happy, she smiles. She certainly seemed to—it's just the perfect chronology of incredible fortunate events.

HP: Yes.

DSM: But being close to the customer seems to be the key element in that success.

HP: That's the key element. And to feel—either understand intellectually or just feel that something is going on, something is going to change and be ready for the change.

Perhaps not the forerunner, but if you see the crowds starting to run, you should be better in the first third.

DSM: R/3 has, of course, taken the world by storm. When we were chatting outside, you said that there was a great trick about getting into the United States.

HP: When you introduce a new product. SAP in 1992 was a seasoned company, in operation for twenty years. We were now a bigger company and we spend millions and millions in the R/3 development, so we planned the rollout of R/3 like a military operation. We had a budget for two hundred implementations in Europe, in Germany—in Germany and I think it was in English-speaking Europe for the second half of 1992. When we accepted this first customer, we got small companies, which was our intention. R/2 was occupying the high end of the market, and we got these small companies. So we didn't make much money with the R/3 system. And then remember, in 1992, downturn of IBM mainframe. All of a sudden, mainframe sales stalled.

DSM: End of the world.

HP: End of the world. All of our companions and competitors, you know where they are today. The competitors of 1992. It was two weeks before I went to the SAP user meeting in Orlando called Sapphire 1992, and I had a meeting with Dietmar. He said, "What can we do?" I said, "We could start selling R/3 in the U.S." And he said, "Okay, let's do it." The system is not ready. The system will be ready, and it's committed beginning of 1993—so in three months from now. Okay, in three months from now. Then we announced that the system is ready in three months from now, and we will ship it early next year.

I went to Orlando. I spent already a lot of time in the U.S. and I know how you think, how the analysts and the press react or act. I was on stage. There was a R/3 system under cover in a Unix box to be unveiled. When you deliver a speech, you know whether you are in tune with your audience or not. Close to the end of the speech, I said: "And we have great experience with R/3 in Europe. We installed already one hundred systems." That was true. We are ahead of schedule. "Who orders R/3 today at this user conference will get the shipment within six weeks. I guarantee this to you. And who detects a flaw in the English translation in the system will get the software replaced or updated within six weeks, or we provide a translator onsite." So basically, the system is here today. Applause. The press runs mad. This is new in software industry that somebody delivers early, and they never found out it was just the American way of saying—the German way of saying is we will not be able to ship the R/3 system this year. We hope that we can ship the system in the first quarter next year. The American way of saying this is we will ship the system immediately. It might be that there is some shortage and we will solve this within the next six weeks, and if there are in these early versions some flaws, we are happy to assist you to remove this. And I just twisted the message a little bit, still saying the truth.

We got the first customer two weeks after that, Convex Computers of Dallas. Then I flew from Orlando to Los Angeles. I saw all these small boxes, all the manufacturing companies in Los Angeles, and I said these are our customers. I want to have the small ones. The first prospect we run into was Chevron Oil.

DSM: Small companies.

HP: Small company. We fought for six weeks. We flew Chevron over to this little Kamura Company in Denmark—big Chevron, little Kamura, dealing with that fertilizer. It's a fertilizer producer. Big upstream, downstream oil company—number ten in the U.S. We won. We won against Oracle; we won against G.D. Edwards, SSA, and all the other ones because they wanted a Unix system. And that means now R/3 is in the big league. R/3 is on top of R/2 and we had to change all our development plans. We couldn't stop it anymore. A gold rush started because we were lucky again. We had the right product, a Unix-based product when all of the world was about to downsize. Downsizing was the number one buzzword in 1992/early 1993 and we had a product. It wasn't perfect, by far not as good as R/2 system. But everybody could see what SAP can deliver as far as functionality is concerned. They trusted us. So that was the transition from the system for the small market AS 400 to on top of R/2 big league largest players in the U.S., global implementations.

DSM: Now, so all this coinciding, of course, with the reengineering revolution, the downsizing revolution in the U.S. Tell me about your vision of partnership. I've heard that one of the reasons for your success is you're one of the easiest companies in the world to partner with and that you're a very good partner. You don't compete with your partners.

HP: We have different opinions about that. Sometimes we are difficult; sometimes we are easy. There was no question when this explosion of demand for support started that we had to team up. We always planned that we'd team up with the hardware vendors, but there was no question, being in the U.S., there is an established service industry in the IT business and in the consulting business. The Big 6. And we knew them already and they help us in some implementations here and there. We had an ongoing relationship with Anderson Consulting for many years. Actually, for some time we had a joint venture together in Germany for the low end of the market. And so it was just natural to talk to them, and then we pursued that aggressively. We always wanted to remain a software development company and not get too much consulting oriented, and in the end become a consulting company, which cannot afford the software development anymore. So that was our biggest fear. It was natural to partner with them, and it was not for sales reasons. It was that they can do the implementation or help us in the implementation to restructure the company, to reorganize everything, to promote this idea of integrated software.

Even in the 1990s, it was new to the U.S. It was new to the rest of the world. It was known in Germany from the mid-1970s on. We had established that the term of integrated applications software. It was hard to sell non-integrated applications software in Germany, whether it was SAP or any of the other competitors.

In America, it was still separate software components and they had a batch interface. Even our competition today thinks that's the better way. Now, in the last few years of the 1990s, the integration between software gets a different notion and distributed systems, but "integrated systems" is the new world. We brought to the market integrated applications and the Big 6 helped us to promote this idea and managed the expectations in the large companies.

DSM: We'll go back into your conquest of the United States, if I can use this term. You didn't go into the United States as an absolute newcomer. There were fifty implementations of R/2 there.

HP: Yes. We started in the mid 1980s to internationalize. We founded our international headquarters in Switzerland, and we were quite successful in exporting R/2 to the world. And it was about 1986 that DuPont, Mobile Oil, Dow Chemical, they all started to look from the Americas into Europe and say what's going on in Europe? What kind of software are you using there? How can you integrate—that is the DuPont case—ten countries on one computer sitting in Frankfurt? And they run the financials for France, Italy, Spain, England, Netherlands, Germany, on one computer. How can this happen? And they explain to their mother companies, to the headquarters, they use SAP software.

So we had a software Congress here in Germany and twenty-five people from Mobile came over. I asked them: "Are you going to buy SAP software? You never will buy SAP software. You'll go MSA. You'll go McCormick and Dutch. You will never buy. You're not serious." And they said, "Do you want to have a bet?" and I said, "Yes." Three months later, they bought. They bought SAP software. This is how we actually entered the market. We opened an office in Philadelphia to be close to the oil and chemical industry. DuPont, Mobile—Dow was a little bit further away. And that's how it started.

We had already offices in Philadelphia, in Chicago. We opened an office in the R/2 days in California, a very little office in Redwood Shores, just a few yards away from Oracle. But we got only real international, multinational, very large companies who adopted this idea of integrated application software—that the software is reconciling data internally; the data are consistent between accounting, financial accounting, cost accounting, manufacturing. There were limitations. None of the charts indicated there is some invasion of a Germany company. We were the weird guys competing with Walker and active in some arena, but not mainstream.

DSM: So your R/2 beachhead was non-threatening because it was mainframe.

HP: Yes, it was non-threatening. We were good and we were a real niche player. So we had some infrastructure there. We knew the people and especially we knew the Andersens and the Price Waterhouses, and then R/3 comes and now we do two things. Our President in those days, Klaus Bessier, he sniffed immediately this is some dynamite. The Orlando Fair. Then the first interest in Unix systems as some kind of complementary software to the big mainframe software, and then we change.

I wanted to change in California the compensation for our sales team. Until then, SAP was, like Digital, engineering company and we had salaries, salaries in sales. The Americans told me in California that's not possible. We have to be on commission. We want to run the risk. We introduced commission in California, and that was a big thing here for Walldorf. Nobody wanted to have this in Walldorf. and I said, "We'll just do a little experiment in California." I flew back and I was not here. I didn't land in Frankfurt when I heard already what happened in the U.S. They have commission everywhere. Sales people are on commission. Are you crazy? Now there is a product. There is a market ripe. And we get a bunch of sales people immediately because they can make a fortune. This is the U.S. Totally different. They didn't live and die for SAP. They wanted to make a fortune. They saw the product. They saw the opportunity and they came. They left Oracle, they left the other competitors and all of a sudden we had one of the strongest sales teams in the world. And it is an American story as much as a European story.

So the European engineering, our stubbornness in solving problems, detailed problems, work on things silently in the lab, not talking about—not announcing the product before we started to draw the first pictures and have a sketch of the system. No, we work on the system, then we announce it, delivered it immediately. Totally different, but we sold it in the America style.

DSM: American salesmen, German engineering, what could be better. Now, there is a legend that a German engineer imported R/3 to Windows NT in five days. Is this true?

HP: This is true. This is true. You might hear many stories from our competitors and other people that R/3 is a copy or is a copy of the R/2 system. We just migrated it. We really redeveloped everything. And now you heard the story how we struggled with the IBM, SSA, SAA platform, and how we developed the system on two completely different computer systems and wanted to marry it. So we had a highly portable system. Now, Microsoft comes up with NT.

NT is different to Unix, but it's not so far off. And because of our internal technique, one of the guys who was one of the five key people who developed the kernel of the system, he said "I want to try it." And he got an NT system and he took all the interfaces and replaced the interfaces. We had fifty operating system interfaces, and he replaced ten and the system starts running already. So after five days, he could show a complete transaction running on NT. That gave us some push.

The NT system—you won't believe it—the NT group, I think, is still less than four people. We have only four people on NT. The rest of the development is still done in Unix. Actually, today I don't know anymore where they develop the system. But our NT group is very small. So we were the first—again, the first major Unix software provider or new distributor client-server software provider who could jump on NT. Now we have a quarter of our implementations already on NT.

DSM: Now, you were international in the sense from your very first big customer, the Imperial Chemical. Your John Deere connection was international when you did R/2. R/3 is, of course, the global success story in computing. Now, we're entering into, in a business in which there has been just a succession of new ages. There is another one. I mean, who had heard of the Internet three years ago, except as the system that academics and universities use. For someone who has seen this industry change the world, are you as excited about the potential for the future as you have been about the past in solving these problems in the past?

HP: Remember what my art teacher told me? When we developed the R/3 system here, we had a guy from California and he had these weird ideas. He wanted to bring his bike in and keep it in the office. I said that's impossible, we can't keep a bike in the office. And I said why. It's raining outside. So that was totally strange to us that you can keep a bike in your office. Well, they do it at Apple and other companies in Silicon Valley. This guy always told me watch the Internet. Watch the Internet. There is something coming. This was in 1991. He left SAP to travel the world and told me he wants—perhaps he joins SAP later somewhere in the world. I haven't met him again, but when he left he wrote me a long letter. "Don't forge the Internet, please. I fear if I leave nobody will take care of the Internet. Nobody understands what is coming there." I kept the letter.

I didn't see the Internet coming. I didn't see it. And all of a sudden, it's there. All of a sudden people start talking about the Internet, and you know how enthused people can get in the U.S. Then the venture capitalists and everything starts bubbling up and here is the Internet. We will change everything. What is it? Just to jump from one page to another page to another page? Is this all you have? And I remembered what the guy said: watch it. Watch it. And we were aware of the Internet. We talked about it. Couldn't use it when it first bubbled up in 1995.

Last year, everybody now asking us what do you do with the Internet. What is your vision of the Internet? And our standard answer was "what was your vision", because all the time, we were driven by our customers. They asked us for further applications, for more functionality. They asked us to go new industries. They drove us, and now the companies came to us and asked us what do you do with the Internet? Early last year, we really started a development. We said, "Okay. Obviously we have to be a player in the Internet. We talked to Microsoft. Microsoft is in the same situation. What do we do with the Internet? We talked a lot with Microsoft and the first outcome of this discussion was we go to the Hanover Fair together and we announce that we developed so-called business API's. That's our contribution to the Internet, business API's. So people sitting in the Internet somewhere can access SAP systems and do something with SAP systems interactively.

We built these interfaces. We announced them in Vienna. We demonstrated them in Philadelphia last year where, perhaps, I had one of my best days in marketing when I convinced Bill Gates to come on stage and have a two-hour session together with me.

We practiced the day before, and I think it was one of the best presentations both of us ever gave. It was great entertainment to the audience. But what we actually did, we worked live on our SAP/Microsoft-integrated Internet system. For one-and-a-half hours, we demonstrated permanently software, which was never demonstrated before.

DSM: You and Bill Gates?

HP: Yes. And we did it—we did it, and we had no problems. We circumvented all the little “bucky” parts of the system and he had a system breakdown in a PowerPoint slide show. So that was the marketing breakthrough for our Internet solution, and we are a major player already from the commercial part in the Internet. We build Internet solutions. Actual productive solutions are still rare where we have heavy duty administration on a system, sales systems integrated, but we team up with Intel or we team up with Microsoft, with other players in the industry.

We have all our documentation, all our training material, everything we know, on an Internet server called Subnet now. We just shipped this or installed this four days ago, and it’s working. It’s not a joke. All the information we have is now available on the Internet if you have—we have different levels of security—if you have the right to access all the levels. Everything we know, you can get now on the Internet. There is nothing we hide as long as you are a partner: a business partner, a development partner, a customer, consulting partner, you can access this information.

We see already how the Internet will change the way we do business. A lot of the human brokers will be replaced by electronic brokerage. Broker software is the—application brokerage is the future between a reservation system airline systems, rent-a-car systems, product catalogues, oh you name it. Three years ago, ideas, concepts, today a lot of reality. In three years from now, significant change in how we personally and companies deal with each other. And again, some people said now it’s too late for SAP. Now they will get hammered and this old-fashioned R/2 system just migrated to the client/server world can’t make it there, and it can make it again. How do we achieve that? Perhaps we put more engineering in the system than any American competitor ever thought.

DSM: Pure brainpower.

HP: Well, brainpower—it is perhaps this crazy German attitude to make it perfect. You asked me who influenced me, and you can ask all my other colleagues, and to some extent to be perfect, not only to be shiny. We learned our lesson in marketing and we always have been, from a German perspective, some kind of a showman, but with a decent technology behind. That is, I think, what enabled us over the years to take any technology onslaught again and again and react to that, sometimes within a few weeks, sometimes a little bit later.

We nearly missed the PC, because we thought the PC is a toy. Totally protected by the mainframe world, sitting in a mainframe glass house, we didn’t take the PC seriously. And that did harm to us.

All of a sudden a company like Lotus, a company like Boreland, or a company like Microsoft, was bigger than SAP. We didn't believe. How can you make so much money with a spreadsheet or a word processor? We have complete applications. We thought we were applications. Years later they think they are the application companies.

DSM: I've heard that SAP has never really had a year in which it was backwards, but there was a period in which the mainframe was going away for all time in which things were flat.

HP: Now, this was 1992 and it was not so flat; it was just not exciting. This is where we really accelerated our market. We had marketing already, and we just did it as this little story I told you. We did it the American way.

DSM: I was looking for a quote. I was reading a quote. I think it was from an employee how is in charge of R/2 services. He is like *mittabeitten* number eight. And he said that one of the things that made this a great company was that it was, and forgive my English translation, but that it was a "non-bureaucratic community of intelligent people."

HP: That is true. And that made us successful, and we still struggle with that.

DSM: How hard is it to be non-bureaucratic?

HP: It's perhaps easier to be non-bureaucratic, but it's difficult to achieve all that we achieved being non-bureaucratic and precise on the other side. So that's the very complex thing. I don't believe that we could have done much better with a more regulated internal structure. On the other hand, we need internal structures, and then we struggle, because then all of a sudden it starts hurting. We pretty much relied on the flexibility of our people. They did the best they could, and therefore, it was very, very important for us that we became a really truly global company—that we have development in America, that we have development in Japan. We didn't talk about the Japan approach, how we approach Japan.

DSM: Talk about that for a minute, if you will.

HP: Yes. But I just wanted to finish that. SAP got a very well organized downstream organization—the worldwide sales and consulting organization—and we still maintain as much flexibility in our development labs to remain creative, to remain flexible. If you establish very well organized structures, many people will have excuses. As long as you are more flexible in your organization, you can blame more people for not seeing what was about to come, or seeing it too late.

DSM: Tell me about Japan.

HP: Like usual, customers, and this time the German chemical multi's asked us to go to Japan. Then DuPont joined them, so we got pressure from the U.S. and from Germany to export our software to Japan.

Since they knew that SAP is known for precision engineering, they want to have a full-blown Japanese version. That means everything in Japanese. They told us from day one on, it's great to have an English system, you won't sell it in Japan. You'll only make it if you sell it to Japanese companies.

DSM: How big a challenge was that?

HP: That was a big challenge. That was a humongous challenge. That was the highest investment for one single task or single objective we ever undertook. We invested for three years to build a fully blown two-digit double byte character version of the system, and their every single word is [word in Japanese] in Japanese. All documentation, all screens, everything, all people working in this office in Japan are Japanese, and Americans and Germans are only sitting in a back office. We were rich enough to afford this, and we did this, and now Japan is our third-largest market. It's USA, then Germany, then Japan. It was worth the money, the investment.

DSM: What was the most agonizing part of that process? Starting from scratch with the characters?

HP: First of all, we can't see anything. When you look at the Japanese screen, it is worse than any other language because you cannot read, you can't see anything. All the testing we do, we do in German or English. Then the Japanese system has to work on top of that flawlessly. We hire Japanese people for translation. We hire Japanese people to retest the system. But it is one system and we are the only system in the world currently, and it's another technical miracle, which can run Japanese and English in one system. That was a big selling point to all high tech companies in the West Coast because they have these ties into Japan. Then we got all of a sudden the HP's, the Apples, the Digitals, sitting on the East Coast. Compaq Computers, Intel and finally, Microsoft.

DSM: So the Japanese system sits on top of...

HP: No. It sits now inside. It sits inside. I told you that we have multiple languages since John Deere. And then we expanded the internal system and it can handle double bytes. Now the system is fully flexible to handle double bytes. We not only can do in one system Japanese, but we also can do Chinese, Korean, and all the other double bytes. It's still work to do this. But—and this flexibility was a selling point. It's multi-currency. That's the biggest advantage for a European company. The Americans—we forgot to talk about this. American knows only there's dollar in English. We know the many currencies, and now we get another currency, a Euro, and we get it on top, parallel. No one in America can understand that we deal with two currencies here in one country. And then we have different currencies in each country. So that's a complexity the American software doesn't handle well.

The next is we have different tax laws in each state of the European Union. We have one—we have the authorities in Brussels, but we have different tax laws variations, and they are much higher than the variations you have in the U.S.

Then we have multi-currency, multi-legal, multilingual. In one system we have to speak several languages. Guess what? This is mandatory in Canada; this is mandatory in Switzerland; and it's now mandatory, basically, in every state in the world, which is not speaking English, because English is the language of the Internet. You have to run your systems in two languages: in Internet international language and your local language. Now SAP system, per definition, was running in multiple languages. One critical installation can support many languages. Now we can tell somebody, build a system, which is responsible for the Pacific Rim, and you can run Australia, Japan, and Mainland China in one system. This is a little piece of engineering which helped us to conquer a level of complexity.

DSM: And another—the major example of the advantages of being European, German engineering.

HP: To some extent, this is our European heritage. With the Internet now, everybody faces that. Everybody knows now it's integration. Everybody knows now it's multi-tiered client-server architecture. Look at the Internet with proxy servers and so on. Everybody knows now we have to transform from one language into another language, that multilingual systems is standard. We will never change the French; we will never change the Japanese to give up the language. We will never change the Germans to give up the language, despite we are much closer to English than these other nations.

DSM: One of the secrets of your success has been being close to the customer, listening to their needs and designing solutions for their problems. But given the level of success of SAP, do you now see examples of companies that are molding their operations to fit your vision of how companies should operate most efficiently because of the software?

HP: Do you mean our customers?

DSM: Yes. Do you see customers saying: "Maybe we should change the way we operate rather than having SAP design something for us?"

HP: This started very early already that we changed how companies did their business. We change how companies do accounting in Germany. We changed some principles of accounting.

DSM: Can you give me some examples?

HP: We didn't close books in the SAP system, because were real-time fans, and I was so afraid that we could do something wrong in a batch job. In a batch job you have to do a backup before, and if it goes wrong you have to reload the backup. And that type of data processing I never understood because I was born into this world. I could only program real-time programs. Do a job, it's finished for good. So all I did in the financials was to design the system in a way that what it does, it's done. We removed closing from our financial system.

So the system was every little voucher we added into the system, it's there. Then we close the books immediately. We can instantly write a balance sheet or a PNL statement. Immediately we have no closing .

DSM: It's there.

HP: It's there immediately, and we close the books. We could instantly write a balance sheet or a P&L statement immediately. We had no...

DSM: So real-time financials, without closing?

HP: Real-time financials. And large companies were struggling with that. We have a lot of month-end closing. I said, okay, then this has to become a transaction. We changed to some extent, their thinking. Since we can run larger jobs as transactions, we are back. But we mechanize some of the month-end activities of a company, and they became official transactions. We force these companies to go back to do them manually as transactions. For example, we integrated the accounts receivable, accounts payable and general ledger and cost accounting in one fiscal system. Nobody did this before. There are some disadvantages in doing that. But it's technically the cleaner system. We had a technically cleaner system that forced them to change their behavior. For example, they have to have the same chart of accounts in financials and in cost accounting. There cannot be two charts of accounts in our system.

DSM: Right. In a world that is really becoming a global market, I suppose it is arguable that the most important global impact of this technology may be in finance and the flow of money. Would you agree with that? Would you say your financial applications have had the most profound effect on the world, as opposed to manufacturing?

HP: No. I think the general availability of information. First, within the company, somebody is fulfilling a task. The task ends. All information which was affected by this task is available in the new form, in the updated form.

DSM: Immediately.

HP: Immediately. That means you can improve work-flow significantly. In conventional organizations, you have to pass this forward. Something changed and somebody else has to react to that. Our idea from the beginning was let everybody do everything immediately. Then they basically have access to latest information, wherever it is, whatever they want to know. I think, for many years, we were struggling with that. People debated that—argued this is not the right way to look at it.

DSM: Well, there is a certain comfort in being able to put off knowing what reality is, you know.

HP: The Internet changes that now. The Internet is the direct access to all information, which is available immediately. I know now where my parcel is I sent from Washington, D.C. to Valdov, using Federal Express. I can use the computer, and I find that it just landed in Frankfurt and it is about to be shipped to Valdov. This is an application today. This is nothing else than our old idea: make every information available real-time. Then you can reduce the number of agents, the number of work flow components you need to monitor somebody else's business. And that plays so well. This is actually an intellectual heyday for us, that so many of the original concepts of the integrated R/3 system—sorry, System R—are in the R/3 system and can play its role now in the Internet, where everybody now understands we cannot deal with stored forward information. It has to be close to real-time. I have to get the airline ticket immediately and I don't want to wait another twenty-four hours until they tell me you have got your reservation. You were lucky. We want to know instantly that we can fly, or we take another airline or we go through another airport. This is exactly what real-time integration means, or meant to us. Therefore, I think we are mentally quite well prepared for the Internet. To the surprise of some of our competitors, we made it earlier to the Internet with real applications, than they did.

DSM: What is the most unusual application? I know the Everest expedition was planned using—one of the Everest expeditions was recently planned using your software. Is there a really unusual application that comes to mind? It is sort of a strange question. Or a variation on it: Is there an application of SAP software that you are particularly proud of?

HP: This is difficult now. We have nearly 10,000 implementations, 7,000 customers, and whom do I like best? I don't know. Perhaps the most flattering one was very recent: a start-up company, seven people, six Ph.D.'s. They flew in to look at R/3. Their venture capitalists finally didn't approve it. The six Ph.D.'s, they want to be a \$100 million company in three years, and they wanted to buy R/3. It was so close. We couldn't get the hardware. They needed somebody who rents out the hardware.

And we have a very small company in Munich. They manufactured bikes. And very small, twenty people. They run R/2. It was an R/2. One of our best implementers, consultants, installed the whole system, the whole financial system, with a little bit of purchasing and sales, within two weeks. So the little ones, because the big ones can always make it. They have the stamina. They have the resources. They have the brain to do it. The little ones, that's actually a better test of whether our system is ready for the market.

DSM: It is nice to know that a company the size of SAP still takes great pleasure in helping companies that were the size you were in 1972.

HP: Yes, it is a little bit selfish. The little ones, they put the mirror in front of you and tell you exactly where you are right and where you are wrong. There are no politics. They are straightforward. Because you might talk to the owner in San Luis Obispo, where the owner not only bought the software, made the decision, but as a CFO, he also implemented the system himself.

It's a company with, I think, 100 employees, something like that. We had a meeting last Sapphire in 1996 in Philadelphia, at our user conference and I invited the five smallest customers we have at the user conference (and that was a very interesting meeting) to talk to the people who know, perhaps, more about the software than some of these super-large multinationals. Because they did it.

And you asked me, "what is perhaps the most interesting or, the company which is totally different to the other ones?" It is the Sydney Zoo. We made a donation to the Sydney Zoo. IBM donated the hardware, AS-400. We donated our software to demonstrate that R/3 is now running on the AS-400, finally. After 10 years of development, after nine years actually, we shipped it finally on the AS-400. The people from the Zoo were so flattered. They have to live on donations. It's not really a moneymaking enterprise. And the system is running fine. So we have the recipes for the chimpanzees and all the maintenance they have to do. It's all done and managed by a R/3 system.

DSM: You're an avid sailor, an avid golfer. How do those relate to your success in business?

HP: When we started the company, Dietmar told everybody, we don't go skiing anymore. That's too risky. We could break our leg and that could kill the company. So I stopped skiing. And I went back to sailing. And whenever pressure was high in the company or it was difficult, I went sailing. I went to regattas. And I think the years I worked the most hours, I sailed the most regattas as well.

I think you cannot, when you are really active—perhaps it is only time for me—I cannot stop. So I have to do something else. I cannot sit there. I always wished to sit at a lake, rain is drizzling down, and I fish. A wonderful picture of patience, tranquility. I can't do it. So all my life I had to do physical exercise with some technical flavor. I did windsurfing, and still do, for many years. Actually, the sport where I got closest to real class, unfortunately it was too late. So I windsurfed with the big guys from Hawaii and various places in the world. It was a great day in the late-1980s, when I sailed with one of the World Cup surfers in Barbados. We surfed with a windsurfer in synch, three waves, and they did many turns together—perhaps five—and I dropped my board at the beach and said that was my best day in windsurfing. I will never be able to repeat it. Unfortunately, I was right. I went back to sailing after that. I still do windsurfing as some physical exercise. But then I started big boat sailing again.

HP: Big boat sailing is surely real-time information flow and constant activity.

HP: Yes. It's a lot of information. It's a technical sport. It's a concentration sport and a team sport. After many, many years, I am now back to winter sport. I do snowboarding. You would never believe it, but just recently I was in Aspen and somebody of my age asked me, how do you do this? And I said I just started three years ago. And he was shocked. And I said, yes, but sorry, I was a good windsurfer because it's very similar to windsurfing.

And I read in a magazine that Robby Nash from Hawaii, the famous windsurfer, picked up snowboarding within two hours. And within two days, he was ready for competition. It took me two days to snowboard, and I'm still not ready for competition.

DSM: A natural. I was told that it would be criminal of me to do this interview and not ask you about the Hobart to Sydney record. So is there a story you want to tell about that race? It's a nice way to begin the 25<sup>th</sup> anniversary year, I guess. It was December 20.

HP: We were lucky again, now in sailing that day. The Sydney-Hobart Race is the biggest sports event in Australia. And there is a record to break—or was a record to break. That was the highest prize money in sailing: 300,000 Australian dollars, 250 U.S. We had two major races last year and in both races, we broke a mast: Hawaii and San Francisco. So went to Sydney. I arrived at 6:00 in the morning. I drive to the hotel, change, go to the boat. We go out; we sail. At 10:30, we break the mast. The third mast within four months.

I reacted in a funny way. I got used to it. We just looked at the mast and sailed the boat home safely. We were all on the cellular phone to talk to the various options of how to get our spare mast, which was still in Auckland, New Zealand, to get the mast. Then the story starts. It's on television every day. I can sit there in my hotel room and look at the television, what is going on and who is telling where the mast is. And Quantas finally flew the mast in. The two pilots had to deviate a flight from Hawaii. It started in Los Angeles, Hawaii, had to go to Fiji. Skipped Fiji, went to Auckland. Skipped Melbourne, went directly to Sydney. There was a curfew in Sydney. They landed five minutes before the curfew. There was a big thunderstorm and the pilot said they wanted to deviate the flight. The pilot said, "We are going to make it. We are going to make it with the mast. We have the mast! We have the mast!" They landed at ten to ten.

They took the mast out. It was pouring. And there were already police ready to get the mast through the city. It was on television. Every minute it was on television. They stuck the mast overnight. The next day at 10:00 we went out sailing to practice again. Helicopters everywhere, monitoring *Morning Glory* with a new mast. *Morning Glory* with a new—Quantas did it. Quantas did it. Great advertising for Quantas. I just had to pay for the fuel. Just the kerosene. And the pilots were absolutely fabulous. A different experience. A different experience. We could not get the Prime Minister to postpone the curfew. So they made it.

And then, we are experienced racers. I had the best crew ever, perhaps: two Olympic champions, many world champions, and a lot of miles and miles and miles. We have an early start in a long-distance race. We have to go back. We have this repaired mast: broken three times. Four hours out of Sydney, we hit a big storm. We saw it coming. We didn't believe it because they predicted calm weather. There was a storm—forty knots, forty-five knots. We took the main down to protect our mast. We didn't trust our mast, so we took the main mast down. The boat next to us, the other favorite, actually the race favorite—*Brenda Bella* from Australia. Boom, they lose their mast. Here they go.

We go through the night. The next day we get fantastic weather and we go really fast. Nobody really knew how fast we can go. Now they know. We went an average of, for four hours, twenty-two knots. A peak speed of twenty-five knots. So that's fun sailing. We had Russell Coots from New Zealand and what's his name, the guy from Brazil—he just won in Savannah, the gold medal in a star boat—because we always use the nickname. It will come to me in a second. He was enjoying his life. He said, "That's my best sailing day ever." We were five hours ahead of the schedule, and then there was no wind. There is a very tricky—the last sixty miles are very tricky, up a river, the Derwent, to Hobart.

DSM: Yes, I have heard this. You've said the last three tacks were the...

HP: This is terrible. Then sitting there. Everybody knew we won't make the record. We won't make the record. And I promised the crew that we split the money amongst each other if we make this. And I made this promise before the mast broke. Then some said, "Don't you want to take the money for the mast?" I said, "No, I keep my promise. Come on, guys." And so everybody was anxious to win and get the—win this prestigious award.

DSM: So sitting on the edge of the record, the wind dies and you've got the hardest three tacks of the race left still to do?

HP: Yes. The last was—ten minutes to go, we knew we will make it. We started very, very, very calmly to celebrate. But nobody spoke a word. The last two hours, no word except the commander commanding. There was dead silence on board. And then we made it. The twenty-one-year-old record. An hour later, I got the fax from McIlroy on *Kialoah III*, cruising in the Caribbean. So he was on the telephone all the time, did they make it? He held the record. He is from, I think, Newport.

DSM: And he telephoned you?

HP: He was on the phone. Then I got the fax: "Congratulations to break my record, McIlroy off *Kialoah III*, on board *Kialoah III*." And the second two yours, Ted Heath, the ex-Prime Minister from the U.K., because he won the race in 1977. So he was the second to congratulate. It never happened here in Europe that somebody recognized me when I fly. When I flew from Hobart back to Sydney, the stewardess said, "Oh, you are Mr. Plattner who won the Sydney-Hobart race," because we were on television for four days, basically every news. So that is a different experience in Australia.

DSM: America's Cup?

HP: No, I am not—the type of race is not interesting enough for me. To sail around these buoys—I fell asleep in the finals, when New Zealand won. Actually, I missed the most exciting parts, when the girls were leading by four-and-a-half minutes, in front of Paul Kayar. I switched off the television and I went golfing.

I said, “The girls made it, the girls made it.” Then somebody came up, “What are you talking about? The girls didn’t make it. Kayar made it.” I said, “That’s not possible. I saw them leading by miles.” Yes, but he won. And this same happened to me in 1989 in the world championship in Naples. I was leading and about to lead, at least, the world championship. And then Paul Kayar passed us in a calm. He lured us in. We all stopped. Two boats passed. Then he made it to the finishing line. So we finished instead of first, fourth. Paul Kayar did this before. And the girls are still in shock.

So I love sailing. I love competing. But it has to be more interesting than just up and down and up and down and up and down and this for one year. I have all the respect for Mr. Koke who did it in America Cubed.

DSM: Yes, a different world, though. I have one last question and then I will give you a chance to add anything that you would like to add or talk about anything you like to talk about. I would like to talk about the future. For a young person just coming out of the university now, and interested in a future in information technology, what would you say to a young person today about preparation or what the future would be like? What do you say to new, young talent when you are trying to convince them that this is the place to be?

HP: There are a lot of reasons to join SAP. But somehow the flair of the young start-up is gone, and we have difficulties to get these new young renegades, get them off the street and incorporate them. There is another revolution about to come, and it is an exciting time. It is good to start with a large company. I learned a lot from IBM. I would not be here without IBM—no question. You need more than just talent, spirit. You need some education. You need some formal education. You have to travel as much as possible, even in your business. All the things we mentioned in this interview, they are true. All this contributed to what we are today and how we shaped the company.

It is a global market. This is exciting. But the young kids are global already. They are on the Internet. They all speak English now. They learn, they figure out the only way to communicate with somebody in Hong Kong is English, with somebody in Korea is English. So we better both learn English. Otherwise we cannot read out letters. For them it is so normal that you check out something and find something that is interesting somewhere in the world. I think this will be this global world will be our future world. It is very difficult to have your nationalistic attitude and keep this—you cannot keep this, I think, in this global world. Some try. And I am in favor of an absolute open Internet. They will put all the blame on themselves immediately. Because this feedback, this impressive reaction of a democratic society, democracy means you can express what you mean and you can exchange what you think and you can find the reaction. There will be a mass reaction, killing the virus of evilness.

This is what I believe is exciting. This is different to the time I was born into, starting with Berlin and the Berlin Airlift. All the pressure our ex-enemies, the Russians, put on us. Then, all of a sudden, it is gone. It is a different world.

Perhaps an experience I made and which really impressed me a lot is just recently we had our user conference in South Africa. We had this in Lost City, this huge entertainment park close to Johannesburg. And we had a beach party. They have an artificial beach and we had a beach party there. It happened that I had five or six people standing around. Most of them were Africans, and one, a six-foot-two or six-foot-three guy. I asked him, "What are you doing?" "I am a consultant in R/3," he said, "Oh great. You do R/3 consulting?" "Yes. And I just installed an R/3 system in Pakistan." I said, "You did what?" "I installed a R/3 system in Pakistan." I said, "Wait a minute. You are born in South Africa?" "Yes, Soweto." "You work for?" "Siemens." "You do R/3?" "Yes." "You do consult for R/3 in Pakistan?" "Yes."

And another guy from Kenya started laughing. He said, "Yes, I am from Kenya. I found you on the Internet. I am preparing—I have a little consultant company in Kenya, in Nairobi, and we do R/3. We are practicing. We tried to get customers in Africa. Then I will expand. I will do consulting in the U.K. I will do consulting everywhere. We might not be able to build cars anymore, and perhaps telephone systems are gone. Microchips, they go to Asia, but we can do consulting. I have an MBA. I started in London. I know the guys. I'm as good as they are." That guy was pounding me. He said, "I found you on the Internet." And then I told him that you will get a PC system for \$8,000 in a few months time, where everything we have is on the computer and you get everything else on the Internet. So you have either SAP on the Internet or you have it on this little laptop. And we ship this laptop now.

That was such a great experience for me, that somebody—we never had a business relationship to a fifty-people consulting company in Nairobi. They found us on the Internet. He worked out by himself that SAP is the market leader, it is obvious, and he wanted to do business consulting. He goes for the market leader. And this, I think, is a new opportunity. Somebody being young, in his early twenties, I think that is great opportunity. Whatever happens in ten years from now, to start with a global mind and a global world.

DSM: It's a great time to be alive. It's a great pleasure to have interviewed someone who not only has made such a great contribution, but who so obviously still enjoys and thrills at the potential of his business. Thank you very, very much, on behalf of all of us.

HP: Thank you very much for the interview. I hope we see each other again, and we have another twenty-five years ahead in our business life.

