GRADUATE SCHOOL OF BUSINESS
STANFORD UNIVERSITY

CASE #S-SB-188
JANUARY 21, 1996

RASNA

STUDY QUESTIONS

1. What are the key factors of Rasna's success?

2. Do you agree with Rasna's decision to go to corporate partners for the fourth round of funding?

3. What concerns would you have about the investment by Kubota? What are the important issues to be negotiated with Kubota?

4. What do you think of Parametric's final offer? Is it a fair valuation for Rasna? Explain your reasoning.

5. What is your recommendation to Pidwell and Krach on going public versus being acquired? Why? Evaluate the issue from the perspective of each of the stakeholders in Rasna.

6. Assume that Rasna does accept Parametric's offer, how should the management of Rasna tell their employees?

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It was April 12, 1995. As David Pidwell and Keith Krach left the meeting with Steve Walske of Parametric Technology Corporation (PTC), the two discussed Walske's offer to buy their company, Rasna Corporation. Since the beginning of the year, Rasna had been pursuing a parallel track of preparing for an initial public offering (IPO) of stock and negotiating to be acquired by PTC. They hoped that the company would be able to make a decision between the two options soon.

Rasna had been an incredible experience. It was successful in creating a "paradigm shift" in the computer-aided engineering (CAE) industry as it had planned. The company was on a fast growth curve, the investment bankers were projecting an attractive valuation, and the employees were expecting an IPO. On the other hand, there were strategic, financial, and synergistic reasons to be acquired by Parametric. However, Pidwell and Krach knew that such an acquisition would result in significant cultural changes at the company they had worked hard to build. And the employees knew nothing about PTC's offer.

Senior management was torn between the two paths. There were so many issues to consider. And then there were the employees. How would they feel about a merger? If the company decided to be acquired, how would Pidwell and Krach break the news to them?

This case was prepared by Nick Mansour under the supervision of Charles A. Holloway, Professor of Management, Stanford University Graduate School of Business, as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.

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DAVID PIDWELL

David Pidwell received a bachelors degree in Electrical Engineering and a masters degree in Computer Systems Engineering from Ohio University in 1970. He immediately enrolled in the Ph.D. program in Engineering Economic Systems at Stanford. While completing studies, he met the founders of ROLM and joined the company.

Pidwell worked at ROLM for fifteen years taking the company "from an idea to $1 billion in revenue." After working for ROLM for seven years, David joined a start-up called Inmac. He stayed with the successful venture for three years before returning to ROLM. The company was essentially two divisions: telecommunications and military computers. Pidwell's entire career was in the computer operations, and by the time IBM bought ROLM in the early 1980's, Pidwell was its Senior Vice President of Sales and Marketing.

As part of the acquisition, the Justice department forced IBM to sell this division to Loral, where David remained as President of Loral's computer division for two and a half years. There were several difficulties with the integration of the two businesses and Pidwell later commented that the acquisition had "ruined" a great company.

KEITH KRACH

Keith Krach attended Purdue University on a General Motors Scholarship where he received a bachelors degree in Industrial Engineering. Following graduation, he received an MBA from Harvard University through the GM Fellowship Program. During his ten year assocation with GM, he held a variety of positions at the Cadillac Motor Car Division, GM Technical Center, and New York Treasurer's Office. For his last four years at GM, he was the Vice President and General Manager of GMF Robotics, a $180 million joint venture between General Motors and Fanuc of Japan. During that time, GMF grew to be the industry leader at twice the size of its nearest competitor. Krach became familiar with the high technology industry and Silicon Valley through the numerous customers GMF had in that area. In 1986, General Motors wanted to move him back into the automotive divisions. He recalled his thinking at the time, "I love the entrepreneurial experience and the high technology industry; the place to be is Silicon Valley." He left GM on his thirtieth birthday.

Krach quickly found work with Qronos Technology, where he gained more experience in sales, marketing, and customer support. The company produced enterprise-wide software for process industries using IBM mainframes to do production tracking, inventory control, and materials requirement planning. IBM, in fact, had invested $10 million. Krach described his experience:

> Personally, I learned a lot about marketing - about understanding how fast markets could move in the technology area. But, it didn't really work out. We had the wrong architecture. It was when

> mainframes started declining. It was good technology, just poor timing. IBM really impeded our ability to move quickly. We were captive to them, because they put so much money into us.

After a year and a half, he decided it was time for a move.

THE BEGINNING

Rasna was founded by four Ph.D.s from the IBM research laboratories. While they were improving the design for a disk drive, the group found that they could easily create a computer image using their computer-aided design (CAD) programs, but that the available software had a limited ability to test the image. They could not do the "what if" analysis needed to optimize the design. As a result, to arrive at a prototype, a time-consuming process involving several iterations between designing and testing was required. Even more frustrating, they had no idea whether the final design was optimal.

Their frustrations were common throughout industries requiring mechanical design engineering. Traditionally, there was very little coordination between the designer and the analyst. Typically, the designer formulated the product. An analyst would then test the idea using complicated mathematics known as finite element analysis (FEA) which often required a Ph.D. The process was iterated until the design was finalized. In the end, there was really no way of knowing whether the final design was the optimal one. While CAD programs allowed the designer to create a product, they did not allow him to perfect it.

The four saw a commercial opportunity for a revolutionary product. They wanted to produce software that could do the job of the analyst and place all the testing power in the hands of the designer where they felt it belonged. Going one step further, they hoped this tool, when given certain parameters by the design engineer, would be able to help the engineer optimize the product. They began working a software package that would complement existing CAD software. Their research focused on a technology called "geometric element analysis" (GEA). The technology, using information provided by the CAD software, effectively automated the iterations with the analyst and the FEA models.

At the end of 1987, after IBM declined to develop the software into a product, the group of engineers left to start their own company which they called Rasna, convinced that with $1 million they would have a product in six months. Hambro International Venture Funds invested $300,000 in the new venture with the understanding that the company would find a President immediately. On Hambro's recommendation, the four founders hired David Pidwell.

Soon after joining Rasna, Pidwell wrote a business plan and raised an additional $350,000 at a $2 million valuation. Pidwell invested $85,000 of his personal money, $65,000 of it was provided by the original founders, and the remainder was provided by Hambro.

Pidwell described the backgrounds of the four founders:

> Three had spent more than eight years with IBM and had gotten a fair amount of indoctrination into its culture. They were brilliant scientists, but not good businessmen. Three of the four made major contributions to Rasna, recognizing their contributions were as individuals more than as leaders. The fourth individual was a middle manager at IBM. He knew how to take direction and delegate it, but did not know how to make a decision. He was a fish-out-of-water in a young start-up, never got comfortable, and went back to big, corporate America after six months. This was a mutual decision after he and I struggled to find a rewarding and fun challenge for him.

In August, 1988, Rasna quickly raised $4.2 million from a group of venture funds led by Hambro. The other investors were AVI, Asset Management, Cornerstone, and US Venture Partners. The company was valued at $13 million. The capital was supposed to cover the expense of increasing the workforce to fifty and to last through an initial software release which was expected by the fall of 1989.

The market for mechanical design software was divided into CAD and CAE developers. The CAD market was much larger than the CAE market and was dominated by IBM, Parametric Technologies Corporation, and Autodesk. Several companies produced CAE software. The largest companies were MacNeal Schwendler Corporation, Swanson Analysis Systems, Mechanical Dynamics, and Structural Dynamics Research Corporation. None of these had more than $50 million in sales and all implemented FEA technology for use by analysts. One company had previously used GEA technology, but had been unable to win market acceptance.

BUILDING THE ORGANIZATION

Krach met David Pidwell six months after Rasna was founded. Pidwell was looking for a Vice President of Sales and Marketing. It would be his or her responsibility to build that department. Krach, excited by the challenge, decided to join in October 1988:

> I didn't know a lot about computer aided engineering. But I knew that if the technical guys could do what they were talking about, that there would be a chance to create a paradigm shift in the industry. The majority of the people in this market had come from universities and were focused on technology, not sales and marketing. They weren't aggressive in their marketing and there wasn't a lot of strategy involved. So, I figured we could run circles around them. Also, the companies in this area were incredibly profitable and there was a huge pricing umbrella. That meant there was a lot of opportunity. Finally, these were computer intensive applications. I knew that in five years we would be able to reduce computing cycle times tremendously. So, to me, that said that this marketplace was going to explode.

David Pidwell believed that creating the right culture was one of his most important priorities. From his experience at ROLM, he learned that every company has good periods and bad ones, and he believed that a close-knit team was essential to weathering the rough spots. From the

beginning, David emphasized open communications about the successes and failures to help people believe "it was their company and that they were a part of important decisions."

Rasna also focused on attracting talented people. The main reason people joined was the groundbreaking work that Rasna was attempting. Krach explained:

> We were able to get some of the best people in the industry. We would say to them, 'If you were to do it all over again, would you do anything differently?' They would say, 'Of course.' And they would start telling us what they would do and get pretty excited. And we'd say, 'Here you have the opportunity to start with a clean sheet of paper.' As a result, we were able to hire talented employees from our competitors.

Like most start-ups, the ability to have an equity stake was also an attractive incentive. Finally, the culture proved to be a powerful attraction. Keith described the culture:

> Rasna was a fun place to work. There were a lot of high fives, a lot of belly-laughs, some swearing, and a lot of passion. It was really tight - like a family. We put a lot of emphasis on making people feel at home. That really began in the recruiting process. We would get to know people's families while we were recruiting them. It was also almost a mutual admiration society. The early technical guys believed that it was not just a question of building the best mousetrap and the product would sell itself. They had a lot of respect for the business and sales functions. And the sales and marketing people came out of the end-customer environment. They all were very technical and they really appreciated what this technology could do.

Besides building the sales and marketing team, Krach worked to position Rasna in the market as a provider of design optimization tools for the design engineer. He spent a lot of time talking with industry analysts to educate them about what the product would accomplish and to stress who the end user was. The industry was analyzed to determine who would be important partners to establish credibility. Intergraph agreed to incorporate Rasna's software into their own CAD product. Marketing partnerships were also developed with Parametric, Autodesk, and other CAD industry leaders.

Product development, however, was taking much longer than expected. There were a lot of technological "break-throughs" that needed to happen to bring the software to market and the engineers had underestimated how long that would take. Making a good user interface for the design engineers was particularly troublesome. Krach explained:

> Nobody had really been through the entire product development process before and it took a lot longer than we originally thought. In the very beginning, everybody was really optimistic. The resulting time estimates for product development were correspondingly optimistic making it impossible to stay on schedule.

CORPORATE PARTNER

In the Spring of 1989, with the prospect of running out of money and missing its product introduction milestone, Rasna's management considered their options for future funding.

Although they believed they could raise more money from the original group of venture capitalists, it was clear that they were not going to get a good price. They thought the venture funds would offer a valuation of $15-20 million. The team was not thrilled with prospect of equity dilution. Pidwell also wanted "patient money" for his start-up. He explained the decision:

> I spent nine years trying to fix the amount of the company that was given away for the original $300,000, in order to achieve the goal of stock being held by all employees at the IPO at a fair and equitable amount relative to the work they were doing. I tried never to let employee ownership go below 30% of the company. We chose to bypass venture capital. Corporate partners are willing to pay more.

Contact had been made with a few large corporations in the United States, including Ford Motor Company and John Deere. The companies wanted to test the product before investing. Also, Rasna's management was not widely known and the potential partners had a lot of questions about the team. Progress on getting them interested was very slow and Pidwell believed it would take six months to a year for them to decide. He also worried that an investment from one of these might impact Rasna's ability to do business with other potentially large U.S. customers.

Several high technology companies had recently been funded by Japanese companies. The topic was receiving a lot of attention in the media. Rasna anticipated selling 30% of its product in Japan and was already looking for potential distribution partners in that country. The management team decided to look for a corporate partner in that country as well. Since the mechanical design software was a world-wide market, Pidwell and Krach saw the additional advantage of international credibility through a foreign partner. They made a list of twelve Japanese companies they considered "ideal" investors. During a two week tour, they met with all the companies on their list as well as other potential distributors and bankers.

Through Robert Miller, CEO of MIPS, they were put in touch with Kubota, a manufacturer of heavy industrial machinery and farm equipment with sales of approximately $5 billion. The Japanese corporation had recently invested $83 million in the U.S. high technology industry (See Exhibit 1). The equipment manufacturer was interested in new computer technologies that would augment its traditional business in machinery. Rasna, if successful, would further its goal of being a leader in engineering design and create a competitive advantage for the company. Also, Kubota hoped to diversify and desired to become a distributor of high technology in Japan. It had investments in several computer hardware and peripherals companies, but had none in software. Finally, Kubota wanted a good return on its investment.

A number of discussions were held with Kubota. Rasna's management team was impressed with the long-term focus of the Japanese. Keith remembered Kubota's philosophy:

> Initially we showed them our three-year business plan and they just pushed it back at us. They said that they were interested in twenty-year business plans. Kubota never really examined the product. The corporation believed that if they funded the right people, they would be profitable.

Pidwell agreed:

> They clearly wanted their investment to be successful. They measured it not only in yen, but in access to technology. Kubota has a long-term business strategy to be a leader in mechanical automation. It's not a two or five year strategy, it's a twenty year strategy.

The two companies had a handshake agreement within a month and a final deal by June, 1989. Kubota agreed to invest $10 million in Rasna. $5 million of the funds were for a 13% equity stake. $2 million was for product development funding targeted toward making the software compatible with Kubota's current technology, an area where Rasna had not previously focused. The companies agreed to establish a joint venture which would distribute Rasna software in Japan. Each company would have a 50% ownership stake, with Kubota contributing $2M and Rasna contributing its technology. The final $1 million was for pre-paid royalties based on future product sales by the joint venture. To repay this, Rasna's royalties from the joint venture would be at a reduced rate for the first few years. No milestones for the investment were set.

GROWTH

Pidwell continued to focus on building Rasna's culture. In April 1990, he wrote a statement about the "Rasna Philosophy" that he hoped would be the base from which the proper work environment would develop (See Exhibit 2). In May, 1990, Rasna released its first product, Mechanica. Initially, Rasna introduced a "subset" of the product that could only analyze the "shell" of a design, but not the "solid" design. Although only 365 copies of this version were sold, Rasna "got a foot in the door" of some of the customers. Six months later, the second version was ready for the market.

In fact, while most CAD companies would release new versions every two years, Rasna set a goal of developing an improved product every six months with a 30% increase in functionality. To do this, they focused on the product development process. Rasna employed a product team concept that would define the marketing requirements and then write the functional specifications for the next release. The team was comprised of a representative from development, marketing, and operations and made prioritization decisions on what would be included in the next release. Because of the cross-functionality of the team, the decisions were based on not only what the customer wanted, but also on what Rasna could implement. Seven versions of the product were completed in four and a half years (See Exhibit 3).

In May 1990, Kubota invested another $4 million. Then, in March 1991, Kubota and the venture capital funds invested $2 million more at a $70 million valuation (See Exhibits 4 and 5). Pidwell described the relationship with Kubota:

> We each had 50% ownership of the joint venture so there was no majority vote. As part of the agreement, they had the right to appoint the President. We felt the person they hired failed to set up an aggressive plan to penetrate the Japanese market. While sales around the world were growing very fast, our revenue in Japan never really grew for five years. It never reached 30% of

> our total revenue like we projected. Outside the joint venture, the relationship was very good. Their management was honest, hard-working, and knowledgeable. They never put any pressure on us or tried to change Rasna.

Sales and marketing underwent three distinct phases during the growth. The first phase, from product introduction through the end of 1992, was characterized by very small sales made by a very technical salesforce. Keith described the phase:

> We were clearly going against the wind and it was tough for every sale. We needed very technical people who could stand toe to toe with these Ph.D. analysts and convince them that our technology actually worked. We were selling one copy or two copies of the product at a time.

Krach termed the second phase the "marine mentality phase." This phase was very tactically focused and tried to sell a few "seeds" of the product into each company. Lasting until the middle of 1994, its goal was to achieve as broad a customer base as possible. The last phase was more strategic and focused on big sales and corporate partnerships. Keith elaborated:

> That was the knee in the curve in terms of revenue growth. It was where the customer standardized on our product and we became mission critical to them. We were really working with the customer to allow them to reach the full potential in the product.

The company eventually sold $2 million worth of orders to McDonnell Douglas and General Motors. Rasna was growing rapidly and in 1994, was third on *Inc.'s* list of the fastest growing private companies in the United States (See Exhibit 6).

Close attention was also paid to the culture. Krach described the management team's approach:

> There was nothing incredibly magical about developing the culture. It was setting the tempo early and stamping into everybody's forehead the idea that we would remain an entrepreneurial company. This meant that people took risks, made decisions, and needed very little direction. We always said that one of the biggest challenges was managing growth so that everyone was empowered, entrepreneurial, and treated the corporation's money like it was their own.

Management believed the culture increased productivity because people worked harder, communicated more effectively, and the company had better decision-making. Also, it helped the company avoid employee training costs due to turnover and weather the "ups and downs". Craig Knox, a salesman, agreed:

> This field is dry and boring. And there really was not a market in the beginning. Sales were tough and took a long time. Selling initially was more evangelical than anything else. We had to believe in the product. Without the high energy and belief, a lot of people would not have lasted.

Rasna concentrated on building a committed team. Semi-annual offsites were held for both the engineering and the sales and marketing staffs. Representatives from throughout the company were brought into the offsites. For example, some engineers were always included in the salesforce meetings. The company initiated "roundtables" during each offsite. At the end of the meeting, everyone attending would get together and all had a chance to say whatever was on their mind. Social events were also important, including an annual Christmas party and Friday afternoon beer bashes. End of the quarter parties were particularly important. Keith explained:

> We used to keep a list of the orders coming in and the majority of the orders would come in the last day of the quarter. We had developers hooting and hollering. You'd hear yells throughout the company. When a big order came in, everybody knew about it.

The company focused on promoting current employees over hiring from outside. "We did not always do that," Pidwell said, "but most of the time people were able to grow with the company." Rasna also developed a "fix, move, or shoot" philosophy. Krach said:

> As you grow, what makes someone successful when you are a $1 million revenue company is very different than when you are a $10-$20 million revenue company. Some people could not keep up. If someone was not performing right, we focused very hard on training and fixing them first. But if that did not work, then we moved them. We changed a lot of roles in the company.

This was true in even the highest levels of the organization. The original Vice President of Engineering was later made the Chief Technology Officer. Even one of the founders was moved to a new role. Pidwell explained this transition:

> He led our software development team, but after the first year, he went into a marketing role. He was very capable of walking into a room of disbelievers and converting them. He traveled around the world to important sales meetings and became our ambassador of goodwill, our guru of technology. It was really his decision.

IPO OR MERGE

At the beginning of 1995, Rasna prepared for an initial public offering of stock. It had posted fourteen straight quarters of profitability and had grown to over 170 people. By early January, 50% of the sales target for the first quarter had been reached. Every important management position had been filled and the sales and product development processes had been honed. Revenues were projected to be $36 million for the year. The CAE market had grown to $450 million, and was growing 15% annually. Although several competitors were developing GEA technology, Rasna had a significant lead. Pidwell recalled:

> We could have gone public a year earlier, but I waited until we were absolutely ready. I prepared myself for the challenges of a CEO of a public company, learning how to work with the industry analysts. The management team was ready. Krach, who had been Chief Operating Officer for the last four years, was poised to take over my daily operating responsibilities to allow me to concentrate on my new role. With fourteen consecutive quarters of profitability and tremendous revenue growth for the last two years, we had a great success story.

A number of investment bankers were contacted to discuss the possibility of representing the corporation. The management team finally decided on three firms: Goldman Sachs, Alex Brown, and Wessel Arnold Henderson, a bank specializing in software companies. At the time, software companies were priced at multiples of twenty to fifty times their profit before tax. After a substantial amount of analysis, the investment banks estimated that Rasna would have an initial valuation in the $100-120 million range. Parametric, Synopsis, and ViewLogic were used

as comparisons for Rasna's potential IPO (See Exhibit 7). This was before any post-IPO "bounce" (Generally the opening stock price is set so that the company's valuation increases 15% on the first day of trading). Although the market for initial public offerings was lower in 1994 than in 1993, industry analysts were predicting it would rebound in 1995. While the company planned on conducting the IPO after the first quarter, the bankers warned that the market for initial public offerings was always very unpredictable.

In January, 1995, Parametric Technology Corporation approached Rasna about the possibility of a merger. Parametric was the largest CAD producer in the industry with a market capitalization of over $1.5 billion. It was interested in acquiring Rasna in an exchange of stock. Over the next few months a number of discussions were held with PTC.

Rasna's Board of Directors had indicated that they were willing to pursue whichever path the management team wanted. Several executive meetings were held to discuss the issue. The team saw a lot of advantages to going public. Most important, an IPO meant that the team maintained control over the future of Rasna. They also believed that Rasna had a lot of momentum and did not want to see it halted. The group had spent a lot of time building their management team and the "family" culture at Rasna. An IPO would allow the culture to remain intact. Finally, with an initial public offering, the potential financial returns to the investors were uncapped. While the company might be worth $120 million at the time of the IPO, the management believed it would be worth $150 million six months later.

On the other hand, the team believed there were several positives for a merger. Primarily, it meant quick liquidity for all the shareholders without the uncertainty of the capital markets. Also, Parametric had often expressed a willingness to pay for an IPO premium to cover a bounce that Rasna stock might receive. Looking at the future of the industry, competition was increasing and Rasna would be more likely to succeed if it was aligned with the resources of Parametric than if it was an independent company. Furthermore, Parametric made it very clear that it intended to get into the CAE market within the next six months to one year. Pidwell knew that it was looking at acquiring a couple of Rasna's competitors as well as investing in CAE research in Israel. While it was currently one of Rasna's largest partners; if Parametric was not able to buy Rasna, it would enter the market some other way. David worried about the effect such an entrance would have on Rasna's stock price. Finally, there were several synergies in the proposed acquisition. Presently, 45% of Rasna's business was done with companies that used PTC's CAD software. Rasna's customer strengths matched PTC's weaknesses. Rasna had a strong position in the automotive and aerospace industries and Parametric's strongest position was in middle-sized companies. Salesforce productivity would likley increase 20% after the acquisition, because each salesperson would be able to sell both PTC and Rasna products. The fact that the sales teams were familiar with each other was another positive. Previous mergers in the software industry were used to estimate the acquisition value (See Exhibit 8).

The largest downside to the merger was the effect it would have on Rasna's culture. They knew the employees would be upset by being acquired. Krach explained:

> These were two very strong cultures. Their culture was very demanding and militaristic. It was also very autocratic - the two guys at the top made all of the decisions. Our culture was very empowering and team-oriented.
>
> We knew that this was really not a merger, that it was an acquisition. And that Rasna was going to be a very, very different company. It's like when you buy a new house, the first thing you do is rip out the carpeting, pull down the drapes, and move in your furniture. We had no delusions about that. For a lot of our people, Rasna was the greatest company for which they had ever worked. We knew that some of them would not be staying and for those that did, it would be a very different company.

Pidwell added:

> I am not a big merger advocate. I experienced a disaster with ROLM and IBM. I knew that at least 10% of the employees would be laid off, mainly from the salesforce and the finance department. So, I felt there was a huge risk we would be taking that the merger might not work.

Outside of the executive team, none of the employees knew about the possibility of being acquired. They were all expecting and excited about an IPO.

April was an important month for Rasna. The first quarter had historically been the worst quarter of its fiscal year. Buoyed by a $3 million deal with Hewlett-Packard, the company had the best quarterly financial results to date. The momentum was continuing to grow. The IPO market had also recovered as the analysts had predicted.

Rasna hired Charles Federman from Broadview Associates, an investment bank specializing in high technology mergers and acquisitions, to represent Rasna in discussions with Parametric. On April 12, 1995, Pidwell, Krach, and Federman met with Steve Walske, CEO of Parametric. They were hoping to get a concrete price from PTC that they could take to Rasna's Board for a final decision on whether to merge or go public. At the beginning of the meeting, the three said that they expected Rasna to go public at $120 million and believed the value would quickly rise to $150 million. They also informed PTC about talks they had been having with Autodesk. In addition, analysis was presented about the potential synergies to the salesforce of a merger with Parametric. Rasna estimated that it would translate to a $640 million increase in PTC's market capitalization. Walske agreed with the analysis. The issue of cash or stock was also discussed, but Walske insisted that PTC would pay only in stock. As a final pitch, Rasna's first quarter results were shared, emphasizing that Rasna had great momentum and that its Board was excited about doing an IPO. Federman pressed Walske for a price. Walske punched a few numbers into his calculator and said, "We value Rasna between $180 and $220 million. If your Board needs an exact number, give them $200 million." The meeting was adjourned. Krach and Pidwell left the meeting and began to discuss the decision they faced. Should they go public or be acquired? If they were acquired, how would they tell the employees?

Exhibit 1

Summary of Kubota High Technology Investments as of November, 1990

U.S. Company	Company Description	Investment ($MM)	Ownership (%)
Akhasic Memories	Magnetic Disk Drives	20	100
Maxoptix	Optical Disk Drives	12	25
MIPS Computer	Computer Manufacturer	25	20
Stardent Computer	Graphics Supercomputer	26	44
Total		83	

Exhibit 2

Rasna's Business Philosophy

Rasna Corporation was founded in 1987 with four goals:

- To Be A Growing Profitable Company
- To Be A Leader in Product Technology and in Marketing
- To Offer Quality Products and Services
- To Create A Great Place To Work

These four goals are closely interrelated. We believe that one cannot exist without the other. In order for Rasna to grow and be profitable, we must be an industry leader by offering quality goods and support to our customers and partners, and finally, that Rasna must maintain work environment conducive to creativity, productivity, and the belief we can win.

In the years ahead, the employees of Rasna Corporation will mold these fundamental business goals into a unique corporate way of life. Certain practices and procedures will become customary and will form the basis for the successful achievement of the corporate goals. These goals and the culture that evolves, taken together, will constitute the Rasna Philosophy.

To Be A Growing Profitable Company

A primary reason for the existence of most businesses in our economic society is to make a profit. Making a profit is necessary to finance planned business growth. On a continuous basis, we need additional funds for doing research and development, expanding facilities, upgrading systems, maintaining inventories and strengthening sales and service channels. For the foreseeable future, profits earned at Rasna will be reinvested into the business.

Further, making a profit is necessary to have the flexibility to make the correct long-term decisions for the company. A consistent profit advance provides a secure basis for thoughtful examination of future possibilities. Undue profit pressure forces an environment in which decisions may be made with poor planning and a short-term view.

Profitability alone, without steady corporate growth is an insufficient and dangerous position for a company in a growing and expanding market. A company can compete successfully with others only if it grows. Further, the ultimate reward for our stockholders investment, is profitable growth. At Rasna we recognize two other major reasons for steady, planned growth.

First, there is a strategic reason. Rasna competes today against well established and accepted corporations to provide computer automation tools to the mechanical engineering industries. Success in this competition is marked by gaining market share form those companies that are less responsive and creative, and more risk adverse. In a growing market, a company must grow or face being overrun by those competitors that succeed at keeping pace with, or gaining on the growth of the industry.

Secondly, there is a basic human reason for corporate growth. The environment that we continue to create at Rasna is one of expanding opportunity and challenge for our employees. The opportunity for the growth of each individual is dependent upon the healthy growth of Rasna Corporation. Conversely, the growth of Rasna Corporation is dependent upon the growth of each individual.

Exhibit 2 (Continued)

To Be A Leader in Product Technology and in Marketing

As a newcomer to a crowded market that has predominantly survived in a evolutionary state for nearly twenty years, we believe it is most opportunistic to establish a presence through the introduction of revolutionary technology and business actions. It is Rasna's objective to quickly become a recognized supplier of automation tools for mechanical engineers through the introduction of products with advanced technology that leap-frog the cluster of companies with competing products all based on common antiquated theories that don't leverage the scientific advancements available today, and don't offer complete solution functionality for their users.

Most of Rasna's competitors are firms founded by bright, technically minded individuals from academia, who, in most cases, never before participated in the management and leadership of a corporation, and thus, never mastered the art of being an entrepreneur, and lacked the experience of maintaining balance within an organization and driving to steady state growth and profitability. In many cases, these companies are focused on a single product and after years of existence have not diversified. Too small a percentage of revenues are usually committed to product promotion and marketing or support, and as a result, the professional image and recognition enjoyed by firms in the hardware side of this industry are today not present with the software vendors.

This state of affairs in the mechanical automation software industry is viewed at Rasna as being a major opportunity for entering a market, quickly establishing a presence, and gaining market share and eventually leadership superiority. Rasna therefore looks at business factors such as

- ease of use and easy to learn products
- multiple product offering
- tools for design engineers, not specialists
- progressive marketing and promotion
- early international presence

as some of the crucial elements to our strategy for success.

To Offer Quality Products and Service To Our Customers and Business Partners

Rasna has a single basic reason for being in existence: to provide the finest quality products and customer (partner) support. We have been, and will continue to be, distinguished by our excellent products and our knowledgeable and efficient customer service.

The goods that we ship, our products, are designed, developed and tested to be of the highest achievable quality. Rasna customers are led to expect the finest, Rasna employees are committed to delivering the finest. Each employee at Rasna enters the company with the understanding that quality is part of their responsibility and part of their job. Quality at Rasna is not merely the last process performed in developing a product, but a regular routine part of everyone's job.

However, our products are only a portion of the total quality Rasna offers. We are also committed to providing the best customer and business partner support in our industry. This includes: meeting customer needs quickly, interacting with customers professionally, focusing on the values offered, and offering a complete range of effective services. In this manner we strive to earn and maintain the loyalty of our customers. (The same holds true for Rasna's business partners and associates).

Exhibit 2 (Continued)

To Create A Great Place To Work

The first three goals of Rasna are shared by many companies throughout the world. The fourth, "To Create A Great Place to Work", is rare. We know of just a few companies today that raise the importance of making the work environment a great place for employees as one of its fundamental goals.

We do this quite simply because we want to attract and motivate the best and brightest people we can to be our employees. Once employees, we want to keep them and provide a rewarding career opportunity thereafter. In order to attract and motivate the best and brightest people available, Rasna promotes a humane and challenging work environment, a very competitive compensation and benefits plan, and physical surroundings befitting the quality of Rasna employees. We promote cooperative team spirit in work groups, maintain an open communications policy, and give anyone who demonstrates an ability and desire to advance an opportunity.

The humanity and challenge of the Rasna work environment is predicated on a dual responsibility. Rasna Corporation acts to provide equal opportunity to individually grow and be promoted; fair treatment for each individual; respect for personal privacy; encouragement to succeed; opportunity for creativity; evaluation based on job performance in the context of Rasna Philosophy. Rasna employees are expected to respond by being individually accountable; being helpful toward others to enhance teamwork; perform to the best of his/her abilities; and understand and implement the Rasna Philosophy and business culture.

The Rasna Philosophy is best summarized by saying -- we do our best to maintain an entrepreneurial spirit, and to avoid bureaucracy through broad decentralization of responsibility and authority. Just one example of this business manner is seen in Rasna's Product Development Process with our Product Teams.

Quite often this open approach to business management leads to differences of opinions. However, we believe this is the only environment that provides the individual freedom required for creative thinking and rapid response to the ever changing needs of our marketplace. Also, this decentralization of authority is believed to be the only mechanism to enable rapid corporate and organizational growth that is sustainable primarily through internal manpower resources. We are convinced that a highly structured, bureaucratic organization is much less effective than our organization. Certainly that form of organizations would never attract the excellent people we have today at Rasna.

In the evolution of our corporation, certain practices shall prove to become the norm for doing, achieving and acting within the company. These practices will formulate a culture, or way of life, that is accepted and enacted by our employees. The ultimate achievement of our four business goals will be highly dependent on the goodness values that are captured in these practices.

Exhibit 3

Summary of Software Releases

Product	Date Released
Mechanica 1.0	May, 1990
Mechanica 2.0	January, 1991
Mechanica 3.0	September, 1992
Mechanica 4.0	February, 1993
Mechanica 5.0	August, 1993
Mechanica 6.0	March, 1994
Mechanica 7.0	November, 1994

Exhibit 4

Summary of Investments in Rasna

Date	Amount Invested ($MM)	Valuation ($MM)
November, 1987	0.3	1.0
January, 1988	0.35	2.0
August, 1988	4.2	13.0
June, 1989	5.0	39.0
May, 1990	4.0	65.0
March, 1991	2.0	70.0

Exhibit 5

Distribution of Equity Ownership of Rasna

Stakeholder	Ownership (%)
Employees	35
Hambro International Venture	20
Kubota	18
Asset Management	8
AVI Partners	8
US Venture Partners	7
Cornerstone	4
Total	100

Exhibit 6

Income Statement

($000)	1992	1993	1994	Projected 1995	Projected 1996
Revenues	12,000	16,000	22,718	36,044	52,764
Expenses					
Cost of Sales	529	990	1,413	1,667	2,555
Administrative	1,137	2,130	3,039	3,064	3,891
Marketing & Sales	3,858	8,322	12,262	17,429	23,085
R&D	1,763	2,203	2,754	3,557	4,925
Operations	718	1,345	1,919	2,539	3,250
Other	(155)	(290)	(414)	1,360	3,070
Total	11,200	14,700	20,973	29,616	40,776
Pre-Tax Income (Loss)	800	1,300	1,745	6,428	11,988

Exhibit 7

	Parametric Technologies	Synopsis (1)	View Logic (1)
Date of Initial Public Offering	Dec. 8, 1989	Feb. 28, 1992	Dec. 17, 1991
S-1 Filing Price Range ($) (2)	8-10	16-18	11-13
Millions of Shares Issued	1.7	2.0	3.5
Total Shares Outstanding (Millions)	7.2	12.5	12.0
IPO Price ($)	12	18	13
Stock Price at Close of IPO Date ($)	17	31.50	15.75
Stock Price on April 12, 1995 ($) (3)	204	50.5	8.63

(1) Synopsis and View Logic are electronics design automation companies, but were viewed as comparable companies for IPO valuation by Rasna.
(2) Expected stock price by investment bankers upon notifying SEC of impending IPO.
(3) Unadjusted for stock splits.

Exhibit 8

Representative Software Acquisitions

Acquired Company	Acquiror	Last 12 Months Revenue ($MM)	Acquisition Value ($MM)
Watcom Corp	Powersoft	6.3	58.6
Powersoft	Sybase	111.6	948.5
Epoch Systems	EMC Corp	18.8	144.7
Software Transformation	Novell	3.0	21.8
Softimage	Microsoft	16.2	108.4
Gain Technology	Sybase	9.2	56.0
Model Technology	Mentor Graphics	6.0	34.0
Alias Research	Silicon Graphics	50.3	265.7
Chronologic Simulation	Viewlogic Systems	4.4	22.8
Uniface	Compuware	58.0	286.0
Wavefront Technologies	Silicon Graphics	27.7	130.9