

- What is a CISC "professional"?
- What is the "modus-operandi" for CISC'?
- What is the "standard" for CISC office facilities?
- etc.

These, and many other questions, are answered in this issue by Paul Strassmann, General Manager, Corporate Information Services Division.

Recognizing the importance of open communication between CISC personnel and Executive management, Mr. Strassmann will periodically publish through the Newsletter personal replies to questions submitted.

If you have questions that are directly related to CISC policy, procedures, goals, work environment, etc., which you feel need additional clarification, please document and submit (anonymously) to the Editors of the Newsletter. They will be accumulated and presented to Mr. Strassmann for his action.

The Editors

QUESTIONS AND ANSWERS

by Paul Strassmann

About four weeks ago the editors of the Newsletter asked me to write another editorial statement concerning CISC policies and objectives. They also thought that the readers of the Newsletter would like to hear more about Corporate policies that are evolving in the general systems area.

Rather than present another paper discussing CISC policy/plans in general, I felt it would be more appropriate to address specific issues of concern to Information Services people in Xerox. Therefore, I asked your Editors to collect at the "grass roots" level the most provocative questions they could find and pass them on for reply.

Well, they did exactly as asked. The questions that follow are answered in same sequence as posed. There are no deletions or revisions in the text of these queries.

Question No. 1

Define the meaning of "professional" in CISC.

Answer

The first ingredient of professionalism is the adherence to a code of ethics. I find that both the Code of Ethics for holders of the Certificate in Data Processing as issued by the DPMA as well as the Ethics and Code of Conduct adopted by the British Computer Society are sufficient general definitions to which I personally subscribe.

Unfortunately, all codes are necessarily general and written in a common language which is frequently devoid of meaning in specific situations. This is where the second ingredient of professionalism comes forth: it is the demon-

strated devotion to achieving excellence in performance of a man's responsibilities that makes him a professional. Within CISC I recognize as professionals those individuals who will consistently strive to produce work of the highest quality which compares favorably not only with the best inside Xerox but also the finest accomplishments outside of the Company.

In other words, I associate professionalism with: pride, individual responsibility, personal accountability, neat and economical solutions to complex problems, creativeness, originality and courage to try something new as a way of succeeding on the job. A professional will always wish to be in the elite of his occupation and will therefore only associate with an elite organization.

I do not associate professionalism with: excuses for not achieving a committed task; lack of personal dedication; avoidance of accountability for anything; satisfaction with minimum standards; absence of knowledge about the "state-of-the-art"; avoidance of innovation; refusal to assume any risk; lack of pride in one's job; cynical attitude about one's objectives; absence of any trust in one's organization.

Question No. 2

If we are to be professionals what steps are being taken to upgrade the Data Center stature so that we have a professional environment to deal with?

Answer

First and foremost is the task of getting Xerox Data Center operations in a position where they are demonstrably among the best managed computer facilities in the world.

Here are some of the steps being taken in this direction:

1. **Upgrading of Facilities.** The move to XCC No. 1 in Webster is a milestone in the history of EDP in Xerox. As a facility, it is one of the finest anywhere and it demonstrates the commitment of Xerox management to set the environment conducive to excellence. Similarly, improvements in facilities in the Columbus Data Center, the new UMI Data Center, and the new Uxbridge Data Center represent a dedication to set the environment right.
2. **Facility Standards.** These cover innumerable important features ranging from security to housekeeping. Thanks to the Performance Assurance Group we have made great strides in this direction.
3. **Quality Control & Job Acceptance.** Data Center involvement in the systems design process from its inception to acceptance testing is now locked into the entire development planning cycle. I am still not satisfied, however, with the capabilities of our data centers to do a thoroughly good quality control job.

(AUGUST 1972)

4. **Service Performance Measurement.** We are just starting on a push to get better and more consistent measurement of the service quality of our Data Centers. I believe that it is consistent with professionalism that our Data Centers accept full accountability for recording and reporting a high level of service accomplishment (in the 96% and over service fulfillment class) using measurement standards which are mutually accepted by both producers and users of Data Center services.
5. **Configuration and Capacity Reassurance.** I am highly pleased with technological progress we have made in the last few years toward a better understanding and management of our computer capacity. We have a long way to go, however, before our resources are measured and planned with an efficiency comparable to the best.

The above are highlights of programs geared to achieve performance excellence. I recognize that the term "professionalism" can apply only to people and not to facilities; however

I deliberately chose to discuss the excellence of Data Center performance first because this defines the kind of people we will need to promote. Running a complex "data factory" calls for skills of ever-increasing complexity and specialization. Our plans, currently under way, are to implement a management development structure, a training program and job rotation approach that marks an enormous improvement over the situation only two to three years ago. If this is not perceived and visible to everyone concerned, then we have possibly made serious omissions in isolated areas. In such an event, the personnel affected have ample opportunity to make their views heard at all levels.

Question No. 3

How will you overcome the difficulties involved in being both a servicing utility and a Corporate Staff function?

Answer

If the question presupposes that Corporate Staff is a watchdog which is organizationally placed to prevent malfeasance on the part of an insiduously scheming operating unit, then the questioner is right in wondering how one separates "staff" and "line" functions.

Xerox management has never taken the view that corporate staff was a policing agent in disguise. Rather, corporate staff has the job of long range planning and policy balancing so as to positively assure that all functions perform in harmony toward the accomplishment of overall strategic objectives. The current assignment for CISD is a reflection of a deliberate decision on the part of corporate management to consolidate its scarce executive resources and to bring into focus management talent that can concentrate on specific functional problems. Therefore, increased functionalization of CISD is not a unique development but can be found in other parts of Xerox as a result of recent reorganizations.

I believe that consolidation of all staff functions in CISD has greatly streamlined decision-making in the information services area. We have eliminated up to three staff review levels which had been previously stacked up one above another. We have taken the top nine EDP executives in Xerox and placed them in areas where they have direct responsibilities for major segments of our information services activities. We have broadened each executive's job to include not only direct administration but also long range planning and policy assessment. In effect, we have taken the policy-making job that was previously held in only a few hands and spread it to nine key individuals. As a result, I look now to several centers for staff work and corporate goal setting both on a domestic as well as on an international scale. I expect that this approach will give us better use of executive talent and will broaden a large number of middle management people who previously had very little access to corporate staff work.

By integrating staff and line functions within CISD, we have made it possible to make maximum use of existing talent. Had the separation continued, we would have been forced to acquire additional new executive talent at the top of the organization.

Question No. 4

How do CISD organization and responsibilities compare with organizations you have previously managed?

Answer

I assume that my own specific job experience is sufficiently well known that it does not require restatement. My current position at Xerox, i.e., managing a 23 million dollar operation and directing management policies for another 27 million dollar function, represents a career "first". As a matter of fact, there are maybe less than 75 people in the entire world who could claim they have done a comparable job.

However, I have been the top functional computer executive for multi-billion dollar, international corporations without any interruption since 1962, and in the past ten years I have been exposed to all of the management problems that have to be mastered if a man wishes to qualify for the "number one" job.

Question No. 5

The red tape, bureaucrat control machinery in existence and under development already looks forbidding. How will CISD be able to respond to user needs for rapid, short term, vital demands for support?

Answer

This is a valid question and is a matter of great concern. I am afraid that we are still groping around as new organizations are trying to define their missions. Meanwhile, we have taken the following steps to streamline responsiveness:

1. Joe Quigley's operation is completely self-contained as a software development shop and has no review staffs within CISD to watch over it. As a matter of fact, its own quality control and cost control staff is negligibly small for an organization of its size. Joe is taking the necessary steps to place the accountability and responsibility for work accomplishment at the lowest first line supervisory levels. This is a new experience for all of these men and it will be a while before we all learn how to operate in this environment with the least amount of bureaucracy.

From a paperwork standpoint, we are coming down to as few "instruments" as is practically feasible. The "Task Order" initiates and authorizes work. The monthly project status report provides for a singular channel for communicating accomplishments—again at the lowest level of the organization. The only other routine reports are weekly time cards. Altogether, our administrative requirements are in no way different than what is required in a comparable commercial organization.

In the non-routine areas, we have the need for project phase reviews (for major projects) and an abbreviated checkpoint review procedure for minor projects. This is one topic where perhaps one may engage in a debate whether phase review documentation is needed or not. If the questioner wishes to pursue this issue, it ought to be addressed as such. I believe that our problem lies not in the need for such checkpoints but rather in the quality of the reviews. However, that is not a bureaucratic matter, but a question of competence and excellence.

2. In John Herzing's area the issue of responsiveness does not seem to be tangled up in bureaucracy but rather in individual performance and personal attention. I do not know of any unusual administrative encumbrances we may have placed in the user's way in dealing freely with the Data Center. If this is not the case, I would like to hear about it.

Again, it should be noted that the Information Utility is constructed administratively as a completely self-contained computer operations services business. There is nothing inherent in its makeup to prevent a timely response to user needs in a manner comparable with the best commercial service bureaus.

Question No. 6

When will XCC consider testing a part of their "committed to" load and provide an adequate testing environment?

Answer

This is a sticky one and has come up several times during the last three months in the form of complaints. Whenever I go after the source of complaint it is hard to climb on top of it—it's like a greasy flagpole. I may be wrong to generalize, but it appears that the Development and the Data Center organizations have never actually agreed to a fully committed

standard of what is "adequate testing environment". Hence, my questions concerning actual testing performance vs. standard get lost in generalities.

We are aware that some parts of the organization enjoy an untold luxury in rapid testing turnaround at a high cost and with resultant low machine utilization efficiency. At the same time, others suffer with up to 48-hour turnaround, which is intolerable and counter-productive.

This issue is visible to all concerned parties, is recognized as a serious problem, and will be settled shortly. I view testing as a high priority XCC workload. Performance against a committed standard becomes as much a part of evaluation of XCC management as any other task for which they are accountable.

Question No. 7

The time reporting system implemented in May has not provided any reports for supervisors. Prior to this system we had our own reporting internal to the Data Center which provided us with information. Now we make out CISD reports but do not get any feedbacks.

Answer

The May time reporting was rushed into existence to fill a gap in accounting for manpower as a result of the consolidation of several organizations in March. Most organizations did not previously account for their time. No feedback reports were planned until June reporting—pending installation of a new computerized system. Meanwhile, you should not have dropped your reporting system. It appears that there has been a lapse in communications between you and the Control organization. I am asking Chuck McCain to explain this matter. Thanks for bringing this to my attention.

Question No. 8

Xerox policy has always been to promote from within. This was strongly reaffirmed by you as CISD policy at time of reorganization. When and what is specifically being done to facilitate internal development and promotion? What is being done to make opportunities known throughout the division? What is being done to allow CISD people to prepare themselves for potential opportunities?

Question No. 15

What tools or techniques will be established to assure that job opportunities will be matched with qualified personnel within the data processing community of all of Xerox?

Answer

There are two principal tools available to us:

1. The Management Resources Program. As part of the MRP Program, a document is completed for the exempt professional consisting of his experience and educational background; a performance, potential and promotability evaluation; a developmental action plan; and the future developmental promotional positions recommended for

the individual. The general content of these forms is reviewed in individual personal sessions between manager and subordinate.

We expect to have MRP forms completed for all CISC professionals and for management levels in most other information systems organizations by July. These forms will then be gathered centrally by CISC Personnel to provide a search source for management level candidates across Xerox organizations and a data base to effect non-management movement across organizational lines.

2. Broadcasting about openings. In addition to the MRP program, a procedure is in existence to broadcast key management openings. This procedure is in place and has been working reasonably well for about one month even though it will be a while before we will have all elements in place to make sure that 100 percent of all key management jobs are subjected to this procedure. Management opportunities are announced through appropriate management channels by Don Rosenberg. This includes distribution of job opening announcements to XEG, XCS, LAG, RXL, and what used to be XDS. Our approach is to distribute information about openings even though we may have already identified a likely candidate. Don will have to make sure that every one eligible is going to get a "crack" at the job.

Question No. 9

One of the things mentioned in your address to CISC people at reorganization time was "fantastic growth"; however, current policy and constraints as to head count appear to be in direct conflict with this statement. Do you speak with forked-tongue? Or does "fantastic growth" have a different meaning?

Answer

The fantastic growth has already been projected in the form of our existing Long Range Plans. In the 5-7 year planning horizon we expect to more than double Xerox Information Systems expenditures. Since the average age of people in Xerox is estimated to be less than 34 years—this means that individuals have to look on their careers many years ahead. I would like to encourage the questioner to take a more detached long term view of Xerox as a corporation in which growth may hold greater promise than anywhere else I know. The fact that 1971 was not one of Data Processing's better years should not be taken as the basis for drawing any long term conclusions.

Question No. 17

Why is so much of the CISC technical consulting staff transferring to the user/systems organizations? Without such expertise, will CISC become a mere Data Center with a contract "coding" service?

Answer

It's possible that the "cut" between systems planning and software development was not made optimally. But our short

term problem in 1972 is a lack of well conceived plans and strategies. Consequently, the technical consulting staff—our key planners—had to gravitate where the planning needed to be done. Any misallocation of talent and manpower can be easily corrected later on, when necessary.

Question No. 18

What is the Long Range Systems Plan and what effect will it have on programming? Specifically, Project COIN — What is it? Where is it? How is it? Can't we have better communication to all personnel in the data processing community?

Answer

The following summary was prepared by Stan Bernold, CISC Project Manager of COIN:

"Long Range Systems Plans are produced annually in order to identify the major business goals of Xerox operating units, and the systems strategies which are required to reach those goals. During 1971, one such Long Range Systems Plan, for BPG, identified the need for computer tools to assist field sales and service operations. The proposed systems strategy, a nationwide terminal-oriented network serving all Xerox branches for data entry and inquiry, is now being pursued as a formal project — Project COIN.

When complete, COIN will support minicomputers in all Xerox branch offices, connected over telephone lines to a large central data base complex in the Xerox Computer Center. This central data base will include all files necessary for order entry and equipment movement, customer service, billing, accounts receivable, and other field-oriented applications. Each branch minicomputer will have display terminals for data entry and editing and hard-copy printers for reports. Branch administrative personnel will be able to inquire, in realtime, into the status of equipment and customers, and will be able to enter and immediately validate new business transactions. Large improvements in timeliness and accuracy of records, and savings in clerical effort and administrative time spent by field personnel, are anticipated.

Project COIN has now been authorized and funded by Corporate management. Project control is exercised by the Advanced Systems Planning group in ISG. Advanced Systems Planning has "contracted" with CISC Software Development for technical services to produce COIN. During 1972, Software Development is working with ISG to complete detailed requirements specifications, select the most effective implementation path, choose equipment vendors, and develop systems design specifications. During 1973, CISC Software Development will complete systems engineering and begin programming. The Project will continue into 1977 before all elements and applications are installed."

Question No. 19

Does Xerox plan to establish other major computer centers throughout the country, e.g., XCC No. 2; XCC No. 3?

Answer

Yes. A study of a Western Consolidated Computer Facility is currently under way.

Question No. 20

When will *specific* divisional goals and their timing be made known throughout the division?

Answer

We are in final stages of the 1973/78 LRP cycle. It will culminate late in July with presentation to top corporate management. Thereafter, as soon as possible, the LRP will be communicated through respective organizational channels. The same procedure should apply to the 1973/74 Operating Plan, to be concluded by November.

Question No. 22

When will the Systems side of the house be in a position to pick up their responsibilities so that Software Development can get on with their job and not be held responsible for User contracts and work that is strictly systems related?

Answer

I see no reason why this could not take place immediately. Any specific cases which evade this policy? Would like to hear about it.

Question No. 23

What is being done to make systems designers fully aware and responsive to their supportive obligations to the functional users?

Answer

This is a tough one and there are really no good answers to absolutely guarantee that functional users will be supported in accordance with their needs. We are doing our best to require direct confrontations with functional users during all phases of the planning cycle as well as during the budgeting process. Since systems planners have been freed of the difficult and encumbering day-to-day responsibility for technical implementation of systems, there is really no excuse open to anyone that systems people do not have the necessary time to give the required attention to functional needs.

One way of providing further positive assurance is by means of Systems Review Boards chaired and controlled by user management. Based on my observations, the Manufacturing Systems Review Board has done an especially effective job in allocating funds in line with overall priorities. Perhaps other user management ought to follow this fine precedent.

Question No. 24

When will CISD be considered equal to Manufacturing with regard to facilities provided personnel, i.e., programmers vs. systems analysts? What is "Standard" as far as programming facilities are concerned?

Question No. 25

Do you think that the current work environment of programmers, i.e., small cubicles in large open areas, is conducive to the programming of complex systems modules? Can anything be done to reduce the "noise level" in these areas?

Answer

We do not have existing standards defining the quality of office space and facilities for systems and programming personnel. We are currently in the process of developing and justifying such standards and highlighting any differences that may exist from the accepted space standards generally applicable to all personnel.

Ideally, it would be nice if each programmer could have complete privacy for himself. Unfortunately, individual, fully partitioned office facilities greatly increase the overall space cost and therefore most industrial corporations house their non-supervisory programming personnel in either open office space or in eye level partitioned office space allowing about 80 sq. ft. per man. If such a partitioned area becomes very large and if standards of behavior and common courtesy are not adhered to, 10 or more programmers in cubicles can easily generate an intolerable noise level for a thoughtful and hard working individual.

I have now toured all of the CISD office facilities and do not find them satisfactory in the ideal sense. On the other hand, we ought to realize that the overall space situation in Rochester is extremely tight for everybody and is bound to become worse before it is relieved. I am afraid that it will be another few weeks before we complete a full comparison between an accepted facility standard and our actual experience. When the facts are known they will be subjected to an immediate management review.

Question No. 10

When will there be a clearly defined set of relationships and interfaces between CISD and the functional users/systems organizations?

Question No. 12

When will guidelines be published for how we are to interact with the Systems organizations and who is responsible for what?

Question No. 21

When are we going to define systems responsibilities and programming responsibilities so that there will be no confusion/doubt as to accountability within and between each function?

Answer

We have taken about one month longer to prepare this document than originally planned. It was authored principally by Bob Benjamin who tried to bring into it as many diverse points of view as possible. Several review drafts were circulated and discussed to assure a common level of understanding. I am pleased to say that the User-CISD Charter was

released early in July and can be found reprinted in this issue of the Newsletter.

Question No. 11

Over the past two years, the Data Centers have become very customer-service oriented. We are now seeing many questions from CISD which imply that dollar-justification of computer resources is the prime consideration. Is it our goal to have sufficient capacity to service users when they demand, or is our goal to achieve optimum economics through schedule leveling, etc.? It seems to me that we cannot do both.

Answer

It is mathematically demonstrable that two different criteria cannot be optimized simultaneously. Therefore, your conclusion is correct.

Obviously, service comes ahead of cost in the information services environment—obsolete data is useless. What you may be alluding to is a change in policies which is currently being explored to bring the charges for services closer in line with the costs of providing such services. There are major inequities in the current economic setup in XCC which we will be trying to correct. For instance, our charges for service are the same, regardless whether incurred during peak time or during a weekend. This is contrary to prevailing commercial practices. Another example is in computation of the cost for fixed partition occupancy. The current method accounts for only CPU's used, regardless of the length of time a partition is pre-empted for a particular application. This also goes contrary to good resource management practices. I do not believe that the questioner should become prematurely alarmed just because we are questioning established methods for conducting business.

Question No. 13

Placing "system" groups in User organizations and "development" groups in support organizations has been tried before at Xerox. It failed then, when many road block factors now present were absent, e.g., chargeback, transfer agreements, more bureaucracy and politics, sheer size of company—what makes you believe it will work now, when already hardening of the organizational arteries and "no, that's your responsibility" passing the buck games are surfacing?

Question No. 14

Why are Systems and Procedures, two separate groups that are part of the "architecture of information", not part of the CISD structure?

Answer

Provided you accept the idea that there is no single obviously correct way of organizing any corporate function, then you have to agree that a particular management structure becomes simply a management tool for achieving specific objectives. The current organization has been deliberately chosen by Xerox management to achieve the following objectives:

- (a) *Improve prioritization and long range development decision-making regarding the deployment of systems resources.*

Since this decision can be made best by users, we left the systems planning responsibility with respective user organizations. There is a considerable body of expert opinion (McKinsey, Brandon, and others too numerous to quote) who agree that this is in fact the organizational structure of the future.

- (b) *Dramatically improve the productivity of the software development processes. Significantly upgrade the sophistication in systems software used.*

Since these objectives can be obtained best through specialized and professional management, we decided to consolidate all software development in CISD. Again, there is a respectable body of experts who believe this is the way major systems development investments will be architected in the future.

Why should all of this work? Well, good management is the sole guarantee of any performance you can get, regardless how structured. We placed the best managers we had into those positions where they could be expected to make the greatest contribution.

On the question of buck-passing, let me acknowledge that perhaps we are making it possible for the buck passers to surface and become visible now more clearly than ever before. If that turns out to be the case, then we will be definitely better off as a result of the new organizational setup.

Question No. 16

Why is it necessary to continue the reorganizing and shifting of key management and other personnel? Will it ever taper off to a more "normal situation"?

Answer

There are several influences involved in the continuing change that is perceived by all of us.

First, the increased emphasis on promotion from within is actually a direct cause of more shifting of people. If we hire on the "outside" the situation is much simpler: for each opening there is only one new name on the organization chart. The same position filled from within may necessitate as many as five corresponding alterations in positions people hold.

Second, we are on the threshold of a major change in management style and in technologies employed in the information systems area. This means that people are bound to be effected in a more massive way by new needs for talent. To best deploy the limited amount of talent that we can put into place to meet new requirements and at the same time make it possible for the organization as a whole to mature,

requires more shuffling of unique individuals than would ordinarily be the case in a more static environment.

Lastly, a change like the creation of CISD and the placement of new and much more ambitious demands on User systems people cannot take place overnight. Any major structural realignment in an organization requires numerous subsequent "fine adjustments" to accommodate the personalities and available resources to the real world of practical short term needs. Consequently, it should not come as any great surprise that a movement of people and organizations has continued since CISD was formed. Let me assure you that these movements were healthy and were not the results of any capricious misplanning. In each case that I know of we have ended up with a better use of people than was previously the case. I expect that these changes will be diminishing in frequency and scope very soon so that people can settle down to the accomplishment of stated tasks.

Now, the question whether change will taper off to a more "normal situation" can be replied to only if we define the parameters of "change".

From the standpoint of *job contents*, I would say that each systems' man's job in Xerox will change, on the average, 100% between now and 1975. This means that in terms of skills each man will have to expect 1/3 of completely new challenges per year. Even if we make the optimistic assumption that more than 3/4 of the people will rise to these challenges and that below standard performance will be tolerated for not more than one year, then we are talking about a 1973-1975 "change" experience as follows:

NO. OF PEOPLE INVOLVED			
	Change Due To Job Contents	Change Due To Expected Growth*	% of Total Positions In "Normal Change"
1973	100	210	Appx. 30%
1974	230	240	Appx. 40%
1975	265	280	Appx. 40%

*Assumes two intra-organizational job changes for each new hire.

From the above estimates one can then draw important conclusions about the nature of future changes. It will not be as much in the "shuffling" of the top "players" that will characterize the "normal situations". Rather, significant shifts in the individual's role and tasks will be an ever-present occurrence, influencing practically everyone at all levels in the organization. This will require increasing alteration to the quality and competence of the first, second and third levels of management because it will be at these levels that change will have to be controlled and channeled constructively.

CISD - USER RELATIONSHIPS

Editor's Note: Paul Strassmann recently issued a memo to all Xerox Systems Managers presenting his views on interaction between CISD and the operating groups it serves. For the information and understanding of all our readers, his

memo, plus brief excerpts from the Project Management package (soon to be published in Volume 1 of the DP Manual), are reprinted in this issue of the Newsletter.

Inter-Office Memorandum

To: Xerox Systems Managers Date: June 27, 1972

From: P. A. Strassmann Location: AT1

Subject: CISD - User Relationships Organization: CISD

XEROX

The recent reorganization of Information Systems activities in parts of Xerox is the outgrowth of developments wherein Xerox management wishes to achieve the benefits attainable both through

- decentralization of decision-making concerning computer-based information systems so as to improve the responsiveness of EDP technology to needs of various organizations, and
- centralization of technology achievable through economies of scale in operations and specialization of professional skills in software development.

The attached organizational and procedural material describes the current balance between decentralization and centralization, which is reflected in relationships and division of responsibilities between CISD and Users.

These relationships should be understood as requiring maximum cooperation at all times in order to achieve the desired results. The most significant feature of this split between CISD and Users is not that people report to separate organizations. The important and longer lasting aspect of this organizational restructuring lies in the creation of a more specialized functional division of work between those individuals whose primary focus will rest in determining the needs of the organization (irrespective of how implemented) and those individuals whose major concern will be excellence in the technical execution of automated information systems.

A third functional division - namely, the organizational separation of Operations from Development is also reflected in these guidelines. This split is of a less controversial nature than the first two -- primarily because it is perhaps better understood and has gradually evolved during the last decade.

All of the three principal specialized elements of Information Systems

- Systems Planning
- Software Development
- Operations

Xerox Systems Managers -2- June 27, 1972

are equally necessary to get Xerox internal systems people placed again into a position of applications leaderships, technical excellence, and acknowledged top management acceptance. The placement of various people under differing organizational groupings is always an incidental and necessarily arbitrary affair, and thus cannot be allowed to give rise to conflict. Since there is no way -- except in very small operations -- to place all of the specialized resources under a single "line" responsibility, this new organization is oriented toward making the job to be accomplished -- the Project -- the principal unit for assigning a large variety of specialized talent into a unifying force.

This approach is not altogether a new experience to Xerox or to other organizations. But in this instance, the Project concept is carried further than ever before and this will require all of us learning new ways and new relationships.

Please consider the attached material carefully and apply it in the spirit in which it was conceived. In case you feel that the text is too elaborate you may also wish to refer to the attached "Summary Organizational Guidelines of CISD - User Relationships".

The attached material is an advanced release for your review, comments, or requests for further interpretation prior to publishing in the Xerox Standards Manual.

PAS:ld
Attachment

ORGANIZATIONAL OVERVIEW

Information Systems Departments/Operating Groups

Each Operating Division or Department will have its Systems Planning organization. Whenever warranted by the scope of effort, the Systems Planning Department will serve as the focal point for development, coordination and implementation of information services, providing systems definition for its Division and an interface with Software Development and Systems Operations Department(s) (CISD). Major activities include:

Definition, development and monitoring of all systems plans including Long Range Systems Plan (5 years), Computer Systems Operating Plan (2 years), and Major/Minor development, enhancement, and maintenance projects.

The Systems Planning Department will:

- a. Assist functional user departments in identifying needs and requirements and in establishing suitable priorities for the systems work to be performed and the technical services to be received from Software Development & Operations (CISD). Determine economic justification for proposed systems and hardware.
- b. Prepare systems specifications/documentation for major and minor development projects.
- c. Interface with Software Development and Operations (CISD) and functional users to obtain necessary consulting, software and hardware services in accordance with the Systems Specifications.
- d. Implement systems in the division, providing user education and training.
- e. Perform continuing reviews of the installed systems.
- f. Control all operating groups' expenditures to CISD for information systems requirements.

Software Development & Operations (CISD)

CISD will provide the consulting, technical design, software development, and computer operations services defined by the Systems Planning/User Organization. Required services will be established by service agreements executed between CISD and the user organizations.

1. Software Development

- a. Provide systems engineering and programming services to Xerox operating units. Design and

program computer applications according to Systems/User design specifications including support as necessary to Systems Project Team, development of technical specifications, programming, and testing/implementation.

- b. Develop and maintain systems software to support three applications through the adoption of improved technologies and improved internal disciplines.

2. Information Utility

- a. Operate and maintain the Xerox computer and telecommunications networks to provide the full array of computer and other hardware services necessary to implement and maintain scheduled production.
- b. Monitor systems development and maintenance to ensure continued capability to provide sufficient operational support.
- c. Evaluate and implement, as necessary, all requests for data processing equipment installations, removals, or changes to ensure maximum effectiveness.

Corporate Staff

A Corporate Staff organization shall provide:

- a. Consultation and review of systems plans and projects, experiments in advanced technology, continuing review of major changes in the computing environment, and production of Management Science applications, and a comprehensive standards program.
- b. Project control assistance to provide "early warning" of potential problems and monitoring of schedule and budget performance of development projects.
- c. Support of computer systems technology on an international scale including initiation and planning of corporate-wide information projects.
- d. Education and training support necessary to successfully implement and maintain a sound planning cycle for information systems development within Xerox.

Corporate Staff services will be under the direction of the General Manager, CISD.

Summary Organizational Guidelines of CISD – User Relationships

1. Systems User Responsibility

The Systems User has total responsibility for the development and operation of all computer dependent information systems for his organization. He is, however, under certain restrictions when exercising this responsibility.

- a. He must follow established phase-development standards for projects defined as "major", and is required to submit to CISC and Corporate Audit review at established checkpoints.
- b. He cannot write, test, or modify computer programs, but must "buy" this service from CISC.
- c. He must respond to Software Development recommendations concerning task contents or sequence, and technical elements of project plans.
- d. Once a task order has been authorized and initiated by the Systems User, modification of that task must be jointly agreed on by CISC and the Systems User.

2. Systems User Authority

To meet his responsibility the Systems User has the following authority:

- a. To control the expenditure of all funds relating to his area of responsibility.
- b. To act as project manager for all activities performed for the benefit of his organization. As part of this authority, he can elect to override the recommendations made by CISC or Corporate Audit, with the concurrence of his management.

3. Software Development Department Responsibility *(Interface to Systems Users)*

The Software Development Department is responsible to meet its commitments to Systems Users for delivery of results as described in its task orders within schedules and costs as committed. Task orders may be for any computer-related information systems activity, other than computer operation, which a Systems User wishes to purchase. There is no further restriction on the services which may be provided.

4. Software Development Department Authority *(Interface with Systems Users)*

To meet the described responsibilities, the Software Development Department has the authority to:

- a. Provide all cost estimates and target dates for which it will be held accountable. For major projects, this is first done prior to the completion of Phase II. Thereafter, revised estimates are produced at appro-

priate development points, as increased knowledge permits more accurate and confident estimates.

- b. Refuse to begin a task if the input given by the Systems User does not meet agreed upon criteria, or lacking agreed upon criteria, it does not, in the judgment of Software Development, provide the necessary intelligence to commit to the task.
- c. Procure services from outside vendors as required to meet task order commitments.
- d. Recommend changes in technical elements of project plans, and content or sequence of tasks.

5. Joint Responsibilities

- a. Both parties will identify all tasks and project segments using standard Xerox phased systems development terminology.
- b. Each party will include the other in distribution of periodic status reports. As a general rule, status reports will be presented in a face-to-face meeting rather than through the mail.