

Management First Interview Questions

Q1. In 1968 you founded Cincom Systems which has become one of the World's largest and most experienced software companies. What were the key challenges involved in getting an operation like this off the ground?

Whenever a new business is started, its founders must cope with a myriad of interrelated and interconnected challenges. Generating sufficient revenue to fund staff; somehow finding operating capital; creating product or services offerings; attracting necessary staff; establishing processes and procedures for conducting and managing the business. These, and others, are standard difficulties just about every new business must somehow resolve. And, each of the sub-systems established becomes a part of a larger system. The talent of the founders must be so focused and so function as to be able to deal with this very complex problem in a manageable way.

But besides these normal challenges which almost every business faces, Cincom was also confronted with the fact that software products were not then yet accepted as a viable industry. IBM offered software and services "free," or better said as bundled and included offerings that customers received at no additional charge than the charges paid for the computers. There were then only a very few smallish companies trying to sell software. And, almost all of the offerings were very simplistic products. But, Cincom chose to provide more complex and powerful products which could provide major benefits and economic value to clients which would more than justify the costs our potential customers would incur if they chose Cincom offerings. These Cincom offerings would become central and strategic to our customers' needs. While such strategic software enabled a then very small Cincom to become a major strategic partner with our customers, this also was a cause of some fear and trepidation for these potential customers as well.

Worse still, IBM viewed the type of software Cincom offered as one of its means to maintain total account control. So, besides somehow convincing potential customers that Cincom software offerings were well worth the extra costs and risks involved, we had to contend with extremely aggressive IBM competition which provided so-called "free" software and services as a means to protect its computer revenues. These were very difficult challenges.

But, we deeply believed in our vision and the very great value of the software we offered. Our mission was to serve customers in the very best ways we could, and to provide maximum value and benefits to them at such a very low cost that the ROI we provided compared very favorably to the comparative net gain provided by our major competitors.

When we started Cincom we had no software products, no customers, and no confirmation of packaged products as a new industry possibility. So we began by offering a personal service - "body shop" programming. Whatever we could do to help our clients implement the computers they were installing, and at the same time generate enough cash to pay our bills, was our immediate survival necessity. We had no investment or start-up capital. In those start-up times, there was not only very little venture capital available for software providers, but even less debt financing. So, we had to lift ourselves by our own bootstraps, operating almost hand-to-mouth. Profitability and positive cash flow were both demanded from the "get go." In the words of Dr. Jonas Salk, these were times of "sweet adversity" for us, with restricted freedoms, yet filled with great expectations and buoyed by our hope and confidence, and our commitment to do "Whatever It Takes" to ensure our clients' and our success.

Q2. As a former employee of IBM you had been an early proponent of database management systems. What are your thoughts on how this particular market has developed over the last several decades?

During the late '60s and early '70s, businesses developed their own in-house applications and included the data management functions within the design of each program. Cincom was the lone pioneer among software firms which promoted the concept of a separate function called database management. In a very real way, we were among a very few who were creating what eventually became a new domain of software science, which eventually became one of the most important domains in the entire industry. For quite a few years Cincom may have been the only software firm building this new domain, which later became so prominent. Of course, IBM also offered alternative data management choices.

Programmers chose the data management system best suited for each application's needs.

- Cincom's TOTAL: *The first independently offered DBMS*
- ISAM: *Indexed Sequential Access Method, part of OS/360*
- BOMP: *Bill Of Materials Processor, offered by IBM*
- IMS: *Information Management System, offered by IBM*
- IDS: *Information Data Store, offered by GE, that later became IDMS*

In the 1970s

- Businesses began purchasing multiple packaged database management systems (DBMS) for each in-house written application
- Businesses began purchasing packaged applications
- By the late '70s, most companies' applications included a hodge-podge of homegrown and packaged apps using multiple DBMS

While these systems met the business needs the resulting proliferation of systems led to data inconsistency, data redundancy, data incompatibility and, understandably, no integration. These were the classic "stove pipe" systems, which were stand-alone applications with virtually no interoperability with other systems.

Even when the problems of this proliferation were recognized, they were difficult to control. The application backlog was growing. The demand for new applications was so great that, even as crucial as it was, solving data management issues was nonetheless still a low priority. Also, programmers preferred to use the DBMS they believed best suited for each application. Consequently, multi-system and multi-DBMS proliferation continued to increase. The common database of all interrelated and interconnected data was not then believed by many to be realistically possible.

Of course, it is always easier to recognize problems than to resolve them. And, it is also easier to realize that challenges are serious, than to mount the energy, resources and commitments necessary to successfully respond to the demands these challenges cause. Even though the elements of knowledge of what was required were then already existent, overall solutions were not yet organized into a coherent conceptual system. But, Cincom professed that the only possible way to progress successfully forward was to move to a common database approach which would be managed not by specific application program logic, but by a powerful system called a database management system (DBMS). Cincom's DBMS offering was named TOTAL. We so named it because we intended for TOTAL to do

the total job of database management. During the 1970s, TOTAL became the most prodigiously successful software product of its era. By 1980, Cincom's TOTAL had earned 64% of the independent DBMS marketplace worldwide. According to an IDC report dated August 1980, TOTAL's market share was then eight times as great as its closest software industry competitor. It may be fairly said that Cincom and TOTAL helped to establish the success pattern that encouraged many subsequent billions of dollars of investment capital to be focused upon the software industry in the late 1970s and early 1980s. It was this investment that really "made" the software industry that we know today.

But, by the end of the 1970s decade, Cincom had already conceptualized and was designing a far more comprehensive system that we named "TIS," or the Total Information System. This system was to become a fully integrated set of all of the database and application development technologies needed to better cope with the database and application integration and application development situations then existent. Unfortunately, TIS was so far ahead of its time and the marketplace awareness of the need for such a system that TIS had only limited success. TIS well fulfilled as yet unmet needs, but the marketplace was not yet aware of these needs. And unlike the DBMS market, no one else was even promoting the very advanced concepts of TIS. Even today, almost a quarter century later, only a few current "visionaries" appreciate the very great value and benefit that a TIS-like system could provide. This is very unfortunate for the user community because systems such as TIS could possibly reduce database and application development and maintenance costs by factors as much as 20 to 1.

At the end of the 1970s, the great majority of most companies' applications still included:

- Home-grown applications using tapes and VSAM
- Home-grown applications using one or more commercial databases (About 80% of all applications were still written in-house.)
- A few packaged applications typically using VSAM

But during the 1970's, the greatest area of software growth was in database management. Reasonably reliable estimates of the software industry comparative growth data may show this better than words. From 1970 to 1980, the software industry estimated growth was fifteen-fold, growing from about \$100 million in 1970 to \$1.5 billion in 1980. This was then still a very small industry compared to today's software industry magnitude. It was not until 1984 that Microsoft reached the \$100 million level of revenues. In 1984, Cincom fell some \$5 million short of the \$100 million level, but in 1985 Cincom was the first, after Microsoft, of all current software firms to reach the \$100 million revenue plateau. But compared with the industry's 15-fold growth during the 1970s decade, Cincom's 200-fold growth during that same decade perhaps shows just how central to the software industry was the database management concept and marketplace which Cincom primarily created for the software industry, and its customers. In those times, perhaps only Microsoft grew as fast and became as significant during its first ten years of existence as did Cincom.

In the 1980s

- Inexpensive, non-mainframe-based hardware drove the emergence of client-server computing
- Relational databases became popular
- Classically structured DBMS such as TOTAL, IMS and IDMS declined as the more ad hoc inquiry oriented and decentralized Relational DBMS subsequently prevailed

But companies later found that:

- Centralized control of corporate data resources had advantages
- Mainframe systems could not be replaced; indeed should not be replaced because they provided the best and most cost effective method of data processing

By the end of the 1980s, organizations well understood the issues caused by having many DBMSs running on many platforms. Unfortunately, there was no easy way out of the management problems caused by the proliferation of dissimilar DBMSs, almost all of which were incompatible (by design) from one another.

In the 1990s – Relational servers and desktops

- The emergence of desktop computing brought with it the need to access data from existing and newer client-server systems
- IT organizations began to copy all data to SQL-based Relational Servers (or other client-server relational DBMS).

1990s until now - A frenetic M & A environment has ensued bringing:

- Common customers
- Up-sell / cross-sell
- New financial reporting
- Product inventory
- Spin-offs

The Current Problem?

- Users need to access disparate data, currently processed by mainframes and client-servers, from their desktops.
- Users need real-time data access to run analytics for operational decision-making and regulatory compliance.

The problems today's organizations face are the same issues that Cincom identified many years ago:

- Non-consistency and non-integration of data
- Cost of migration
- Risk of massive conversion efforts (risk of hurting yourself)
- Lowest common denominator solutions that result in non-optimal systems

Today's tougher, more competitive business environment requires companies to make real-time business decisions based on their data. The out-of-date copies held in relational systems are not good enough. Users still need to access data from the desktop, mainframes and client-servers. Users need real-time data access for operational decision-making.

However, in the now very mature Relational SQL DBMS market, great new opportunities are developing by offering much lower cost Relational SQL systems to either supplement, or eventually replace, the extremely high cost offerings of Oracle and DB-2 from IBM. Already, Microsoft is targeting this much lower cost alternative market with its SQL Server. Other similar low cost, high value SQL Relational providers are likely to provide more alternatives. There is, of course, always the opportunity for breakthrough systems which may either

logically integrate all disparate DBMS's into a single unified logical application or end-user access. Also, a system that would combine and provide all of the processing power and performance of classically structured DMBS with the flexibility of Relational and/or XML data access in a very cost effective and highly efficient manner is another intriguing possibility.

Q3. Cincom is recognized for pioneering a variety of emerging new software technologies. How important is innovation as a driving force behind your organization?

How important? It's crucial. Absolutely and vitally crucial. Cincom, through the years, has consistently pioneered innovation in a rapidly changing environment. We were surrounded by high-flying, well-branded, well-financed competitors such as Oracle and PeopleSoft, yet we can point to an impressive list of "firsts" in the industry such as:

- The first software firm to promote the concept of a database management system. (1960s)
- The first software firm to offer virtual processing capabilities for IBM mainframes with our ENVIRON/1 task management system.
- The first software firm to offer an interactive and interpretive application development system. Cincom's MANTIS increased online programmer productivity by at least 10 to 1 over COBOL – but 20 to 1 and more programmer productivity gains were quite common.
- The first software firm to offer network management systems. Cincom's NET/MASTER during the mid-1980s earned over 80% of the independent software market for network management systems. Later, IBM offered its NET/VIEW to become the only real competitor for Cincom in this market.
- Cincom's Synchrony is now the first software product which enables users to access all application logic by all users from a single workstation anywhere in the world, providing a unified or universal view of all applications.
- Cincom's SUPRA Server was the first SQL Relational system to offer universal compatibility over mainframes client/server, mid-frames and PCs.
- The first American software firm to recognize the importance of international markets, expanding to open sales offices in Canada, Europe, Australia, New Zealand and Japan. (1970s)
- The first software vendor to work directly with hardware manufacturers to provide software specifically for their equipment. (1970s)
- The first company in the IT industry to initiate the concept of Technical Product Support centers (five years before IBM). (1970s)
- The first full-service software firm to offer both manufacturing and financial applications, as well as database and online system software products in one integrated system. (1970s)
- The first vendor to be selected by the U.S. government as a standard Relational Database Management System for all government defense agencies. (1990s)

Innovation is very important in any organization, but especially crucial in the software industry where so much moves so very fast. There is a vital need to be constantly advancing current products and looking for the next big thing. Trying to stand pat too long has proved disastrous for quite a few once prominent and powerful software firms.

But, the downside of technology innovation is that it can be expensive – very expensive.

Q4. In 1984 you were recognized by President Ronald Reagan as "the epitome of the entrepreneurial spirit of American business. What are your views on entrepreneurialism in US business twenty years on?"

Entrepreneurs are a key driving force of our economy. They help to create the jobs that deliver value, that deliver paychecks to people to raise their families, send their kids to college, buy cars from the local car dealer, etc. Entrepreneurship, for many, has now become the new "Great American Dream" – that is, to become an owner, and so more able to shape and control one's own destiny in today's globalized world.

- In the United States, about 600,000-800,000 new businesses are started each year
- 7 out of 10 new jobs are created by entrepreneurial businesses
- The National Science Foundation, U.S. Department of Commerce and others, have reported that since World War II "smaller entrepreneurial firms have been responsible for 67% of all inventions and innovations and 95 percent of all radical innovation in the United States."

Three factors are among those which contribute to entrepreneurial success: passion, luck, and a willingness to risk everything. How do I define passion? The willingness to suffer and endure pain for one's beliefs. Any business builder must possess passion for what he or she does if success is to be achieved. Without the willingness to endure very hard and uncertain times and to defer gratifications, there will be little chance of success, and little reason for others to follow. Luck, I believe is everywhere, although not everyone sees luck when it beckons. But, an entrepreneur does recognize luck when it happens and seizes lucky moments to advance. The word entrepreneur means "to take an opening." And the word opportunity suggests an open port, or portal, for success. One simply cannot overestimate the importance of being in the right place at the right time. But finally – and this is what separates an entrepreneur or job creator, from a job-seeker – is an entrepreneur's willingness to risk almost *everything* – comfort, income, home, health, and yes, even family involvement, to seek opportunities, to take openings, and to satisfy as yet unmet demands. Success demands action. The greater the success, the bolder the actions required. Courage, Creativity and Commitment are three essentials. While one must be willing to lay it all on the line, one must also have these latter mentioned attributes as well as quite a few others.

Luckily, successful entrepreneurs quite often feel a responsibility to encourage entrepreneurship not only in the United States but also throughout the world. That's why in 2004 Cincom launched its "Encouraging Entrepreneurship" program. Through this program we've become a founding sponsor for the Global Initiative to Advance Entrepreneurship or GIVE. This is an organization focused on advancing society everywhere and on reducing global poverty in the developing world through entrepreneurship. In the United States, we've begun to sponsor programs at colleges and universities, such as business plan competitions and fellowships to further encourage entrepreneurship.

Q5. Cincom has remained one of the largest independent software companies in the world for over five decades. Does your desire to run a successful company still burn as strongly as it did back in the beginning?

Perhaps it would not be too critical to remind ourselves that burning ambition, the desire for fame and fortune, the recognition of one's peers and the sense of accomplishment are all key driving forces among almost all high achievers in virtually every pursuit. Zealous souls usually want to make an impact and to be appreciated as being among those who truly do make a major difference. Recognition and appreciation are dear to almost everyone.

But, after all of this has been accomplished, motivations quite often change; or maybe better said, become more refined and sophisticated. After having achieved success, a sense of responsibility, of duty and of obligation to others usually increases. In the high achieving stage a willingness to defer immediate gratification for greater, but later, accomplishments is very helpful. But, full maturity typically brings with it an ever increasing desire to aid and to assist others to accomplish their hopes and dreams too.

Let me simply say that, like many others who have achieved success, for many years my personal desires and motivations have been increasingly shifting towards helping Cincom to become an ever more powerful vehicle to raise standards and the quality and essence of life for all Cincomers, and all of those we touch in any way. Doing Well By Doing Good is an idea that never seems to go out of fashion. Someone once said of me that I seem to be "by profession a capitalist; by disposition a humanist." This may be a good synopsis. Of course, all of this means that I intend to continue to do all that can be done to help Cincomers all over the world to grow Cincom as rapidly and as successfully as we are able. We've kept "the pedal to the metal" for 36+ years, and this approach has served us all very well. We don't expect to ease up in the future.

Q6. The last few years have been bad news for technology firms in general, with layoffs and big losses making the news all too often. However, in 2003, Cincom's financial performance was the best in its 35-year history. What were your secrets to success through this troublesome period?

Our company's mission has always been to provide the highest value at the lowest possible cost and to help our customers realize a return on investment as quickly as possible with very low levels of risk. This message is now more attuned to marketplaces than ever before, and the resonance of our High Value, Low Cost strategy is very much in harmony with modern wants and needs worldwide.

The enterprise software purchaser had become much more savvy. And with software supply now being well in excess of demand, the software chooser is now in a very strong position. Choosers realize that there is an excess of supply of software in the marketplace today. For any type of product or solution they want, there are typically half a dozen or more good potential providers. This gives customers the opportunity to demand much more for their money. So Cincom continues to step up and offer them more – something that, as a global mid-sized company, it may be easier for us to do than a large conglomerate with lots of overhead – and maybe even more immobility and fixedness in its past behaviors, practices and policies is so well able to do.

Q7. You are recognized as the longest-serving CEO in the entire computer industry. What words of encouragement would you offer other technology industry leaders?

Simple. Put your customers first, and the people who are serving those customers a very close second. Always stay attuned to the ever changing situations in markets. Change is opportunity spelt differently. Seize opportunity boldly. Be audacious, but be trustworthy. Listen to your customers and constantly add value to your products and services. Shareholders should not be the excessive or exclusive focus for the company because this may cause companies to put their customers and their people in too distant of a second, third or fourth priority. Some companies have become so obsessed with shareholder value

that they may neglect, or perhaps even seek to exploit unfairly, their customers, and pay too little attention to our people. This, I believe, is a very dangerous game to play.

It's become very difficult for many public companies to properly balance support for all their constituencies because the pressure for market share value is so great that they can't always find a way to properly balance all priorities for all stakeholders at one time. This is unfortunate. But it seems to make good sense to focus on your customer, their interests and desires, and on one's own people. Focus on one's offerings, deliver the best value one possibly can at the lowest overall cost, and provide the most creative and productive environment possible. That's Cincom strategy today—and this has been our strategy for over 36 years. We believe that, in the end, shareholders will be well taken care of as a result, and not as a focus. In this way, all constituencies, or stakeholders, can be optimally served.

Every business – no matter what type – must stay connected to their customers' every and ever changing needs. Failing to do so is preparing for failure.

Q8. Finally, what is the next important business event/conference in your diary?

The Cincom User Conference held every spring. It's our opportunity to talk to our customers directly to find out how our software is doing. Is it meeting their business needs? What other business needs could we help them with? What's good or bad about our technology? How can we add more value? And lower overall costs? These are always key concerns.