

DRAFT 10 May 5, 1981

CONTROL DATA CORPORATION
ANNUAL SHAREHOLDERS MEETING

May 6, 1981

Robert M. Price

GOOD MORNING. MY REMARKS TODAY WILL FOCUS ON A FEW OF THE WAYS WE ARE IMPLEMENTING THE SCENARIO FOR IMPROVED PRODUCTIVITY WHICH MR. NORRIS HAS JUST DESCRIBED. IN BROAD TERMS, ALL PRODUCTIVITY PROGRAMS ARE AIMED EITHER AT THE SKILLS AND ATTITUDES OF PEOPLE OR AT THE TOOLS WHICH HELP PEOPLE IN THEIR WORK. I'LL TAKE A COUPLE OF EXAMPLES IN EACH CATEGORY TO ILLUSTRATE THE DIVERSITY OF THINGS WHICH MUST BE DONE IN A COMPREHENSIVE PRODUCTIVITY PROGRAM.

PERFORMANCE APPRAISALS

LET ME START WITH AWARENESS. IT SEEMS ALMOST TRITE TO SAY THAT PEOPLE HAVE TO KNOW WHAT IS EXPECTED OF THEM, HOW WHAT THEY ARE DOING FITS IN, WHY IT MATTERS, AND, MOST IMPORTANT, HOW THEY ARE DOING WITH REGARD TO WHAT'S EXPECTED OF THEM. WELL, IT MAY BE TRITE TO SAY, BUT DOING IT EFFECTIVELY IS SOMETHING ELSE AGAIN. THE BASIC PROCESS INVOLVED IS CALLED PERFORMANCE APPRAISAL.

CDC Annual Stockholders Meeting - R. M. Price
May 6, 1981
Page - 2 -

WHAT IT COMES DOWN TO IS TELLING SOMEONE ABOUT THEIR INADEQUACIES IN SUCH A WAY THAT THEY BELIEVE YOU, THEY DON'T BLAME YOU FOR THE SHORTCOMING, AND THE RESULT IS AN EARNEST DESIRE TO IMPROVE.

IF YOU THINK ABOUT THAT FOR A MINUTE YOU WILL APPRECIATE THAT THE ABILITY TO PERFORM SUCH CRITIQUE EFFECTIVELY IS JUST NOT A NATURAL GIFT. MOST SUPERVISORS NEED HELP, AND FORMAL PERFORMANCE APPRAISAL SYSTEMS ARE ONE MAJOR MEANS OF PROVIDING THAT HELP. YET -- GIVEN THIS OBVIOUS IMPORTANCE -- MOST PERFORMANCE APPRAISAL SYSTEMS ARE SURPRISINGLY WEAK. REALLY EFFECTIVE ONES ARE PROBABLY IN THE MINORITY AND THEY MUST BE CONTINUOUSLY IMPROVED -- JUST LIKE ANY OTHER EFFECTIVE PRODUCT.

SEVERAL YEARS AGO, THROUGH A SERIES OF EMPLOYEE ATTITUDE SURVEYS AND REPORTS FROM THE EMPLOYEE ADVISORY RESOURCE, WE LEARNED THAT CONTROL DATA'S APPRAISAL SYSTEM -- A FAIRLY STANDARD ONE FOR THE TIME -- WAS GENERATING AN UNACCEPTABLE DISSATISFACTION AND IN SOME INSTANCES ACTUALLY CONTRIBUTING TO POOR COMMUNICATIONS BETWEEN MANAGERS AND THEIR EMPLOYEES. THAT DISCOVERY LED TO THE DEVELOPMENT OF A NEW APPROACH WHICH FOCUSES MORE ON DEVELOPMENT OF THE INDIVIDUAL.

THE NEW SYSTEM IS FORCING MANAGERS TO GET IN THE HABIT OF ROUTINELY DISCUSSING PERFORMANCE EXPECTATIONS AND INDIVIDUAL

CDC Annual Stockholders Meeting - R. M. Price
May 6, 1981
Page - 3 -

DEVELOPMENT. EVERY EMPLOYEE IN THE COMPANY RECEIVES AT LEAST ONE ANNUAL FORMAL PERFORMANCE AND DEVELOPMENT APPRAISAL. NO SALARY ACTION IS PROCESSED FOR AN EMPLOYEE UNLESS THE RECORDS SHOW THAT THE MANAGER AND EMPLOYEE HAVE COMPLETED THIS PROCESS. ANOTHER IMPORTANT POINT IS THAT THE APPRAISAL IS HELD AT A TIME DISTINCTLY SEPARATE FROM THE SALARY DISCUSSION. WE SEPARATE THE TWO BECAUSE IT IS IMPORTANT THAT ATTENTION BE GIVEN TO THE INDIVIDUAL DEVELOPMENT PROCESS IN AND OF ITSELF RATHER THAN ALLOWING IT TO BE TREATED AS A PERFUNCTORY PART OF A SALARY REVIEW.

THE MANAGER-EMPLOYEE DISCUSSIONS RESULT IN A SPECIFIC DEVELOPMENT PLAN FOR THE EMPLOYEE. IT HIGHLIGHTS WAYS TO IMPROVE WEAK POINTS AND DEVELOP STRENGTHS. THE PLAN IS CREATED BY THE EMPLOYEE AND THE MANAGER WORKING TOGETHER...AND IS AGREED TO BY BOTH

LAST YEAR, ABOUT 40,000 EMPLOYEES WENT THROUGH THE NEW PERFORMANCE APPRAISAL SYSTEM. IN A RECENT ATTITUDE SURVEY 84 PERCENT OF THE EMPLOYEE POPULATION EXPRESSED SATISFACTION WITH THE PROCESS THAT COMPARED TO 74 PERCENT IN 1978, THE YEAR BEFORE WE INTRODUCED THE NEW SYSTEM.

INVOLVEMENT TEAMS

NOW LET ME COVER A SECOND EXAMPLE FROM THE "PEOPLE PART" OF THE PRODUCTIVITY EQUATION. IT HAS BEEN WELL DOCUMENTED THAT

CDC Annual Stockholders Meeting - R. M. Price
May 6, 1981
Page - 4 -

PRODUCTIVITY IMPROVEMENTS COME PRIMARILY FROM EMPLOYEES WORKING IN SMALL GROUPS WITH THEIR SUPERVISORS -- DISCOVERING WHAT IMPEDES AND WHAT IMPROVES THE OUTPUT OF THEIR WORK GROUP. HOWEVER, IN A LARGE ORGANIZATION THIS IS EASIER SAID THAN DONE. WORK GROUPS TEND TO BE ORGANIZED AROUND SPECIFIC FUNCTIONS RATHER THAN AN END PRODUCT. AND THE RELATIONSHIP OF ANY ONE WORK GROUP'S OUTPUT TO THE FINAL PRODUCT OR SERVICE IS LESS CLEAR. BUT IT CAN BE DONE, AND, OVER THE COURSE OF THE PAST THREE YEARS, WE HAVE BEEN WORKING WITH ONE EXCELLENT APPROACH CALLED THE INVOLVEMENT TEAM. INVOLVEMENT TEAMS ARE SMALL GROUPS OF PEOPLE WHO DO SIMILAR WORK, AND VOLUNTARILY MEET ON A REGULAR BASIS TO IDENTIFY AND ANALYZE PROBLEMS, RECOMMEND SOLUTIONS TO MANAGEMENT AND, IN MOST INSTANCES, IMPLEMENT THE SOLUTIONS THEMSELVES.

THE CONCEPT IS TO HAVE EMPLOYEES PARTICIPATE, AT ALL LEVELS, IN SOLVING PROBLEMS RELATED NOT ONLY TO PRODUCTION AND QUALITY, BUT ALSO TO MORALE, WORKING CONDITIONS, COMMUNICATIONS AND ORGANIZATIONAL EFFECTIVENESS. IN OTHER WORDS -- EVERYTHING TO MAKE US A MORE EFFECTIVE WORK FORCE.

THE BASIC RULES FOR A TEAM ARE: THE MANAGER IS THE LEADER ... VOLUNTARY MEMBERSHIP, ABOUT TEN PEOPLE ... THE EMPHASIS IS ON TEAM PROBLEM SOLVING ... REGULAR WEEKLY MEETINGS ... AND WORK-RELATED PROBLEMS ONLY.

CDC Annual Stockholders Meeting - R. M. Price
May 6, 1981
Page - 5 -

THESE TEAMS ARE TRULY LEARNING EXPERIENCES. IT IS IMPRESSIVE TO ATTEND ONE OF THESE MEETINGS AND TO APPRECIATE THE DEPTH OF CAPABILITY -- AND CONCERN -- PEOPLE HAVE IF WE ARE WILLING TO GIVE THEM A CHANCE TO APPLY IT.

THE RESULTS THUS FAR ARE MOST ENCOURAGING. FREQUENTLY THE TEAMS WORK ON PROBLEMS WE HAD TRADITIONALLY THOUGHT BEYOND THEIR SCOPE. FOR EXAMPLE, TWO TEAMS IN AEROSPACE HAVE DEVELOPED TRAINING MANUALS TO ORIENT AND TRAIN NEW EMPLOYEES. BOTH HAVE HAD A SIGNIFICANT IMPACT ON QUALITY AND THE LENGTH OF TIME IT TAKES TO INDOCTRINATE NEW PEOPLE.

SIGNIFICANT TECHNICAL PROBLEMS ARE ALSO ATTACKED. FOR EXAMPLE, ONE PROBLEM CONCERNED AN ALIGNMENT ON CIRCUIT CARD ASSEMBLIES. THE TEAM QUICKLY CAME UP WITH A NEW TECHNIQUE WHICH HAS SINCE BEEN IMPLEMENTED AND REDUCED THE PROBLEMS TO ALMOST ZERO.

WE HAVE ABOUT 100 TEAMS SET UP SO FAR. WITHIN A FEW MONTHS WE EXPECT TO HAVE SEVERAL HUNDRED. OUR OBJECTIVE IS TO HAVE INVOLVEMENT TEAMS ACROSS THE ENTIRE CORPORATION IN FIVE YEARS.

PRODUCTIVITY TOOLS

NOW LET'S TURN FROM PEOPLE TO TOOLS -- TOOLS WHICH HELP INCREASE PRODUCTIVITY. IMMEDIATELY ONE'S THOUGHTS TURN TO AUTOMATED FACTORIES, ROBOTICS AND SUCH. AND THESE THINGS ARE IMPORTANT TO CONTROL DATA'S PRODUCTIVITY EFFORTS.

CDC Annual Stockholders Meeting - R. M. Price
May 6, 1981
Page - 6 -

FOR EXAMPLE IN OUR OKLAHOMA CITY PLANT THERE IS AN AUTOMATED ASSEMBLY LINE, WHICH TOOK 18 MONTHS TO PLACE INTO PRODUCTION. IT COST OVER ONE-HALF MILLION DOLLARS. BUT THAT LINE IS NOW SAVING CONTROL DATA ONE-HALF MILLION DOLLARS A MONTH IN MANUFACTURING COSTS, WHILE PRODUCING HIGHER QUALITY UNITS.

BUT AT CONTROL DATA FACTORY WORKERS REPRESENT ONLY 20 PERCENT OF THE WORK FORCE. THE REST -- 80 PERCENT -- ARE OFFICE WORKERS -- OR KNOWLEDGE WORKERS AS THEY ARE CALLED THESE DAYS. SO IMPROVED TOOLS FOR THIS GROUP OF PEOPLE ARE EVEN MORE IMPORTANT THAN FACTORY TOOLS.

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TAKE, FOR EXAMPLE, THE ENGINEERS DOING ELECTRONIC DESIGN WORK. BY USING A TOOL WHICH WE CALL THE ELECTRONIC COMPUTER-AIDED DESIGN SYSTEM WE HAVE INCREASED THEIR OUTPUT WHILE AT THE SAME TIME MADE POSSIBLE MORE CREATIVITY AND FLEXIBILITY IN THE DESIGN PROCESS.

THE ENGINEER IS RELIEVED OF TEDIOUS WORK SUCH AS DRAWING ENORMOUS NUMBERS OF INTERCONNECTIONS BETWEEN HUNDREDS OF INDIVIDUAL CIRCUITS ON A SEMICONDUCTOR CHIP. COMPUTER SIMULATION OF THE RESULTING DESIGN ASSURES THAT THE INTERCONNECTIONS ARE CORRECT AND THAT THE LOGIC WILL WORK UNDER A WIDE RANGE OF DIFFERENT ELECTRICAL

CDC Annual Stockholders Meeting - R. M. Price
May 6, 1981
Page - 7 -

CHARACTERISTICS OF THE INDIVIDUAL CIRCUITS. WHEN THE ENGINEER IS SATISFIED THAT THE DESIGN IS COMPLETE, THE DRAWINGS ARE STORED ELECTRONICALLY FOR EASY FUTURE REFERENCE. WITH ALL THIS HELP THE ENGINEER CAN DO FAR BETTER WHAT HE IS BEING PAID TO DO -- CREATE CONCEPTS, DEVELOP DESIGNS AND SOLVE PROBLEMS.

THROUGH THE USE OF COMPUTER-AIDED DESIGN, ENGINEERING COSTS HAVE BEEN REDUCED BY ABOUT 30 PERCENT AND, SIMULTANEOUSLY, THE TIME IT TAKES TO BRING OUR PRODUCTS TO MARKET HAS BEEN REDUCED BY ABOUT ONE-THIRD.

POTENTIALLY THE MOST IMPORTANT TOOLS, HOWEVER, ARE THOSE BECOMING AVAILABLE TO ASSIST THE ADMINISTRATIVE, MANAGERIAL, SALES AND SERVICE PEOPLE OF CONTROL DATA.

THE ELECTRONIC OFFICE

ONE OF THE FIRST STEPS IN THIS REGARD WAS THE INTRODUCTION OF WORD PROCESSING -- INITIALLY SIMPLY A SYSTEM FOR THE COMPUTERIZED TYPING AND RETREIVAL OF MEMOS, LETTERS AND REPORTS. THAT OCCURRED MORE THAN FIVE YEARS AGO. SINCE THEN THE FUNCTIONS HAVE BEEN GREATLY EXPANDED. THEY NOW PROVIDE INDEXING, RETRIEVAL OF MAIL, AND THE TRANSMISSION OF INFORMATION THROUGHOUT THE WORLD BETWEEN EMPLOYEES USING INDIVIDUAL ELECTRONIC WORKSTATIONS.

CDC Annual Stockholders Meeting - R. M. Price

May 6, 1981

Page - 8 -

AN EXAMPLE OF HOW THIS SYSTEM WORKS CAN BE FOUND IN THE TRAFFIC DEPARTMENT HERE IN MINNEAPOLIS WHICH USES A WORD PROCESSING SYSTEM FOR 12 DISTINCT APPLICATIONS DESIGNED TO CUT PAPERWORK AND IMPROVE EFFICIENCY.

ONE OF THESE APPLICATIONS IS HANDLING INVOICES FOR BILLINGS ON EMPLOYEE TRANSFERS. A STAFF MEMBER TYPES THE INFORMATION ON A TERMINAL. STATEMENT FORMS ARE QUICKLY PRINTED AND APPROXIMATELY 50 MONTHLY BILLINGS ARE DONE IN 15 MINUTES -- SAVING SOME THREE HOURS PER DAY.

ANOTHER EXAMPLE IS AN ELECTRONIC FILING AND MAIL SYSTEM USED BY THE MARKETING ORGANIZATION. 1,400 USERS THROUGHOUT THE WORLD CAN ACCESS 90,000 DIRECT UNITS OF INFORMATION WHICH CAN BE RETRIEVED BY TYPING A KEY WORD ON THE TERMINAL KEYBOARD. AS A RESULT, MAILINGS HAVE BEEN REDUCED, WITH CONSIDERABLE SAVINGS, BECAUSE MEMORANDA TO FIELD MARKETING PEOPLE ALL OVER THE WORLD ARE BEING PLACED IN THE SYSTEM FOR RETRIEVAL.

TWO OTHER ELECTRONIC TOOLS -- AUDIO CONFERENCING AND VIDEO CONFERENCING -- ARE BEING USED TO REDUCE BUSINESS TRAVEL COSTS. FOR EXAMPLE, MEETINGS OF A NUMBER OF STANDING COMMITTEES, WHICH HAVE MEMBERS AT VARIOUS LOCATIONS THROUGHOUT THE COUNTRY, ARE USING AUDIO CONFERENCING ON A ROUTINE BASIS. PACKETS OF IDENTICAL INFORMATION ARE SENT TO EACH PARTICIPANT

CDC Annual Stockholders Meeting - R. M. Price
May 6, 1981
Page - 9 -

BEFORE SUCH MEETINGS. AT MEETING TIME, TELEPHONE CONNECTIONS ARE MADE BETWEEN MICROPHONE-WIRED CONFERENCE ROOMS. THE TECHNIQUE SAVES HUNDREDS OF THOUSANDS OF DOLLARS IN TRAVEL EXPENSES AND EMPLOYEE TIME. AS A RESULT OF THIS AND OTHER MEASURES, IN A SAMPLING WE TOOK RECENTLY, WE FOUND THAT EVEN THOUGH AVERAGE AIRLINE TICKET COSTS ARE UP 27 PERCENT OVER A YEAR AGO, CONTROL DATA'S TOTAL TRAVEL AND ENTERTAINMENT EXPENSES ARE DOWN 6 PERCENT.

TIME DOESN'T PERMIT ME TO GO INTO ALL THE MANY WAYS IN WHICH TOOLS -- ROBOTIC, ELECTRONIC AND OTHERWISE -- ARE BEING COMBINED TO IMPROVE THE EFFECTIVENESS OF OUR PEOPLE. BUT PERHAPS THESE FEW EXAMPLES HAVE GIVEN YOU AN APPRECIATION THAT INCREASED EFFECTIVENESS NOT ONLY IMPROVES COSTS AND QUALITY, BUT MAKES WORK MORE ENJOYABLE AS WELL.

IN SUMMARY, THE PRODUCTIVITY FORMULA HAS THREE INGREDIENTS:

(1) IMPROVED USE OF EACH INDIVIDUAL'S EXISTING SKILLS; (2) NEW AND IMPROVED SKILLS FOR EACH INDIVIDUAL; (3) NEW AND IMPROVED TOOLS TO AUGMENT THOSE INDIVIDUAL SKILLS. IT IS A FORMULA WE BELIEVE WILL SERVE US WELL IN THE CONTINUING DEMAND FOR PERFORMANCE IMPROVEMENT.

THANK YOU.

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