INTRODUCTION

A few weeks back "Business Week" ran a cover story entitled "The Hollow Corporation." The basic thesis was the now familiar one that the U.S. is losing its manufacturing base; that U.S. companies are becoming little more than U.S. distribution channels goods manufactured elsewhere -- especially the Far East. Even if those foreign concerns are wholly or partly owned by the U.S. companies. There is at best only a little final assembly work in the U.S.. Moreover it pointed out that it is no longer just a matter of the foreign manufacture of products designed in the U.S., but that the design part of the process is likewise being exported. As manufacturing engineering assumes even greater importance in the process of designing a marketable product it will only tilt the scales even more heavily in favor of that arrangement. Manufacturing engineering has been one of the great neglected disciplines in U.S. education and industry over the past quarter century.

The truly impressive thing for me here today, then, is that because of you here in this room Control Data is not a "hollow corporation." But much more than that, you here have the
incredible opportunity to be on the leading edge of a new wave of technology — the traditional strength of Control Data.

In spite of our difficulties over the past two years, probably in fact because of them — we are positioned to shuck off old ways and move on to a new and exciting era in the design and manufacture of quality products that serve important economic needs in the world of today. We have that opportunity. Your meeting here is only one indication to me that we intend to seize that opportunity.

First let me thank you for the impressive strides you've made already in the past couple of very tough years:

- Great improvement in first time yields
- Major boosts in M.T.B.F.
- Reductions in throughput times
- Drastically improved communication between groups
- Broader commonality

All of these are excellent examples of process improvement, all of them are examples of a drive for Quality. They are but harbingers of what we can do. Those achievements don't come from on high. They come from you; yes, they come because you have talent, but they come much more from a spirit and
determination to excel. Your recommendations are the ones that drive improvements in the product development process. Your continuing cooperative spirit -- across functional lines, across departmental and divisional walls -- is leading the march, corporate-wide, toward quality products and services.

It is meetings like this week's, including all the presentations and hallway sessions, that are the basis of more of the same -- a mounting tide of positive change.

We are experiencing today an accelerating wave of positive change at Control Data. We are, in fact, experiencing a wave of positive cultural change. Your use of tools from the T.Q.M.P. toolbox is the defacto groundswell of that change.

If you leave this symposium knowing just one thing, I hope it's this: your role as product developers and producers is crucial. You don't have to take a back seat to anyone, because you're the bread and butter of this company. Don't wait around to be told, go off and do it better on your own. Don't bury your ideas. Promote them and put them to the test.
In return you have my commitment to the maximum technical expenditure that's possible to us. This year's T.E. budget is $392M, or 12% of budgeted revenues. Going back to 1981, the figure was 9.5%. I can allocate the money -- but only you can spend it efficiently -- or inefficiently -- wisely or foolishly -- and success will finally be determined by that.

Part of efficient and wise expenditure results from a sharper business and product strategy "focusing down," as we are referring to it. By focusing of fewer business and product lines we can invest more intensely in them -- be more competitive -- concentrate on manufacturing effectivity and ultimately produce better margins so as to have more money for technical expenditures.

But an equally important part is to see to it that the money we do have goes for R&D rather than ECO's -- for new ideas rather than fixing old mistakes. Isn't it ironic, isn't it tantalizing, that the 10% increase in R&D that everyone always yearns for is there for the taking -- simply by reducing patches and fixes -- which we euphemistically refer to as "other cost of sales."
The Challenge

We've been improving, but it's equally clear that your work is cut out for you. Just this morning Bob Brauberger reminded you of the very real threat from offshore -- and he's had experience at reading all the warning signals. With price performance getting overwhelmingly competitive, the only way we can hope to stay alive is to get the cost down. And one way to do that is to reduce the variations in our processes -- another way of saying process improvement.

That's the second thing, if you're going to leave this symposium knowing something, that's the second key point I hope you take with you: We must forever reduce the variation within all of our processes." We have made a start in processes associated with:

- Wren media
- Thin film heads
- 810/830 installation
- AYK thruput
- Incoming material -- integrated circuits (I.C.)
And that is not an exhaustive list -- I've just named a few. Examples of where we need more effort to reduce variation areas such as:

- ECO rates after design verification
- Fixes in the field
- Incoming materials,

to name a few.

The reality we face today is that rework of any kind can't be. Period. Rework can't be. Rework is the result of a process that needs improvement, and it's management's job -- yours and mine -- to see that the process improves. We have all got to keep at it, using the tools you are learning to use, applying them to every situation...from ECO's to scrap to documentation errors.

Are you asking "how"? "How are we going to leave here, go back to work and make what he wants happen?"

First of all, it's not what I want to happen. I didn't chose the theme of this years' symposium -- Control Data's customers did. If those customers can find it cheaper or easier or faster somewhere else, and they will always try, then we're all going to be part of the tent-folding team. Market demands are driving this need to drive costs down, not the man you all ultimately report to.
As for "How"? The "skills" answer is with the tools in the TQMP toolbox I mentioned a moment ago. The "attitude" answer is in the one word, "teamwork." The "gut" answer is plain old attention to detail.

You're smart enough to learn skills -- you either have guts or you don't, but let me say just a word or two about attitude and teamwork. Teamwork means caring -- it means finally to give a damn what happens to more than just "me." Teamwork means involvement teams so many of you are taking part in here at the symposium.

Teamwork means long overdue joint meeting of the engineering and manufacturing committees that combined last year -- finally -- into this symposium.

Teamwork means quality teams that formed in St. Louis Park at Printed Circuits Operations last year. You know, you are the folks paid to change the product development cycle...so do it. You are the folks who are central to quality...so live it. You are the folks who have to keep a keen eye on competitive technologies...so don't pass the buck. You are the folks who need to show initiative...so be good examples.
There you have it. Please remember just three things:

1. You are the guts of our drive for leadership.
2. Always, always, always reduce variations in your processes.
3. Work as a team, in person and in spirit.

Before I leave, I want you to know that I’m fully aware of the size of the task that you have before you. You’ve got a huge job ahead. I'm counting on you. But this company's future is in good hands. I'm also sure of that. And more than anything, I look forward to working with you to make it all happen.