Hello; I'm Gordon Brown. I'd like to welcome you to a special session of Peripheral Vision. Today, we've got a program that I think will really be adventurous to you. We have two parts to the program. First of all, Bob Price is going to join us on our program, and he's going to talk about Peripheral Products and its importance in Control Data's total computer business. Second, on the basis of the feedback that we've had from many of you over the past several months, we're going to include a segment today that talks about our long-range plan and our key strategies for the future. I think you'll find both of these segments to be interesting; and let's start with the interview that we had with Bob Price.

Bob, I'd like to thank you for joining us here today on Peripheral Vision, and the opportunity that we have to talk to the some 2,000 managers in Peripheral Products. What I'd like to do, is pose several questions to you, and these questions basically deal with how you see Peripheral Products business and how you see it fitting in to the context of CDC's overall business picture.

How do you see Peripheral Products today?

Gordon, I can't remember a time in the history of Control Data's Peripheral Products business when it was more exciting and the outlook more promising than it is today.

I know the last couple of years have been difficult ones financially for Peripheral Products, especially after the high growth of the late 70's. In terms of technological progress, we've made more progress, more profound progress, in the last two years in our Peripheral's business than ever before in its history; this all happened in a very short period of time, so the outlook just is super—it couldn't be better.

Bob, I certainly agree with you, but one of the things that's come to the surface in the past few weeks, has been the Business Week article. I know our people would really appreciate your thoughts on that article and what it means.

Well, Gordon, as simply as I can put it, is the Business Week reporter chose to ignore the facts because they didn't fit his fictional-wise story line. It's no accident that you and I can sit here and talk about what the future looks like for Peripheral Products in terms of new products, some 14 of them introduced just in the last two years, and some really super products in terms of the technology involved in that. That's not an accident—that's the result of investing in the business, and, of course, having some really excellent people to use those investments well.
You know, since 1977, when the minicomputer boom really caused the Peripheral Products revenues, particularly for the SMD, to take off, revenues in Peripheral Products have grown a compound annual rate of 18 percent; but in that same period of time, technical expenditures have grown by an annual compound rate of 24 percent. It goes beyond that even. As recently as 1980, 48 percent of all technical expenditures in Peripheral Products went for support cost. Today, that number is down to 30 percent, so, not only are we spending more absolute dollars, we're spending a greater proportion of our revenues on technical expenditures and we're spending them more wisely; that is to say, not to fix the sins of the past, but on research and development on future technology and products.

Bob, what you've been describing hardly fits the definition of a cash cow, you remember that was the comment that was made along with the chart in the Business Week article.

You're absolutely right—there isn't any such thing as cash cow in this business, unfortunately. The same thing is true if you look at capital expenditures. Over that same period of time since 1977, on average, 36 percent of Control Data's assets have been invested in the Peripheral's business. If you look at it on an incremental basis, it's even more dramatic, because for incremental expenditures for plant, equipment, new machinery, and so forth, more than half of that has gone to the Peripheral's business in that period of time. But, like with technical effort, the story even goes beyond that, because there, too, we've become more efficient in using dollars. The asset to revenue ratio has improved by some 20 percent just in the last three or four years. And, that comes primarily from improvement in collecting receivables and handling working capital. Once again, we're spending our dollars where they count the most—that is, on the future rather than investing in or having to spend it for interest and for excess inventories, or for receivables.

Gordon, I guess what it all nets down to, is that we really are well-positioned for the future, like I said. Control Data's Peripheral's business is a very healthy business. We're making the kinds of investments that we need, and we just couldn't be better positioned for the future than we are, so, the heck with Business Week.

You know, as happy a thought as that is, I do have to add that, at the same time, Peripheral's business is more competitively intense than it ever has been in our history, so, we can't rest on our laurels. We've got to continue to invest in the business, and that's exactly what we intend to do.
Bob, if we can shift for a minute—looking to the future, what thoughts do you have about Peripheral Products, and what areas of focus we should be working on?

Well, like I was just mentioning, Gordon, we've got to continue this rapid rate of investment because of the competition that we have, and I think that plans that we have say that we're going to do that at the appropriate level. Again, taking technical effort which, of course, is the key indicator in our business; there, we're going to double the amount of technical effort that will go into the Peripheral's business in the next three years, and at the same time, revenues are going to grow about 70 percent over that period of time. And, similar kind of thing with regard to capital expenditures, some 60 or 61 percent of the capital expenditures for the next three years are going to go into our Peripheral Products business.

That's out of the total of the corporation?

That's out of the total of the corporation. We've got to continue to make those investments; but, again, it's more than numbers—it's more than dollars or any other figures that I can give. It all comes back to management. We just have to keep working on our management process and our management that will allow the organization, people who are doing the work, to continue to improve their operational effectiveness, so that we do spend more and more of the technical dollar on the future, and more and more of the capital equipment on the machinery and plants, and so forth, that we need to build those products for the future.

I know it's budget time, and everybody's going through that annual agony in a process that's easy for people, almost every manager, to believe that he or she is getting the short end of the stick; but, maybe just one data point would help people. In the ten-year period from 1977 to 1986, Control Data's total technical expenditures will have been 3.2 billion dollars. Peripheral Products will have received more than 30 percent or some 1 billion dollars in technical expenditures over that period of time.

You know, Control Data is blessed with four strong businesses, Peripherals, Computers, Computer Services, Financial Services; and, together, they give us a strategic strength that nobody else in this business has, so, it isn't ever a question of one at the expense of the other—it's making the investments that each of the businesses needs, and those needs vary from time to time, and we do those things that are necessary, because, in the long run of course, that's where Control Data's strength lies—in the health of these four businesses that we have.
I certainly agree with you, Bob. Any final thoughts in our session here today?

Just one. Nobody could be prouder of your accomplishments and those of your management team than I am. We have built an absolutely wonderful Peripherals business--let's keep it that way.

Okay. There you are. I hope that none of you have any remaining doubts or concerns about the importance of Peripheral Products in Control Data's business posture. Certainly I don't, and I think that that should be very informative to all of us as we go forward in our business.

Now, as I mentioned earlier, I'd like to go to the second segment of our program today and give you at least a summary presentation in briefing on the key points on our long-range plan.

As you can understand, admittedly, this is going to be brief and in summary form today; but I hope when we're through, you'll get a feeling for some of the key parameters and expectations that we have of our business as we move forward over the next three to five years.

First of all, let me start with some of the key goals that we've defined in our long-range plan. Basically, we've said that there are three of them that are important to us. Today, we have a very enviable position as the leading supplier in the OEM market. If we look at the medium to high performance peripheral area, we have a market share of some 30 percent in this business segment; therefore, a key goal for us is to maintain our market share, or this 30 percent segment.

A second goal that we've established, is that of technology leadership. We're going to talk about technical effort in just a few minutes, but it's very important for us, along with market share, to ensure that we stay on the leading edge of our high technology business; thus, technology leadership over the plan period is our second major goal.

The third goal is a financial objective. If we look at the assets and capital equipment we have deployed in Peripheral Products, we really are not returning an acceptable level of profit for the corporation; thus, our objective is to improve our profitability and our return on the invested capital in the business over the plan period. These are our three major goals that we've established for Peripheral Products.
Now, at this point, what I'd like to do, is give you a general financial overview of Peripheral Products as we look through the plan period. I'd like to talk about two of the elements that Bob Price mentioned in our interview. I'd like to talk about our revenue growth, but more importantly, I want to talk about our technical effort during the planning period, and I want to talk about the capital equipment that underpins our business.

Okay. Let's look at the numbers that embody the overview in Peripheral Products. I'd like to talk about revenue technical effort and capital equipment.

If you look at the chart shown here on the camera, you can see at the top of the chart we're looking at the revenue growth over the 1983 to 1986 period of time, and underneath that are two additional lines. The yellow line shows technical effort over the same period of time, and the blue line shows the growth in capital equipment over that same three-year period of time. You can see that the revenue growth, going back to the first line, grows from some 1.4 billion in 1983 to slightly in excess of 2.4 billion over a three-year period of time, or a 25 percent growth in revenue per year over that three-year period. Now, moving to technical effort--this is, again, a key part of our overall strategic thrust. This year, we're spending around 111 million dollars in total technical effort, and that grows to 195 million by 1986, or a growth rate also of some 25 percent over the three-year period. Now, as many of you know, our business is becoming far more capital-intense, with a high degree of automation coming into our business. If you look at the bottom line, capital expense, we'll actually spend around 90 million dollars this year, and our plan contains a provision for a 33 percent annual growth rate in capital monies, growing to 180 million dollars in 1986. Again, this certainly embodies the concept that Control Data is investing and investing at a very heavy rate in the two key parameters that underpin our business.

Now, at this point, I'd like to go in very briefly--I'm not going to go through all the numbers, but I'd like to cover what some of the key strategies are in our three major product families. These are OEM, Business Products, and Peripheral Systems. I'd like to start this with OEM. Here, we've established five key objectives for this business.

First, and most important, we want to maintain our market share in what I call the general purpose minicomputer market segment. Here, we feel today, we have approximately a 30 percent market share, and we would expect to maintain this as a priority over the plan period. This is the large traditional base of OEM business that Control Data's had for many years, and is very important to us in terms of our product strategy and our key customer base.
The second objective that we've established is to start to expand our business base in the growing personal, or micro-computer market. Now, many of you have heard a lot about our floppy disk program. We're going to be adding new products as we move through the plan period. The cricket, obviously being one of these. It's important that we start to grow this business, because it has dynamic business potential for us in the future, and we would hope to obtain a market share of some 15 percent by 1986 in this growing market segment.

The third strategy in the OEM area is to establish ourselves as a leading supplier of tape backup devices. These are our Valley Forge products. We would expect to be able to integrate these products as a more meaningful part of our total product line to the point where in 1986, we would have, say, a 30 percent market share of tape backup devices. I believe the key-stone product, which we have recently introduced, and, incidentally, have large orders in-house, from Deck and Western Electric, is going to be a real winner for us and going to add quite a bit to the total strength of our OEM product line.

The fourth objective in the OEM area is to expand and grow our distribution channels for our products. Now, many of you have started to see the use of distributors for our products and more recently, we've announced some new distribution channels with our microperipherals. We're going to spend a lot of time and focus a lot of energy on selectively growing these distribution channels over our plan period.

The fifth objective is to maintain our position of technology leadership. Absolutely critical to our business, and as I said earlier, this goes hand-in-hand with maintaining market share in the OEM business segment. Now, technology here—I'm not referring to new product development—I'm talking about the underlying base of technology that's the lifeblood of our new product stream. We're talking about new technology in optical disk. We're talking about vertical recording. We're talking about research and advance logic and circuitry through our microcircuit group. Thin film heads, new and advanced forms of media, these are all very, very key to our ability to sustain our product flow and maintain a leadership position in this key market segment.

Now, rather than go through detail financials in each business segment, I wanted to give you a feel for the kind of growth that we expect out of the OEM business. Let's look at that for a minute. As you can see on the chart here, 1983, we expect OEM revenues of slightly in excess of a billion dollars. By 1986, this will grow to slightly in excess of 1.8 billion or an
annual growth rate of some 22 percent over the plan period. In actuality, that growth rate will be slightly lower for our traditional OEM base, the medium to large OEM customers that I mentioned earlier and, as you might expect, we're seeing growth rates in excess of 80 percent for products in the micro or personal computer field. On average, though, we'll see a growth rate of some 22 percent during this period of time.

Now let's turn to Business Products and talk about our key objectives for this segment of our business. As we developed our long-range plan, we've established five key objectives for Business Products. I'd like to describe them for you.

First of all, and probably the most important to us, we have to make fundamental progress in improving our operational effectiveness in Business Products. What do I mean here? Well, I'm talking about the fundamentals of addressing our manufacturing process to ensure that the yields that we obtain from our media increase, and increase dramatically. In some cases, we're going to do this by changing the basic process that we use; in other cases, we're going to design our products so they have a wider range of margin and are more suitable for manufacturing and, in other cases, we're going to start to use various forms of automation very extensively. Now, Incidentally, all of this should serve, not only to make us more efficient in the manufacturing process, but should serve to increase the level of quality that we can get from our products very dramatically.

The second objective in Business Products is one that's related to market share. Market share is very important to us. Market share or market penetration determines the level of volumes that we can anticipate and basically ensures that we're able to track or maintain our competitive position as we go forward in this very price-sensitive marketplace. So, for 5 1/4-inch and 3 1/2-inch media, we've established an objective of having a 16 percent market share by 1988. In the single disk, or coded disk area, we've got to start to build this business more dramatically than we have in the past. We've established a market share objective of 25 percent by 1988. Third, our tape business, which certainly is a mature business for us, we've established an objective of 14 percent at the end of our planning period. As many of you know, we've recently added to our manufacturing capability in Wales, and we expect to go from some 2 1/2 million reels of tape per year, which is our 1984 rate, up to some 5 million reels per year at the end of the planning period.
The third objective for Business Products is to provide very high quality media for use by MPI and rigid fixed disk drives. Again, this is one of our basic dependencies of one organization to another. MPI has its own capability in the head area, but they’re totally dependent upon Business Products for media, particularly rigid media, in the new products, and as we go forward, we’ll be introducing new technologies in the media area. We’ll be going to plated disk, as was evidenced with the Cricket product announcement this year. We would expect to see new forms of media, sputtered, or thin-film media being used in our products in later years.

The fourth objective for Business Products is to aggressively expand the use of alternate sales channels for our products. Again, we’ve had a program of using distributors in place for a number of years now, and we want to continue to build on that strategy and rely less on our own ability to sell our media products directly to the end user. What we want to use distributors more effectively; in some cases, we want to start to use retail outlets and stores to sell our products. Many of you may have seen our media products and stores, and I can assure you, you’re going to see a lot more of this approach in the future. Now, the fifth strategy, and one that is near and dear to my heart, as Scott Wittenberg will tell you, is one of developing a totally different brand identification for our media products. As I look at our flexible disk media, I think that, frankly, we’ve suffered a great deal from a poor product image in this area. As a result, some months ago, Business Products undertook to develop a new program to develop a brand name that would be the central core of a long-term strategy, both for Business Products and for use in our microperipheral area where we sell those products directly through retail outlets. The name that we’ve chosen, as many of you know, is storage master. We plan to promote this with a very substantial advertising program such that the consumer and the small business man becomes aware of the fact that Control Data is promoting media through the storage master brand name. We think this is very important to us and will allow us, not only to increase the market share in this business, but allow us to become identified as a quality supplier and a business where we can get a premium for our product, rather than just trying to compete on price in a commodity business.

Finally, I’d like to give you an idea of the kind of growth rates in revenue that we’re planning for Business Products over a three-year period of time. From a revenue viewpoint, we expect Business Products to be around 220 million dollars in 1983. The growth rate for Business Products is less than that than we envisioned for OEM, averaging some 16 percent per year or growing to 327 million by 1986. Again, a level sustained growth rate for this segment of our business.
Now, let's move to Peripheral Systems. In this area, we've established five key objectives over the planning period. First, and most important, is to start the volume delivery of our 33800 disk subsystem to the IBM plug compatible market. As most of you know, we've had this product under development for the past two years, and we're just at the point of making initial customer deliveries. We have many thousands of units planned for sale to our end-user customer base over the planning period, and as a part of our strategy, we currently have a double capacity unit under development. Our strategy calls for us to complete this effort and be able to deliver a double capacity units approximately 12 months after IBM actually starts deliveries of their product. Also, as a part of this, we plan to complete the design verification testing of our LSI controller by the third quarter of 1984.

Now, the second objective for Peripheral Systems is to maintain market share. Again, market share, we believe, is key to all of our major business segments. In the plug compatible business, we plan to maintain a 15 percent market share in this segment.

The third objective for Peripheral Systems is to become a major supplier of microperipherals, and recently, I'm sure that many of you have seen the press release regarding the sale of our first microperipherals by Sears and Computer Land. We've got very aggressive plans with Don Anders and his people at Plymouth, and you're going to be seeing a great many more products coming on the scene over the next two years. I think this is a, really, a very exciting market, and it has a lot of potential for Control Data.

Our fourth objective for Peripheral Systems, is to continue the sale and shipment of many Peripherals to the IBM Series I base. Our revenues from this business segment in 1983 were around ten and a half million dollars. We plan to grow this business to some 28 million dollars by 1986.

The fifth priority for Peripheral Systems to continue the work and the processes that we've had underway in developing our long-range plan and start to look for market niches, and look for new products that we can add to Peripheral Systems. Here, we're looking for capabilities or products that will tend to offset or dampen some of the cyclical swings that we see in the disk business; and, frankly, we're undergoing one of those as we start the introduction of our 3380 product line. We're going to look at new markets, we're going to look at new opportunities and try and determine what products we would like to add to the current offering that will strengthen our position in the marketplace.
Now, let's take a look, as we have in the other product families, to the revenue chart and show what the profile looks like over a three-year period of time. As you can see, we've actually had a dip in our revenues from 1982 to 1983. Our revenues decreased from 155 million to 116 million in 1983. As we start to ship the 3380 subsystem in volume, we see an annual growth rate of some 60 percent over the plan period, growing from this 116 million dollar level to over 323 million dollars in 1986. The largest growth rate of any of the major segments of Peripheral Products.

Now, I'd like to turn and summarize, as we wind up this session here today, and talk to you about a number of areas that I think are very critical to Peripheral Products over the plan period. Now, underpinning these will be very specific programs. We've talked about some of these in past sessions together, but, today, I simply want to highlight these again, because you'll be hearing more about them as we go through future programs, and as we develop action plans for each of these.

First of all, within Peripheral Products, we're going to work to improve our operational efficiency. You've heard this term many times; in some cases, we call it operational effectiveness. We have a series of tools that we believe are very valuable in enabling us to manage our business in a more efficient fashion. This is process flow analysis. This is the use of statistical quality control. It's the use of involvement teams, which have proven to be very beneficial within Peripheral Products. The use of the step of solutions through employee participation.

Second, we're going to continue to work on our people strategy. This includes the development of a buffer plan for Peripheral Products. This buffer basically is going to take two forms. First of all, we're going to continue to build a nucleus of part-time, or supplemental employees to give us an ability to cut back if, indeed, our volume drops in the future. In addition, we're going to subcontract a certain amount of our work to outside contractors—not try and do everything in-house. Now, in the event that our business turns down, we would expect to pull work in from subcontractors and protect to the greatest extent possible our full-time employees.

The next area of emphasis, is one that you've heard a great deal about, and frankly, you're going to hear a lot more about it in the future. This is automation. Automation is terribly important to us. We expect to retain our market share, and ensure that we have a growing and profitable business in the future. We've got to change our way of thinking, such that we design our products for automation rather than thinking about it as an afterthought. Quite candidly, we need to start to develop an increasing base of skills in the automation area.
We're going to need a skills profile that's really quite different than that that we have today. We're going to need maintenance technicians. We're going to need automation engineers. We're going to need people that understand all aspects of automation as it relates to the manufacturing process. Now, the priorities for us in this area are really three. First of all, we're going to automate the materials handling function in many of our operations. Second, we're going to have automation programs developed for our key components. Particularly our head and disk, which make up some 40 percent of our disk products. Third, we're going to automate selected areas of the assembly and test function where it makes sense, but, quite frankly, that will probably be the third and lesser priority in our automation plans.

The final area of emphasis for us involves our people strategies. While I could spend a great deal of time describing some of our thoughts and ideas here, I'd like really just to make two points. First of all, people are absolutely key to our future. We plan to spend a lot of time and a lot of dollars working on the education and training of our people resource. The Tap program, or the technical academic program will continue to be stressed and emphasized, as we feel that it's terribly important that our people take advantage of the opportunity to upgrade their skills that they've developed. As I mentioned also, the continued use of involvement teams and the step process has been a very valuable resource for us, and we plan to continue this in the future.

Well, in summary, that's the overview of our strategic plan that we wanted to give you today, and I hope you have a feel for our key objectives and strategies, and some of the numerics that relate to our expectations of Peripheral Products business.

Now, I'd like to emphasize that the content and makeup of today's program is really a direct result of some of the inputs that we've had from you in the past in the critique sheets that we've supplied with the Peripheral Vision tapes. You've asked us about the importance of Peripheral Products in the total context of CDC's business, and it was for that reason, that we had Bob Price on our program today, to respond to that question. You've also asked us to supply more information about the strategic plans and direction for Peripheral Products. This, again, was in response to that input. I'd like to ask you to fill out the critique sheet that will be supplied with this Peripheral tape, and tell us what you like, what you don't like, and give us your ideas as to what you'd like to see included on future Peripheral Vision tapes.

I'd like to thank each of you for being with us today, and I'll look forward to seeing you on a future addition of Peripheral Vision. Thank you.